SC&A S. COHEN & ASSOCIATES
AN EMPLOYEE-OWNED COMPANY

December 20, 2007

Greg Miller
Cabrera Services, Inc.
5301 Montano Plaza Drive NW
Albuquerque, NM 87120

Dear Mr. Miller:

Enclosed is a Sample Data Package for the Schofield Barracks soil samples that SC&A subcontracted to General Engineering Laboratories in Charleston, South Carolina, for gamma spectroscopy, and to GPL Laboratories, in Frederick, Maryland, for the elemental lead analysis. SC&A has combined their reports and included them in this Sample Data Package.

If you have any questions please do not hesitate to call.

Sincerely,

Cynthia White

Cynthia White
Laboratory Director

cc: Tony Mason, Cabrera Services

1000 MONTICELLO COURT • MONTGOMERY, ALABAMA • 36117 • 334.272.2234 • FAX 334.213.0407

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Case Narrative
for
Sanford Cohen and Associates, Inc.
SDG: 198324

December 10, 2007

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample Receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on November 28, 2007 for analysis. The plastic container for sample SB-CZ-SS-2414-SD was received broken. The broken container was contained in a ziplock bag. The client was notified and GEL was instructed to proceed with analysis. Please refer to the enclosed email for further details. Shipping container temperature was within specification.
There are no additional comments concerning sample receipt.

Sample Identification

The laboratory received the following samples:

Laboratory ID	Client ID
198324001	SB-CZ-SS-2396-ST
198324002	SB-CZ-SS-2397-ST
198324003	SB-CZ-SS-2398-ST
198324004	SB-CZ-SS-2399-ST
198324005	SB-CZ-SS-2400-ST
198324006	SB-CZ-SS-2401-ST
198324007	SB-CZ-SS-2402-ST
198324008	SB-CZ-SS-2403-ST
198324009	SB-CZ-SS-2404-ST
198324010	SB-CZ-SS-2405-ST
198324011	SB-CZ-SS-2406-ST
198324012	SB-CZ-SS-2407-ST
198324013	SB-CZ-SS-2408-ST
198324014	SB-CZ-SS-2409-ST
198324015	SB-CZ-SS-2396-SD
198324016	SB-CZ-SS-2397-SD
198324017	SB-CZ-SS-2398-SD
198324018	SB-CZ-SS-2399-SD
198324019	SB-CZ-SS-2400-SD
198324020	SB-CZ-SS-2401-SD
198324021	SB-CZ-SS-2402-SD
198324022	SB-CZ-SS-2403-SD
198324023	SB-CZ-SS-2404-SD
198324024	SB-CZ-SS-2405-SD
198324025	SB-CZ-SS-2406-SD
198324026	SB-CZ-SS-2407-SD
198324027	SB-CZ-SS-2408-SD

198324028	SB-CZ-SS-2409-SD
198324029	SB-CZ-SS-2410-ST
198324030	SB-CZ-SS-2411-ST
198324031	SB-CZ-SS-2412-ST
198324032	SB-CZ-SS-2413-ST
198324033	SB-CZ-SS-2414-ST
198324034	SB-CZ-SS-2415-ST
198324035	SB-CZ-SS-2410-SD
198324036	SB-CZ-SS-2411-SD
198324037	SB-CZ-SS-2412-SD
198324038	SB-CZ-SS-2413-SD
198324039	SB-CZ-SS-2414-SD
198324040	SB-CZ-SS-2415-SD

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package

The enclosed data package contains the following sections: General Narrative, Chain of Custody and Supporting Documentation, and data from the following fractions: Radiochemistry.

Amanda Rasco

Project Manager

Chain of Custody and Supporting Documentation

SC & A 1000 MONTICELLO COURT
CHAIN OF CUSTODY RECORD MONTGOMERY, AL 36117 (334) 272-2234 (334)213-0407 FAX

198324

WORK ASIGNMENT #	PROJECT NAME:	ANALYSIS REQUESTED	FOR LABORATORY USE
08-3040.01	Schofield CZ		

Client Name: JMC

Project Manager: Greg Miller Cabrera Services

Requested Comp. Date

Notify Upon Receipt?

COC# 37

Item No.	Date	Time	Matrix	Sample I.D.	# of CONTAINERS		Gamma Spec & Lead					04H207	7984 7980	Laboratory	Comments
1	10/5/2007		Soil	SB-CZ-SS-2396-ST	1		X						01		
2	10/5/2007		Soil	SB-CZ-SS-2397-ST	1		X						02		
3	10/5/2007		Soil	SB-CZ-SS-2398-ST	1		X						03		
4	10/5/2007		Soil	SB-CZ-SS-2399-ST	1		X						04		
5	10/5/2007		Soil	SB-CZ-SS-2400-ST	1		X						05		
6	10/5/2007		Soil	SB-CZ-SS-2401-ST	1		X						06		
7	10/5/2007		Soil	SB-CZ-SS-2402-ST	1		X						07		
8	10/5/2007		Soil	SB-CZ-SS-2403-ST	1		X						08		
9	10/5/2007		Soil	SB-CZ-SS-2404-ST	1		X						09		
10	10/5/2007		Soil	SB-CZ-SS-2405-ST	1		X						10		
11	10/5/2007		Soil	SB-CZ-SS-2406-ST	1		X						11		
12	10/5/2007		Soil	SB-CZ-SS-2407-ST	1		X						12		
13	10/5/2007		Soil	SB-CZ-SS-2408-ST	1		X						13		
14	10/5/2007		Soil	SB-CZ-SS-2409-ST	1		X						14		

Study I.D.

Pg 1 of 3

Sampled by and Title Alfred Craig FSP	Date/Time 10-5-07	Relinquished by: Alfred Craig FSP	Date/Time
Received by: [illegible]	Date/Time 11-28-07 9:15	Relinquished by:	Date/Time
Received by: C. Quinn SC&A	Date/Time 10/8/07 8:45	Relinquished by: C. Quinn SC&A	Date/Time 11/27/07 14:00
		Sample shipped via UPS FED-EX HAND OTHER	Air Bill #

Laboratory Prefix	
Study I.D.	
Pg 1 of 3	
QC Level 1 2 3	
COC	ICE
ANA REQ	TEMP
Cust Seal	pH
Sample	

SC & A 1000 MONTICELLO COURT
MONTGOMERY, AL 36117 (334) 272-2234 (334)213-0407 FAX

CHAIN OF CUSTODY RECORD

WORK ASIGNMENT # 08-3040.01

PROJECT NAME: Schofield CZ

Client Name: JMC

Project Manager: Greg Miller Cabrera Services

Requested Comp. Date

Notify Upon Receipt?

COC# 37

ANALYSIS REQUESTED

FOR LABORATORY USE

Laboratory Prefix

Study I.D.

Pg 2 of 3

Item No.	Date	Time	Matrix	Sample I.D.	# of CONTAINERS		Gamma Spec & Lead					0H201	7985	Laboratory	Comments
1	10/5/2007		Soil	SB-CZ-SS-2396-SD	1		X						01		
2	10/5/2007		Soil	SB-CZ-SS-2397-SD	1		X						02		
3	10/5/2007		Soil	SB-CZ-SS-2398-SD	1		X						03		
4	10/5/2007		Soil	SB-CZ-SS-2399-SD	1		X						04		
5	10/5/2007		Soil	SB-CZ-SS-2400-SD	1		X						05		
6	10/5/2007		Soil	SB-CZ-SS-2401-SD	1		X						06		
7	10/5/2007		Soil	SB-CZ-SS-2402-SD	1		X						07		
8	10/5/2007		Soil	SB-CZ-SS-2403-SD	1		X						08		
9	10/5/2007		Soil	SB-CZ-SS-2404-SD	1		X						09		
10	10/5/2007		Soil	SB-CZ-SS-2405-SD	1		X						10		
11	10/5/2007		Soil	SB-CZ-SS-2406-SD	1		X						11		
12	10/5/2007		Soil	SB-CZ-SS-2407-SD	1		X						12		
13	10/5/2007		Soil	SB-CZ-SS-2408-SD	1		X						13		
14	10/5/2007		Soil	SB-CZ-SS-2409-SD	1		X						14		

Sampled by and Title Alfred Craig FSP — Date/Time 10-5-07

Received by: C. Owens SCA — Date/Time 10/5/07 8:15

Received by: Tiffany Adams — Date/Time 11-3-07 915

Relinquished by: Alfred Craig FSP — Date/Time

Relinquished by: C. Owens SCA — Date/Time 10/5/07 1420

Relinquished by: — Date/Time

Sample shipped via UPS FED-EX HAND OTHER

Air Bill #

QC Level 1 2 3

COC | ICE

ANA | TEMP

Cust | pH

Sample Condition

SC & A 1000 MONTICELLO COURT
CHAIN OF CUSTODY RECORD MONTGOMERY, AL 36117 (334) 272-2234 (334)213-0407 FAX

WORK ASIGNMENT #	PROJECT NAME:	ANALYSIS REQUESTED	FOR LABORATORY USE
08-3040.01	Schofield CZ		

Client Name: JMC

Project Manager: Greg Miller Cabrera Services

Requested Comp. Date

Notify Upon Receipt?

COC# 37

Laboratory Prefix

Study I.D.

Pg 3 of 3

Item No.	Date	Time	Matrix	Sample I.D.	# of CONTAINERS		Gamma Spec & Lead					01H207	7986	Laboratory	Comments
1	10/5/2007		Soil	SB-CZ-SS-2410-ST	1		X						01		
2	10/5/2007		Soil	SB-CZ-SS-2411-ST	1		X						02		
3	10/5/2007		Soil	SB-CZ-SS-2412-ST	1		X						03		
4	10/5/2007		Soil	SB-CZ-SS-2413-ST	1		X						04		
5	10/5/2007		Soil	SB-CZ-SS-2414-ST	1		X						05		
6	10/5/2007		Soil	SB-CZ-SS-2415-ST	1		X						06		
7	10/5/2007		Soil	SB-CZ-SS-2410-SD	1		X					01H207	7987. 01		
8	10/5/2007		Soil	SB-CZ-SS-2411-SD	1		X						02		
9	10/5/2007		Soil	SB-CZ-SS-2412-SD	1		X						03		
10	10/5/2007		Soil	SB-CZ-SS-2413-SD	1		X						04		
11	10/5/2007		Soil	SB-CZ-SS-2414-SD	1		X						05		
12	10/5/2007		Soil	SB-CZ-SS-2415-SD	1		X						06		
13															
14															

Sampled by and Title Alfred Craig FSP	Date/Time 10-5-07	Relinquished by: Alfred Craig FSP	Date/Time	QC Level 1 2 3	
Received by: Johnny Adams	Date/Time 11-28-07 9:15	Relinquished by:	Date/Time	COC	ICE
Received by: C. Owen SC&A	Date/Time 11/8/07 8:45	Relinquished by: C. Owen SC&A	Date/Time 11/12/07 14:00	ANA REQ	TEMP
		Sample shipped via	Air Bill #	Cust Seal	pH
		UPS FED-EX HAND OTHER		Sample	

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: SCHA	SDG/ARCOC/Work Order: 198315, 198324, 198322, 198324
Received By: JRA	Date Received: 11-28-07 915

Suspected Hazard Information	Yes	No	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation,
Marked as radioactive?			Maximum Counts Observed*: 800CPM
Classified Radioactive II by RSO?			
Marked containing PCBs?			
Shipped as a DOT Hazardous?			Hazard Class Shipped: UN#:
Identified as Foreign Soil?			

	Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	✓			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within (4 +/- 2 C)?		✓		Preservation Method: ice bags blue ice dry ice none other (describe)
3	Chain of custody documents included with shipment?	✓			
4	Sample containers intact and sealed?	~~✓~~		✓	Circle Applicable: seals broken damaged container leaking container other (describe) SB-C255-2414SD
5	Samples requiring chemical preservation at proper pH?		✓		Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		✓		Sample ID's and containers affected:
7	Are Encore containers present?			✓	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	✓			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	✓			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?			✓	Sample ID's affected: NO Time on sample container or COC
11	Number of containers received match number indicated on COC?	✓			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	✓			

Comments:

Fed Ex 821230169747 17°
9758 15

PM (or PMA) review: Initials ATK Date 11/28/07

Subject: RE: Samples received today 11/28/07
From: "Cindy White" <cwhite@scainc.com>
Date: Wed, 28 Nov 2007 13:04:12 -0600
To: "'Amanda Rasco'" <amanda.rasco@gel.com>
CC: "'cheryl Jones'" <cj@gel.com>, "'Richard Albee'" <ric01333@gel.com>

Amanda,

It should be fine to analyze the sample that spilled out of the plastic container into the ziplock bag. The ziplock bags were clean so there shouldn't be any contamination. Also, Cabrera approved the use of 00:00 since they did not record collection times.

Reporting the nuclides from the library provided is sufficient.

Let me know if you have other questions.

Thanks,
Cindy

-----Original Message-----
From: Amanda Rasco [mailto:amanda.rasco@gel.com]
Sent: Wednesday, November 28, 2007 12:57 PM
To: cwhite@scainc.com
Cc: cheryl Jones; Richard Albee
Subject: Samples received today 11/28/07

Cindy,
There are two issues for samples received today. First, sample container ID# SB-CS-SS-2414-SD was broken at arrival at GEL. Some of the sample has leaked into the plastic bag surrounding it. Please confirm it is acceptable to analyze this sample. Second, there is no collect time for any of the samples received. Can you provide a collect time for these samples? If not, please confirm it is acceptable to use the arbitrary collect time of 00:00.

Per our conversation, we will report results for all the isotopes specified in the gamma library you have provided only. Also, we will ensure that like ID's are reported in the same SDG with the following naming conventions; ie. ID's at ST depth as 001-014 and SD depths at 015-028.

Please contact me with any questions.

Thanks,
Amanda Rasco

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Amanda J. Rasco
Project Manager
GEL Laboratories, LLC
2040 Savage Road
Charleston, SC (USA) 29407
Direct: 843.769.7373
Main: 843.556.8171 x4297
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List of current GEL Certifications as of 10 December 2007

State	Certification
Alaska	UST-062
Arizona	AZ0668
Arkansas	88-0651
CLIA	42D0904046
California	01151CA
Colorado	GenEngLabs
Connecticut	PH-0169
Dept. of Navy	NFESC 413
EPA	WG-15J
Florida/NELAP	E87156
Georgia	E87156 (FL/NELAP)
Hawaii	N/A
Idaho	N/A
Illinois	200029
Indiana	C-SC-01
Kansas	E-10332
Kentucky	90129
Louisiana	03046
Maryland	270
Massachusetts	M-SC012
Michigan	9903
Nevada	SC12
New Jersey	SC002
New Mexico	FL NELAP E87156
New York	11501
North Carolina	233
North Carolina Drinking W	45709
North Dakota	R-158
Oklahoma	9904
Pennsylvania	68-00485
South Carolina	10120001/10585001/10120002
Tennessee	02934
Texas NELAP	T104704235-07-TX
U.S. Dept. of Agriculture	S-52597
US Army Corps of Engineer	N/A
Utah	8037697376 GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

RADIOLOGICAL ANALYSIS

Method/Analysis Information

Product:	**Gammaspec, Gamma, Solid**
Analytical Method:	EML HASL 300, 4.5.2.3
Prep Method:	Dry Soil Prep
Analytical Batch Number:	706245
Prep Batch Number:	706185

Sample ID	Client ID
198324001	SB-CZ-SS-2396-ST
198324002	SB-CZ-SS-2397-ST
198324003	SB-CZ-SS-2398-ST
198324004	SB-CZ-SS-2399-ST
198324005	SB-CZ-SS-2400-ST
198324006	SB-CZ-SS-2401-ST
198324007	SB-CZ-SS-2402-ST
198324008	SB-CZ-SS-2403-ST
198324009	SB-CZ-SS-2404-ST
198324010	SB-CZ-SS-2405-ST
198324011	SB-CZ-SS-2406-ST
198324012	SB-CZ-SS-2407-ST
198324013	SB-CZ-SS-2408-ST
198324014	SB-CZ-SS-2409-ST
198324015	SB-CZ-SS-2396-SD
198324016	SB-CZ-SS-2397-SD
198324017	SB-CZ-SS-2398-SD
198324018	SB-CZ-SS-2399-SD
198324019	SB-CZ-SS-2400-SD
198324020	SB-CZ-SS-2401-SD
1201469643	Method Blank (MB)
1201469644	198324001(SB-CZ-SS-2396-ST) Sample Duplicate (DUP)
1201469645	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories

LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-013 REV# 14.

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: 198324001 (SB-CZ-SS-2396-ST).

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
Samples 198324009 (SB-CZ-SS-2404-ST) and 198324016 (SB-CZ-SS-2397-SD) were recounted to verify the Th-234 results in the samples.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments
The sample and the duplicate, 1201469644 (SB-CZ-SS-2396-ST) and 198324001 (SB-CZ-SS-2396-ST), did not meet the relative percent difference requirement for Cs-137 and Pb-214, however they do meet the relative error ratio requirement with values of 2.19 for Cs-137 and 2.06 for Pb-214.

Qualifier information

Qualifier	Reason	Analyte	Sample
UI	Data rejected due to a high counting uncertainty.	Neptunium-237	198324016
UI	Data rejected due to high peak-width.	Polonium-209	198324001
		Protactinium-234m	198324010
			198324011
			198324013
UI	Data rejected due to interference.	Americium-243	198324001
			198324002
			198324003
			198324004
			198324005
			198324006
			198324007
			198324008
			198324009
			198324010
			198324011
			198324012
			198324013
			198324014
			198324015
			198324016
			198324017
			198324018
			198324019
			198324020
			1201469644
		Neptunium-237	198324001

			198324003
			198324004
			198324005
			198324006
			198324007
			198324008
			198324009
			198324010
			198324011
			198324012
			198324013
			198324014
			198324015
			198324019
			198324020
			1201469644
		Radium-223	198324001
			198324003
			198324004
			198324005
			198324007
			198324008
			198324009
			198324011
			198324012
			198324015
			198324016
			198324017
			198324019
UI	Data rejected due to low abundance.	Actinium-228	198324002

		Bismuth-214	198324002
			198324009
			198324010
			198324018
			198324020
UI	Data rejected due to no valid peak.	Bismuth-212	198324013
		Neptunium-236	198324010
		Protactinium-234m	198324008
			198324015

Method/Analysis Information

Product:	**Gammaspec, Gamma, Solid**
Analytical Method:	EML HASL 300, 4.5.2.3
Prep Method:	Dry Soil Prep
Analytical Batch Number:	706246
Prep Batch Number:	706189

Sample ID	Client ID
198324021	SB-CZ-SS-2402-SD
198324022	SB-CZ-SS-2403-SD
198324023	SB-CZ-SS-2404-SD
198324024	SB-CZ-SS-2405-SD
198324025	SB-CZ-SS-2406-SD
198324026	SB-CZ-SS-2407-SD
198324027	SB-CZ-SS-2408-SD
198324028	SB-CZ-SS-2409-SD
198324029	SB-CZ-SS-2410-ST
198324030	SB-CZ-SS-2411-ST
198324031	SB-CZ-SS-2412-ST
198324032	SB-CZ-SS-2413-ST
198324033	SB-CZ-SS-2414-ST
198324034	SB-CZ-SS-2415-ST
198324035	SB-CZ-SS-2410-SD
198324036	SB-CZ-SS-2411-SD
198324037	SB-CZ-SS-2412-SD
198324038	SB-CZ-SS-2413-SD
198324039	SB-CZ-SS-2414-SD
198324040	SB-CZ-SS-2415-SD
1201469646	Method Blank (MB)
1201469647	198324021(SB-CZ-SS-2402-SD) Sample Duplicate (DUP)
1201469648	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-013 REV# 14.

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: 198324021 (SB-CZ-SS-2402-SD).

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. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments
The sample and the duplicate, 1201469647 (SB-CZ-SS-2402-SD) and 198324021 (SB-CZ-SS-2402-SD), did not meet the relative percent difference requirement for Pb-214, however they do meet the relative error ratio requirement with value of 1.94.

Qualifier information

Qualifier	Reason	Analyte	Sample
UI	Data rejected due to high peak-width.	Americium-246	198324024
		Neptunium-239	198324035
		Polonium-209	198324030
		Protactinium-234m	198324027
			198324035
UI	Data rejected due to interference.	Americium-243	198324021
			198324022
			198324023
			198324024
			198324025
			198324026

	198324027
	198324028
	198324029
	198324030
	198324031
	198324032
	198324033
	198324034
	198324035
	198324036
	198324037
	198324038
	198324039
	198324040
	1201469647
Curium-243	198324024
	198324025
	198324031
Europium-155	198324024
	198324025
	198324031
Neptunium-237	198324021
	198324022
	198324023
	198324025
	198324026
	198324027
	198324028
	198324029
	198324030

			198324031
			198324033
			198324034
			198324035
			198324037
			198324038
			198324039
			1201469647
		Radium-223	198324022
			198324025
			198324028
			198324033
			198324037
			198324039
UI	Data rejected due to low abundance.	Bismuth-214	198324021
			198324023
			198324028
			198324035
			198324037
			198324038
		Radium-223	198324036
		Thallium-208	198324031

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/Date:_____ 12/12/07

SAMPLE DATA SUMMARY

GEL LABORATORIES LLC

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

Certificate of Analysis Report
for

SCAN001 Sanford Cohen and Associates, Inc.

Client SDG: 198324 GEL Work Order: 198324

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

UI Gamma Spectroscopy--Uncertain identification

ND The analyte concentration is not detected above the detection limit.

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 GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Amanda Rasco.

Reviewed by

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117
Contact: Cindy White
Project: SC&A (GELP07−0971)

Report Date: December 12, 2007

Client Sample ID:	SB−CZ−SS−2396−ST	Project:	SCAN00101
Sample ID:	198324001	Client ID:	SCAN001
Matrix:	Soil		
Collect Date:	05−OCT−07		
Receive Date:	28−NOV−07		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid													
Actinium−228		0.904	+/−0.191	0.124	+/−0.191	0.800	pCi/g		MJH1	11/30/07	0707	706245	1
Americium−241	U	0.0506	+/−0.108	0.164	+/−0.108	0.200	pCi/g						
Americium−243	UI	0.248	+/−0.0642	0.0496	+/−0.0642		pCi/g						
Americium−246	U	−0.00585	+/−0.0869	0.143	+/−0.0869		pCi/g						
Antimony−125	U	−0.0549	+/−0.0654	0.103	+/−0.0654	0.200	pCi/g						
Bismuth−211	U	0.631	+/−0.665	1.08	+/−0.665		pCi/g						
Bismuth−212		0.410	+/−0.294	0.292	+/−0.294	0.500	pCi/g						
Bismuth−214		0.700	+/−0.108	0.0769	+/−0.108	0.200	pCi/g						
Californium−249	U	0.0238	+/−0.0325	0.0464	+/−0.0325		pCi/g						
Cesium−137		0.229	+/−0.0572	0.0422	+/−0.0572	0.100	pCi/g						
Cobalt−60	U	0.0279	+/−0.0272	0.0436	+/−0.0272	0.100	pCi/g						
Curium−243	U	0.00656	+/−0.0699	0.107	+/−0.0699		pCi/g						
Europium−155	U	0.0491	+/−0.0757	0.116	+/−0.0757	0.500	pCi/g						
Lead−212		0.754	+/−0.0855	0.0629	+/−0.0855	0.100	pCi/g						
Lead−214		0.642	+/−0.117	0.077	+/−0.117	0.100	pCi/g						
Neptunium−236	U	0.00652	+/−0.0431	0.0666	+/−0.0431		pCi/g						
Neptunium−237	UI	0.398	+/−0.175	0.286	+/−0.175		pCi/g						
Neptunium−239	U	−0.016	+/−0.150	0.256	+/−0.150	2.00	pCi/g						
Polonium−209	UI	8.07	+/−9.23	7.26	+/−9.23		pCi/g						
Potassium−40		6.21	+/−0.795	0.332	+/−0.795	1.00	pCi/g						
Protactinium−233	U	−0.0105	+/−0.0429	0.0715	+/−0.0429		pCi/g						
Protactinium−234m	U	0.649	+/−2.86	4.85	+/−2.86		pCi/g						
Radium−223	UI	0.403	+/−0.231	0.187	+/−0.231		pCi/g						
Rhodium−101	U	−0.00598	+/−0.0247	0.0389	+/−0.0247		pCi/g						
Thallium−208		0.239	+/−0.0473	0.0366	+/−0.0473	0.080	pCi/g						
Thorium−234		0.901	+/−0.502	0.462	+/−0.502	0.500	pCi/g						
Uranium−235	U	0.204	+/−0.133	0.241	+/−0.133	0.500	pCi/g						

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 − (843) 556−8171 − www.gel.com

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117 Report Date: December 12, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2396−ST Project: SCAN00101
Sample ID: 198324001 Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst Date	Time Batch	Mtd

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol−condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy−−Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/−RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117
Contact: Cindy White
Project: SC&A (GELP07−0971)

Report Date: December 12, 2007

Client Sample ID: SB−CZ−SS−2397−ST
Sample ID: 198324002
Matrix: Soil
Collect Date: 05−OCT−07
Receive Date: 28−NOV−07
Collector: Client

Project: SCAN00101
Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid													
Actinium−228	UI	0.386	+/−0.128	0.245	+/−0.128	0.800	pCi/g		MJH1	11/30/07	0709	706245	1
Americium−241	U	0.0171	+/−0.0287	0.0437	+/−0.0287	0.200	pCi/g						
Americium−243	UI	0.0523	+/−0.0194	0.024	+/−0.0194		pCi/g						
Americium−246	U	−0.028	+/−0.0945	0.151	+/−0.0945		pCi/g						
Antimony−125	U	−0.0161	+/−0.0629	0.103	+/−0.0629	0.200	pCi/g						
Bismuth−211	U	−0.239	+/−0.737	1.20	+/−0.737		pCi/g						
Bismuth−212	U	0.205	+/−0.209	0.384	+/−0.209	0.500	pCi/g						
Bismuth−214	UI	0.292	+/−0.0878	0.137	+/−0.0878	0.200	pCi/g						
Californium−249	U	0.0131	+/−0.0264	0.0456	+/−0.0264		pCi/g						
Cesium−137		0.410	+/−0.0688	0.0435	+/−0.0688	0.100	pCi/g						
Cobalt−60	U	0.003	+/−0.0277	0.0465	+/−0.0277	0.100	pCi/g						
Curium−243	U	0.020	+/−0.0405	0.0686	+/−0.0405		pCi/g						
Europium−155	U	0.0296	+/−0.0452	0.0769	+/−0.0452	0.500	pCi/g						
Lead−212		0.299	+/−0.0579	0.0552	+/−0.0579	0.100	pCi/g						
Lead−214		0.232	+/−0.0748	0.0729	+/−0.0748	0.100	pCi/g						
Neptunium−236	U	0.0192	+/−0.0268	0.0406	+/−0.0268		pCi/g						
Neptunium−237	U	0.0853	+/−0.111	0.127	+/−0.111		pCi/g						
Neptunium−239	U	0.00417	+/−0.125	0.214	+/−0.125	2.00	pCi/g						
Polonium−209	U	6.07	+/−5.28	8.41	+/−5.28		pCi/g						
Potassium−40		3.71	+/−0.738	0.410	+/−0.738	1.00	pCi/g						
Protactinium−233	U	−0.00663	+/−0.0394	0.0658	+/−0.0394		pCi/g						
Protactinium−234m	U	2.03	+/−3.42	6.07	+/−3.42		pCi/g						
Radium−223	U	0.0153	+/−0.103	0.175	+/−0.103		pCi/g						
Rhodium−101	U	0.000934	+/−0.0208	0.0311	+/−0.0208		pCi/g						
Thallium−208		0.0698	+/−0.0406	0.0352	+/−0.0406	0.080	pCi/g						
Thorium−234		0.512	+/−0.289	0.275	+/−0.289	0.500	pCi/g						
Uranium−235	U	0.0093	+/−0.102	0.167	+/−0.102	0.500	pCi/g						

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 − (843) 556−8171 − www.gel.com

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117 Report Date: December 12, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2397−ST Project: SCAN00101
Sample ID: 198324002 Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst Date	Time Batch	Mtd

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol−condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy−−Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/−RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117
Contact: Cindy White
Project: SC&A (GELP07−0971)

Report Date: December 12, 2007

Client Sample ID: SB−CZ−SS−2398−ST
Sample ID: 198324003
Matrix: Soil
Collect Date: 05−OCT−07
Receive Date: 28−NOV−07
Collector: Client

Project: SCAN00101
Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid													
Actinium−228		0.568	+/−0.175	0.135	+/−0.175	0.800	pCi/g		MJH1	11/30/07	0752	706245	1
Americium−241	U	0.0666	+/−0.085	0.138	+/−0.085	0.200	pCi/g						
Americium−243	UI	0.0965	+/−0.0335	0.0412	+/−0.0335		pCi/g						
Americium−246	U	−0.00066	+/−0.0714	0.122	+/−0.0714		pCi/g						
Antimony−125	U	−0.0117	+/−0.0521	0.0871	+/−0.0521	0.200	pCi/g						
Bismuth−211	U	−0.597	+/−0.670	1.04	+/−0.670		pCi/g						
Bismuth−212	U	0.172	+/−0.287	0.305	+/−0.287	0.500	pCi/g						
Bismuth−214		0.379	+/−0.0748	0.0688	+/−0.0748	0.200	pCi/g						
Californium−249	U	−0.00221	+/−0.0226	0.0384	+/−0.0226		pCi/g						
Cesium−137		0.127	+/−0.0368	0.0346	+/−0.0368	0.100	pCi/g						
Cobalt−60	U	−0.000451	+/−0.0251	0.0423	+/−0.0251	0.100	pCi/g						
Curium−243	U	0.00388	+/−0.0472	0.0762	+/−0.0472		pCi/g						
Europium−155	U	0.0388	+/−0.0666	0.0839	+/−0.0666	0.500	pCi/g						
Lead−212		0.500	+/−0.0604	0.0527	+/−0.0604	0.100	pCi/g						
Lead−214		0.439	+/−0.0816	0.0645	+/−0.0816	0.100	pCi/g						
Neptunium−236	U	−0.00185	+/−0.0304	0.0482	+/−0.0304		pCi/g						
Neptunium−237	UI	0.219	+/−0.155	0.196	+/−0.155		pCi/g						
Neptunium−239	U	0.0465	+/−0.112	0.192	+/−0.112	2.00	pCi/g						
Polonium−209	U	3.66	+/−4.16	7.48	+/−4.16		pCi/g						
Potassium−40		4.79	+/−0.651	0.275	+/−0.651	1.00	pCi/g						
Protactinium−233	U	0.00263	+/−0.0343	0.0602	+/−0.0343		pCi/g						
Protactinium−234m	U	2.30	+/−2.59	4.62	+/−2.59		pCi/g						
Radium−223	UI	0.166	+/−0.161	0.162	+/−0.161		pCi/g						
Rhodium−101	U	−0.0111	+/−0.0193	0.0298	+/−0.0193		pCi/g						
Thallium−208		0.156	+/−0.044	0.0378	+/−0.044	0.080	pCi/g						
Thorium−234		0.596	+/−0.450	0.369	+/−0.450	0.500	pCi/g						
Uranium−235	U	0.0127	+/−0.105	0.172	+/−0.105	0.500	pCi/g						

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 − (843) 556−8171 − www.gel.com

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117 Report Date: December 12, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2398−ST Project: SCAN00101
Sample ID: 198324003 Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol−condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy−−Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/−RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117
Contact: Cindy White
Project: SC&A (GELP07−0971)

Report Date: December 12, 2007

Client Sample ID: SB−CZ−SS−2399−ST
Sample ID: 198324004
Matrix: Soil
Collect Date: 05−OCT−07
Receive Date: 28−NOV−07
Collector: Client

Project: SCAN00101
Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date Time	Batch	Mtd
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Solid												
Actinium−228		0.477	+/−0.168	0.111	+/−0.168	0.800	pCi/g		MJH1	11/30/07 0954	706245	1
Americium−241	U	0.0353	+/−0.123	0.191	+/−0.123	0.200	pCi/g					
Americium−243	UI	0.0576	+/−0.0437	0.0525	+/−0.0437		pCi/g					
Americium−246	U	−0.0501	+/−0.0661	0.100	+/−0.0661		pCi/g					
Antimony−125	U	−0.014	+/−0.0507	0.0862	+/−0.0507	0.200	pCi/g					
Bismuth−211	U	0.424	+/−0.495	0.897	+/−0.495		pCi/g					
Bismuth−212		0.308	+/−0.236	0.247	+/−0.236	0.500	pCi/g					
Bismuth−214		0.338	+/−0.0777	0.0619	+/−0.0777	0.200	pCi/g					
Californium−249	U	0.0181	+/−0.0216	0.0377	+/−0.0216		pCi/g					
Cesium−137		0.135	+/−0.0439	0.0376	+/−0.0439	0.100	pCi/g					
Cobalt−60	U	−0.0108	+/−0.0286	0.0385	+/−0.0286	0.100	pCi/g					
Curium−243	U	−0.00652	+/−0.0582	0.0906	+/−0.0582		pCi/g					
Europium−155	U	−0.0123	+/−0.0654	0.102	+/−0.0654	0.500	pCi/g					
Lead−212		0.524	+/−0.0775	0.0524	+/−0.0775	0.100	pCi/g					
Lead−214		0.341	+/−0.0821	0.0626	+/−0.0821	0.100	pCi/g					
Neptunium−236	U	0.00913	+/−0.0352	0.0567	+/−0.0352		pCi/g					
Neptunium−237	UI	0.271	+/−0.139	0.239	+/−0.139		pCi/g					
Neptunium−239	U	−0.0463	+/−0.124	0.209	+/−0.124	2.00	pCi/g					
Polonium−209	U	0.590	+/−3.79	6.59	+/−3.79		pCi/g					
Potassium−40		4.03	+/−0.591	0.329	+/−0.591	1.00	pCi/g					
Protactinium−233	U	−0.00632	+/−0.0358	0.0593	+/−0.0358		pCi/g					
Protactinium−234m	U	−1.24	+/−3.12	4.13	+/−3.12		pCi/g					
Radium−223	UI	0.325	+/−0.171	0.167	+/−0.171		pCi/g					
Rhodium−101	U	0.0137	+/−0.0216	0.0348	+/−0.0216		pCi/g					
Thallium−208		0.134	+/−0.045	0.0306	+/−0.045	0.080	pCi/g					
Thorium−234		0.522	+/−0.505	0.471	+/−0.505	0.500	pCi/g					
Uranium−235	U	−0.0122	+/−0.121	0.193	+/−0.121	0.500	pCi/g					

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 − (843) 556−8171 − www.gel.com

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117 Report Date: December 12, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2399−ST Project: SCAN00101
Sample ID: 198324004 Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol−condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy−−Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/−RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117
Contact: Cindy White
Project: SC&A (GELP07−0971)

Report Date: December 12, 2007

Client Sample ID: SB−CZ−SS−2400−ST
Sample ID: 198324005
Matrix: Soil
Collect Date: 05−OCT−07
Receive Date: 28−NOV−07
Collector: Client

Project: SCAN00101
Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst Date	Time	Batch	Mtd
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Solid												
Actinium−228		0.715	+/−0.203	0.154	+/−0.203	0.800	pCi/g		MJH1	11/30/07 0955	706245	1
Americium−241	U	0.0365	+/−0.0974	0.156	+/−0.0974	0.200	pCi/g					
Americium−243	UI	0.138	+/−0.036	0.049	+/−0.036		pCi/g					
Americium−246	U	−0.0148	+/−0.082	0.137	+/−0.082		pCi/g					
Antimony−125	U	0.000402	+/−0.0608	0.101	+/−0.0608	0.200	pCi/g					
Bismuth−211	U	−0.0889	+/−0.668	1.10	+/−0.668		pCi/g					
Bismuth−212	U	0.271	+/−0.336	0.307	+/−0.336	0.500	pCi/g					
Bismuth−214		0.532	+/−0.0984	0.0742	+/−0.0984	0.200	pCi/g					
Californium−249	U	0.0105	+/−0.0268	0.046	+/−0.0268		pCi/g					
Cesium−137		0.287	+/−0.0563	0.0365	+/−0.0563	0.100	pCi/g					
Cobalt−60	U	−0.0109	+/−0.0259	0.0418	+/−0.0259	0.100	pCi/g					
Curium−243	U	0.0429	+/−0.0534	0.0936	+/−0.0534		pCi/g					
Europium−155	U	−0.000946	+/−0.0613	0.104	+/−0.0613	0.500	pCi/g					
Lead−212		0.697	+/−0.0804	0.0644	+/−0.0804	0.100	pCi/g					
Lead−214		0.628	+/−0.107	0.0753	+/−0.107	0.100	pCi/g					
Neptunium−236	U	0.0198	+/−0.033	0.0575	+/−0.033		pCi/g					
Neptunium−237	UI	0.309	+/−0.156	0.236	+/−0.156		pCi/g					
Neptunium−239	U	−0.0287	+/−0.136	0.235	+/−0.136	2.00	pCi/g					
Polonium−209	U	2.32	+/−4.16	7.30	+/−4.16		pCi/g					
Potassium−40		5.39	+/−0.860	0.429	+/−0.860	1.00	pCi/g					
Protactinium−233	U	0.020	+/−0.0425	0.074	+/−0.0425		pCi/g					
Protactinium−234m	U	1.24	+/−3.36	5.07	+/−3.36		pCi/g					
Radium−223	UI	0.237	+/−0.177	0.210	+/−0.177		pCi/g					
Rhodium−101	U	0.0185	+/−0.021	0.038	+/−0.021		pCi/g					
Thallium−208		0.206	+/−0.0539	0.0366	+/−0.0539	0.080	pCi/g					
Thorium−234		0.901	+/−0.516	0.472	+/−0.516	0.500	pCi/g					
Uranium−235	U	0.0941	+/−0.170	0.203	+/−0.170	0.500	pCi/g					

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 − (843) 556−8171 − www.gel.com

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117 Report Date: December 12, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2400−ST Project: SCAN00101
Sample ID: 198324005 Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst Date	Time Batch	Mtd

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol−condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy−−Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/−RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

GEL LABORATORIES LLC

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Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117
Contact: Cindy White
Project: SC&A (GELP07−0971)

Report Date: December 12, 2007

Client Sample ID: SB−CZ−SS−2401−ST
Sample ID: 198324006
Matrix: Soil
Collect Date: 05−OCT−07
Receive Date: 28−NOV−07
Collector: Client

Project: SCAN00101
Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst Date	Time	Batch	Mtd
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Solid												
Actinium−228		0.599	+/−0.155	0.121	+/−0.155	0.800	pCi/g		MJH1	11/30/07 0956	706245	1
Americium−241	U	0.0216	+/−0.0519	0.0814	+/−0.0519	0.200	pCi/g					
Americium−243	UI	0.132	+/−0.0298	0.0346	+/−0.0298		pCi/g					
Americium−246	U	−0.00027	+/−0.0726	0.123	+/−0.0726		pCi/g					
Antimony−125	U	−0.00112	+/−0.054	0.089	+/−0.054	0.200	pCi/g					
Bismuth−211	U	−0.609	+/−0.580	0.859	+/−0.580		pCi/g					
Bismuth−212	U	0.247	+/−0.259	0.283	+/−0.259	0.500	pCi/g					
Bismuth−214		0.417	+/−0.0837	0.0667	+/−0.0837	0.200	pCi/g					
Californium−249	U	0.00733	+/−0.0229	0.0388	+/−0.0229		pCi/g					
Cesium−137		0.272	+/−0.0438	0.0368	+/−0.0438	0.100	pCi/g					
Cobalt−60	U	0.0185	+/−0.0237	0.0388	+/−0.0237	0.100	pCi/g					
Curium−243	U	−0.0111	+/−0.0448	0.074	+/−0.0448		pCi/g					
Europium−155	U	0.0342	+/−0.050	0.086	+/−0.050	0.500	pCi/g					
Lead−212		0.625	+/−0.0697	0.0487	+/−0.0697	0.100	pCi/g					
Lead−214		0.423	+/−0.0838	0.0626	+/−0.0838	0.100	pCi/g					
Neptunium−236	U	−0.00318	+/−0.0301	0.0458	+/−0.0301		pCi/g					
Neptunium−237	UI	0.329	+/−0.142	0.176	+/−0.142		pCi/g					
Neptunium−239	U	0.0244	+/−0.115	0.199	+/−0.115	2.00	pCi/g					
Polonium−209	U	0.646	+/−4.50	7.53	+/−4.50		pCi/g					
Potassium−40		4.75	+/−0.661	0.290	+/−0.661	1.00	pCi/g					
Protactinium−233	U	0.0174	+/−0.0353	0.0612	+/−0.0353		pCi/g					
Protactinium−234m	U	0.860	+/−3.30	4.65	+/−3.30		pCi/g					
Radium−223	U	0.152	+/−0.164	0.154	+/−0.164		pCi/g					
Rhodium−101	U	−0.00678	+/−0.0185	0.0287	+/−0.0185		pCi/g					
Thallium−208		0.181	+/−0.0487	0.0351	+/−0.0487	0.080	pCi/g					
Thorium−234		0.743	+/−0.384	0.380	+/−0.384	0.500	pCi/g					
Uranium−235	U	−0.00698	+/−0.114	0.176	+/−0.114	0.500	pCi/g					

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 − (843) 556−8171 − www.gel.com

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117 Report Date: December 12, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2401−ST Project: SCAN00101
Sample ID: 198324006 Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst Date	Time Batch	Mtd

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol−condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy−−Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/−RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

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Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117
Contact: Cindy White
Project: SC&A (GELP07−0971)

Report Date: December 12, 2007

Client Sample ID: SB−CZ−SS−2402−ST
Sample ID: 198324007
Matrix: Soil
Collect Date: 05−OCT−07
Receive Date: 28−NOV−07
Collector: Client

Project: SCAN00101
Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst Date	Time	Batch	Mtd
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Solid												
Actinium−228		0.568	+/−0.192	0.127	+/−0.192	0.800	pCi/g		MJH1	11/30/07 0957	706245	1
Americium−241	U	0.0194	+/−0.0963	0.148	+/−0.0963	0.200	pCi/g					
Americium−243	UI	0.157	+/−0.0465	0.0465	+/−0.0465		pCi/g					
Americium−246	U	0.0158	+/−0.0859	0.146	+/−0.0859		pCi/g					
Antimony−125	U	−0.0149	+/−0.0554	0.0938	+/−0.0554	0.200	pCi/g					
Bismuth−211	U	−0.252	+/−0.618	1.02	+/−0.618		pCi/g					
Bismuth−212		0.460	+/−0.264	0.275	+/−0.264	0.500	pCi/g					
Bismuth−214		0.565	+/−0.101	0.0678	+/−0.101	0.200	pCi/g					
Californium−249	U	0.00911	+/−0.0235	0.0415	+/−0.0235		pCi/g					
Cesium−137		0.379	+/−0.0542	0.0383	+/−0.0542	0.100	pCi/g					
Cobalt−60	U	0.0111	+/−0.0245	0.0424	+/−0.0245	0.100	pCi/g					
Curium−243	U	0.0445	+/−0.0564	0.072	+/−0.0564		pCi/g					
Europium−155	U	0.0491	+/−0.0623	0.0908	+/−0.0623	0.500	pCi/g					
Lead−212		0.579	+/−0.0707	0.057	+/−0.0707	0.100	pCi/g					
Lead−214		0.744	+/−0.108	0.0685	+/−0.108	0.100	pCi/g					
Neptunium−236	U	0.0499	+/−0.0442	0.0562	+/−0.0442		pCi/g					
Neptunium−237	UI	0.341	+/−0.137	0.213	+/−0.137		pCi/g					
Neptunium−239	U	0.0301	+/−0.126	0.217	+/−0.126	2.00	pCi/g					
Polonium−209	U	2.31	+/−4.54	7.95	+/−4.54		pCi/g					
Potassium−40		6.26	+/−0.835	0.383	+/−0.835	1.00	pCi/g					
Protactinium−233	U	−0.0124	+/−0.0358	0.0584	+/−0.0358		pCi/g					
Protactinium−234m	U	1.96	+/−2.30	4.18	+/−2.30		pCi/g					
Radium−223	UI	0.203	+/−0.184	0.168	+/−0.184		pCi/g					
Rhodium−101	U	0.0171	+/−0.0195	0.0335	+/−0.0195		pCi/g					
Thallium−208		0.225	+/−0.0461	0.0362	+/−0.0461	0.080	pCi/g					
Thorium−234		0.894	+/−0.458	0.361	+/−0.458	0.500	pCi/g					
Uranium−235	U	−0.0284	+/−0.118	0.194	+/−0.118	0.500	pCi/g					

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 − (843) 556−8171 − www.gel.com

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117 Report Date: December 12, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2402−ST Project: SCAN00101
Sample ID: 198324007 Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst Date	Time Batch	Mtd

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol−condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy−−Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/−RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

GEL LABORATORIES LLC

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Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117
Contact: Cindy White
Project: SC&A (GELP07−0971)

Report Date: December 12, 2007

Client Sample ID: SB−CZ−SS−2403−ST
Sample ID: 198324008
Matrix: Soil
Collect Date: 05−OCT−07
Receive Date: 28−NOV−07
Collector: Client

Project: SCAN00101
Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date Time	Batch	Mtd
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Solid												
Actinium−228		0.593	+/−0.152	0.100	+/−0.152	0.800	pCi/g		MJH1	11/30/07 0958	706245	1
Americium−241	U	−0.0269	+/−0.0535	0.0787	+/−0.0535	0.200	pCi/g					
Americium−243	UI	0.130	+/−0.0263	0.0328	+/−0.0263		pCi/g					
Americium−246	U	0.0363	+/−0.0634	0.113	+/−0.0634		pCi/g					
Antimony−125	U	−0.00396	+/−0.0431	0.0742	+/−0.0431	0.200	pCi/g					
Bismuth−211	U	−0.46	+/−0.494	0.642	+/−0.494		pCi/g					
Bismuth−212		0.504	+/−0.214	0.219	+/−0.214	0.500	pCi/g					
Bismuth−214		0.644	+/−0.0899	0.0527	+/−0.0899	0.200	pCi/g					
Californium−249	U	0.00948	+/−0.0178	0.0319	+/−0.0178		pCi/g					
Cesium−137		0.162	+/−0.0344	0.0268	+/−0.0344	0.100	pCi/g					
Cobalt−60	U	−0.0225	+/−0.0226	0.0274	+/−0.0226	0.100	pCi/g					
Curium−243	U	−0.0045	+/−0.0365	0.0645	+/−0.0365		pCi/g					
Europium−155	U	0.000233	+/−0.0411	0.073	+/−0.0411	0.500	pCi/g					
Lead−212		0.628	+/−0.0618	0.0407	+/−0.0618	0.100	pCi/g					
Lead−214		0.782	+/−0.083	0.0499	+/−0.083	0.100	pCi/g					
Neptunium−236	U	0.0344	+/−0.0338	0.0388	+/−0.0338		pCi/g					
Neptunium−237	UI	0.426	+/−0.125	0.140	+/−0.125		pCi/g					
Neptunium−239	U	0.0282	+/−0.100	0.172	+/−0.100	2.00	pCi/g					
Polonium−209	U	−1.59	+/−3.11	5.06	+/−3.11		pCi/g					
Potassium−40		6.24	+/−0.750	0.266	+/−0.750	1.00	pCi/g					
Protactinium−233	U	0.0382	+/−0.0401	0.0435	+/−0.0401		pCi/g					
Protactinium−234m	UI	2.99	+/−2.77	2.92	+/−2.77		pCi/g					
Radium−223	UI	0.274	+/−0.153	0.127	+/−0.153		pCi/g					
Rhodium−101	U	0.00822	+/−0.0156	0.0259	+/−0.0156		pCi/g					
Thallium−208		0.197	+/−0.0424	0.0272	+/−0.0424	0.080	pCi/g					
Thorium−234		0.960	+/−0.311	0.308	+/−0.311	0.500	pCi/g					
Uranium−235	U	0.0552	+/−0.110	0.133	+/−0.110	0.500	pCi/g					

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 − (843) 556−8171 − www.gel.com

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117 Report Date: December 12, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2403−ST Project: SCAN00101
Sample ID: 198324008 Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst Date	Time Batch	Mtd

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol−condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy−−Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/−RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

GEL LABORATORIES LLC

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Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117
Contact: Cindy White
Project: SC&A (GELP07−0971)

Report Date: December 12, 2007

Client Sample ID: SB−CZ−SS−2404−ST
Sample ID: 198324009
Matrix: Soil
Collect Date: 05−OCT−07
Receive Date: 28−NOV−07
Collector: Client

Project: SCAN00101
Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst Date	Time	Batch	Mtd
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Solid												
Actinium−228		0.445	+/−0.110	0.0883	+/−0.110	0.800	pCi/g		MJH1	12/07/07 0545	706245	1
Americium−241	U	−0.00499	+/−0.0378	0.0581	+/−0.0378	0.200	pCi/g					
Americium−243	UI	0.0537	+/−0.0225	0.0267	+/−0.0225		pCi/g					
Americium−246	U	0.0336	+/−0.0557	0.0889	+/−0.0557		pCi/g					
Antimony−125	U	−0.00784	+/−0.0419	0.0687	+/−0.0419	0.200	pCi/g					
Bismuth−211	U	−0.487	+/−0.414	0.614	+/−0.414		pCi/g					
Bismuth−212	U	0.171	+/−0.216	0.172	+/−0.216	0.500	pCi/g					
Bismuth−214	UI	0.313	+/−0.068	0.0943	+/−0.068	0.200	pCi/g					
Californium−249	U	0.0122	+/−0.0166	0.0288	+/−0.0166		pCi/g					
Cesium−137		0.326	+/−0.0409	0.0278	+/−0.0409	0.100	pCi/g					
Cobalt−60	U	−0.0181	+/−0.0167	0.0253	+/−0.0167	0.100	pCi/g					
Curium−243	U	0.0205	+/−0.0328	0.0566	+/−0.0328		pCi/g					
Europium−155	U	0.0457	+/−0.0371	0.0652	+/−0.0371	0.500	pCi/g					
Lead−212		0.348	+/−0.0525	0.041	+/−0.0525	0.100	pCi/g					
Lead−214		0.264	+/−0.0589	0.0491	+/−0.0589	0.100	pCi/g					
Neptunium−236	U	0.0161	+/−0.0223	0.0349	+/−0.0223		pCi/g					
Neptunium−237	UI	0.206	+/−0.0849	0.106	+/−0.0849		pCi/g					
Neptunium−239	U	0.00541	+/−0.0881	0.153	+/−0.0881	2.00	pCi/g					
Polonium−209	U	2.01	+/−3.01	5.27	+/−3.01		pCi/g					
Potassium−40		3.39	+/−0.547	0.241	+/−0.547	1.00	pCi/g					
Protactinium−233	U	−0.0121	+/−0.0264	0.0438	+/−0.0264		pCi/g					
Protactinium−234m	U	1.35	+/−2.89	2.55	+/−2.89		pCi/g					
Radium−223	UI	0.284	+/−0.121	0.119	+/−0.121		pCi/g					
Rhodium−101	U	0.00352	+/−0.0145	0.0225	+/−0.0145		pCi/g					
Thallium−208		0.137	+/−0.0348	0.0221	+/−0.0348	0.080	pCi/g					
Thorium−234		0.455	+/−0.261	0.250	+/−0.261	0.500	pCi/g					
Uranium−235	U	0.042	+/−0.141	0.128	+/−0.141	0.500	pCi/g					

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 − (843) 556−8171 − www.gel.com

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117 Report Date: December 12, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2404−ST Project: SCAN00101
Sample ID: 198324009 Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst Date	Time Batch	Mtd

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol−condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy−−Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/−RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

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Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117
Contact: Cindy White
Project: SC&A (GELP07−0971)

Report Date: December 12, 2007

Client Sample ID: SB−CZ−SS−2405−ST
Sample ID: 198324010
Matrix: Soil
Collect Date: 05−OCT−07
Receive Date: 28−NOV−07
Collector: Client

Project: SCAN00101
Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst Date	Time	Batch	Mtd
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Solid												
Actinium−228		0.503	+/−0.214	0.164	+/−0.214	0.800	pCi/g		MJH1	11/30/07 0959	706245	1
Americium−241	U	0.0293	+/−0.0301	0.0473	+/−0.0301	0.200	pCi/g					
Americium−243	UI	0.0745	+/−0.0216	0.0276	+/−0.0216		pCi/g					
Americium−246	U	−0.0549	+/−0.101	0.163	+/−0.101		pCi/g					
Antimony−125	U	0.0432	+/−0.0633	0.111	+/−0.0633	0.200	pCi/g					
Bismuth−211	U	−0.521	+/−0.739	1.16	+/−0.739		pCi/g					
Bismuth−212	U	0.000448	+/−0.330	0.326	+/−0.330	0.500	pCi/g					
Bismuth−214	UI	0.243	+/−0.101	0.130	+/−0.101	0.200	pCi/g					
Californium−249	U	−0.00136	+/−0.0262	0.0447	+/−0.0262		pCi/g					
Cesium−137		0.361	+/−0.0658	0.0504	+/−0.0658	0.100	pCi/g					
Cobalt−60	U	0.0185	+/−0.0293	0.0515	+/−0.0293	0.100	pCi/g					
Curium−243	U	0.0186	+/−0.054	0.0728	+/−0.054		pCi/g					
Europium−155	U	0.0206	+/−0.0597	0.0827	+/−0.0597	0.500	pCi/g					
Lead−212		0.431	+/−0.0633	0.056	+/−0.0633	0.100	pCi/g					
Lead−214		0.328	+/−0.0776	0.0745	+/−0.0776	0.100	pCi/g					
Neptunium−236	UI	0.0522	+/−0.0397	0.0438	+/−0.0397		pCi/g					
Neptunium−237	UI	0.270	+/−0.110	0.150	+/−0.110		pCi/g					
Neptunium−239	U	0.0662	+/−0.126	0.216	+/−0.126	2.00	pCi/g					
Polonium−209	U	−1.38	+/−5.31	8.58	+/−5.31		pCi/g					
Potassium−40		3.16	+/−0.561	0.405	+/−0.561	1.00	pCi/g					
Protactinium−233	U	0.00127	+/−0.0388	0.0679	+/−0.0388		pCi/g					
Protactinium−234m	UI	11.4	+/−6.72	4.98	+/−6.72		pCi/g					
Radium−223	U	0.116	+/−0.163	0.170	+/−0.163		pCi/g					
Rhodium−101	U	−0.0172	+/−0.0213	0.0315	+/−0.0213		pCi/g					
Thallium−208		0.156	+/−0.0425	0.0406	+/−0.0425	0.080	pCi/g					
Thorium−234		0.892	+/−0.403	0.319	+/−0.403	0.500	pCi/g					
Uranium−235	U	0.0784	+/−0.155	0.175	+/−0.155	0.500	pCi/g					

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 − (843) 556−8171 − www.gel.com

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117 Report Date: December 12, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2405−ST Project: SCAN00101
Sample ID: 198324010 Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol−condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy−−Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/−RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

GEL LABORATORIES LLC

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Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117
Contact: Cindy White
Project: SC&A (GELP07−0971)

Report Date: December 12, 2007

Client Sample ID:	SB−CZ−SS−2406−ST	Project:	SCAN00101
Sample ID:	198324011	Client ID:	SCAN001
Matrix:	Soil		
Collect Date:	05−OCT−07		
Receive Date:	28−NOV−07		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid													
Actinium−228		0.488	+/−0.165	0.104	+/−0.165	0.800	pCi/g		MJH1	11/30/07	1000	706245	1
Americium−241	U	0.0247	+/−0.0631	0.0897	+/−0.0631	0.200	pCi/g						
Americium−243	UI	0.0973	+/−0.0345	0.0329	+/−0.0345		pCi/g						
Americium−246	U	0.0429	+/−0.0672	0.120	+/−0.0672		pCi/g						
Antimony−125	U	0.0116	+/−0.0525	0.0896	+/−0.0525	0.200	pCi/g						
Bismuth−211	U	−0.0982	+/−0.523	0.748	+/−0.523		pCi/g						
Bismuth−212		0.383	+/−0.212	0.207	+/−0.212	0.500	pCi/g						
Bismuth−214		0.310	+/−0.0822	0.0603	+/−0.0822	0.200	pCi/g						
Californium−249	U	−0.00172	+/−0.0243	0.0354	+/−0.0243		pCi/g						
Cesium−137		0.309	+/−0.0574	0.030	+/−0.0574	0.100	pCi/g						
Cobalt−60	U	0.00617	+/−0.0205	0.0355	+/−0.0205	0.100	pCi/g						
Curium−243	U	0.012	+/−0.0431	0.0731	+/−0.0431		pCi/g						
Europium−155	U	0.00957	+/−0.0482	0.0813	+/−0.0482	0.500	pCi/g						
Lead−212		0.434	+/−0.0583	0.0464	+/−0.0583	0.100	pCi/g						
Lead−214		0.246	+/−0.0708	0.0564	+/−0.0708	0.100	pCi/g						
Neptunium−236	U	0.0165	+/−0.0309	0.0467	+/−0.0309		pCi/g						
Neptunium−237	UI	0.247	+/−0.141	0.154	+/−0.141		pCi/g						
Neptunium−239	U	0.0969	+/−0.119	0.171	+/−0.119	2.00	pCi/g						
Polonium−209	U	0.253	+/−3.78	5.59	+/−3.78		pCi/g						
Potassium−40		3.02	+/−0.572	0.345	+/−0.572	1.00	pCi/g						
Protactinium−233	U	−0.0154	+/−0.0337	0.0561	+/−0.0337		pCi/g						
Protactinium−234m	UI	3.68	+/−2.49	3.51	+/−2.49		pCi/g						
Radium−223	UI	0.184	+/−0.144	0.147	+/−0.144		pCi/g						
Rhodium−101	U	−0.000148	+/−0.0189	0.0292	+/−0.0189		pCi/g						
Thallium−208		0.130	+/−0.0353	0.0296	+/−0.0353	0.080	pCi/g						
Thorium−234		0.655	+/−0.337	0.339	+/−0.337	0.500	pCi/g						
Uranium−235	U	0.00359	+/−0.109	0.169	+/−0.109	0.500	pCi/g						

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 − (843) 556−8171 − www.gel.com

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117 Report Date: December 12, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2406−ST Project: SCAN00101
Sample ID: 198324011 Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst Date	Time Batch	Mtd

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol−condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy−−Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/−RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

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Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117
Contact: Cindy White
Project: SC&A (GELP07−0971)

Report Date: December 12, 2007

Client Sample ID: SB−CZ−SS−2407−ST
Sample ID: 198324012
Matrix: Soil
Collect Date: 05−OCT−07
Receive Date: 28−NOV−07
Collector: Client

Project: SCAN00101
Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid													
Actinium−228		0.446	+/−0.107	0.0895	+/−0.107	0.800	pCi/g		MJH1	11/30/07	1001	706245	1
Americium−241	U	0.0281	+/−0.049	0.0778	+/−0.049	0.200	pCi/g						
Americium−243	UI	0.106	+/−0.027	0.0301	+/−0.027		pCi/g						
Americium−246	U	0.042	+/−0.0528	0.0942	+/−0.0528		pCi/g						
Antimony−125	U	−0.0066	+/−0.0365	0.0616	+/−0.0365	0.200	pCi/g						
Bismuth−211	U	0.0282	+/−0.410	0.609	+/−0.410		pCi/g						
Bismuth−212		0.454	+/−0.185	0.170	+/−0.185	0.500	pCi/g						
Bismuth−214		0.335	+/−0.0689	0.0468	+/−0.0689	0.200	pCi/g						
Californium−249	U	0.0066	+/−0.0151	0.0265	+/−0.0151		pCi/g						
Cesium−137		0.167	+/−0.0344	0.0267	+/−0.0344	0.100	pCi/g						
Cobalt−60	U	0.00113	+/−0.0158	0.0266	+/−0.0158	0.100	pCi/g						
Curium−243	U	0.032	+/−0.0423	0.0555	+/−0.0423		pCi/g						
Europium−155	U	0.0353	+/−0.0467	0.0695	+/−0.0467	0.500	pCi/g						
Lead−212		0.511	+/−0.0496	0.0371	+/−0.0496	0.100	pCi/g						
Lead−214		0.381	+/−0.066	0.0457	+/−0.066	0.100	pCi/g						
Neptunium−236	U	0.0135	+/−0.0239	0.0372	+/−0.0239		pCi/g						
Neptunium−237	UI	0.417	+/−0.112	0.119	+/−0.112		pCi/g						
Neptunium−239	U	0.00929	+/−0.0852	0.143	+/−0.0852	2.00	pCi/g						
Polonium−209	U	3.58	+/−3.72	5.13	+/−3.72		pCi/g						
Potassium−40		3.88	+/−0.512	0.245	+/−0.512	1.00	pCi/g						
Protactinium−233	U	−0.000193	+/−0.0239	0.0414	+/−0.0239		pCi/g						
Protactinium−234m	U	0.466	+/−1.97	3.16	+/−1.97		pCi/g						
Radium−223	UI	0.209	+/−0.114	0.110	+/−0.114		pCi/g						
Rhodium−101	U	−0.0216	+/−0.016	0.0216	+/−0.016		pCi/g						
Thallium−208		0.189	+/−0.032	0.0203	+/−0.032	0.080	pCi/g						
Thorium−234		0.822	+/−0.290	0.261	+/−0.290	0.500	pCi/g						
Uranium−235	U	0.0453	+/−0.146	0.128	+/−0.146	0.500	pCi/g						

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 − (843) 556−8171 − www.gel.com

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117 Report Date: December 12, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2407−ST Project: SCAN00101
Sample ID: 198324012 Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol−condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy−−Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/−RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

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Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117
Contact: Cindy White
Project: SC&A (GELP07−0971)

Report Date: December 12, 2007

Client Sample ID: SB−CZ−SS−2408−ST
Sample ID: 198324013
Matrix: Soil
Collect Date: 05−OCT−07
Receive Date: 28−NOV−07
Collector: Client

Project: SCAN00101
Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid													
Actinium−228		0.433	+/−0.218	0.156	+/−0.218	0.800	pCi/g		MJH1	11/30/07	1002	706245	1
Americium−241	U	0.0271	+/−0.0291	0.0493	+/−0.0291	0.200	pCi/g						
Americium−243	UI	0.114	+/−0.0239	0.0286	+/−0.0239		pCi/g						
Americium−246	U	−0.0154	+/−0.0834	0.136	+/−0.0834		pCi/g						
Antimony−125	U	0.0404	+/−0.0575	0.103	+/−0.0575	0.200	pCi/g						
Bismuth−211	U	0.274	+/−0.676	1.20	+/−0.676		pCi/g						
Bismuth−212	UI	0.329	+/−0.298	0.300	+/−0.298	0.500	pCi/g						
Bismuth−214		0.495	+/−0.106	0.0682	+/−0.106	0.200	pCi/g						
Californium−249	U	0.00535	+/−0.0246	0.0427	+/−0.0246		pCi/g						
Cesium−137		0.237	+/−0.054	0.0434	+/−0.054	0.100	pCi/g						
Cobalt−60	U	−0.0029	+/−0.0269	0.044	+/−0.0269	0.100	pCi/g						
Curium−243	U	0.0414	+/−0.0507	0.0767	+/−0.0507		pCi/g						
Europium−155	U	0.0757	+/−0.0693	0.0869	+/−0.0693	0.500	pCi/g						
Lead−212		0.561	+/−0.0731	0.0513	+/−0.0731	0.100	pCi/g						
Lead−214		0.454	+/−0.0918	0.0696	+/−0.0918	0.100	pCi/g						
Neptunium−236	U	0.0371	+/−0.0373	0.0473	+/−0.0373		pCi/g						
Neptunium−237	UI	0.362	+/−0.127	0.146	+/−0.127		pCi/g						
Neptunium−239	U	0.00269	+/−0.124	0.196	+/−0.124	2.00	pCi/g						
Polonium−209	U	−4.37	+/−4.64	7.05	+/−4.64		pCi/g						
Potassium−40		4.36	+/−0.634	0.380	+/−0.634	1.00	pCi/g						
Protactinium−233	U	−0.0347	+/−0.0357	0.0586	+/−0.0357		pCi/g						
Protactinium−234m	UI	5.84	+/−4.91	5.21	+/−4.91		pCi/g						
Radium−223	U	0.0366	+/−0.137	0.173	+/−0.137		pCi/g						
Rhodium−101	U	0.0121	+/−0.0263	0.0306	+/−0.0263		pCi/g						
Thallium−208		0.176	+/−0.0556	0.0401	+/−0.0556	0.080	pCi/g						
Thorium−234		1.08	+/−0.375	0.340	+/−0.375	0.500	pCi/g						
Uranium−235	U	0.0554	+/−0.154	0.171	+/−0.154	0.500	pCi/g						

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 − (843) 556−8171 − www.gel.com

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117 Report Date: December 12, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2408−ST Project: SCAN00101
Sample ID: 198324013 Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol−condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
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H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy−−Uncertain identification
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Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/−RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117
Contact: Cindy White
Project: SC&A (GELP07−0971)

Report Date: December 12, 2007

Client Sample ID: SB−CZ−SS−2409−ST
Sample ID: 198324014
Matrix: Soil
Collect Date: 05−OCT−07
Receive Date: 28−NOV−07
Collector: Client

Project: SCAN00101
Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid													
Actinium−228		0.506	+/−0.147	0.094	+/−0.147	0.800	pCi/g		MJH1	11/30/07	1005	706245	1
Americium−241	U	−0.039	+/−0.101	0.152	+/−0.101	0.200	pCi/g						
Americium−243	UI	0.0962	+/−0.032	0.0423	+/−0.032		pCi/g						
Americium−246	U	0.00146	+/−0.0535	0.0889	+/−0.0535		pCi/g						
Antimony−125	U	0.00927	+/−0.0495	0.0741	+/−0.0495	0.200	pCi/g						
Bismuth−211	U	−0.234	+/−0.433	0.705	+/−0.433		pCi/g						
Bismuth−212		0.415	+/−0.172	0.199	+/−0.172	0.500	pCi/g						
Bismuth−214		0.318	+/−0.0709	0.0555	+/−0.0709	0.200	pCi/g						
Californium−249	U	0.00777	+/−0.0181	0.0305	+/−0.0181		pCi/g						
Cesium−137		0.0282	+/−0.0198	0.0256	+/−0.0198	0.100	pCi/g						
Cobalt−60	U	−0.0038	+/−0.0157	0.0252	+/−0.0157	0.100	pCi/g						
Curium−243	U	0.00155	+/−0.0443	0.0741	+/−0.0443		pCi/g						
Europium−155	U	0.00554	+/−0.0496	0.0833	+/−0.0496	0.500	pCi/g						
Lead−212		0.485	+/−0.0541	0.0437	+/−0.0541	0.100	pCi/g						
Lead−214		0.376	+/−0.0647	0.0518	+/−0.0647	0.100	pCi/g						
Neptunium−236	U	0.0258	+/−0.0286	0.0497	+/−0.0286		pCi/g						
Neptunium−237	UI	0.326	+/−0.170	0.204	+/−0.170		pCi/g						
Neptunium−239	U	0.0268	+/−0.0975	0.168	+/−0.0975	2.00	pCi/g						
Polonium−209	U	4.03	+/−3.65	5.91	+/−3.65		pCi/g						
Potassium−40		1.89	+/−0.513	0.272	+/−0.513	1.00	pCi/g						
Protactinium−233	U	−0.00426	+/−0.0299	0.0495	+/−0.0299		pCi/g						
Protactinium−234m	U	2.42	+/−3.04	3.22	+/−3.04		pCi/g						
Radium−223	U	0.0861	+/−0.0837	0.147	+/−0.0837		pCi/g						
Rhodium−101	U	−0.00762	+/−0.018	0.027	+/−0.018		pCi/g						
Thallium−208		0.130	+/−0.0346	0.0244	+/−0.0346	0.080	pCi/g						
Thorium−234		0.494	+/−0.485	0.378	+/−0.485	0.500	pCi/g						
Uranium−235	U	0.0432	+/−0.123	0.154	+/−0.123	0.500	pCi/g						

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 − (843) 556−8171 − www.gel.com

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117 Report Date: December 12, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2409−ST Project: SCAN00101
Sample ID: 198324014 Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst Date	Time Batch	Mtd

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol−condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy−−Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/−RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

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Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117
Contact: Cindy White
Project: SC&A (GELP07−0971)

Report Date: December 12, 2007

Client Sample ID: SB−CZ−SS−2396−SD
Sample ID: 198324015
Matrix: Soil
Collect Date: 05−OCT−07
Receive Date: 28−NOV−07
Collector: Client

Project: SCAN00101
Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid													
Actinium−228		0.867	+/−0.216	0.127	+/−0.216	0.800	pCi/g		MJH1	11/30/07	1006	706245	1
Americium−241	U	0.0939	+/−0.0871	0.141	+/−0.0871	0.200	pCi/g						
Americium−243	UI	0.201	+/−0.0452	0.0489	+/−0.0452		pCi/g						
Americium−246	U	0.065	+/−0.0802	0.146	+/−0.0802		pCi/g						
Antimony−125	U	0.0316	+/−0.052	0.0923	+/−0.052	0.200	pCi/g						
Bismuth−211	U	−0.364	+/−0.714	0.951	+/−0.714		pCi/g						
Bismuth−212		0.701	+/−0.295	0.260	+/−0.295	0.500	pCi/g						
Bismuth−214		0.609	+/−0.110	0.0668	+/−0.110	0.200	pCi/g						
Californium−249	U	0.0113	+/−0.0227	0.0402	+/−0.0227		pCi/g						
Cesium−137		0.0509	+/−0.0338	0.0376	+/−0.0338	0.100	pCi/g						
Cobalt−60	U	0.0221	+/−0.025	0.0454	+/−0.025	0.100	pCi/g						
Curium−243	U	0.0169	+/−0.0527	0.0918	+/−0.0527		pCi/g						
Europium−155	U	0.0568	+/−0.0595	0.106	+/−0.0595	0.500	pCi/g						
Lead−212		0.809	+/−0.0813	0.0545	+/−0.0813	0.100	pCi/g						
Lead−214		0.725	+/−0.103	0.0695	+/−0.103	0.100	pCi/g						
Neptunium−236	U	0.0238	+/−0.0362	0.0567	+/−0.0362		pCi/g						
Neptunium−237	UI	0.437	+/−0.151	0.206	+/−0.151		pCi/g						
Neptunium−239	U	−0.0179	+/−0.124	0.206	+/−0.124	2.00	pCi/g						
Polonium−209	U	5.24	+/−4.57	8.20	+/−4.57		pCi/g						
Potassium−40		6.21	+/−0.842	0.343	+/−0.842	1.00	pCi/g						
Protactinium−233	U	0.00269	+/−0.0383	0.0633	+/−0.0383		pCi/g						
Protactinium−234m	UI	4.92	+/−2.86	3.84	+/−2.86		pCi/g						
Radium−223	UI	0.391	+/−0.188	0.165	+/−0.188		pCi/g						
Rhodium−101	U	0.00695	+/−0.024	0.0346	+/−0.024		pCi/g						
Thallium−208		0.256	+/−0.0498	0.0318	+/−0.0498	0.080	pCi/g						
Thorium−234		1.00	+/−0.456	0.424	+/−0.456	0.500	pCi/g						
Uranium−235	U	0.00812	+/−0.119	0.196	+/−0.119	0.500	pCi/g						

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 − (843) 556−8171 − www.gel.com

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117 Report Date: December 12, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2396−SD Project: SCAN00101
Sample ID: 198324015 Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst Date	Time Batch	Mtd

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol−condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy−−Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/−RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

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Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117
Contact: Cindy White
Project: SC&A (GELP07−0971)

Report Date: December 12, 2007

Client Sample ID:	SB−CZ−SS−2397−SD	Project:	SCAN00101
Sample ID:	198324016	Client ID:	SCAN001
Matrix:	Soil		
Collect Date:	05−OCT−07		
Receive Date:	28−NOV−07		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid													
Actinium−228		0.322	+/−0.0832	0.0564	+/−0.0832	0.800	pCi/g		MJH1	12/07/07	0546	706245	1
Americium−241	U	−0.00692	+/−0.0306	0.0457	+/−0.0306	0.200	pCi/g						
Americium−243	UI	0.0475	+/−0.015	0.0181	+/−0.015		pCi/g						
Americium−246	U	−0.003	+/−0.0359	0.060	+/−0.0359		pCi/g						
Antimony−125	U	−0.0069	+/−0.0246	0.0417	+/−0.0246	0.200	pCi/g						
Bismuth−211	U	0.245	+/−0.299	0.546	+/−0.299		pCi/g						
Bismuth−212		0.198	+/−0.121	0.119	+/−0.121	0.500	pCi/g						
Bismuth−214		0.136	+/−0.0418	0.0334	+/−0.0418	0.200	pCi/g						
Californium−249	U	−0.00257	+/−0.0107	0.0184	+/−0.0107		pCi/g						
Cesium−137		0.0417	+/−0.0218	0.0168	+/−0.0218	0.100	pCi/g						
Cobalt−60	U	−0.00319	+/−0.0112	0.0183	+/−0.0112	0.100	pCi/g						
Curium−243	U	−0.00214	+/−0.0205	0.036	+/−0.0205		pCi/g						
Europium−155	U	0.00883	+/−0.0229	0.041	+/−0.0229	0.500	pCi/g						
Lead−212		0.277	+/−0.0326	0.0236	+/−0.0326	0.100	pCi/g						
Lead−214		0.145	+/−0.041	0.0317	+/−0.041	0.100	pCi/g						
Neptunium−236	U	0.00879	+/−0.0166	0.025	+/−0.0166		pCi/g						
Neptunium−237	UI	0.0727	+/−0.0889	0.0719	+/−0.0889		pCi/g						
Neptunium−239	U	0.012	+/−0.0561	0.0953	+/−0.0561	2.00	pCi/g						
Polonium−209	U	0.695	+/−1.93	3.40	+/−1.93		pCi/g						
Potassium−40		3.30	+/−0.387	0.148	+/−0.387	1.00	pCi/g						
Protactinium−233	U	−0.00529	+/−0.0171	0.0276	+/−0.0171		pCi/g						
Protactinium−234m	U	−0.715	+/−1.66	2.26	+/−1.66		pCi/g						
Radium−223	UI	0.0976	+/−0.0742	0.0749	+/−0.0742		pCi/g						
Rhodium−101	U	0.00635	+/−0.00866	0.0145	+/−0.00866		pCi/g						
Thallium−208		0.109	+/−0.0217	0.0164	+/−0.0217	0.080	pCi/g						
Thorium−234		0.464	+/−0.194	0.169	+/−0.194	0.500	pCi/g						
Uranium−235	U	−0.00525	+/−0.0643	0.0886	+/−0.0643	0.500	pCi/g						

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 − (843) 556−8171 − www.gel.com

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117 Report Date: December 12, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2397−SD Project: SCAN00101
Sample ID: 198324016 Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst Date	Time Batch	Mtd

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol−condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy−−Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/−RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

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Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117
Contact: Cindy White
Project: SC&A (GELP07−0971)

Report Date: December 12, 2007

Client Sample ID: SB−CZ−SS−2398−SD
Sample ID: 198324017
Matrix: Soil
Collect Date: 05−OCT−07
Receive Date: 28−NOV−07
Collector: Client

Project: SCAN00101
Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid													
Actinium−228		0.518	+/−0.178	0.155	+/−0.178	0.800	pCi/g		MJH1	11/30/07	1114	706245	1
Americium−241	U	0.0711	+/−0.0972	0.150	+/−0.0972	0.200	pCi/g						
Americium−243	UI	0.127	+/−0.0431	0.048	+/−0.0431		pCi/g						
Americium−246	U	0.00465	+/−0.0741	0.124	+/−0.0741		pCi/g						
Antimony−125	U	−0.00557	+/−0.0579	0.0961	+/−0.0579	0.200	pCi/g						
Bismuth−211	U	−0.0549	+/−0.586	0.980	+/−0.586		pCi/g						
Bismuth−212		0.397	+/−0.285	0.274	+/−0.285	0.500	pCi/g						
Bismuth−214		0.348	+/−0.0849	0.0719	+/−0.0849	0.200	pCi/g						
Californium−249	U	−0.00285	+/−0.0249	0.0414	+/−0.0249		pCi/g						
Cesium−137		0.0733	+/−0.042	0.0406	+/−0.042	0.100	pCi/g						
Cobalt−60	U	−0.0129	+/−0.0227	0.0348	+/−0.0227	0.100	pCi/g						
Curium−243	U	−0.00937	+/−0.0599	0.0914	+/−0.0599		pCi/g						
Europium−155	U	−0.00212	+/−0.0647	0.104	+/−0.0647	0.500	pCi/g						
Lead−212		0.613	+/−0.0733	0.0595	+/−0.0733	0.100	pCi/g						
Lead−214		0.374	+/−0.0781	0.0726	+/−0.0781	0.100	pCi/g						
Neptunium−236	U	0.0488	+/−0.0489	0.0561	+/−0.0489		pCi/g						
Neptunium−237	U	0.193	+/−0.177	0.228	+/−0.177		pCi/g						
Neptunium−239	U	0.0717	+/−0.136	0.238	+/−0.136	2.00	pCi/g						
Polonium−209	U	2.51	+/−4.46	7.85	+/−4.46		pCi/g						
Potassium−40		6.09	+/−0.812	0.312	+/−0.812	1.00	pCi/g						
Protactinium−233	U	0.00937	+/−0.0385	0.066	+/−0.0385		pCi/g						
Protactinium−234m	U	−1.27	+/−2.79	4.45	+/−2.79		pCi/g						
Radium−223	UI	0.336	+/−0.198	0.185	+/−0.198		pCi/g						
Rhodium−101	U	−0.000247	+/−0.0221	0.0346	+/−0.0221		pCi/g						
Thallium−208		0.193	+/−0.0413	0.0323	+/−0.0413	0.080	pCi/g						
Thorium−234		0.639	+/−0.451	0.474	+/−0.451	0.500	pCi/g						
Uranium−235	U	0.0428	+/−0.117	0.207	+/−0.117	0.500	pCi/g						

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

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

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117 Report Date: December 12, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2398−SD Project: SCAN00101
Sample ID: 198324017 Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst Date	Time	Batch	Mtd

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol−condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
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J Value is estimated
M M if above MDC and less than LLD
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy−−Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/−RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

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Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117
Contact: Cindy White
Project: SC&A (GELP07−0971)

Report Date: December 12, 2007

Client Sample ID: SB−CZ−SS−2399−SD
Sample ID: 198324018
Matrix: Soil
Collect Date: 05−OCT−07
Receive Date: 28−NOV−07
Collector: Client

Project: SCAN00101
Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid													
Actinium−228		0.645	+/−0.169	0.080	+/−0.169	0.800	pCi/g		MJH1	11/30/07	1115	706245	1
Americium−241	U	0.0306	+/−0.0329	0.0524	+/−0.0329	0.200	pCi/g						
Americium−243	UI	0.105	+/−0.0304	0.0297	+/−0.0304		pCi/g						
Americium−246	U	0.00165	+/−0.100	0.168	+/−0.100		pCi/g						
Antimony−125	U	0.00194	+/−0.065	0.110	+/−0.065	0.200	pCi/g						
Bismuth−211	U	0.459	+/−0.859	1.54	+/−0.859		pCi/g						
Bismuth−212	U	0.360	+/−0.252	0.479	+/−0.252	0.500	pCi/g						
Bismuth−214	UI	0.279	+/−0.119	0.158	+/−0.119	0.200	pCi/g						
Californium−249	U	0.0068	+/−0.0281	0.0483	+/−0.0281		pCi/g						
Cesium−137	U	0.0331	+/−0.0312	0.0583	+/−0.0312	0.100	pCi/g						
Cobalt−60	U	−0.0313	+/−0.042	0.0504	+/−0.042	0.100	pCi/g						
Curium−243	U	−0.0272	+/−0.0475	0.0776	+/−0.0475		pCi/g						
Europium−155	U	−0.0244	+/−0.0535	0.0879	+/−0.0535	0.500	pCi/g						
Lead−212		0.486	+/−0.0705	0.0611	+/−0.0705	0.100	pCi/g						
Lead−214		0.275	+/−0.0842	0.0793	+/−0.0842	0.100	pCi/g						
Neptunium−236	U	−0.00574	+/−0.0277	0.0446	+/−0.0277		pCi/g						
Neptunium−237	U	0.156	+/−0.137	0.166	+/−0.137		pCi/g						
Neptunium−239	U	−0.0425	+/−0.136	0.232	+/−0.136	2.00	pCi/g						
Polonium−209	U	1.67	+/−6.15	10.7	+/−6.15		pCi/g						
Potassium−40		3.57	+/−0.699	0.516	+/−0.699	1.00	pCi/g						
Protactinium−233	U	0.0147	+/−0.0421	0.0735	+/−0.0421		pCi/g						
Protactinium−234m	U	1.33	+/−3.49	6.15	+/−3.49		pCi/g						
Radium−223	U	−0.0954	+/−0.126	0.193	+/−0.126		pCi/g						
Rhodium−101	U	−0.0101	+/−0.0188	0.0317	+/−0.0188		pCi/g						
Thallium−208		0.177	+/−0.0525	0.0506	+/−0.0525	0.080	pCi/g						
Thorium−234		0.544	+/−0.281	0.339	+/−0.281	0.500	pCi/g						
Uranium−235	U	0.0672	+/−0.111	0.191	+/−0.111	0.500	pCi/g						

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 − (843) 556−8171 − www.gel.com

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117 Report Date: December 12, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2399−SD Project: SCAN00101
Sample ID: 198324018 Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst Date	Time Batch	Mtd

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol−condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy−−Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/−RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

GEL LABORATORIES LLC

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Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117
Contact: Cindy White
Project: SC&A (GELP07−0971)

Report Date: December 12, 2007

Client Sample ID: SB−CZ−SS−2400−SD
Sample ID: 198324019
Matrix: Soil
Collect Date: 05−OCT−07
Receive Date: 28−NOV−07
Collector: Client

Project: SCAN00101
Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid													
Actinium−228		0.600	+/−0.138	0.111	+/−0.138	0.800	pCi/g		MJH1	11/30/07	1154	706245	1
Americium−241	U	0.0547	+/−0.0768	0.122	+/−0.0768	0.200	pCi/g						
Americium−243	UI	0.115	+/−0.0274	0.0371	+/−0.0274		pCi/g						
Americium−246	U	0.0546	+/−0.0676	0.122	+/−0.0676		pCi/g						
Antimony−125	U	−0.0254	+/−0.0519	0.0739	+/−0.0519	0.200	pCi/g						
Bismuth−211	U	−0.0939	+/−0.585	0.967	+/−0.585		pCi/g						
Bismuth−212		0.474	+/−0.198	0.246	+/−0.198	0.500	pCi/g						
Bismuth−214		0.383	+/−0.0802	0.0605	+/−0.0802	0.200	pCi/g						
Californium−249	U	0.0128	+/−0.0198	0.0347	+/−0.0198		pCi/g						
Cesium−137		0.0627	+/−0.0294	0.0327	+/−0.0294	0.100	pCi/g						
Cobalt−60	U	−0.0132	+/−0.0199	0.0316	+/−0.0199	0.100	pCi/g						
Curium−243	U	0.035	+/−0.0517	0.0657	+/−0.0517		pCi/g						
Europium−155	U	0.0386	+/−0.0571	0.0724	+/−0.0571	0.500	pCi/g						
Lead−212		0.543	+/−0.068	0.060	+/−0.068	0.100	pCi/g						
Lead−214		0.412	+/−0.0748	0.0566	+/−0.0748	0.100	pCi/g						
Neptunium−236	U	0.019	+/−0.0248	0.0433	+/−0.0248		pCi/g						
Neptunium−237	UI	0.360	+/−0.132	0.149	+/−0.132		pCi/g						
Neptunium−239	U	0.0327	+/−0.104	0.175	+/−0.104	2.00	pCi/g						
Polonium−209	U	1.31	+/−4.11	6.96	+/−4.11		pCi/g						
Potassium−40		4.80	+/−0.759	0.278	+/−0.759	1.00	pCi/g						
Protactinium−233	U	−0.000132	+/−0.0303	0.0526	+/−0.0303		pCi/g						
Protactinium−234m	U	−1.82	+/−2.69	3.71	+/−2.69		pCi/g						
Radium−223	UI	0.227	+/−0.134	0.126	+/−0.134		pCi/g						
Rhodium−101	U	−0.00146	+/−0.0149	0.025	+/−0.0149		pCi/g						
Thallium−208		0.187	+/−0.0411	0.028	+/−0.0411	0.080	pCi/g						
Thorium−234		0.896	+/−0.339	0.316	+/−0.339	0.500	pCi/g						
Uranium−235	U	−0.0147	+/−0.0945	0.144	+/−0.0945	0.500	pCi/g						

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 − (843) 556−8171 − www.gel.com

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117 Report Date: December 12, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2400−SD Project: SCAN00101
Sample ID: 198324019 Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst Date	Time	Batch	Mtd

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol−condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy−−Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/−RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

GEL LABORATORIES LLC

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Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117
Contact: Cindy White
Project: SC&A (GELP07−0971)

Report Date: December 12, 2007

Client Sample ID: SB−CZ−SS−2401−SD
Sample ID: 198324020
Matrix: Soil
Collect Date: 05−OCT−07
Receive Date: 28−NOV−07
Collector: Client

Project: SCAN00101
Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid													
Actinium−228		0.496	+/−0.168	0.200	+/−0.168	0.800	pCi/g		MJH1	11/30/07	1220	706245	1
Americium−241	U	0.0236	+/−0.0422	0.0669	+/−0.0422	0.200	pCi/g						
Americium−243	UI	0.132	+/−0.0354	0.0363	+/−0.0354		pCi/g						
Americium−246	U	0.0102	+/−0.108	0.160	+/−0.108		pCi/g						
Antimony−125	U	0.0691	+/−0.0751	0.134	+/−0.0751	0.200	pCi/g						
Bismuth−211	U	0.0555	+/−1.01	1.45	+/−1.01		pCi/g						
Bismuth−212	U	0.203	+/−0.419	0.400	+/−0.419	0.500	pCi/g						
Bismuth−214	UI	0.316	+/−0.122	0.177	+/−0.122	0.200	pCi/g						
Californium−249	U	0.0084	+/−0.0337	0.0575	+/−0.0337		pCi/g						
Cesium−137		0.127	+/−0.0656	0.0502	+/−0.0656	0.100	pCi/g						
Cobalt−60	U	0.0031	+/−0.0302	0.0515	+/−0.0302	0.100	pCi/g						
Curium−243	U	0.00552	+/−0.0655	0.104	+/−0.0655		pCi/g						
Europium−155	U	−0.0501	+/−0.0685	0.112	+/−0.0685	0.500	pCi/g						
Lead−212		0.625	+/−0.108	0.0876	+/−0.108	0.100	pCi/g						
Lead−214		0.586	+/−0.0984	0.0931	+/−0.0984	0.100	pCi/g						
Neptunium−236	U	0.0425	+/−0.0442	0.0619	+/−0.0442		pCi/g						
Neptunium−237	UI	0.355	+/−0.159	0.225	+/−0.159		pCi/g						
Neptunium−239	U	0.0103	+/−0.179	0.294	+/−0.179	2.00	pCi/g						
Polonium−209	U	0.492	+/−5.77	9.64	+/−5.77		pCi/g						
Potassium−40		5.30	+/−0.941	0.443	+/−0.941	1.00	pCi/g						
Protactinium−233	U	0.0376	+/−0.0535	0.0945	+/−0.0535		pCi/g						
Protactinium−234m	U	3.15	+/−4.87	5.75	+/−4.87		pCi/g						
Radium−223	U	0.125	+/−0.142	0.255	+/−0.142		pCi/g						
Rhodium−101	U	−0.0119	+/−0.0303	0.0451	+/−0.0303		pCi/g						
Thallium−208		0.175	+/−0.0538	0.0489	+/−0.0538	0.080	pCi/g						
Thorium−234		0.987	+/−0.459	0.432	+/−0.459	0.500	pCi/g						
Uranium−235	U	−0.0102	+/−0.159	0.248	+/−0.159	0.500	pCi/g						

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 − (843) 556−8171 − www.gel.com

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117 Report Date: December 12, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2401−SD Project: SCAN00101
Sample ID: 198324020 Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst Date	Time Batch	Mtd

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol−condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy−−Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/−RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117
Contact: Cindy White
Project: SC&A (GELP07−0971)

Report Date: December 12, 2007

Client Sample ID:	SB−CZ−SS−2402−SD	Project:	SCAN00101
Sample ID:	198324021	Client ID:	SCAN001
Matrix:	Soil		
Collect Date:	05−OCT−07		
Receive Date:	28−NOV−07		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid													
Actinium−228		0.760	+/−0.224	0.189	+/−0.224	0.800	pCi/g		MJH1	11/30/07	1417	706246	1
Americium−241	U	−0.00706	+/−0.0391	0.0575	+/−0.0391	0.200	pCi/g						
Americium−243	UI	0.177	+/−0.0412	0.0324	+/−0.0412		pCi/g						
Americium−246	U	−0.0483	+/−0.123	0.194	+/−0.123		pCi/g						
Antimony−125	U	0.0823	+/−0.0763	0.138	+/−0.0763	0.200	pCi/g						
Bismuth−211	U	0.0328	+/−0.954	1.62	+/−0.954		pCi/g						
Bismuth−212		0.822	+/−0.335	0.365	+/−0.335	0.500	pCi/g						
Bismuth−214	UI	0.522	+/−0.140	0.205	+/−0.140	0.200	pCi/g						
Californium−249	U	0.000889	+/−0.0315	0.053	+/−0.0315		pCi/g						
Cesium−137		0.102	+/−0.0524	0.0482	+/−0.0524	0.100	pCi/g						
Cobalt−60	U	0.00966	+/−0.0354	0.0608	+/−0.0354	0.100	pCi/g						
Curium−243	U	0.0789	+/−0.0673	0.0866	+/−0.0673		pCi/g						
Europium−155	U	0.0872	+/−0.0743	0.0923	+/−0.0743	0.500	pCi/g						
Lead−212		0.742	+/−0.0879	0.0649	+/−0.0879	0.100	pCi/g						
Lead−214		0.471	+/−0.124	0.0975	+/−0.124	0.100	pCi/g						
Neptunium−236	U	0.0515	+/−0.0343	0.0548	+/−0.0343		pCi/g						
Neptunium−237	UI	0.354	+/−0.146	0.190	+/−0.146		pCi/g						
Neptunium−239	U	0.0802	+/−0.165	0.289	+/−0.165	2.00	pCi/g						
Polonium−209	U	−4.75	+/−6.47	9.88	+/−6.47		pCi/g						
Potassium−40		5.55	+/−0.973	0.564	+/−0.973	1.00	pCi/g						
Protactinium−233	U	0.0101	+/−0.0469	0.0808	+/−0.0469		pCi/g						
Protactinium−234m	U	−0.0152	+/−3.90	6.53	+/−3.90		pCi/g						
Radium−223	U	0.213	+/−0.162	0.220	+/−0.162		pCi/g						
Rhodium−101	U	0.0274	+/−0.0256	0.0411	+/−0.0256		pCi/g						
Thallium−208		0.246	+/−0.0649	0.0501	+/−0.0649	0.080	pCi/g						
Thorium−234		1.05	+/−0.353	0.414	+/−0.353	0.500	pCi/g						
Uranium−235	U	0.024	+/−0.133	0.222	+/−0.133	0.500	pCi/g						

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117 Report Date: December 12, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2402−SD Project: SCAN00101
Sample ID: 198324021 Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst Date	Time	Batch	Mtd

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol−condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy−−Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/−RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117
Contact: Cindy White
Project: SC&A (GELP07−0971)

Report Date: December 12, 2007

Client Sample ID: SB−CZ−SS−2403−SD
Sample ID: 198324022
Matrix: Soil
Collect Date: 05−OCT−07
Receive Date: 28−NOV−07
Collector: Client

Project: SCAN00101
Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid													
Actinium−228		0.675	+/−0.133	0.117	+/−0.133	0.800	pCi/g		MJH1	12/01/07	0537	706246	1
Americium−241	U	0.00686	+/−0.0956	0.157	+/−0.0956	0.200	pCi/g						
Americium−243	UI	0.136	+/−0.040	0.0456	+/−0.040		pCi/g						
Americium−246	U	0.0333	+/−0.0696	0.125	+/−0.0696		pCi/g						
Antimony−125	U	−0.013	+/−0.0489	0.0812	+/−0.0489	0.200	pCi/g						
Bismuth−211	U	−0.0176	+/−0.555	0.930	+/−0.555		pCi/g						
Bismuth−212		0.657	+/−0.303	0.232	+/−0.303	0.500	pCi/g						
Bismuth−214		0.591	+/−0.0974	0.0615	+/−0.0974	0.200	pCi/g						
Californium−249	U	0.00456	+/−0.021	0.0363	+/−0.021		pCi/g						
Cesium−137	U	0.0291	+/−0.0215	0.0346	+/−0.0215	0.100	pCi/g						
Cobalt−60	U	0.00	+/−0.0219	0.0371	+/−0.00	0.100	pCi/g						
Curium−243	U	0.040	+/−0.0607	0.0822	+/−0.0607		pCi/g						
Europium−155	U	0.0442	+/−0.0671	0.0914	+/−0.0671	0.500	pCi/g						
Lead−212		0.709	+/−0.0705	0.0468	+/−0.0705	0.100	pCi/g						
Lead−214		0.609	+/−0.0868	0.0621	+/−0.0868	0.100	pCi/g						
Neptunium−236	U	0.00208	+/−0.0368	0.0549	+/−0.0368		pCi/g						
Neptunium−237	UI	0.418	+/−0.119	0.170	+/−0.119		pCi/g						
Neptunium−239	U	0.0689	+/−0.145	0.200	+/−0.145	2.00	pCi/g						
Polonium−209	U	2.01	+/−4.37	5.00	+/−4.37		pCi/g						
Potassium−40		5.76	+/−0.715	0.296	+/−0.715	1.00	pCi/g						
Protactinium−233	U	0.00818	+/−0.0322	0.0567	+/−0.0322		pCi/g						
Protactinium−234m	U	0.794	+/−2.97	3.40	+/−2.97		pCi/g						
Radium−223	UI	0.264	+/−0.165	0.156	+/−0.165		pCi/g						
Rhodium−101	U	0.00857	+/−0.0177	0.0303	+/−0.0177		pCi/g						
Thallium−208		0.226	+/−0.0411	0.0313	+/−0.0411	0.080	pCi/g						
Thorium−234		0.823	+/−0.443	0.382	+/−0.443	0.500	pCi/g						
Uranium−235	U	0.0358	+/−0.144	0.169	+/−0.144	0.500	pCi/g						

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 − (843) 556−8171 − www.gel.com

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117 Report Date: December 12, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2403−SD Project: SCAN00101
Sample ID: 198324022 Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst Date	Time Batch	Mtd

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol−condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy−−Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/−RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117
Contact: Cindy White
Project: SC&A (GELP07−0971)

Report Date: December 12, 2007

Client Sample ID: SB−CZ−SS−2404−SD
Sample ID: 198324023
Matrix: Soil
Collect Date: 05−OCT−07
Receive Date: 28−NOV−07
Collector: Client

Project: SCAN00101
Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid													
Actinium−228		0.404	+/−0.145	0.106	+/−0.145	0.800	pCi/g		MJH1	12/01/07	0536	706246	1
Americium−241	U	−0.0161	+/−0.0622	0.0944	+/−0.0622	0.200	pCi/g						
Americium−243	UI	0.116	+/−0.035	0.0323	+/−0.035		pCi/g						
Americium−246	U	−0.0236	+/−0.0575	0.0945	+/−0.0575		pCi/g						
Antimony−125	U	−0.0215	+/−0.0385	0.0639	+/−0.0385	0.200	pCi/g						
Bismuth−211	U	−0.353	+/−0.525	0.734	+/−0.525		pCi/g						
Bismuth−212		0.438	+/−0.177	0.202	+/−0.177	0.500	pCi/g						
Bismuth−214	UI	0.306	+/−0.0723	0.0871	+/−0.0723	0.200	pCi/g						
Californium−249	U	−0.0114	+/−0.0176	0.028	+/−0.0176		pCi/g						
Cesium−137		0.0393	+/−0.0367	0.0294	+/−0.0367	0.100	pCi/g						
Cobalt−60	U	0.0106	+/−0.0177	0.031	+/−0.0177	0.100	pCi/g						
Curium−243	U	−0.00731	+/−0.0393	0.0661	+/−0.0393		pCi/g						
Europium−155	U	0.027	+/−0.0424	0.073	+/−0.0424	0.500	pCi/g						
Lead−212		0.406	+/−0.0525	0.0409	+/−0.0525	0.100	pCi/g						
Lead−214		0.287	+/−0.0711	0.0503	+/−0.0711	0.100	pCi/g						
Neptunium−236	U	0.0408	+/−0.0269	0.0423	+/−0.0269		pCi/g						
Neptunium−237	UI	0.188	+/−0.113	0.152	+/−0.113		pCi/g						
Neptunium−239	U	−0.00914	+/−0.0908	0.154	+/−0.0908	2.00	pCi/g						
Polonium−209	U	2.31	+/−3.20	5.57	+/−3.20		pCi/g						
Potassium−40		2.67	+/−0.407	0.266	+/−0.407	1.00	pCi/g						
Protactinium−233	U	0.00764	+/−0.0275	0.0464	+/−0.0275		pCi/g						
Protactinium−234m	U	1.93	+/−2.02	3.53	+/−2.02		pCi/g						
Radium−223	U	0.119	+/−0.121	0.133	+/−0.121		pCi/g						
Rhodium−101	U	0.00927	+/−0.0163	0.0228	+/−0.0163		pCi/g						
Thallium−208		0.142	+/−0.0332	0.026	+/−0.0332	0.080	pCi/g						
Thorium−234	U	0.0427	+/−0.357	0.312	+/−0.357	0.500	pCi/g						
Uranium−235	U	0.0477	+/−0.130	0.139	+/−0.130	0.500	pCi/g						

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 − (843) 556−8171 − www.gel.com

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117 Report Date: December 12, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2404−SD Project: SCAN00101
Sample ID: 198324023 Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst Date	Time Batch	Mtd

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol−condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy−−Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/−RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

GEL LABORATORIES LLC

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Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117
Contact: Cindy White
Project: SC&A (GELP07−0971)

Report Date: December 12, 2007

Client Sample ID: SB−CZ−SS−2405−SD
Sample ID: 198324024
Matrix: Soil
Collect Date: 05−OCT−07
Receive Date: 28−NOV−07
Collector: Client

Project: SCAN00101
Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid													
Actinium−228		0.509	+/−0.169	0.135	+/−0.169	0.800	pCi/g		MJH1	12/01/07	0536	706246	1
Americium−241	U	0.0711	+/−0.0897	0.147	+/−0.0897	0.200	pCi/g						
Americium−243	UI	0.102	+/−0.0382	0.0434	+/−0.0382		pCi/g						
Americium−246	UI	0.239	+/−0.188	0.131	+/−0.188		pCi/g						
Antimony−125	U	0.049	+/−0.0757	0.0997	+/−0.0757	0.200	pCi/g						
Bismuth−211	U	−0.391	+/−0.632	0.982	+/−0.632		pCi/g						
Bismuth−212	U	0.236	+/−0.191	0.350	+/−0.191	0.500	pCi/g						
Bismuth−214		0.411	+/−0.0924	0.0627	+/−0.0924	0.200	pCi/g						
Californium−249	U	0.0338	+/−0.0256	0.0367	+/−0.0256		pCi/g						
Cesium−137	U	0.00485	+/−0.0233	0.0401	+/−0.0233	0.100	pCi/g						
Cobalt−60	U	0.000396	+/−0.0227	0.0385	+/−0.0227	0.100	pCi/g						
Curium−243	UI	0.110	+/−0.0678	0.0915	+/−0.0678		pCi/g						
Europium−155	UI	0.122	+/−0.0749	0.0957	+/−0.0749	0.500	pCi/g						
Lead−212		0.473	+/−0.066	0.0564	+/−0.066	0.100	pCi/g						
Lead−214		0.355	+/−0.0966	0.0664	+/−0.0966	0.100	pCi/g						
Neptunium−236	U	−0.0101	+/−0.0326	0.0545	+/−0.0326		pCi/g						
Neptunium−237	U	0.208	+/−0.233	0.226	+/−0.233		pCi/g						
Neptunium−239	U	−0.0358	+/−0.136	0.234	+/−0.136	2.00	pCi/g						
Polonium−209	U	3.87	+/−4.45	8.00	+/−4.45		pCi/g						
Potassium−40		4.01	+/−0.680	0.307	+/−0.680	1.00	pCi/g						
Protactinium−233	U	0.0594	+/−0.0537	0.0671	+/−0.0537		pCi/g						
Protactinium−234m	U	3.57	+/−3.27	5.25	+/−3.27		pCi/g						
Radium−223	U	0.154	+/−0.169	0.180	+/−0.169		pCi/g						
Rhodium−101	U	0.0214	+/−0.0194	0.0354	+/−0.0194		pCi/g						
Thallium−208		0.164	+/−0.045	0.0326	+/−0.045	0.080	pCi/g						
Thorium−234		0.673	+/−0.490	0.402	+/−0.490	0.500	pCi/g						
Uranium−235	U	0.0742	+/−0.138	0.184	+/−0.138	0.500	pCi/g						

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 − (843) 556−8171 − www.gel.com

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117 Report Date: December 12, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2405−SD Project: SCAN00101
Sample ID: 198324024 Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst Date	Time Batch	Mtd

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol−condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
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U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy−−Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/−RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

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Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117 Report Date: December 12, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID:	SB−CZ−SS−2406−SD	Project:	SCAN00101
Sample ID:	198324025	Client ID:	SCAN001
Matrix:	Soil		
Collect Date:	05−OCT−07		
Receive Date:	28−NOV−07		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid													
Actinium−228		0.375	+/−0.120	0.111	+/−0.120	0.800	pCi/g		MJH1	12/01/07	0537	706246	1
Americium−241	U	0.00862	+/−0.0544	0.081	+/−0.0544	0.200	pCi/g						
Americium−243	UI	0.0754	+/−0.0248	0.0305	+/−0.0248		pCi/g						
Americium−246	U	0.0186	+/−0.0735	0.111	+/−0.0735		pCi/g						
Antimony−125	U	0.00309	+/−0.0433	0.074	+/−0.0433	0.200	pCi/g						
Bismuth−211	U	0.0558	+/−0.473	0.818	+/−0.473		pCi/g						
Bismuth−212		0.410	+/−0.216	0.212	+/−0.216	0.500	pCi/g						
Bismuth−214		0.297	+/−0.0765	0.0556	+/−0.0765	0.200	pCi/g						
Californium−249	U	0.00752	+/−0.0175	0.0308	+/−0.0175		pCi/g						
Cesium−137		0.203	+/−0.0411	0.0313	+/−0.0411	0.100	pCi/g						
Cobalt−60	U	0.00111	+/−0.0183	0.0307	+/−0.0183	0.100	pCi/g						
Curium−243	UI	0.0907	+/−0.0542	0.056	+/−0.0542		pCi/g						
Europium−155	UI	0.100	+/−0.0598	0.0673	+/−0.0598	0.500	pCi/g						
Lead−212		0.434	+/−0.0536	0.0384	+/−0.0536	0.100	pCi/g						
Lead−214		0.290	+/−0.0684	0.0528	+/−0.0684	0.100	pCi/g						
Neptunium−236	U	−3.56E−05	+/−0.0222	0.0385	+/−0.0222		pCi/g						
Neptunium−237	UI	0.200	+/−0.117	0.160	+/−0.117		pCi/g						
Neptunium−239	U	0.0764	+/−0.0946	0.164	+/−0.0946	2.00	pCi/g						
Polonium−209	U	−0.081	+/−3.11	5.26	+/−3.11		pCi/g						
Potassium−40		3.35	+/−0.547	0.306	+/−0.547	1.00	pCi/g						
Protactinium−233	U	−0.0172	+/−0.0312	0.0485	+/−0.0312		pCi/g						
Protactinium−234m	U	−0.119	+/−2.38	3.61	+/−2.38		pCi/g						
Radium−223	UI	0.184	+/−0.111	0.142	+/−0.111		pCi/g						
Rhodium−101	U	−0.00996	+/−0.0157	0.0235	+/−0.0157		pCi/g						
Thallium−208		0.119	+/−0.0327	0.0258	+/−0.0327	0.080	pCi/g						
Thorium−234		0.604	+/−0.327	0.337	+/−0.327	0.500	pCi/g						
Uranium−235	U	0.0801	+/−0.123	0.131	+/−0.123	0.500	pCi/g						

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117 Report Date: December 12, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2406−SD Project: SCAN00101
Sample ID: 198324025 Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst Date	Time Batch	Mtd

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol−condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy−−Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/−RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

GEL LABORATORIES LLC

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Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117
Contact: Cindy White
Project: SC&A (GELP07−0971)

Report Date: December 12, 2007

Client Sample ID: SB−CZ−SS−2407−SD
Sample ID: 198324026
Matrix: Soil
Collect Date: 05−OCT−07
Receive Date: 28−NOV−07
Collector: Client

Project: SCAN00101
Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date Time	Batch	Mtd
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Solid												
Actinium−228		0.717	+/−0.210	0.115	+/−0.210	0.800	pCi/g		MJH1	12/01/07 0538	706246	1
Americium−241	U	0.00169	+/−0.0914	0.135	+/−0.0914	0.200	pCi/g					
Americium−243	UI	0.0988	+/−0.039	0.0479	+/−0.039		pCi/g					
Americium−246	U	−0.017	+/−0.0708	0.117	+/−0.0708		pCi/g					
Antimony−125	U	0.0551	+/−0.0528	0.0929	+/−0.0528	0.200	pCi/g					
Bismuth−211	U	−0.0351	+/−0.636	1.05	+/−0.636		pCi/g					
Bismuth−212		0.404	+/−0.311	0.285	+/−0.311	0.500	pCi/g					
Bismuth−214		0.318	+/−0.100	0.0681	+/−0.100	0.200	pCi/g					
Californium−249	U	0.0106	+/−0.0246	0.0416	+/−0.0246		pCi/g					
Cesium−137	U	0.0129	+/−0.0299	0.0381	+/−0.0299	0.100	pCi/g					
Cobalt−60	U	−0.0143	+/−0.0269	0.0336	+/−0.0269	0.100	pCi/g					
Curium−243	U	−0.0531	+/−0.0638	0.0866	+/−0.0638		pCi/g					
Europium−155	U	0.0048	+/−0.0566	0.0989	+/−0.0566	0.500	pCi/g					
Lead−212		0.532	+/−0.0668	0.0534	+/−0.0668	0.100	pCi/g					
Lead−214		0.332	+/−0.0773	0.0714	+/−0.0773	0.100	pCi/g					
Neptunium−236	U	0.0263	+/−0.0435	0.0564	+/−0.0435		pCi/g					
Neptunium−237	UI	0.384	+/−0.184	0.208	+/−0.184		pCi/g					
Neptunium−239	U	0.0369	+/−0.151	0.226	+/−0.151	2.00	pCi/g					
Polonium−209	U	−3.17	+/−4.13	6.18	+/−4.13		pCi/g					
Potassium−40		3.71	+/−0.632	0.350	+/−0.632	1.00	pCi/g					
Protactinium−233	U	0.00779	+/−0.0387	0.065	+/−0.0387		pCi/g					
Protactinium−234m	U	2.42	+/−3.60	3.42	+/−3.60		pCi/g					
Radium−223	U	0.103	+/−0.136	0.184	+/−0.136		pCi/g					
Rhodium−101	U	−0.00197	+/−0.0193	0.0326	+/−0.0193		pCi/g					
Thallium−208		0.163	+/−0.0444	0.033	+/−0.0444	0.080	pCi/g					
Thorium−234		0.849	+/−0.402	0.450	+/−0.402	0.500	pCi/g					
Uranium−235	U	0.099	+/−0.165	0.184	+/−0.165	0.500	pCi/g					

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 − (843) 556−8171 − www.gel.com

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117 Report Date: December 12, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2407−SD Project: SCAN00101
Sample ID: 198324026 Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol−condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy−−Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/−RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

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Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117
Contact: Cindy White
Project: SC&A (GELP07−0971)

Report Date: December 12, 2007

Client Sample ID: SB−CZ−SS−2408−SD
Sample ID: 198324027
Matrix: Soil
Collect Date: 05−OCT−07
Receive Date: 28−NOV−07
Collector: Client

Project: SCAN00101
Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid													
Actinium−228		0.499	+/−0.235	0.176	+/−0.235	0.800	pCi/g		MJH1	12/01/07	0539	706246	1
Americium−241	U	0.00847	+/−0.038	0.0573	+/−0.038	0.200	pCi/g						
Americium−243	UI	0.127	+/−0.0292	0.0329	+/−0.0292		pCi/g						
Americium−246	U	0.0176	+/−0.122	0.207	+/−0.122		pCi/g						
Antimony−125	U	−0.054	+/−0.0809	0.129	+/−0.0809	0.200	pCi/g						
Bismuth−211	U	0.164	+/−0.949	1.57	+/−0.949		pCi/g						
Bismuth−212	U	0.246	+/−0.355	0.461	+/−0.355	0.500	pCi/g						
Bismuth−214		0.464	+/−0.118	0.109	+/−0.118	0.200	pCi/g						
Californium−249	U	−0.000646	+/−0.0335	0.0558	+/−0.0335		pCi/g						
Cesium−137		0.0756	+/−0.0533	0.0527	+/−0.0533	0.100	pCi/g						
Cobalt−60	U	0.0308	+/−0.0355	0.0628	+/−0.0355	0.100	pCi/g						
Curium−243	U	−0.0298	+/−0.0697	0.0906	+/−0.0697		pCi/g						
Europium−155	U	0.0303	+/−0.074	0.105	+/−0.074	0.500	pCi/g						
Lead−212		0.612	+/−0.0799	0.067	+/−0.0799	0.100	pCi/g						
Lead−214		0.453	+/−0.0951	0.0842	+/−0.0951	0.100	pCi/g						
Neptunium−236	U	0.0167	+/−0.0574	0.0549	+/−0.0574		pCi/g						
Neptunium−237	UI	0.356	+/−0.136	0.166	+/−0.136		pCi/g						
Neptunium−239	U	−0.074	+/−0.157	0.248	+/−0.157	2.00	pCi/g						
Polonium−209	U	2.03	+/−7.48	12.4	+/−7.48		pCi/g						
Potassium−40		3.63	+/−0.813	0.526	+/−0.813	1.00	pCi/g						
Protactinium−233	U	−0.0423	+/−0.0533	0.0753	+/−0.0533		pCi/g						
Protactinium−234m	UI	8.83	+/−10.0	6.22	+/−10.0		pCi/g						
Radium−223	U	0.0366	+/−0.129	0.225	+/−0.129		pCi/g						
Rhodium−101	U	−0.0405	+/−0.0267	0.0362	+/−0.0267		pCi/g						
Thallium−208		0.144	+/−0.0629	0.0484	+/−0.0629	0.080	pCi/g						
Thorium−234		0.520	+/−0.602	0.441	+/−0.602	0.500	pCi/g						
Uranium−235	U	0.0558	+/−0.174	0.202	+/−0.174	0.500	pCi/g						

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 − (843) 556−8171 − www.gel.com

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117 Report Date: December 12, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2408−SD Project: SCAN00101
Sample ID: 198324027 Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst Date	Time Batch	Mtd

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol−condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy−−Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/−RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117
Contact: Cindy White
Project: SC&A (GELP07−0971)

Report Date: December 12, 2007

Client Sample ID: SB−CZ−SS−2409−SD
Sample ID: 198324028
Matrix: Soil
Collect Date: 05−OCT−07
Receive Date: 28−NOV−07
Collector: Client

Project: SCAN00101
Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date Time	Batch	Mtd
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Solid												
Actinium−228		0.609	+/−0.229	0.176	+/−0.229	0.800	pCi/g		MJH1	12/01/07 0540	706246	1
Americium−241	U	−0.00802	+/−0.0327	0.0471	+/−0.0327	0.200	pCi/g					
Americium−243	UI	0.134	+/−0.0323	0.0275	+/−0.0323		pCi/g					
Americium−246	U	0.0342	+/−0.106	0.182	+/−0.106		pCi/g					
Antimony−125	U	−0.0331	+/−0.0631	0.100	+/−0.0631	0.200	pCi/g					
Bismuth−211	U	0.299	+/−0.755	1.32	+/−0.755		pCi/g					
Bismuth−212		0.466	+/−0.275	0.318	+/−0.275	0.500	pCi/g					
Bismuth−214	UI	0.419	+/−0.106	0.165	+/−0.106	0.200	pCi/g					
Californium−249	U	0.0138	+/−0.0305	0.0461	+/−0.0305		pCi/g					
Cesium−137	U	0.00296	+/−0.0328	0.0551	+/−0.0328	0.100	pCi/g					
Cobalt−60	U	−0.0125	+/−0.0322	0.0506	+/−0.0322	0.100	pCi/g					
Curium−243	U	−0.0197	+/−0.0459	0.0742	+/−0.0459		pCi/g					
Europium−155	U	0.0239	+/−0.0502	0.0844	+/−0.0502	0.500	pCi/g					
Lead−212		0.576	+/−0.0726	0.0587	+/−0.0726	0.100	pCi/g					
Lead−214		0.444	+/−0.0934	0.0766	+/−0.0934	0.100	pCi/g					
Neptunium−236	U	0.026	+/−0.0302	0.0458	+/−0.0302		pCi/g					
Neptunium−237	UI	0.287	+/−0.122	0.139	+/−0.122		pCi/g					
Neptunium−239	U	−0.101	+/−0.136	0.224	+/−0.136	2.00	pCi/g					
Polonium−209	U	−0.00292	+/−6.45	10.7	+/−6.45		pCi/g					
Potassium−40		5.19	+/−0.879	0.533	+/−0.879	1.00	pCi/g					
Protactinium−233	U	0.00982	+/−0.0405	0.0691	+/−0.0405		pCi/g					
Protactinium−234m	U	0.431	+/−3.33	5.64	+/−3.33		pCi/g					
Radium−223	UI	0.243	+/−0.174	0.188	+/−0.174		pCi/g					
Rhodium−101	U	0.0126	+/−0.0189	0.0332	+/−0.0189		pCi/g					
Thallium−208		0.158	+/−0.0524	0.0477	+/−0.0524	0.080	pCi/g					
Thorium−234		0.646	+/−0.298	0.324	+/−0.298	0.500	pCi/g					
Uranium−235	U	0.0604	+/−0.169	0.184	+/−0.169	0.500	pCi/g					

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 − (843) 556−8171 − www.gel.com

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117 Report Date: December 12, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2409−SD Project: SCAN00101
Sample ID: 198324028 Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst Date	Time Batch	Mtd

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol−condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy−−Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/−RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117
Contact: Cindy White
Project: SC&A (GELP07−0971)

Report Date: December 12, 2007

Client Sample ID: SB−CZ−SS−2410−ST
Sample ID: 198324029
Matrix: Soil
Collect Date: 05−OCT−07
Receive Date: 28−NOV−07
Collector: Client

Project: SCAN00101
Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid													
Actinium−228		0.531	+/−0.142	0.120	+/−0.142	0.800	pCi/g		MJH1	12/01/07	0543	706246	1
Americium−241	U	0.0846	+/−0.0667	0.108	+/−0.0667	0.200	pCi/g						
Americium−243	UI	0.119	+/−0.040	0.0383	+/−0.040		pCi/g						
Americium−246	U	−0.00734	+/−0.0712	0.118	+/−0.0712		pCi/g						
Antimony−125	U	−0.00204	+/−0.0464	0.0783	+/−0.0464	0.200	pCi/g						
Bismuth−211	U	−0.299	+/−0.571	0.933	+/−0.571		pCi/g						
Bismuth−212		0.287	+/−0.209	0.240	+/−0.209	0.500	pCi/g						
Bismuth−214		0.467	+/−0.0882	0.060	+/−0.0882	0.200	pCi/g						
Californium−249	U	0.00583	+/−0.0225	0.0356	+/−0.0225		pCi/g						
Cesium−137		0.0961	+/−0.0474	0.0281	+/−0.0474	0.100	pCi/g						
Cobalt−60	U	0.0147	+/−0.0223	0.0352	+/−0.0223	0.100	pCi/g						
Curium−243	U	−0.0123	+/−0.0444	0.0749	+/−0.0444		pCi/g						
Europium−155	U	0.0395	+/−0.0484	0.0852	+/−0.0484	0.500	pCi/g						
Lead−212		0.561	+/−0.0632	0.0458	+/−0.0632	0.100	pCi/g						
Lead−214		0.485	+/−0.0671	0.057	+/−0.0671	0.100	pCi/g						
Neptunium−236	U	0.0318	+/−0.0315	0.0505	+/−0.0315		pCi/g						
Neptunium−237	UI	0.388	+/−0.145	0.191	+/−0.145		pCi/g						
Neptunium−239	U	0.0163	+/−0.113	0.187	+/−0.113	2.00	pCi/g						
Polonium−209	U	−0.366	+/−4.20	6.38	+/−4.20		pCi/g						
Potassium−40		3.78	+/−0.541	0.205	+/−0.541	1.00	pCi/g						
Protactinium−233	U	0.0336	+/−0.0321	0.058	+/−0.0321		pCi/g						
Protactinium−234m	U	1.60	+/−2.48	4.02	+/−2.48		pCi/g						
Radium−223	U	0.120	+/−0.120	0.146	+/−0.120		pCi/g						
Rhodium−101	U	0.0154	+/−0.0299	0.0278	+/−0.0299		pCi/g						
Thallium−208		0.171	+/−0.0383	0.0269	+/−0.0383	0.080	pCi/g						
Thorium−234		0.717	+/−0.368	0.402	+/−0.368	0.500	pCi/g						
Uranium−235	U	0.0589	+/−0.127	0.165	+/−0.127	0.500	pCi/g						

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 − (843) 556−8171 − www.gel.com

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117 Report Date: December 12, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2410−ST Project: SCAN00101
Sample ID: 198324029 Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol−condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy−−Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/−RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

GEL LABORATORIES LLC

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Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117
Contact: Cindy White
Project: SC&A (GELP07−0971)

Report Date: December 12, 2007

Client Sample ID: SB−CZ−SS−2411−ST
Sample ID: 198324030
Matrix: Soil
Collect Date: 05−OCT−07
Receive Date: 28−NOV−07
Collector: Client

Project: SCAN00101
Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid													
Actinium−228		0.328	+/−0.114	0.0839	+/−0.114	0.800	pCi/g		MJH1	12/01/07	0544	706246	1
Americium−241	U	0.0377	+/−0.062	0.0967	+/−0.062	0.200	pCi/g						
Americium−243	UI	0.0637	+/−0.0196	0.0277	+/−0.0196		pCi/g						
Americium−246	U	0.0295	+/−0.0502	0.0891	+/−0.0502		pCi/g						
Antimony−125	U	0.0205	+/−0.0441	0.0669	+/−0.0441	0.200	pCi/g						
Bismuth−211	U	−0.206	+/−0.483	0.781	+/−0.483		pCi/g						
Bismuth−212		0.282	+/−0.181	0.213	+/−0.181	0.500	pCi/g						
Bismuth−214		0.246	+/−0.0566	0.0491	+/−0.0566	0.200	pCi/g						
Californium−249	U	−0.00549	+/−0.0169	0.0282	+/−0.0169		pCi/g						
Cesium−137		0.335	+/−0.0361	0.0256	+/−0.0361	0.100	pCi/g						
Cobalt−60	U	0.0138	+/−0.0149	0.0271	+/−0.0149	0.100	pCi/g						
Curium−243	U	−0.0185	+/−0.0304	0.0521	+/−0.0304		pCi/g						
Europium−155	U	0.0177	+/−0.0334	0.0594	+/−0.0334	0.500	pCi/g						
Lead−212		0.265	+/−0.0399	0.036	+/−0.0399	0.100	pCi/g						
Lead−214		0.205	+/−0.0557	0.049	+/−0.0557	0.100	pCi/g						
Neptunium−236	U	0.000371	+/−0.0195	0.0342	+/−0.0195		pCi/g						
Neptunium−237	UI	0.132	+/−0.140	0.128	+/−0.140		pCi/g						
Neptunium−239	U	0.0432	+/−0.0839	0.141	+/−0.0839	2.00	pCi/g						
Polonium−209	UI	6.52	+/−6.29	4.97	+/−6.29		pCi/g						
Potassium−40		1.47	+/−0.459	0.242	+/−0.459	1.00	pCi/g						
Protactinium−233	U	−0.0022	+/−0.0262	0.045	+/−0.0262		pCi/g						
Protactinium−234m	U	1.59	+/−2.39	2.73	+/−2.39		pCi/g						
Radium−223	U	0.0942	+/−0.0735	0.126	+/−0.0735		pCi/g						
Rhodium−101	U	4.57E−05	+/−0.014	0.0208	+/−0.014		pCi/g						
Thallium−208		0.0635	+/−0.0292	0.0247	+/−0.0292	0.080	pCi/g						
Thorium−234		0.295	+/−0.318	0.269	+/−0.318	0.500	pCi/g						
Uranium−235	U	0.0531	+/−0.0911	0.113	+/−0.0911	0.500	pCi/g						

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 − (843) 556−8171 − www.gel.com

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117 Report Date: December 12, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2411−ST Project: SCAN00101
Sample ID: 198324030 Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol−condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy−−Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/−RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

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Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117
Contact: Cindy White
Project: SC&A (GELP07−0971)

Report Date: December 12, 2007

Client Sample ID:	SB−CZ−SS−2412−ST	Project:	SCAN00101
Sample ID:	198324031	Client ID:	SCAN001
Matrix:	Soil		
Collect Date:	05−OCT−07		
Receive Date:	28−NOV−07		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid													
Actinium−228		0.126	+/−0.137	0.104	+/−0.137	0.800	pCi/g		MJH1	12/01/07	0551	706246	1
Americium−241	U	0.0268	+/−0.0227	0.0317	+/−0.0227	0.200	pCi/g						
Americium−243	UI	0.0565	+/−0.0155	0.0183	+/−0.0155		pCi/g						
Americium−246	U	0.0193	+/−0.0582	0.0996	+/−0.0582		pCi/g						
Antimony−125	U	−0.0216	+/−0.0403	0.0665	+/−0.0403	0.200	pCi/g						
Bismuth−211	U	−0.264	+/−0.475	0.776	+/−0.475		pCi/g						
Bismuth−212		0.424	+/−0.241	0.200	+/−0.241	0.500	pCi/g						
Bismuth−214		0.256	+/−0.0649	0.0515	+/−0.0649	0.200	pCi/g						
Californium−249	U	0.00634	+/−0.0169	0.0293	+/−0.0169		pCi/g						
Cesium−137		0.402	+/−0.0533	0.0267	+/−0.0533	0.100	pCi/g						
Cobalt−60	U	0.0204	+/−0.0192	0.0344	+/−0.0192	0.100	pCi/g						
Curium−243	UI	0.0644	+/−0.0458	0.0492	+/−0.0458		pCi/g						
Europium−155	UI	0.0712	+/−0.0506	0.0527	+/−0.0506	0.500	pCi/g						
Lead−212		0.211	+/−0.0386	0.0336	+/−0.0386	0.100	pCi/g						
Lead−214		0.235	+/−0.0565	0.0482	+/−0.0565	0.100	pCi/g						
Neptunium−236	U	0.0135	+/−0.0282	0.0285	+/−0.0282		pCi/g						
Neptunium−237	UI	0.230	+/−0.0773	0.0788	+/−0.0773		pCi/g						
Neptunium−239	U	−0.0284	+/−0.0775	0.126	+/−0.0775	2.00	pCi/g						
Polonium−209	U	0.238	+/−3.43	5.83	+/−3.43		pCi/g						
Potassium−40		2.01	+/−0.429	0.246	+/−0.429	1.00	pCi/g						
Protactinium−233	U	0.00219	+/−0.0249	0.0434	+/−0.0249		pCi/g						
Protactinium−234m	U	0.468	+/−3.68	3.35	+/−3.68		pCi/g						
Radium−223	U	0.0625	+/−0.084	0.114	+/−0.084		pCi/g						
Rhodium−101	U	−0.000207	+/−0.0155	0.021	+/−0.0155		pCi/g						
Thallium−208	UI	0.0562	+/−0.033	0.0427	+/−0.033	0.080	pCi/g						
Thorium−234	U	0.198	+/−0.316	0.224	+/−0.316	0.500	pCi/g						
Uranium−235	U	0.0544	+/−0.109	0.113	+/−0.109	0.500	pCi/g						

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 − (843) 556−8171 − www.gel.com

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117 Report Date: December 12, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2412−ST Project: SCAN00101
Sample ID: 198324031 Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst Date	Time Batch	Mtd

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol−condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy−−Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/−RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117
Contact: Cindy White
Project: SC&A (GELP07−0971)

Report Date: December 12, 2007

Client Sample ID: SB−CZ−SS−2413−ST
Sample ID: 198324032
Matrix: Soil
Collect Date: 05−OCT−07
Receive Date: 28−NOV−07
Collector: Client

Project: SCAN00101
Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid													
Actinium−228		0.307	+/−0.0995	0.110	+/−0.0995	0.800	pCi/g		MJH1	12/01/07	0809	706246	1
Americium−241	U	0.0422	+/−0.0428	0.0702	+/−0.0428	0.200	pCi/g						
Americium−243	UI	0.0611	+/−0.0232	0.0279	+/−0.0232		pCi/g						
Americium−246	U	0.00111	+/−0.0577	0.0986	+/−0.0577		pCi/g						
Antimony−125	U	0.0155	+/−0.0553	0.0867	+/−0.0553	0.200	pCi/g						
Bismuth−211	U	0.0736	+/−0.604	0.837	+/−0.604		pCi/g						
Bismuth−212	U	0.00365	+/−0.169	0.252	+/−0.169	0.500	pCi/g						
Bismuth−214		0.203	+/−0.0702	0.0568	+/−0.0702	0.200	pCi/g						
Californium−249	U	−0.00654	+/−0.0195	0.0317	+/−0.0195		pCi/g						
Cesium−137		0.516	+/−0.0633	0.0271	+/−0.0633	0.100	pCi/g						
Cobalt−60	U	−0.0164	+/−0.0191	0.0289	+/−0.0191	0.100	pCi/g						
Curium−243	U	−0.00506	+/−0.0398	0.0664	+/−0.0398		pCi/g						
Europium−155	U	0.0298	+/−0.0435	0.0754	+/−0.0435	0.500	pCi/g						
Lead−212		0.301	+/−0.0499	0.0435	+/−0.0499	0.100	pCi/g						
Lead−214		0.154	+/−0.0683	0.0589	+/−0.0683	0.100	pCi/g						
Neptunium−236	U	−0.0134	+/−0.0284	0.0404	+/−0.0284		pCi/g						
Neptunium−237	U	0.0718	+/−0.093	0.146	+/−0.093		pCi/g						
Neptunium−239	U	0.0644	+/−0.102	0.182	+/−0.102	2.00	pCi/g						
Polonium−209	U	3.76	+/−5.10	5.03	+/−5.10		pCi/g						
Potassium−40		1.40	+/−0.395	0.267	+/−0.395	1.00	pCi/g						
Protactinium−233	U	0.00208	+/−0.0319	0.0543	+/−0.0319		pCi/g						
Protactinium−234m	U	−1.58	+/−2.78	3.21	+/−2.78		pCi/g						
Radium−223	U	0.108	+/−0.130	0.132	+/−0.130		pCi/g						
Rhodium−101	U	0.00812	+/−0.0168	0.0271	+/−0.0168		pCi/g						
Thallium−208		0.0608	+/−0.0363	0.0293	+/−0.0363	0.080	pCi/g						
Thorium−234		0.532	+/−0.329	0.292	+/−0.329	0.500	pCi/g						
Uranium−235	U	−0.0347	+/−0.111	0.153	+/−0.111	0.500	pCi/g						

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 − (843) 556−8171 − www.gel.com

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117 Report Date: December 12, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2413−ST Project: SCAN00101
Sample ID: 198324032 Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol−condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy−−Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/−RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117
Contact: Cindy White
Project: SC&A (GELP07−0971)

Report Date: December 12, 2007

Client Sample ID: SB−CZ−SS−2414−ST
Sample ID: 198324033
Matrix: Soil
Collect Date: 05−OCT−07
Receive Date: 28−NOV−07
Collector: Client

Project: SCAN00101
Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid													
Actinium−228		0.294	+/−0.132	0.103	+/−0.132	0.800	pCi/g		MJH1	12/07/07	1446	706246	1
Americium−241	U	0.0253	+/−0.0244	0.0275	+/−0.0244	0.200	pCi/g						
Americium−243	UI	0.0564	+/−0.0155	0.0166	+/−0.0155		pCi/g						
Americium−246	U	0.0124	+/−0.0568	0.0965	+/−0.0568		pCi/g						
Antimony−125	U	−0.00134	+/−0.0394	0.0657	+/−0.0394	0.200	pCi/g						
Bismuth−211	U	8.82E−05	+/−0.498	0.823	+/−0.498		pCi/g						
Bismuth−212		0.241	+/−0.166	0.193	+/−0.166	0.500	pCi/g						
Bismuth−214		0.201	+/−0.0603	0.0528	+/−0.0603	0.200	pCi/g						
Californium−249	U	−0.0139	+/−0.0216	0.0284	+/−0.0216		pCi/g						
Cesium−137		0.284	+/−0.0403	0.0285	+/−0.0403	0.100	pCi/g						
Cobalt−60	U	0.00923	+/−0.0201	0.0296	+/−0.0201	0.100	pCi/g						
Curium−243	U	0.031	+/−0.0356	0.044	+/−0.0356		pCi/g						
Europium−155	U	0.0343	+/−0.0394	0.0503	+/−0.0394	0.500	pCi/g						
Lead−212		0.307	+/−0.042	0.0336	+/−0.042	0.100	pCi/g						
Lead−214		0.242	+/−0.047	0.0465	+/−0.047	0.100	pCi/g						
Neptunium−236	U	0.0108	+/−0.0268	0.026	+/−0.0268		pCi/g						
Neptunium−237	UI	0.168	+/−0.0647	0.0865	+/−0.0647		pCi/g						
Neptunium−239	U	0.020	+/−0.0794	0.132	+/−0.0794	2.00	pCi/g						
Polonium−209	U	1.84	+/−3.26	5.48	+/−3.26		pCi/g						
Potassium−40		1.74	+/−0.396	0.234	+/−0.396	1.00	pCi/g						
Protactinium−233	U	0.0139	+/−0.0233	0.0408	+/−0.0233		pCi/g						
Protactinium−234m	U	1.70	+/−3.35	3.08	+/−3.35		pCi/g						
Radium−223	UI	0.176	+/−0.0905	0.109	+/−0.0905		pCi/g						
Rhodium−101	U	0.00233	+/−0.0151	0.0203	+/−0.0151		pCi/g						
Thallium−208		0.0598	+/−0.0315	0.0258	+/−0.0315	0.080	pCi/g						
Thorium−234		0.717	+/−0.322	0.203	+/−0.322	0.500	pCi/g						
Uranium−235	U	0.00113	+/−0.126	0.105	+/−0.126	0.500	pCi/g						

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 − (843) 556−8171 − www.gel.com

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117 Report Date: December 12, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2414−ST Project: SCAN00101
Sample ID: 198324033 Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol−condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
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D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy−−Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/−RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117
Contact: Cindy White
Project: SC&A (GELP07−0971)

Report Date: December 12, 2007

Client Sample ID: SB−CZ−SS−2415−ST
Sample ID: 198324034
Matrix: Soil
Collect Date: 05−OCT−07
Receive Date: 28−NOV−07
Collector: Client

Project: SCAN00101
Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid													
Actinium−228		0.298	+/−0.109	0.0728	+/−0.109	0.800	pCi/g		MJH1	12/01/07	0810	706246	1
Americium−241	U	0.00183	+/−0.0421	0.0622	+/−0.0421	0.200	pCi/g						
Americium−243	UI	0.0448	+/−0.0216	0.0237	+/−0.0216		pCi/g						
Americium−246	U	0.0105	+/−0.049	0.0835	+/−0.049		pCi/g						
Antimony−125	U	0.0239	+/−0.0345	0.0597	+/−0.0345	0.200	pCi/g						
Bismuth−211	U	0.384	+/−0.443	0.661	+/−0.443		pCi/g						
Bismuth−212		0.194	+/−0.180	0.161	+/−0.180	0.500	pCi/g						
Bismuth−214		0.186	+/−0.0557	0.0418	+/−0.0557	0.200	pCi/g						
Californium−249	U	0.00635	+/−0.0151	0.0258	+/−0.0151		pCi/g						
Cesium−137		0.334	+/−0.0373	0.0219	+/−0.0373	0.100	pCi/g						
Cobalt−60	U	0.00877	+/−0.0147	0.0256	+/−0.0147	0.100	pCi/g						
Curium−243	U	−0.0326	+/−0.0348	0.0482	+/−0.0348		pCi/g						
Europium−155	U	0.021	+/−0.0338	0.0554	+/−0.0338	0.500	pCi/g						
Lead−212		0.291	+/−0.041	0.0322	+/−0.041	0.100	pCi/g						
Lead−214		0.204	+/−0.0508	0.0437	+/−0.0508	0.100	pCi/g						
Neptunium−236	U	0.0256	+/−0.023	0.0325	+/−0.023		pCi/g						
Neptunium−237	UI	0.168	+/−0.0741	0.120	+/−0.0741		pCi/g						
Neptunium−239	U	0.0341	+/−0.0782	0.136	+/−0.0782	2.00	pCi/g						
Polonium−209	U	1.70	+/−4.78	4.18	+/−4.78		pCi/g						
Potassium−40		3.03	+/−0.394	0.195	+/−0.394	1.00	pCi/g						
Protactinium−233	U	−0.0129	+/−0.024	0.0399	+/−0.024		pCi/g						
Protactinium−234m	U	1.52	+/−2.12	2.53	+/−2.12		pCi/g						
Radium−223	U	0.0845	+/−0.0874	0.116	+/−0.0874		pCi/g						
Rhodium−101	U	−0.0145	+/−0.0184	0.0205	+/−0.0184		pCi/g						
Thallium−208		0.0908	+/−0.0303	0.0194	+/−0.0303	0.080	pCi/g						
Thorium−234	U	0.203	+/−0.289	0.262	+/−0.289	0.500	pCi/g						
Uranium−235	U	−0.0446	+/−0.0899	0.113	+/−0.0899	0.500	pCi/g						

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 − (843) 556−8171 − www.gel.com

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117 Report Date: December 12, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2415−ST Project: SCAN00101
Sample ID: 198324034 Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol−condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy−−Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/−RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

GEL LABORATORIES LLC

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Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117
Contact: Cindy White
Project: SC&A (GELP07−0971)

Report Date: December 12, 2007

Client Sample ID: SB−CZ−SS−2410−SD
Sample ID: 198324035
Matrix: Soil
Collect Date: 05−OCT−07
Receive Date: 28−NOV−07
Collector: Client

Project: SCAN00101
Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid													
Actinium−228		0.486	+/−0.212	0.134	+/−0.212	0.800	pCi/g		MJH1	12/01/07	0811	706246	1
Americium−241	U	−0.0234	+/−0.0809	0.120	+/−0.0809	0.200	pCi/g						
Americium−243	UI	0.127	+/−0.0468	0.0426	+/−0.0468		pCi/g						
Americium−246	U	0.068	+/−0.0484	0.0888	+/−0.0484		pCi/g						
Antimony−125	U	−0.0474	+/−0.0543	0.0866	+/−0.0543	0.200	pCi/g						
Bismuth−211	U	−0.0639	+/−0.727	1.02	+/−0.727		pCi/g						
Bismuth−212		0.482	+/−0.232	0.247	+/−0.232	0.500	pCi/g						
Bismuth−214	UI	0.235	+/−0.0755	0.121	+/−0.0755	0.200	pCi/g						
Californium−249	U	0.0207	+/−0.0217	0.0391	+/−0.0217		pCi/g						
Cesium−137	U	0.0135	+/−0.0216	0.0377	+/−0.0216	0.100	pCi/g						
Cobalt−60	U	0.0121	+/−0.0218	0.0389	+/−0.0218	0.100	pCi/g						
Curium−243	U	−0.00662	+/−0.050	0.0838	+/−0.050		pCi/g						
Europium−155	U	0.0759	+/−0.0547	0.0974	+/−0.0547	0.500	pCi/g						
Lead−212		0.489	+/−0.0651	0.0519	+/−0.0651	0.100	pCi/g						
Lead−214		0.353	+/−0.0925	0.0632	+/−0.0925	0.100	pCi/g						
Neptunium−236	U	0.0326	+/−0.0324	0.0512	+/−0.0324		pCi/g						
Neptunium−237	UI	0.265	+/−0.150	0.190	+/−0.150		pCi/g						
Neptunium−239	UI	0.231	+/−0.193	0.201	+/−0.193	2.00	pCi/g						
Polonium−209	U	0.695	+/−4.16	6.93	+/−4.16		pCi/g						
Potassium−40		3.19	+/−0.598	0.374	+/−0.598	1.00	pCi/g						
Protactinium−233	U	0.00568	+/−0.036	0.0591	+/−0.036		pCi/g						
Protactinium−234m	UI	8.32	+/−4.07	3.01	+/−4.07		pCi/g						
Radium−223	U	0.107	+/−0.138	0.172	+/−0.138		pCi/g						
Rhodium−101	U	−0.0066	+/−0.0209	0.0312	+/−0.0209		pCi/g						
Thallium−208		0.173	+/−0.0426	0.0305	+/−0.0426	0.080	pCi/g						
Thorium−234		0.727	+/−0.380	0.413	+/−0.380	0.500	pCi/g						
Uranium−235	U	−0.168	+/−0.121	0.180	+/−0.121	0.500	pCi/g						

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 − (843) 556−8171 − www.gel.com

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117 Report Date: December 12, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2410−SD Project: SCAN00101
Sample ID: 198324035 Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst Date	Time Batch	Mtd

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol−condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
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D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy−−Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/−RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

GEL LABORATORIES LLC

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Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117
Contact: Cindy White
Project: SC&A (GELP07−0971)

Report Date: December 12, 2007

Client Sample ID: SB−CZ−SS−2411−SD
Sample ID: 198324036
Matrix: Soil
Collect Date: 05−OCT−07
Receive Date: 28−NOV−07
Collector: Client

Project: SCAN00101
Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid													
Actinium−228		0.328	+/−0.0803	0.0686	+/−0.0803	0.800	pCi/g		MJH1	12/01/07	0812	706246	1
Americium−241	U	0.0131	+/−0.0368	0.0551	+/−0.0368	0.200	pCi/g						
Americium−243	UI	0.0613	+/−0.0199	0.023	+/−0.0199		pCi/g						
Americium−246	U	−0.0213	+/−0.0425	0.0668	+/−0.0425		pCi/g						
Antimony−125	U	−0.0237	+/−0.0316	0.0497	+/−0.0316	0.200	pCi/g						
Bismuth−211	U	0.0635	+/−0.325	0.552	+/−0.325		pCi/g						
Bismuth−212		0.249	+/−0.145	0.147	+/−0.145	0.500	pCi/g						
Bismuth−214		0.204	+/−0.0455	0.0373	+/−0.0455	0.200	pCi/g						
Californium−249	U	−0.00929	+/−0.0141	0.0226	+/−0.0141		pCi/g						
Cesium−137		0.0576	+/−0.027	0.0205	+/−0.027	0.100	pCi/g						
Cobalt−60	U	0.00264	+/−0.0123	0.0206	+/−0.0123	0.100	pCi/g						
Curium−243	U	0.00698	+/−0.0273	0.0481	+/−0.0273		pCi/g						
Europium−155	U	0.00151	+/−0.030	0.0524	+/−0.030	0.500	pCi/g						
Lead−212		0.311	+/−0.0397	0.031	+/−0.0397	0.100	pCi/g						
Lead−214		0.200	+/−0.0569	0.0391	+/−0.0569	0.100	pCi/g						
Neptunium−236	U	0.00452	+/−0.0206	0.030	+/−0.0206		pCi/g						
Neptunium−237	U	0.0672	+/−0.108	0.103	+/−0.108		pCi/g						
Neptunium−239	U	−0.028	+/−0.0727	0.122	+/−0.0727	2.00	pCi/g						
Polonium−209	U	0.976	+/−2.23	3.84	+/−2.23		pCi/g						
Potassium−40		1.56	+/−0.311	0.100	+/−0.311	1.00	pCi/g						
Protactinium−233	U	−0.0046	+/−0.0215	0.0357	+/−0.0215		pCi/g						
Protactinium−234m	U	0.330	+/−2.58	2.08	+/−2.58		pCi/g						
Radium−223	UI	0.133	+/−0.0635	0.114	+/−0.0635		pCi/g						
Rhodium−101	U	0.0085	+/−0.0158	0.0186	+/−0.0158		pCi/g						
Thallium−208		0.0823	+/−0.0258	0.0171	+/−0.0258	0.080	pCi/g						
Thorium−234		0.305	+/−0.231	0.202	+/−0.231	0.500	pCi/g						
Uranium−235	U	−0.0609	+/−0.0779	0.108	+/−0.0779	0.500	pCi/g						

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 − (843) 556−8171 − www.gel.com

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117 Report Date: December 12, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2411−SD Project: SCAN00101
Sample ID: 198324036 Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst Date	Time Batch	Mtd

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol−condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy−−Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/−RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

GEL LABORATORIES LLC

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Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117
Contact: Cindy White
Project: SC&A (GELP07−0971)

Report Date: December 12, 2007

Client Sample ID: SB−CZ−SS−2412−SD
Sample ID: 198324037
Matrix: Soil
Collect Date: 05−OCT−07
Receive Date: 28−NOV−07
Collector: Client

Project: SCAN00101
Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst Date	Time	Batch	Mtd
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Solid												
Actinium−228		0.315	+/−0.117	0.0864	+/−0.117	0.800	pCi/g		MJH1	12/01/07 0852	706246	1
Americium−241	U	−0.0415	+/−0.0575	0.0943	+/−0.0575	0.200	pCi/g					
Americium−243	UI	0.0599	+/−0.022	0.0299	+/−0.022		pCi/g					
Americium−246	U	0.00331	+/−0.0419	0.0699	+/−0.0419		pCi/g					
Antimony−125	U	−0.0163	+/−0.0389	0.0632	+/−0.0389	0.200	pCi/g					
Bismuth−211	U	−0.239	+/−0.394	0.633	+/−0.394		pCi/g					
Bismuth−212		0.268	+/−0.125	0.178	+/−0.125	0.500	pCi/g					
Bismuth−214	UI	0.203	+/−0.0533	0.0769	+/−0.0533	0.200	pCi/g					
Californium−249	U	−0.00206	+/−0.0164	0.0273	+/−0.0164		pCi/g					
Cesium−137		0.148	+/−0.032	0.0248	+/−0.032	0.100	pCi/g					
Cobalt−60	U	−0.00713	+/−0.0144	0.0226	+/−0.0144	0.100	pCi/g					
Curium−243	U	0.0109	+/−0.0352	0.0621	+/−0.0352		pCi/g					
Europium−155	U	0.0395	+/−0.0385	0.069	+/−0.0385	0.500	pCi/g					
Lead−212		0.331	+/−0.0448	0.0353	+/−0.0448	0.100	pCi/g					
Lead−214		0.184	+/−0.0612	0.0465	+/−0.0612	0.100	pCi/g					
Neptunium−236	U	0.00765	+/−0.0249	0.0384	+/−0.0249		pCi/g					
Neptunium−237	UI	0.245	+/−0.131	0.136	+/−0.131		pCi/g					
Neptunium−239	U	0.0332	+/−0.0857	0.148	+/−0.0857	2.00	pCi/g					
Polonium−209	U	−3.28	+/−2.73	4.09	+/−2.73		pCi/g					
Potassium−40		1.70	+/−0.388	0.206	+/−0.388	1.00	pCi/g					
Protactinium−233	U	0.00628	+/−0.026	0.0441	+/−0.026		pCi/g					
Protactinium−234m	U	−1.77	+/−1.86	2.56	+/−1.86		pCi/g					
Radium−223	UI	0.204	+/−0.113	0.119	+/−0.113		pCi/g					
Rhodium−101	U	0.0171	+/−0.0146	0.0227	+/−0.0146		pCi/g					
Thallium−208		0.0677	+/−0.0337	0.0221	+/−0.0337	0.080	pCi/g					
Thorium−234	U	0.302	+/−0.308	0.360	+/−0.308	0.500	pCi/g					
Uranium−235	U	0.0358	+/−0.0935	0.132	+/−0.0935	0.500	pCi/g					

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 − (843) 556−8171 − www.gel.com

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117 Report Date: December 12, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2412−SD Project: SCAN00101
Sample ID: 198324037 Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst Date	Time Batch	Mtd

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol−condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy−−Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/−RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117
Contact: Cindy White
Project: SC&A (GELP07−0971)

Report Date: December 12, 2007

Client Sample ID: SB−CZ−SS−2413−SD
Sample ID: 198324038
Matrix: Soil
Collect Date: 05−OCT−07
Receive Date: 28−NOV−07
Collector: Client

Project: SCAN00101
Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst Date	Time	Batch	Mtd
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Solid												
Actinium−228		0.322	+/−0.142	0.107	+/−0.142	0.800	pCi/g		MJH1	12/01/07 0853	706246	1
Americium−241	U	6.83E−05	+/−0.0268	0.0425	+/−0.0268	0.200	pCi/g					
Americium−243	UI	0.0544	+/−0.0194	0.0257	+/−0.0194		pCi/g					
Americium−246	U	0.0828	+/−0.0736	0.140	+/−0.0736		pCi/g					
Antimony−125	U	0.00712	+/−0.0574	0.0925	+/−0.0574	0.200	pCi/g					
Bismuth−211	U	−0.427	+/−0.574	0.889	+/−0.574		pCi/g					
Bismuth−212	U	0.229	+/−0.250	0.290	+/−0.250	0.500	pCi/g					
Bismuth−214	UI	0.223	+/−0.0727	0.111	+/−0.0727	0.200	pCi/g					
Californium−249	U	−0.0171	+/−0.0212	0.034	+/−0.0212		pCi/g					
Cesium−137		0.0767	+/−0.0487	0.0366	+/−0.0487	0.100	pCi/g					
Cobalt−60	U	−0.0073	+/−0.0209	0.0339	+/−0.0209	0.100	pCi/g					
Curium−243	U	−0.00531	+/−0.0406	0.0707	+/−0.0406		pCi/g					
Europium−155	U	−0.0267	+/−0.046	0.0785	+/−0.046	0.500	pCi/g					
Lead−212		0.287	+/−0.0551	0.0499	+/−0.0551	0.100	pCi/g					
Lead−214		0.210	+/−0.0687	0.0645	+/−0.0687	0.100	pCi/g					
Neptunium−236	U	0.0102	+/−0.0272	0.043	+/−0.0272		pCi/g					
Neptunium−237	UI	0.215	+/−0.0995	0.135	+/−0.0995		pCi/g					
Neptunium−239	U	−0.0322	+/−0.116	0.192	+/−0.116	2.00	pCi/g					
Polonium−209	U	0.190	+/−4.06	6.82	+/−4.06		pCi/g					
Potassium−40		1.24	+/−0.439	0.310	+/−0.439	1.00	pCi/g					
Protactinium−233	U	−0.0157	+/−0.034	0.0574	+/−0.034		pCi/g					
Protactinium−234m	U	2.24	+/−2.61	4.69	+/−2.61		pCi/g					
Radium−223	U	0.158	+/−0.140	0.162	+/−0.140		pCi/g					
Rhodium−101	U	0.00275	+/−0.0316	0.0287	+/−0.0316		pCi/g					
Thallium−208		0.127	+/−0.0414	0.0306	+/−0.0414	0.080	pCi/g					
Thorium−234		0.464	+/−0.276	0.314	+/−0.276	0.500	pCi/g					
Uranium−235	U	0.0942	+/−0.134	0.161	+/−0.134	0.500	pCi/g					

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 − (843) 556−8171 − www.gel.com

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117 Report Date: December 12, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2413−SD Project: SCAN00101
Sample ID: 198324038 Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst Date	Time Batch	Mtd

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol−condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy−−Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/−RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

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Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117
Contact: Cindy White
Project: SC&A (GELP07−0971)

Report Date: December 12, 2007

Client Sample ID: SB−CZ−SS−2414−SD
Sample ID: 198324039
Matrix: Soil
Collect Date: 05−OCT−07
Receive Date: 28−NOV−07
Collector: Client

Project: SCAN00101
Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date Time	Batch	Mtd
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Solid												
Actinium−228		0.299	+/−0.0918	0.070	+/−0.0918	0.800	pCi/g		MJH1	12/01/07 0854	706246	1
Americium−241	U	0.0184	+/−0.0633	0.110	+/−0.0633	0.200	pCi/g					
Americium−243	UI	0.0669	+/−0.0224	0.0296	+/−0.0224		pCi/g					
Americium−246	U	0.0153	+/−0.0378	0.0644	+/−0.0378		pCi/g					
Antimony−125	U	0.00601	+/−0.0262	0.0454	+/−0.0262	0.200	pCi/g					
Bismuth−211	U	−0.111	+/−0.302	0.502	+/−0.302		pCi/g					
Bismuth−212		0.313	+/−0.127	0.132	+/−0.127	0.500	pCi/g					
Bismuth−214		0.209	+/−0.0456	0.0382	+/−0.0456	0.200	pCi/g					
Californium−249	U	0.0102	+/−0.0123	0.0209	+/−0.0123		pCi/g					
Cesium−137	U	0.0174	+/−0.0158	0.0188	+/−0.0158	0.100	pCi/g					
Cobalt−60	U	−0.00285	+/−0.0114	0.0183	+/−0.0114	0.100	pCi/g					
Curium−243	U	0.00762	+/−0.0309	0.052	+/−0.0309		pCi/g					
Europium−155	U	0.00371	+/−0.0351	0.0587	+/−0.0351	0.500	pCi/g					
Lead−212		0.305	+/−0.0375	0.0295	+/−0.0375	0.100	pCi/g					
Lead−214		0.269	+/−0.0442	0.0362	+/−0.0442	0.100	pCi/g					
Neptunium−236	U	0.0126	+/−0.0197	0.0337	+/−0.0197		pCi/g					
Neptunium−237	UI	0.158	+/−0.0969	0.126	+/−0.0969		pCi/g					
Neptunium−239	U	−0.0375	+/−0.0675	0.113	+/−0.0675	2.00	pCi/g					
Polonium−209	U	0.717	+/−2.14	3.67	+/−2.14		pCi/g					
Potassium−40		1.48	+/−0.313	0.168	+/−0.313	1.00	pCi/g					
Protactinium−233	U	−0.00122	+/−0.0196	0.0325	+/−0.0196		pCi/g					
Protactinium−234m	U	1.16	+/−2.13	1.94	+/−2.13		pCi/g					
Radium−223	UI	0.0982	+/−0.0964	0.0903	+/−0.0964		pCi/g					
Rhodium−101	U	0.012	+/−0.0175	0.0162	+/−0.0175		pCi/g					
Thallium−208		0.0822	+/−0.0254	0.0177	+/−0.0254	0.080	pCi/g					
Thorium−234	U	0.300	+/−0.285	0.353	+/−0.285	0.500	pCi/g					
Uranium−235	U	−0.0684	+/−0.0785	0.106	+/−0.0785	0.500	pCi/g					

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117 Report Date: December 12, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2414−SD Project: SCAN00101
Sample ID: 198324039 Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst Date	Time	Batch	Mtd

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol−condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy−−Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/−RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

GEL LABORATORIES LLC

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Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117
Contact: Cindy White
Project: SC&A (GELP07−0971)

Report Date: December 12, 2007

Client Sample ID: SB−CZ−SS−2415−SD
Sample ID: 198324040
Matrix: Soil
Collect Date: 05−OCT−07
Receive Date: 28−NOV−07
Collector: Client

Project: SCAN00101
Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date Time	Batch	Mtd
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Solid												
Actinium−228	U	0.107	+/−0.203	0.229	+/−0.203	0.800	pCi/g		MJH1	12/01/07 0954	706246	1
Americium−241	U	0.00974	+/−0.031	0.0487	+/−0.031	0.200	pCi/g					
Americium−243	UI	0.0538	+/−0.0189	0.0275	+/−0.0189		pCi/g					
Americium−246	U	0.0511	+/−0.0987	0.173	+/−0.0987		pCi/g					
Antimony−125	U	0.0329	+/−0.0601	0.104	+/−0.0601	0.200	pCi/g					
Bismuth−211	U	0.219	+/−0.772	1.31	+/−0.772		pCi/g					
Bismuth−212	U	0.155	+/−0.453	0.325	+/−0.453	0.500	pCi/g					
Bismuth−214		0.258	+/−0.0932	0.0765	+/−0.0932	0.200	pCi/g					
Californium−249	U	0.0278	+/−0.0338	0.048	+/−0.0338		pCi/g					
Cesium−137		0.199	+/−0.0451	0.0469	+/−0.0451	0.100	pCi/g					
Cobalt−60	U	0.00819	+/−0.0271	0.0464	+/−0.0271	0.100	pCi/g					
Curium−243	U	0.0115	+/−0.0549	0.0749	+/−0.0549		pCi/g					
Europium−155	U	0.0127	+/−0.0606	0.0821	+/−0.0606	0.500	pCi/g					
Lead−212		0.292	+/−0.0581	0.0558	+/−0.0581	0.100	pCi/g					
Lead−214		0.250	+/−0.0661	0.0736	+/−0.0661	0.100	pCi/g					
Neptunium−236	U	−0.0285	+/−0.0298	0.0439	+/−0.0298		pCi/g					
Neptunium−237	U	0.0777	+/−0.104	0.167	+/−0.104		pCi/g					
Neptunium−239	U	−0.0649	+/−0.128	0.207	+/−0.128	2.00	pCi/g					
Polonium−209	U	3.63	+/−5.79	9.96	+/−5.79		pCi/g					
Potassium−40		2.64	+/−0.543	0.380	+/−0.543	1.00	pCi/g					
Protactinium−233	U	0.0297	+/−0.0378	0.068	+/−0.0378		pCi/g					
Protactinium−234m	U	4.64	+/−3.92	6.54	+/−3.92		pCi/g					
Radium−223	U	0.127	+/−0.104	0.192	+/−0.104		pCi/g					
Rhodium−101	U	0.0016	+/−0.0247	0.0323	+/−0.0247		pCi/g					
Thallium−208		0.0876	+/−0.0538	0.0427	+/−0.0538	0.080	pCi/g					
Thorium−234	U	0.00285	+/−0.488	0.348	+/−0.488	0.500	pCi/g					
Uranium−235	U	0.0394	+/−0.146	0.169	+/−0.146	0.500	pCi/g					

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 − (843) 556−8171 − www.gel.com

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117 Report Date: December 12, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2415−SD Project: SCAN00101
Sample ID: 198324040 Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol−condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy−−Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/−RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

QUALITY CONTROL DATA

GEL LABORATORIES LLC

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

QC Summary

Report Date: December 12, 2007
Page 1 of 12

Client : **SC&A**
1000 Monticello Court

Montgomery, Alabama
Contact: **Cindy White**

Workorder: **198324**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 706245										
QC1201469644 198324001 DUP										
Actinium-228		0.904		0.891	pCi/g	1		(0% - 100%)	MJH1	11/30/0714:05
	Uncert:	+/-0.191		+/-0.272						
	TPU:	+/-0.191		+/-0.272						
Americium-241	U	0.0506	U	0.0183	pCi/g	94		N/A		
	Uncert:	+/-0.108		+/-0.0415						
	TPU:	+/-0.108		+/-0.0415						
Americium-243	UI	0.248	UI	0.186	pCi/g	29*		(0% - 20%)		
	Uncert:	+/-0.0642		+/-0.0341						
	TPU:	+/-0.0642		+/-0.0341						
Americium-246	U	-0.00585	U	0.118	pCi/g	221		N/A		
	Uncert:	+/-0.0869		+/-0.124						
	TPU:	+/-0.0869		+/-0.124						
Antimony-125	U	-0.0549	U	-0.0034	pCi/g	177		N/A		
	Uncert:	+/-0.0654		+/-0.0805						
	TPU:	+/-0.0654		+/-0.0805						
Bismuth-211	U	0.631	U	-0.866	pCi/g	1280		N/A		
	Uncert:	+/-0.665		+/-1.00						
	TPU:	+/-0.665		+/-1.00						
Bismuth-212		0.410	U	-0.0359	pCi/g	238*		(0% - 100%)		
	Uncert:	+/-0.294		+/-0.335						
	TPU:	+/-0.294		+/-0.335						
Bismuth-214		0.700		0.763	pCi/g	9		(0% - 20%)		
	Uncert:	+/-0.108		+/-0.137						
	TPU:	+/-0.108		+/-0.137						
Californium-249	U	0.0238	U	0.00994	pCi/g	82		N/A		
	Uncert:	+/-0.0325		+/-0.0354						
	TPU:	+/-0.0325		+/-0.0354						
Cesium-137		0.229		0.324	pCi/g	34*		(0% - 20%)		
	Uncert:	+/-0.0572		+/-0.0631						
	TPU:	+/-0.0572		+/-0.0631						
Cobalt-60	U	0.0279	U	0.0101	pCi/g	93		N/A		
	Uncert:	+/-0.0272		+/-0.035						
	TPU:	+/-0.0272		+/-0.035						
Curium-243	U	0.00656	U	-0.0693	pCi/g	242		N/A		
	Uncert:	+/-0.0699		+/-0.0649						
	TPU:	+/-0.0699		+/-0.0649						
Europium-155	U	0.0491	U	0.0208	pCi/g	81		N/A		
	Uncert:	+/-0.0757		+/-0.072						
	TPU:	+/-0.0757		+/-0.072						
Lead-212		0.754		0.820	pCi/g	8		(0% - 20%)		
	Uncert:	+/-0.0855		+/-0.0932						
	TPU:	+/-0.0855		+/-0.0932						

QC Summary

Workorder: 198324

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 706245										
Lead-214		0.642		0.808	pCi/g	23*		(0% - 20%)		
	Uncert:	+/-0.117		+/-0.106						
	TPU:	+/-0.117		+/-0.106						
Neptunium-236	U	0.00652	U	0.0151	pCi/g	80		N/A		
	Uncert:	+/-0.0431		+/-0.0382						
	TPU:	+/-0.0431		+/-0.0382						
Neptunium-237	UI	0.398	UI	0.567	pCi/g	35		(0% - 100%)		
	Uncert:	+/-0.175		+/-0.158						
	TPU:	+/-0.175		+/-0.158						
Neptunium-239	U	-0.016	U	0.0997	pCi/g	277		N/A		
	Uncert:	+/-0.150		+/-0.169						
	TPU:	+/-0.150		+/-0.169						
Polonium-209	UI	8.07	U	5.63	pCi/g	36		(0% - 100%)		
	Uncert:	+/-9.23		+/-7.43						
	TPU:	+/-9.23		+/-7.43						
Potassium-40		6.21		7.39	pCi/g	17		(0% - 20%)		
	Uncert:	+/-0.795		+/-0.925						
	TPU:	+/-0.795		+/-0.925						
Protactinium-233	U	-0.0105	U	-0.0359	pCi/g	110		N/A		
	Uncert:	+/-0.0429		+/-0.0565						
	TPU:	+/-0.0429		+/-0.0565						
Protactinium-234m	U	0.649	U	-0.0579	pCi/g	239		N/A		
	Uncert:	+/-2.86		+/-4.65						
	TPU:	+/-2.86		+/-4.65						
Radium-223	UI	0.403	U	0.0791	pCi/g	134*		(0% - 100%)		
	Uncert:	+/-0.231		+/-0.139						
	TPU:	+/-0.231		+/-0.139						
Rhodium-101	U	-0.00598	U	0.0218	pCi/g	351		N/A		
	Uncert:	+/-0.0247		+/-0.0298						
	TPU:	+/-0.0247		+/-0.0298						
Thallium-208		0.239		0.232	pCi/g	3		(0% - 100%)		
	Uncert:	+/-0.0473		+/-0.0651						
	TPU:	+/-0.0473		+/-0.0651						
Thorium-234		0.901		1.26	pCi/g	33		(0% - 100%)		
	Uncert:	+/-0.502		+/-0.525						
	TPU:	+/-0.502		+/-0.525						
Uranium-235	U	0.204	U	0.0309	pCi/g	148		N/A		
	Uncert:	+/-0.133		+/-0.212						
	TPU:	+/-0.133		+/-0.212						
QC1201469645 LCS										
Actinium-228				0.986	pCi/g					11/30/0714:06
	Uncert:			+/-0.621						
	TPU:			+/-0.621						
Americium-241	16.0			14.4	pCi/g		90	(75%-125%)		
	Uncert:			+/-2.11						
	TPU:			+/-2.11						
Americium-243				0.276	pCi/g					
	Uncert:			+/-0.172						

QC Summary

Workorder: 198324

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 706245											
	TPU:			+/-0.172							
Americium-246			U	0.0278	pCi/g						
	Uncert:			+/-0.392							
	TPU:			+/-0.392							
Antimony-125			U	0.112	pCi/g						
	Uncert:			+/-0.233							
	TPU:			+/-0.233							
Bismuth-211			U	0.864	pCi/g						
	Uncert:			+/-3.05							
	TPU:			+/-3.05							
Bismuth-212			U	0.984	pCi/g						
	Uncert:			+/-1.17							
	TPU:			+/-1.17							
Bismuth-214				0.582	pCi/g						
	Uncert:			+/-0.336							
	TPU:			+/-0.336							
Californium-249			U	0.0711	pCi/g						
	Uncert:			+/-0.137							
	TPU:			+/-0.137							
Cesium-137	6.11			5.85	pCi/g		96	(75%-125%)			
	Uncert:			+/-0.478							
	TPU:			+/-0.478							
Cobalt-60	8.54			8.36	pCi/g		98	(75%-125%)			
	Uncert:			+/-0.680							
	TPU:			+/-0.680							
Curium-243			U	0.0393	pCi/g						
	Uncert:			+/-0.221							
	TPU:			+/-0.221							
Europium-155			U	-0.0297	pCi/g						
	Uncert:			+/-0.238							
	TPU:			+/-0.238							
Lead-212				0.924	pCi/g						
	Uncert:			+/-0.225							
	TPU:			+/-0.225							
Lead-214				0.793	pCi/g						
	Uncert:			+/-0.239							
	TPU:			+/-0.239							
Neptunium-236			U	0.0573	pCi/g						
	Uncert:			+/-0.123							
	TPU:			+/-0.123							
Neptunium-237				31.6	pCi/g						
	Uncert:			+/-3.20							
	TPU:			+/-3.20							
Neptunium-239			U	0.124	pCi/g						
	Uncert:			+/-0.468							
	TPU:			+/-0.468							
Polonium-209				243	pCi/g						
	Uncert:			+/-44.5							

QC Summary

Workorder: 198324

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 706245										
	TPU:			+/-44.5						
Potassium-40			U	0.822	pCi/g					
	Uncert:			+/-0.728						
	TPU:			+/-0.728						
Protactinium-233			U	0.0167	pCi/g					
	Uncert:			+/-0.136						
	TPU:			+/-0.136						
Protactinium-234m			U	-6.19	pCi/g					
	Uncert:			+/-11.5						
	TPU:			+/-11.5						
Radium-223			U	0.142	pCi/g					
	Uncert:			+/-0.411						
	TPU:			+/-0.411						
Rhodium-101			U	0.0383	pCi/g					
	Uncert:			+/-0.0597						
	TPU:			+/-0.0597						
Thallium-208				0.314	pCi/g					
	Uncert:			+/-0.149						
	TPU:			+/-0.149						
Thorium-234			U	1.16	pCi/g					
	Uncert:			+/-1.28						
	TPU:			+/-1.28						
Uranium-235			U	-0.12	pCi/g					
	Uncert:			+/-0.361						
	TPU:			+/-0.361						
QC1201469643 MB										
Actinium-228			U	-0.0911	pCi/g					11/30/0714:05
	Uncert:			+/-0.0915						
	TPU:			+/-0.0915						
Americium-241			U	0.0143	pCi/g					
	Uncert:			+/-0.0168						
	TPU:			+/-0.0168						
Americium-243			U	-0.0189	pCi/g					
	Uncert:			+/-0.0119						
	TPU:			+/-0.0119						
Americium-246			U	0.0016	pCi/g					
	Uncert:			+/-0.0582						
	TPU:			+/-0.0582						
Antimony-125			U	-0.0178	pCi/g					
	Uncert:			+/-0.034						
	TPU:			+/-0.034						
Bismuth-211			U	-0.155	pCi/g					
	Uncert:			+/-0.465						
	TPU:			+/-0.465						
Bismuth-212			U	0.0907	pCi/g					
	Uncert:			+/-0.185						
	TPU:			+/-0.185						
Bismuth-214			U	0.0526	pCi/g					

QC Summary

Workorder: 198324

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 706245											
	Uncert:			+/-0.0425							
	TPU:			+/-0.0425							
Californium-249			U	-0.00236	pCi/g						
	Uncert:			+/-0.018							
	TPU:			+/-0.018							
Cesium-137			U	0.000803	pCi/g						
	Uncert:			+/-0.0229							
	TPU:			+/-0.0229							
Cobalt-60			U	0.0144	pCi/g						
	Uncert:			+/-0.0171							
	TPU:			+/-0.0171							
Curium-243			U	0.0143	pCi/g						
	Uncert:			+/-0.0253							
	TPU:			+/-0.0253							
Europium-155			U	0.0225	pCi/g						
	Uncert:			+/-0.0276							
	TPU:			+/-0.0276							
Lead-212			U	0.00691	pCi/g						
	Uncert:			+/-0.0313							
	TPU:			+/-0.0313							
Lead-214			U	0.000245	pCi/g						
	Uncert:			+/-0.0337							
	TPU:			+/-0.0337							
Neptunium-236			U	0.00869	pCi/g						
	Uncert:			+/-0.0197							
	TPU:			+/-0.0197							
Neptunium-237			U	0.0382	pCi/g						
	Uncert:			+/-0.0533							
	TPU:			+/-0.0533							
Neptunium-239			U	-0.002	pCi/g						
	Uncert:			+/-0.0717							
	TPU:			+/-0.0717							
Polonium-209			U	-0.0189	pCi/g						
	Uncert:			+/-3.29							
	TPU:			+/-3.29							
Potassium-40			U	-0.0602	pCi/g						
	Uncert:			+/-0.217							
	TPU:			+/-0.217							
Protactinium-233			U	-0.00417	pCi/g						
	Uncert:			+/-0.0222							
	TPU:			+/-0.0222							
Protactinium-234m			U	0.569	pCi/g						
	Uncert:			+/-2.87							
	TPU:			+/-2.87							
Radium-223			U	0.00976	pCi/g						
	Uncert:			+/-0.0599							
	TPU:			+/-0.0599							
Rhodium-101			U	-0.00509	pCi/g						

QC Summary

Workorder: 198324

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 706245										
	Uncert:			+/-0.0141						
	TPU:			+/-0.0141						
Thallium-208			U	-0.00342	pCi/g					
	Uncert:			+/-0.0229						
	TPU:			+/-0.0229						
Thorium-234			U	-0.101	pCi/g					
	Uncert:			+/-0.223						
	TPU:			+/-0.223						
Uranium-235			U	0.0394	pCi/g					
	Uncert:			+/-0.115						
	TPU:			+/-0.115						
Batch 706246										
QC1201469647 198324021 DUP										
Actinium-228		0.760		0.625	pCi/g	20		(0% - 100%)	MJH1	12/01/0709:56
	Uncert:	+/-0.224		+/-0.188						
	TPU:	+/-0.224		+/-0.188						
Americium-241	U	-0.00706	U	-0.045	pCi/g	146		N/A		
	Uncert:	+/-0.0391		+/-0.105						
	TPU:	+/-0.0391		+/-0.105						
Americium-243	UI	0.177	UI	0.161	pCi/g	10		(0% - 100%)		
	Uncert:	+/-0.0412		+/-0.0387						
	TPU:	+/-0.0412		+/-0.0387						
Americium-246	U	-0.0483	U	0.019	pCi/g	458		N/A		
	Uncert:	+/-0.123		+/-0.085						
	TPU:	+/-0.123		+/-0.085						
Antimony-125	U	0.0823	U	0.0014	pCi/g	193		N/A		
	Uncert:	+/-0.0763		+/-0.0609						
	TPU:	+/-0.0763		+/-0.0609						
Bismuth-211	U	0.0328	U	0.276	pCi/g	158		N/A		
	Uncert:	+/-0.954		+/-0.849						
	TPU:	+/-0.954		+/-0.849						
Bismuth-212		0.822		0.641	pCi/g	25		(0% - 100%)		
	Uncert:	+/-0.335		+/-0.262						
	TPU:	+/-0.335		+/-0.262						
Bismuth-214	UI	0.522		0.533	pCi/g	2		(0% - 100%)		
	Uncert:	+/-0.140		+/-0.0986						
	TPU:	+/-0.140		+/-0.0986						
Californium-249	U	0.000889	U	0.0137	pCi/g	176		N/A		
	Uncert:	+/-0.0315		+/-0.0263						
	TPU:	+/-0.0315		+/-0.0263						
Cesium-137		0.102		0.0844	pCi/g	19		(0% - 100%)		
	Uncert:	+/-0.0524		+/-0.0346						
	TPU:	+/-0.0524		+/-0.0346						
Cobalt-60	U	0.00966	U	0.0161	pCi/g	50		N/A		
	Uncert:	+/-0.0354		+/-0.0264						
	TPU:	+/-0.0354		+/-0.0264						
Curium-243	U	0.0789	U	-0.0117	pCi/g	270		N/A		
	Uncert:	+/-0.0673		+/-0.048						

QC Summary

Workorder: 198324

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 706246										
	TPU:	+/-0.0673		+/-0.048						
Europium-155	U	0.0872	U	0.00847	pCi/g	165		N/A		
	Uncert:	+/-0.0743		+/-0.0532						
	TPU:	+/-0.0743		+/-0.0532						
Lead-212		0.742		0.752	pCi/g	1		(0% - 20%)		
	Uncert:	+/-0.0879		+/-0.0758						
	TPU:	+/-0.0879		+/-0.0758						
Lead-214		0.471		0.621	pCi/g	28		(0% - 100%)		
	Uncert:	+/-0.124		+/-0.088						
	TPU:	+/-0.124		+/-0.088						
Neptunium-236	U	0.0515	U	0.000325	pCi/g	197		N/A		
	Uncert:	+/-0.0343		+/-0.0331						
	TPU:	+/-0.0343		+/-0.0331						
Neptunium-237	UI	0.354	UI	0.404	pCi/g	13		(0% - 100%)		
	Uncert:	+/-0.146		+/-0.177						
	TPU:	+/-0.146		+/-0.177						
Neptunium-239	U	0.0802	U	-0.0129	pCi/g	277		N/A		
	Uncert:	+/-0.165		+/-0.133						
	TPU:	+/-0.165		+/-0.133						
Polonium-209	U	-4.75	U	0.732	pCi/g	273		N/A		
	Uncert:	+/-6.47		+/-4.84						
	TPU:	+/-6.47		+/-4.84						
Potassium-40		5.55		5.42	pCi/g	2		(0% - 20%)		
	Uncert:	+/-0.973		+/-0.813						
	TPU:	+/-0.973		+/-0.813						
Protactinium-233	U	0.0101	U	-0.0188	pCi/g	660		N/A		
	Uncert:	+/-0.0469		+/-0.0399						
	TPU:	+/-0.0469		+/-0.0399						
Protactinium-234m	U	-0.0152	U	2.55	pCi/g	202		N/A		
	Uncert:	+/-3.90		+/-2.89						
	TPU:	+/-3.90		+/-2.89						
Radium-223	U	0.213	U	0.111	pCi/g	63		N/A		
	Uncert:	+/-0.162		+/-0.143						
	TPU:	+/-0.162		+/-0.143						
Rhodium-101	U	0.0274	U	0.00236	pCi/g	168		N/A		
	Uncert:	+/-0.0256		+/-0.0208						
	TPU:	+/-0.0256		+/-0.0208						
Thallium-208		0.246		0.230	pCi/g	7		(0% - 100%)		
	Uncert:	+/-0.0649		+/-0.0463						
	TPU:	+/-0.0649		+/-0.0463						
Thorium-234		1.05		0.582	pCi/g	57		(0% - 100%)		
	Uncert:	+/-0.353		+/-0.421						
	TPU:	+/-0.353		+/-0.421						
Uranium-235	U	0.024	U	0.0717	pCi/g	100		N/A		
	Uncert:	+/-0.133		+/-0.115						
	TPU:	+/-0.133		+/-0.115						
QC1201469648 LCS										
Actinium-228				1.01	pCi/g					12/01/0709:57

QC Summary

Workorder: 198324

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 706246											
	Uncert:			+/-0.550							
	TPU:			+/-0.550							
Americium-241	16.0			13.3	pCi/g		83	(75%-125%)			
	Uncert:			+/-1.41							
	TPU:			+/-1.41							
Americium-243			U	0.127	pCi/g						
	Uncert:			+/-0.118							
	TPU:			+/-0.118							
Americium-246			U	-0.0525	pCi/g						
	Uncert:			+/-0.364							
	TPU:			+/-0.364							
Antimony-125			U	0.0088	pCi/g						
	Uncert:			+/-0.181							
	TPU:			+/-0.181							
Bismuth-211			U	2.01	pCi/g						
	Uncert:			+/-2.51							
	TPU:			+/-2.51							
Bismuth-212				1.46	pCi/g						
	Uncert:			+/-1.20							
	TPU:			+/-1.20							
Bismuth-214				0.905	pCi/g						
	Uncert:			+/-0.235							
	TPU:			+/-0.235							
Californium-249			U	0.0304	pCi/g						
	Uncert:			+/-0.0928							
	TPU:			+/-0.0928							
Cesium-137	6.11			5.47	pCi/g		90	(75%-125%)			
	Uncert:			+/-0.440							
	TPU:			+/-0.440							
Cobalt-60	8.54			8.26	pCi/g		97	(75%-125%)			
	Uncert:			+/-0.581							
	TPU:			+/-0.581							
Curium-243			U	-0.0955	pCi/g						
	Uncert:			+/-0.173							
	TPU:			+/-0.173							
Europium-155			U	-0.0432	pCi/g						
	Uncert:			+/-0.185							
	TPU:			+/-0.185							
Lead-212				0.963	pCi/g						
	Uncert:			+/-0.154							
	TPU:			+/-0.154							
Lead-214				0.712	pCi/g						
	Uncert:			+/-0.206							
	TPU:			+/-0.206							
Neptunium-236			U	-0.00192	pCi/g						
	Uncert:			+/-0.101							
	TPU:			+/-0.101							
Neptunium-237				28.7	pCi/g						

QC Summary

Workorder: 198324

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 706246										
	Uncert:			+/-2.71						
	TPU:			+/-2.71						
Neptunium-239			U	0.0521	pCi/g					
	Uncert:			+/-0.432						
	TPU:			+/-0.432						
Polonium-209				246	pCi/g					
	Uncert:			+/-50.5						
	TPU:			+/-50.5						
Potassium-40				1.17	pCi/g					
	Uncert:			+/-0.737						
	TPU:			+/-0.737						
Protactinium-233			U	-0.0986	pCi/g					
	Uncert:			+/-0.122						
	TPU:			+/-0.122						
Protactinium-234m			U	5.68	pCi/g					
	Uncert:			+/-12.6						
	TPU:			+/-12.6						
Radium-223			U	0.508	pCi/g					
	Uncert:			+/-0.402						
	TPU:			+/-0.402						
Rhodium-101			U	0.0369	pCi/g					
	Uncert:			+/-0.0537						
	TPU:			+/-0.0537						
Thallium-208				0.373	pCi/g					
	Uncert:			+/-0.132						
	TPU:			+/-0.132						
Thorium-234			U	0.0497	pCi/g					
	Uncert:			+/-1.22						
	TPU:			+/-1.22						
Uranium-235			U	0.0933	pCi/g					
	Uncert:			+/-0.319						
	TPU:			+/-0.319						
QC1201469646 MB										
Actinium-228			U	0.0345	pCi/g					12/01/0709:55
	Uncert:			+/-0.0693						
	TPU:			+/-0.0693						
Americium-241			U	0.00714	pCi/g					
	Uncert:			+/-0.0206						
	TPU:			+/-0.0206						
Americium-243			U	-0.0061	pCi/g					
	Uncert:			+/-0.00907						
	TPU:			+/-0.00907						
Americium-246			U	-0.00802	pCi/g					
	Uncert:			+/-0.0639						
	TPU:			+/-0.0639						
Antimony-125			U	-0.0068	pCi/g					
	Uncert:			+/-0.038						
	TPU:			+/-0.038						

QC Summary

Workorder: 198324

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 706246											
Bismuth-211			U	0.262	pCi/g						
	Uncert:			+/-0.531							
	TPU:			+/-0.531							
Bismuth-212			U	-0.0373	pCi/g						
	Uncert:			+/-0.128							
	TPU:			+/-0.128							
Bismuth-214			U	0.0247	pCi/g						
	Uncert:			+/-0.0728							
	TPU:			+/-0.0728							
Californium-249			U	0.0131	pCi/g						
	Uncert:			+/-0.0159							
	TPU:			+/-0.0159							
Cesium-137			U	0.00268	pCi/g						
	Uncert:			+/-0.0163							
	TPU:			+/-0.0163							
Cobalt-60			U	0.00164	pCi/g						
	Uncert:			+/-0.0192							
	TPU:			+/-0.0192							
Curium-243			U	-0.00492	pCi/g						
	Uncert:			+/-0.0232							
	TPU:			+/-0.0232							
Europium-155			U	-0.000147	pCi/g						
	Uncert:			+/-0.0257							
	TPU:			+/-0.0257							
Lead-212			U	0.0217	pCi/g						
	Uncert:			+/-0.0295							
	TPU:			+/-0.0295							
Lead-214			U	0.0233	pCi/g						
	Uncert:			+/-0.047							
	TPU:			+/-0.047							
Neptunium-236			U	-0.00758	pCi/g						
	Uncert:			+/-0.0138							
	TPU:			+/-0.0138							
Neptunium-237			U	0.00759	pCi/g						
	Uncert:			+/-0.0465							
	TPU:			+/-0.0465							
Neptunium-239			U	-0.104	pCi/g						
	Uncert:			+/-0.0833							
	TPU:			+/-0.0833							
Polonium-209			U	-1.37	pCi/g						
	Uncert:			+/-4.18							
	TPU:			+/-4.18							
Potassium-40			U	-0.0847	pCi/g						
	Uncert:			+/-0.248							
	TPU:			+/-0.248							
Protactinium-233			U	0.011	pCi/g						
	Uncert:			+/-0.0316							
	TPU:			+/-0.0316							

QC Summary

Workorder: 198324

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 706246											
Protactinium-234m			U	0.231	pCi/g						
	Uncert:			+/-2.33							
	TPU:			+/-2.33							
Radium-223			U	-0.0027	pCi/g						
	Uncert:			+/-0.0718							
	TPU:			+/-0.0718							
Rhodium-101			U	0.00137	pCi/g						
	Uncert:			+/-0.0135							
	TPU:			+/-0.0135							
Thallium-208			U	0.013	pCi/g						
	Uncert:			+/-0.0296							
	TPU:			+/-0.0296							
Thorium-234			U	0.0655	pCi/g						
	Uncert:			+/-0.128							
	TPU:			+/-0.128							
Uranium-235			U	-0.0233	pCi/g						
	Uncert:			+/-0.0644							
	TPU:			+/-0.0644							

Notes:
The Qualifiers in this report are defined as follows:

**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
A	The TIC is a suspected aldol-condensation product
B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
H	Analytical holding time was exceeded
J	Value is estimated
M	M if above MDC and less than LLD
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h	Preparation or preservation holding time was exceeded

QC Summary

Workorder: 198324

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
** Indicates analyte is a surrogate compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

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 QC Summary.

RAW DATA

Radiochemistry Batch Checklist, Rev 6

Batch# 706245 Product: Gamma / Soil Date: 12/05/2007

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
If activity less 10* MDA, error is 150% or less of sample activity. If greater 10* MDA, error is 40% or less. If below the MDA, error is okay.	X		
Instrument source check is within limits. Instument bkg check is within limits.	X		
Method RDL has been met.	X		
If duplicate activities are less 5* MDA, then rpd is 100% or less. If greater 5* MDA, then rpd 20% or less. If below the MDA, the rpd is 0%. Or meets the client's required RER acceptance criteria.	X		Case Narrative
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			N/A
Method blank is less than the RDL. (If rad samples, < 5% of lowest activity)	X		
Sample was run within hold time. Special requirements page checked	X		
Sample was correctly preserved if required.	X		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	X		
No blank spaces on data forms. All lineouts initialed and dated. No transcription errors are apparent.	X		
QC data entered into QC database. Batch entered into Case Narrative.	X		
Batch non-conformances completed If applicable.			N/A
Aliquot Correction completed if required.			N/A

GEL Laboratories, LLC

1/2/2007

Primary Review Performed By: [signature] 12/6/07

Secondary Review Performed By: [signature] 12/7/07

Gamma Spec Que Sheet

11/28/2007

Batch #: 706245 **Analyst:** MJH1 **First Client DueDate** 12/19/2007 **Internal Due Date:** 12/08/2007

Gamma Spike Isotope: Mixed Gamma **Spike Code:** N/A **Expiration Date:** N/A **Vol:** N/A **Nominal Concentration:** N/A

Gamma LCS Isotope: Mixed Gamma **LCS Code:** 1032-A **Expiration Date:** 12/1/07 **Vol:** 1.0mL **Nominal Concentration:** Am241 - 15.96 Cs137 - 6.106 Co60 - 8.539 ✓

Initials: MJH **Prep Date:** 11/29/07 **Witness:** N/A

Sample ID	Client Description / Container ID	Type	Hazard Code	RDL	Client	Matrix	Collect Date	Wet/Dry Aliquot (1 g / F)	Detector	Sealing Date/Time (if Applicable)
198324001-1	SB-CZ-SS-2396-ST	SAMPLE		.08 pCi/g	SCAN001	SOIL	05-OCT-07 00:00:00	117.12	1	
198324002-1	SB-CZ-SS-2397-ST	SAMPLE		.08 pCi/g	SCAN001	SOIL	05-OCT-07 00:00:00	103.84	21	
198324003-1	SB-CZ-SS-2398-ST	SAMPLE		.08 pCi/g	SCAN001	SOIL	05-OCT-07 00:00:00	121.66	23	
198324004-1	SB-CZ-SS-2399-ST	SAMPLE		.08 pCi/g	SCAN001	SOIL	05-OCT-07 00:00:00	113.90	4	
198324005-1	SB-CZ-SS-2400-ST	SAMPLE		.08 pCi/g	SCAN001	SOIL	05-OCT-07 00:00:00	112.02	6	
198324006-1	SB-CZ-SS-2401-ST	SAMPLE		.08 pCi/g	SCAN001	SOIL	05-OCT-07 00:00:00	105.53	7	
198324007-1	SB-CZ-SS-2402-ST	SAMPLE		.08 pCi/g	SCAN001	SOIL	05-OCT-07 00:00:00	120.05	8	
198324008-1	SB-CZ-SS-2403-ST	SAMPLE		.08 pCi/g	SCAN001	SOIL	05-OCT-07 00:00:00	122.02	11	
198324009-1	SB-CZ-SS-2404-ST	SAMPLE		.08 pCi/g	SCAN001	SOIL	05-OCT-07 00:00:00	110.40	7 12	HU
198324010-1	SB-CZ-SS-2405-ST	SAMPLE		.08 pCi/g	SCAN001	SOIL	05-OCT-07 00:00:00	127.80	13	12/7/07
198324011-1	SB-CZ-SS-2406-ST	SAMPLE		.08 pCi/g	SCAN001	SOIL	05-OCT-07 00:00:00	110.98	14	
198324012-1	SB-CZ-SS-2407-ST	SAMPLE		.08 pCi/g	SCAN001	SOIL	05-OCT-07 00:00:00	116.48	16	
198324013-1	SB-CZ-SS-2408-ST	SAMPLE		.08 pCi/g	SCAN001	SOIL	05-OCT-07 00:00:00	116.88	17	
198324014-1	SB-CZ-SS-2409-ST	SAMPLE		.08 pCi/g	SCAN001	SOIL	05-OCT-07 00:00:00	107.19	18	
198324015-1	SB-CZ-SS-2396-SD	SAMPLE		.08 pCi/g	SCAN001	SOIL	05-OCT-07 00:00:00	113.24	19	
198324016-1	SB-CZ-SS-2397-SD	SAMPLE		.08 pCi/g	SCAN001	SOIL	05-OCT-07 00:00:00	118.27	116 20	HU
198324017-1	SB-CZ-SS-2398-SD	SAMPLE		.08 pCi/g	SCAN001	SOIL	05-OCT-07 00:00:00	120.05	HU 12/7/07 1	12/7/07
198324018-1	SB-CZ-SS-2399-SD	SAMPLE		.08 pCi/g	SCAN001	SOIL	05-OCT-07 00:00:00	115.80	21	
198324019-1	SB-CZ-SS-2400-SD	SAMPLE		.08 pCi/g	SCAN001	SOIL	05-OCT-07 00:00:00	115.11	23	
198324020-1	SB-CZ-SS-2401-SD	SAMPLE		.08 pCi/g	SCAN001	SOIL	05-OCT-07 00:00:00	106.65	5	NR
1201469643-1	MB for batch 706245	MB		.08 pCi/g	QC ACCOUNT	SOIL	11/29/07 MA	125.00	17 5	
1201469644-1	SB-CZ-SS-2396-ST(198324001DUP	DUP		.08 pCi/g	QC ACCOUNT	SOIL	05-OCT-07 00:00:00 MA	118.68	13	
1201469645-1	LCS for batch 706245	LCS		.08 pCi/g	QC ACCOUNT	SOIL	11/29/07 MA	155.44	4	
							✓	✓	✓	MJH 11/29/07

GEL Laboratories LLC, Radiochemistry Division

Data Reviewed By: 12/8/07

12/7/07

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	Parmname	Result	MDA	RDL
706245	198324001	SAMPLE	30-NOV-07				
706245	198324002	SAMPLE	30-NOV-07				
706245	198324003	SAMPLE	30-NOV-07				
706245	198324004	SAMPLE	30-NOV-07				
706245	198324005	SAMPLE	30-NOV-07				
706245	198324006	SAMPLE	30-NOV-07				
706245	198324007	SAMPLE	30-NOV-07				
706245	198324008	SAMPLE	30-NOV-07				
706245	198324009	SAMPLE	07-DEC-07				
706245	198324010	SAMPLE	30-NOV-07				
706245	198324011	SAMPLE	30-NOV-07				
706245	198324012	SAMPLE	30-NOV-07				
706245	198324013	SAMPLE	30-NOV-07				
706245	198324014	SAMPLE	30-NOV-07				
706245	198324015	SAMPLE	30-NOV-07				
706245	198324016	SAMPLE	07-DEC-07				
706245	198324017	SAMPLE	30-NOV-07				
706245	198324018	SAMPLE	30-NOV-07				
706245	198324019	SAMPLE	30-NOV-07				
706245	198324020	SAMPLE	30-NOV-07				
706245	1201469643	MB	30-NOV-07				
706245	1201469644	DUP	30-NOV-07	Bismuth-212	-0.03586	0.5181	0.500
706245	1201469645	LCS	30-NOV-07	Antimony-125	0.1122	0.3563	0.200
				Bismuth-212	0.9837	1.044	0.500
				Thorium-234	1.164	1.867	0.500
				Uranium-235	-0.1199	0.6594	0.500

Gamma Review Report based on Result > MDA for Batch:706245

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198324001	05-OCT-07 00:00	30-NOV-07 07:07	56.3	SAMPLE	LOAD	1	SCAN	SCAN00101 | GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	✓	0.9042	0.1907	pCi/g	0.1237	0.800	911.5	1	1.736	IDENTIFIED	9.62		
Americium-243	JNJ	0.248	0.06416	pCi/g	0.04963	Y	74.98	1	2.383	IDENTIFIED	12.59	✓ UJ	
Bismuth-212	✓	0.4103	0.2941	pCi/g	0.292	0.500	728.1	1	1.392	IDENTIFIED	36.34		
Bismuth-214	✓	0.7	0.1079	pCi/g	0.07693	0.200	609.4	1	1.493	IDENTIFIED	6.966		
Cesium-137	✓	0.2292	0.0572	pCi/g	0.04216	0.100	661.8	1	1.847	IDENTIFIED	12.15		
Lead-212	✓	0.7537	0.08553	pCi/g	0.06285	0.100	238.7	1	1.286	IDENTIFIED	4.653		
Lead-214	✓	0.6421	0.1171	pCi/g	0.077	0.100	352	1	1.578	IDENTIFIED	8.753		
Neptunium-237	JNJ	0.398	0.1751	pCi/g	0.2857	Y	87.11	1	1.286	IDENTIFIED	22.06	✓ UJ	
Polonium-209	TPW	8.069	9.233	pCi/g	7.259	Y	898.2	1	8.808	IDENTIFIED	58.18	UI	Data rejected due to high peak-width.
Potassium-40	✓	6.21	0.795	pCi/g	0.3324	1.00	1461	1	1.905	IDENTIFIED	5.849		
Radium-223	JNJ	0.4031	0.2313	pCi/g	0.1869	Y	269.6	1	1.522	IDENTIFIED	29.08	✓ UJ	
Thallium-208	✓	0.2394	0.04729	pCi/g	0.03664	0.080	583.4	1	1.386	IDENTIFIED	9.426		
Thorium-234	✓	0.9007	0.5015	pCi/g	0.4615	0.500	93.17	1	1.723	IDENTIFIED	28.14		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198324002	05-OCT-07 00:00	30-NOV-07 07:09	56.3	SAMPLE	LOAD	1	SCAN	SCAN00101 | GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	LA	0.3857	0.1282	pCi/g	0.245	0.800	911	1	1.944	FAIL_ABUND	16.62	UI	Data rejected due to low abundance.
Americium-243	JNJ	0.05228	0.01942	pCi/g	0.02398	Y	75.09	1	1.29	IDENTIFIED	18.63	✓ UJ	
Bismuth-214	LA	0.2915	0.08784	pCi/g	0.1365	0.200	609.4	1	1.787	FAIL_ABUND	14.9	UI	Data rejected due to low abundance.
Cesium-137	✓	0.4097	0.06883	pCi/g	0.04345	0.100	661.6	1	1.777	IDENTIFIED	7.533		
Lead-212	✓	0.2987	0.0579	pCi/g	0.05523	0.100	238.7	1	1.557	IDENTIFIED	9.404		
Lead-214	✓	0.2322	0.07476	pCi/g	0.07289	0.100	352.1	1	1.646	IDENTIFIED	16.22		
Potassium-40	✓	3.706	0.7379	pCi/g	0.4097	1.00	1461	1	1.768	IDENTIFIED	9.775		
Thallium-208	✓	0.0698	0.04062	pCi/g	0.03516	0.080	583.2	1	2.24	IDENTIFIED	29.47		
Thorium-234	✓	0.5119	0.2894	pCi/g	0.2753	0.500	92.97	1	1.895	IDENTIFIED	28.6		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198324003	05-OCT-07 00:00	30-NOV-07 07:52	56.3	SAMPLE	LOAD	1	SCAN	SCAN00101 | GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	✓	0.5675	0.1752	pCi/g	0.1351	0.800	910.9	1	1.49	IDENTIFIED	15.23		
Americium-243	JNJ	0.0965	0.03354	pCi/g	0.04117	Y	74.86	1	0.9201	IDENTIFIED	17.38	✓ UJ	
Bismuth-214	✓	0.3787	0.07478	pCi/g	0.06884	0.200	609.3	1	1.563	IDENTIFIED	9.652		
Cesium-137	✓	0.127	0.03675	pCi/g	0.03455	0.100	661.7	1	1.348	IDENTIFIED	14.47		
Lead-212	✓	0.5	0.06041	pCi/g	0.05265	0.100	238.7	1	0.9876	IDENTIFIED	5.481		
Lead-214	✓	0.4391	0.08155	pCi/g	0.06451	0.100	352	1	1.246	IDENTIFIED	9.083		
Neptunium-237	JNJ	0.2189	0.155	pCi/g	0.1963	Y	86.95	1	1.349	IDENTIFIED	35.95	✓ UJ	
Potassium-40	✓	4.788	0.6509	pCi/g	0.2753	1.00	1461	1	2.216	IDENTIFIED	5.948		
Radium-223	JNJ	0.1657	0.1606	pCi/g	0.1623	Y	270.6	1	2.224	IDENTIFIED	49.37	✓ UJ	
Thallium-208	✓	0.156	0.04401	pCi/g	0.03784	0.080	583.5	1	1.483	IDENTIFIED	14.11		
Thorium-234	✓	0.5955	0.4503	pCi/g	0.3689	0.500	92.98	1	1.047	IDENTIFIED	38.41		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198324004	05-OCT-07 00:00	30-NOV-07 09:54	56.4	SAMPLE	LOAD	1	SCAN	SCAN00101 | GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	✓	0.4773	0.1684	pCi/g	0.1114	0.800	912.2	1	1.607	IDENTIFIED	17.31		
Americium-243	JNJ	0.0576	0.04368	pCi/g	0.05253	Y	74.65	1	1.169	IDENTIFIED	38.4	✓ UJ	
Bismuth-212	✓	0.3077	0.2355	pCi/g	0.2466	0.500	727.5	1	1.779	IDENTIFIED	38.87		
Bismuth-214	✓	0.3382	0.07765	pCi/g	0.06188	0.200	609.7	1	1.438	IDENTIFIED	11.24		
Cesium-137	✓	0.1352	0.04389	pCi/g	0.03764	0.100	662.2	1	1.662	IDENTIFIED	16.21		
Lead-212	✓	0.5237	0.07752	pCi/g	0.05242	0.100	238.8	1	1.216	IDENTIFIED	5.57		
Lead-214	✓	0.341	0.08213	pCi/g	0.06258	0.100	352	1	1.317	IDENTIFIED	11.71		

Neptunium-237	JNT	0.2712	0.1389	pCi/g	0.239	Y	87.21	1	0.817	IDENTIFIED	25.72	☑	UJ
Potassium-40	✓	4.031	0.591	pCi/g	0.3289	1.00	1462	1	1.805	IDENTIFIED	6.804	☐	
Radium-223	JNT	0.3248	0.171	pCi/g	0.1668	Y	270.5	1	2.012	IDENTIFIED	26.42	☑	UJ
Thallium-208	✓	0.134	0.04503	pCi/g	0.03061	0.080	583.5	1	1.266	IDENTIFIED	16.83	☐	
Thorium-234	✓	0.5224	0.5047	pCi/g	0.4711	0.500	92.8	1	1.492	IDENTIFIED	49.09	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198324005	05-OCT-07 00:00	30-NOV-07 09:55	56.4	SAMPLE	LOAD	1	SCAN	SCAN00101 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	✓	0.7153	0.2032	pCi/g	0.1536	0.800	911	1	1.421	IDENTIFIED	13.57	☐	
Americium-243	JNT	0.138	0.03595	pCi/g	0.04903	Y	74.5	1	0.8286	IDENTIFIED	12.63	☑	UJ
Bismuth-214	✓	0.5316	0.09843	pCi/g	0.07419	0.200	609.1	1	1.399	IDENTIFIED	8.83	☐	
Cesium-137	✓	0.287	0.05625	pCi/g	0.03653	0.100	661.6	1	1.551	IDENTIFIED	9.415	☐	
Lead-212	✓	0.6966	0.0804	pCi/g	0.06437	0.100	238.3	1	1.096	IDENTIFIED	4.993	☐	
Lead-214	✓	0.6283	0.1065	pCi/g	0.07529	0.100	351.5	1	1.309	IDENTIFIED	8.066	☐	
Neptunium-237	JNT	0.3089	0.156	pCi/g	0.2356	Y	86.72	1	1.083	IDENTIFIED	25.39	☑	UJ
Potassium-40	✓	5.388	0.8602	pCi/g	0.429	1.00	1460	1	2.216	IDENTIFIED	7.489	☐	
Radium-223	JNT	0.2366	0.177	pCi/g	0.2099	Y	270.2	1	1.847	IDENTIFIED	38.03	☑	UJ
Thallium-208	✓	0.2057	0.05387	pCi/g	0.0366	0.080	583.2	1	1.417	IDENTIFIED	12.94	☐	
Thorium-234	✓	0.9011	0.516	pCi/g	0.4716	0.500	92.47	1	1.487	IDENTIFIED	28.92	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198324006	05-OCT-07 00:00	30-NOV-07 09:56	56.4	SAMPLE	LOAD	1	SCAN	SCAN00101 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	✓	0.5994	0.1554	pCi/g	0.1208	0.800	911.6	1	1.532	IDENTIFIED	12.79	☐	
Americium-243	JNT	0.1317	0.02978	pCi/g	0.03458	Y	74.94	1	1.03	IDENTIFIED	11.02	☑	UJ
Bismuth-214	✓	0.4169	0.08367	pCi/g	0.06674	0.200	609.6	1	1.515	IDENTIFIED	9.639	☐	
Cesium-137	✓	0.2721	0.04382	pCi/g	0.03676	0.100	661.9	1	1.41	IDENTIFIED	7.359	☐	
Lead-212	✓	0.6251	0.06974	pCi/g	0.04867	0.100	238.8	1	1.151	IDENTIFIED	4.844	☐	
Lead-214	✓	0.4234	0.08382	pCi/g	0.06262	0.100	352.2	1	1.103	IDENTIFIED	9.704	☐	
Neptunium-237	JNT	0.329	0.1415	pCi/g	0.1762	Y	87.36	1	1.117	IDENTIFIED	21.59	☑	UJ
Potassium-40	✓	4.747	0.6611	pCi/g	0.2897	1.00	1461	1	1.909	IDENTIFIED	6.564	☐	
Thallium-208	✓	0.1809	0.04866	pCi/g	0.03506	0.080	583.5	1	1.578	IDENTIFIED	13.31	☐	
Thorium-234	✓	0.7425	0.384	pCi/g	0.3797	0.500	92.83	1	1.275	IDENTIFIED	26.11	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198324007	05-OCT-07 00:00	30-NOV-07 09:57	56.4	SAMPLE	LOAD	1	SCAN	SCAN00101 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	✓	0.568	0.1924	pCi/g	0.1267	0.800	911.4	1	1.001	IDENTIFIED	16.75	☐	
Americium-243	JNT	0.1569	0.04646	pCi/g	0.04649	Y	74.82	1	1.485	IDENTIFIED	14.44	☑	UJ
Bismuth-212	✓	0.4604	0.2637	pCi/g	0.2745	0.500	726.9	1	1.105	IDENTIFIED	29.01	☐	
Bismuth-214	✓	0.5651	0.1012	pCi/g	0.06775	0.200	609.4	1	1.691	IDENTIFIED	8.586	☐	
Cesium-137	✓	0.3789	0.05415	pCi/g	0.03826	0.100	661.8	1	1.539	IDENTIFIED	6.539	☐	
Lead-212	✓	0.5794	0.07074	pCi/g	0.057	0.100	238.7	1	1.206	IDENTIFIED	5.057	☐	
Lead-214	✓	0.744	0.1079	pCi/g	0.06846	0.100	352	1	1.328	IDENTIFIED	6.587	☐	
Neptunium-237	JNT	0.3409	0.1371	pCi/g	0.2131	Y	87.29	1	0.9645	IDENTIFIED	19.96	☑	UJ
Potassium-40	✓	6.255	0.8348	pCi/g	0.3833	1.00	1461	1	2.221	IDENTIFIED	5.944	☐	
Radium-223	JNT	0.2025	0.1842	pCi/g	0.1677	Y	270.7	1	2.136	IDENTIFIED	46.23	☑	UJ
Thallium-208	✓	0.2246	0.04606	pCi/g	0.03615	0.080	583.2	1	1.451	IDENTIFIED	9.999	☐	
Thorium-234	✓	0.8935	0.4581	pCi/g	0.3612	0.500	93	1	1.544	IDENTIFIED	25.8	☐	

*** = Number of isotopes identified with a keyline at this energy

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198324008	05-OCT-07 00:00	30-NOV-07 09:58	56.4	SAMPLE	LOAD	1	SCAN	SCAN00101 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	✓	0.593	0.1519	pCi/g	0.09995	0.800	911.6	1	1.53	IDENTIFIED	12.31	☐	
Americium-243	JNT	0.1297	0.02625	pCi/g	0.03284	Y	74.83	1	0.8943	IDENTIFIED	9.787	☑	UJ
Bismuth-212	✓	0.5035	0.2138	pCi/g	0.2187	0.500	727.8	1	0.7915	IDENTIFIED	21.29	☐	
Bismuth-214	✓	0.6443	0.08991	pCi/g	0.05271	0.200	609.5	1	1.282	IDENTIFIED	6.173	☐	

Cesium-137	✓	**0.1618**	0.03438	pCi/g	**0.02677**	**0.100**	661.8	1	1.435	IDENTIFIED	10.15		
Lead-212	✓	**0.6284**	0.06183	pCi/g	**0.04065**	**0.100**	238.7	1	0.9923	IDENTIFIED	4.07		
Lead-214	✓	**0.7822**	0.08297	pCi/g	**0.04989**	**0.100**	352	1	0.9193	IDENTIFIED	4.657		
Neptunium-237	JNT	**0.4264**	0.1254	pCi/g	**0.1396**	**Y**	87.27	1	1.218	IDENTIFIED	14.55	✓	UJ
Potassium-40	✓	**6.239**	0.7497	pCi/g	**0.2655**	**1.00**	1461	1	1.73	IDENTIFIED	5.026		
Protactinium-234m	NUP	**2.99**	2.771	pCi/g	**2.916**	**Y**	1002	1	1.768	IDENTIFIED	47.13	✓	UJ
Radium-223	JNT	**0.2743**	0.153	pCi/g	**0.1273**	**Y**	270.4	1	1.9	IDENTIFIED	28.29	✓	UJ
Thallium-208	✓	**0.197**	0.04239	pCi/g	**0.0272**	**0.080**	583.4	1	1.417	IDENTIFIED	10.43		
Thorium-234	✓	**0.9597**	0.3114	pCi/g	**0.3082**	**0.500**	92.67	1	1.136	IDENTIFIED	16.18		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198324009	05-OCT-07 00:00	07-DEC-07 05:45	63.2	SAMPLE	LOAD	2	SCAN	SCAN00101 | GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual		Qual Comment
Actinium-228	✓	**0.4454**	0.1099	pCi/g	**0.08831**	**0.800**	911.3	1	1.214	IDENTIFIED	12.13	✓		
Americium-243	JNT	**0.05373**	0.0225	pCi/g	**0.02674**	**Y**	74.91	1	0.938	IDENTIFIED	21.09	✓	UJ	
Bismuth-214	LA	**0.313**	0.06796	pCi/g	**0.09427**	**0.200**	609.5	1	1.477	FAIL_ABUND	10.53	✓	UI	Data rejected due to low abundance.
Cesium-137	✓	**0.3256**	0.04089	pCi/g	**0.02777**	**0.100**	661.8	1	1.143	IDENTIFIED	5.264			
Lead-212	✓	**0.3484**	0.0525	pCi/g	**0.04099**	**0.100**	238.8	1	1.014	IDENTIFIED	7.083			
Lead-214	✓	**0.2642**	0.05891	pCi/g	**0.04911**	**0.100**	352.1	1	1.221	IDENTIFIED	11.03			
Neptunium-237	JNT	**0.2064**	0.08492	pCi/g	**0.106**	**Y**	87.25	1	1.214	IDENTIFIED	20.63	✓	UJ	
Potassium-40	✓	**3.388**	0.5472	pCi/g	**0.2409**	**1.00**	1461	1	2.215	IDENTIFIED	7.779			
Radium-223	JNT	**0.2842**	0.1214	pCi/g	**0.119**	**Y**	270.6	1	1.901	IDENTIFIED	21.57	✓	UJ	
Thallium-208	✓	**0.1367**	0.03476	pCi/g	**0.02206**	**0.080**	583.4	1	1.31	IDENTIFIED	12.53			
Thorium-234	✓	**0.4547**	0.2611	pCi/g	**0.2496**	**0.500**	92.78	1	1.361	IDENTIFIED	29.05			

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198324010	05-OCT-07 00:00	30-NOV-07 09:59	56.4	SAMPLE	LOAD	1	SCAN	SCAN00101 | GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual		Qual Comment
Actinium-228	✓	**0.5026**	0.2144	pCi/g	**0.1643**	**0.800**	910.9	1	2.198	IDENTIFIED	21.54			
Americium-243	JNT	**0.07449**	0.02158	pCi/g	**0.02764**	**Y**	74.83	1	0.978	IDENTIFIED	14.25	✓	UJ	
Bismuth-214	LA	**0.2428**	0.1014	pCi/g	**0.1296**	**0.200**	609.4	1	1.527	FAIL_ABUND	20.98	✓	UI	Data rejected due to low abundance.
Cesium-137	✓	**0.3609**	0.06584	pCi/g	**0.05037**	**0.100**	661.7	1	1.334	IDENTIFIED	8.388			
Lead-212	✓	**0.4307**	0.06325	pCi/g	**0.05604**	**0.100**	238.7	1	1.085	IDENTIFIED	6.702			
Lead-214	✓	**0.3277**	0.07761	pCi/g	**0.07448**	**0.100**	351.9	1	1.131	IDENTIFIED	11.79			
Neptunium-236	NUP	**0.05219**	0.03973	pCi/g	**0.04376**	**Y**	98.92	1	1.204	IDENTIFIED	38.61	✓	UJ	
Neptunium-237	JNT	**0.2703**	0.1095	pCi/g	**0.1499**	**Y**	87.27	1	0.9661	IDENTIFIED	20.28	✓	UJ	
Potassium-40	✓	**3.163**	0.5611	pCi/g	**0.4053**	**1.00**	1461	1	2.287	IDENTIFIED	8.612			
Protactinium-234m	↑PW	**11.41**	6.716	pCi/g	**4.979**	**Y**	1002	1	3.368	IDENTIFIED	29.87	✓	UI	Data rejected due to high peak-width.
Thallium-208	✓	**0.156**	0.04247	pCi/g	**0.04057**	**0.080**	582.9	1	1.766	IDENTIFIED	13.42			
Thorium-234	✓	**0.8921**	0.4026	pCi/g	**0.3188**	**0.500**	92.67	1	1.123	IDENTIFIED	22.66			

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198324011	05-OCT-07 00:00	30-NOV-07 10:00	56.4	SAMPLE	LOAD	1	SCAN	SCAN00101 | GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual		Qual Comment
Actinium-228	✓	**0.4877**	0.1651	pCi/g	**0.1039**	**0.800**	911.5	1	2.031	IDENTIFIED	16.7			
Americium-243	JNT	**0.09734**	0.03449	pCi/g	**0.03294**	**Y**	74.81	1	1.678	IDENTIFIED	17.69	✓	UJ	
Bismuth-212	✓	**0.3831**	0.2123	pCi/g	**0.2069**	**0.500**	727.4	1	0.805	IDENTIFIED	27.98			
Bismuth-214	✓	**0.3095**	0.08217	pCi/g	**0.06025**	**0.200**	609.5	1	1.833	IDENTIFIED	13.03			
Cesium-137	✓	**0.3088**	0.05742	pCi/g	**0.03002**	**0.100**	661.8	1	1.398	IDENTIFIED	8.651			
Lead-212	✓	**0.4336**	0.05826	pCi/g	**0.0464**	**0.100**	238.4	1	1.403	IDENTIFIED	6.106			
Lead-214	✓	**0.2459**	0.0708	pCi/g	**0.05642**	**0.100**	351.8	1	1.208	IDENTIFIED	14.38			
Neptunium-237	JNT	**0.2469**	0.1408	pCi/g	**0.1536**	**Y**	87.32	1	1.698	IDENTIFIED	28.79	✓	UJ	
Potassium-40	✓	**3.02**	0.5723	pCi/g	**0.3447**	**1.00**	1461	1	1.938	IDENTIFIED	9.26			
Protactinium-234m	↑PW	**3.682**	2.491	pCi/g	**3.513**	**Y**	1002	1	3.227	IDENTIFIED	34.26	✓	UI	Data rejected due to high peak-width.
Radium-223	JNT	**0.1842**	0.1435	pCi/g	**0.1473**	**Y**	270.3	1	1.978	IDENTIFIED	39.63	✓	UJ	
Thallium-208	✓	**0.13**	0.03527	pCi/g	**0.02963**	**0.080**	583.2	1	1.383	IDENTIFIED	13.36			
Thorium-234	✓	**0.6548**	0.3372	pCi/g	**0.3391**	**0.500**	92.78	1	1.707	IDENTIFIED	25.97			

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198324012	05-OCT-07 00:00	30-NOV-07 10:01	56.4	SAMPLE	LOAD	1	SCAN	SCAN00101 | GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	0.4456	0.1065	pCi/g	0.08947	0.800	911.3	1	1.635	IDENTIFIED	11.46		
Americium-243	0.1061	0.02702	pCi/g	0.03013	Y	74.79	1	1.369	IDENTIFIED	12.57	✓ UJ	
Bismuth-212	0.4539	0.1853	pCi/g	0.1703	0.500	727.5	1	2.047	IDENTIFIED	20.38		
Bismuth-214	0.3349	0.06886	pCi/g	0.04675	0.200	609.4	1	1.441	IDENTIFIED	9.759		
Cesium-137	0.1668	0.03443	pCi/g	0.02669	0.100	661.5	1	1.506	IDENTIFIED	9.647		
Lead-212	0.5114	0.04961	pCi/g	0.03714	0.100	238.7	1	1.229	IDENTIFIED	4.081		
Lead-214	0.3807	0.06597	pCi/g	0.04574	0.100	352.1	1	1.477	IDENTIFIED	8.448		
Neptunium-237	0.4174	0.1117	pCi/g	0.1186	Y	87.18	1	1.457	IDENTIFIED	13.14	✓ UJ	
Potassium-40	3.878	0.5124	pCi/g	0.245	1.00	1461	1	1.902	IDENTIFIED	6.02		
Radium-223	0.2093	0.1136	pCi/g	0.1102	Y	270.1	1	1.136	IDENTIFIED	27.56	✓ UJ	
Thallium-208	0.1887	0.03203	pCi/g	0.02034	0.080	583.2	1	1.292	IDENTIFIED	7.845		
Thorium-234	0.8215	0.2903	pCi/g	0.2606	0.500	92.65	1	1.425	IDENTIFIED	17.66		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198324013	05-OCT-07 00:00	30-NOV-07 10:02	56.4	SAMPLE	LOAD	1	SCAN	SCAN00101 | GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	0.4329	0.2184	pCi/g	0.1559	0.800	911.5	1	1.355	IDENTIFIED	25.52		
Americium-243	0.114	0.02385	pCi/g	0.02855	Y	74.9	1	0.8257	IDENTIFIED	10.17	✓ UJ	
Bismuth-212	0.3291	0.2982	pCi/g	0.2997	0.500	727.6	1	1.828	IDENTIFIED	46.08	✓ UJ	
Bismuth-214	0.4954	0.1061	pCi/g	0.0682	0.200	609.5	1	1.237	IDENTIFIED	10.33		
Cesium-137	0.2374	0.05404	pCi/g	0.04339	0.100	661.6	1	1.612	IDENTIFIED	11.01		
Lead-212	0.5611	0.07313	pCi/g	0.0513	0.100	238.7	1	0.9324	IDENTIFIED	5.327		
Lead-214	0.4539	0.09183	pCi/g	0.06961	0.100	351.9	1	1.212	IDENTIFIED	9.787		
Neptunium-237	0.3616	0.1272	pCi/g	0.1461	Y	87.33	1	1.106	IDENTIFIED	17.63	✓ UJ	
Potassium-40	4.355	0.6337	pCi/g	0.3803	1.00	1461	1	1.962	IDENTIFIED	6.908		
Protactinium-234m	5.844	4.912	pCi/g	5.213	Y	1003	1	7.359	IDENTIFIED	42.76	✓ UI	Data rejected due to high peak-width.
Thallium-208	0.1764	0.0556	pCi/g	0.04014	0.080	583.5	1	1.272	IDENTIFIED	15.69		
Thorium-234	1.083	0.3753	pCi/g	0.3396	0.500	92.74	1	1.224	IDENTIFIED	17.32		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198324014	05-OCT-07 00:00	30-NOV-07 10:05	56.4	SAMPLE	LOAD	1	SCAN	SCAN00101 | GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	0.5059	0.147	pCi/g	0.09401	0.800	910.8	1	1.785	IDENTIFIED	13.94		
Americium-243	0.09621	0.03198	pCi/g	0.04227	Y	74.61	1	1.081	IDENTIFIED	16.23	✓ UJ	
Bismuth-212	0.4153	0.1716	pCi/g	0.1993	0.500	726.3	1	1.591	IDENTIFIED	20.69		
Bismuth-214	0.3183	0.07085	pCi/g	0.05547	0.200	608.7	1	1.638	IDENTIFIED	10.83		
Cesium-137	0.0282	0.01975	pCi/g	0.02558	0.100	661.6	1	1.159	IDENTIFIED	35.54		
Lead-212	0.4846	0.05408	pCi/g	0.04369	0.100	238.4	1	1.219	IDENTIFIED	5.017		
Lead-214	0.3758	0.06474	pCi/g	0.05175	0.100	351.5	1	1.07	IDENTIFIED	8.415		
Neptunium-237	0.3255	0.1695	pCi/g	0.2043	Y	87.16	1	1.083	IDENTIFIED	26.05	✓ UJ	
Potassium-40	1.894	0.5127	pCi/g	0.2724	1.00	1460	1	2.459	IDENTIFIED	13.25		
Thallium-208	0.1297	0.03462	pCi/g	0.0244	0.080	582.8	1	1.486	IDENTIFIED	13.21		
Thorium-234	0.4939	0.4845	pCi/g	0.3778	0.500	92.87	1	1.093	IDENTIFIED	49.82		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198324015	05-OCT-07 00:00	30-NOV-07 10:06	56.4	SAMPLE	LOAD	1	SCAN	SCAN00101 | GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	0.8671	0.2162	pCi/g	0.1267	0.800	910.6	1	1.76	IDENTIFIED	11.61		
Americium-243	0.2006	0.04524	pCi/g	0.0489	Y	75.01	1	1.512	IDENTIFIED	11.05	✓ UJ	
Bismuth-212	0.7006	0.295	pCi/g	0.2596	0.500	726.5	1	1.549	IDENTIFIED	21.03		
Bismuth-214	0.6089	0.1103	pCi/g	0.06679	0.200	608.9	1	1.633	IDENTIFIED	8.419		
Cesium-137	0.05088	0.03377	pCi/g	0.03758	0.100	661.3	1	1.929	IDENTIFIED	33.62		
Lead-212	0.8091	0.08133	pCi/g	0.05448	0.100	238.4	1	1.306	IDENTIFIED	4.049		
Lead-214	0.7251	0.1033	pCi/g	0.06946	0.100	351.5	1	1.566	IDENTIFIED	6.618		
Neptunium-237	0.4371	0.1507	pCi/g	0.2059	Y	87.2	1	1.192	IDENTIFIED	17.26	✓ UJ	

Potassium-40	✓	6.207	0.8422	pCi/g	0.3425	1.00	1460	1	1.643	IDENTIFIED	6.183	☐
Protactinium-234m	MP	4.915	2.859	pCi/g	3.838	Y	1000	1	1.992	IDENTIFIED	29.31	☑ UJ
Radium-223	JNJ	0.3905	0.1884	pCi/g	0.1645	Y	269.6	1	2.876	IDENTIFIED	24.42	☑ UJ
Thallium-208	✓	0.2561	0.04977	pCi/g	0.03181	0.080	582.6	1	1.728	IDENTIFIED	9.203	☐
Thorium-234	✓	1	0.4564	pCi/g	0.4241	0.500	93.02	1	1.707	IDENTIFIED	23.04	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198324016	05-OCT-07 00:00	07-DEC-07 05:46	63.2	SAMPLE	LOAD	2	SCAN	SCAN00101 | GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	✓	0.3218	0.08318	pCi/g	0.05637	0.800	911.1	1	1.447	IDENTIFIED	12.44	☐	
Americium-243	JNJ	0.04753	0.01503	pCi/g	0.01811	Y	74.76	1	0.8674	IDENTIFIED	15.79	☑ UJ	
Bismuth-212	✓	0.1975	0.1209	pCi/g	0.1185	0.500	727.3	1	1.46	IDENTIFIED	30.97	☐	
Bismuth-214	✓	0.1364	0.04179	pCi/g	0.03342	0.200	609	1	1.053	IDENTIFIED	15.22	☐	
Cesium-137	✓	0.04172	0.02176	pCi/g	0.01678	0.100	661.8	1	1.174	IDENTIFIED	26.34	☐	
Lead-212	✓	0.2769	0.03263	pCi/g	0.02364	0.100	238.5	1	0.9713	IDENTIFIED	5.246	☐	
Lead-214	✓	0.1445	0.04099	pCi/g	0.03172	0.100	351.7	1	1.078	IDENTIFIED	14.21	☐	
Neptunium-237	UNC	0.07265	0.08891	pCi/g	0.07194	Y	87.28	1	1.146	IDENTIFIED	62.33	☑ UI	Data rejected due to high counting unc
Potassium-40	✓	3.303	0.3874	pCi/g	0.1482	1.00	1460	1	1.842	IDENTIFIED	4.845	☐	
Radium-223	JNJ	0.09762	0.07418	pCi/g	0.07494	Y	269.7	1	1.283	IDENTIFIED	38.65	☑ UJ	
Thallium-208	✓	0.1085	0.02168	pCi/g	0.01636	0.080	583	1	1.112	IDENTIFIED	9.603	☐	
Thorium-234	✓	0.4636	0.1944	pCi/g	0.169	0.500	92.56	1	1.06	IDENTIFIED	21.11	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198324017	05-OCT-07 00:00	30-NOV-07 11:14	56.5	SAMPLE	LOAD	1	SCAN	SCAN00101 | GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	✓	0.5179	0.178	pCi/g	0.1547	0.800	911.5	1	1.935	IDENTIFIED	16.86	☐	
Americium-243	JNJ	0.127	0.04314	pCi/g	0.04804	Y	74.93	1	1.628	IDENTIFIED	16.87	☑ UJ	
Bismuth-212	✓	0.3972	0.2846	pCi/g	0.2737	0.500	727.9	1	1.442	IDENTIFIED	36.32	☐	
Bismuth-214	✓	0.3475	0.08491	pCi/g	0.07187	0.200	609.6	1	1.945	IDENTIFIED	11.92	☐	
Cesium-137	✓	0.07325	0.04196	pCi/g	0.04059	0.100	662.2	1	1.689	IDENTIFIED	28.98	☐	
Lead-212	✓	0.6126	0.07325	pCi/g	0.05948	0.100	238.7	1	1.392	IDENTIFIED	5.034	☐	
Lead-214	✓	0.3736	0.07805	pCi/g	0.07259	0.100	352.1	1	1.385	IDENTIFIED	10.18	☐	
Potassium-40	✓	6.094	0.8117	pCi/g	0.3119	1.00	1461	1	1.768	IDENTIFIED	6.142	☐	
Radium-223	JNJ	0.3362	0.1983	pCi/g	0.1845	Y	270.3	1	1.833	IDENTIFIED	29.9	☑ UJ	
Thallium-208	✓	0.1927	0.04131	pCi/g	0.03228	0.080	583.5	1	1.689	IDENTIFIED	10.34	☐	
Thorium-234	✓	0.6388	0.4505	pCi/g	0.4744	0.500	93.17	1	1.858	IDENTIFIED	35.77	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198324018	05-OCT-07 00:00	30-NOV-07 11:15	56.5	SAMPLE	LOAD	1	SCAN	SCAN00101 | GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	✓	0.6451	0.1692	pCi/g	0.07997	0.800	910.8	1	1.419	IDENTIFIED	12.95	☐	
Americium-243	JNJ	0.1047	0.03044	pCi/g	0.02967	Y	74.95	1	1.86	IDENTIFIED	14.42	☑ UJ	
Bismuth-214	UA	0.2793	0.1194	pCi/g	0.1579	0.200	608.9	1	1.547	FAIL_ABUND	21.48	☑ UI	Data rejected due to low abundance.
Lead-212	✓	0.4858	0.07054	pCi/g	0.06105	0.100	238.6	1	1.488	IDENTIFIED	6.746	☐	
Lead-214	✓	0.2748	0.08415	pCi/g	0.07931	0.100	351.7	1	1.728	IDENTIFIED	15.41	☐	
Potassium-40	✓	3.569	0.6993	pCi/g	0.5162	1.00	1461	1	1.855	IDENTIFIED	9.609	☐	
Thallium-208	✓	0.1769	0.05245	pCi/g	0.0506	0.080	582.7	1	1.151	IDENTIFIED	14.68	☐	
Thorium-234	✓	0.5435	0.2812	pCi/g	0.3392	0.500	93.05	1	1.364	IDENTIFIED	26.12	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198324019	05-OCT-07 00:00	30-NOV-07 11:54	56.5	SAMPLE	LOAD	1	SCAN	SCAN00101 | GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	✓	0.5996	0.1376	pCi/g	0.1107	0.800	911.2	1	1.719	IDENTIFIED	11	☐	
Americium-243	JNJ	0.1148	0.02739	pCi/g	0.03705	Y	74.88	1	0.8479	IDENTIFIED	11.65	☑ UJ	
Bismuth-212	✓	0.4741	0.1984	pCi/g	0.246	0.500	727.2	1	1.805	IDENTIFIED	21.1	☐	
Bismuth-214	✓	0.3829	0.08016	pCi/g	0.0605	0.200	609	1	1.361	IDENTIFIED	10.28	☐	
Cesium-137	✓	0.06269	0.02937	pCi/g	0.03268	0.100	661.3	1	1.649	IDENTIFIED	23.72	☐	
Lead-212	✓	0.5434	0.06795	pCi/g	0.05996	0.100	238.6	1	1.038	IDENTIFIED	5.723	☐	

Lead-214	✓	0.4121	0.07478	pCi/g	0.05657	0.100	351.9	1	1.157	IDENTIFIED	8.857	☐
Neptunium-237	JNT	0.3598	0.1317	pCi/g	0.1493	Y	87.3	1	1.116	IDENTIFIED	18.3	☑ UJ
Potassium-40	✓	4.796	0.759	pCi/g	0.2778	1.00	1461	1	2.09	IDENTIFIED	7.245	☐
Radium-223	JNT	0.2272	0.134	pCi/g	0.1259	Y	270.3	1	1.405	IDENTIFIED	29.93	☑ UJ
Thallium-208	✓	0.187	0.04106	pCi/g	0.02803	0.080	583.3	1	1.518	IDENTIFIED	10.84	☐
Thorium-234	✓	0.8961	0.3391	pCi/g	0.3163	0.500	92.7	1	1.134	IDENTIFIED	18.97	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198324020	05-OCT-07 00:00	30-NOV-07 12:20	56.5	SAMPLE	LOAD	1	SCAN	SCAN00101 | GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	✓	0.4964	0.168	pCi/g	0.2001	0.800	911.4	1	1.494	IDENTIFIED	16.64	☐	
Americium-243	JNT	0.1317	0.03544	pCi/g	0.03629	Y	74.67	1	1.356	IDENTIFIED	13.11	☑ UJ	
Bismuth-214	UA	0.3155	0.1224	pCi/g	0.1766	0.200	609.5	1	1.295	FAIL_ABUND	19.43	☑ UI	Data rejected due to low abundance.
Cesium-137	✓	0.1268	0.06563	pCi/g	0.05023	0.100	662.7	1	2.176	IDENTIFIED	26.09	☐	
Lead-212	✓	0.6252	0.1077	pCi/g	0.08759	0.100	238.4	1	1.189	IDENTIFIED	7.716	☐	
Lead-214	✓	0.5859	0.09835	pCi/g	0.0931	0.100	352	1	1.535	IDENTIFIED	8.096	☐	
Neptunium-237	JNT	0.3549	0.1587	pCi/g	0.2245	Y	87.01	1	0.9267	IDENTIFIED	22.39	☑ UJ	
Potassium-40	✓	5.295	0.9414	pCi/g	0.4427	1.00	1461	1	1.388	IDENTIFIED	8.155	☐	
Thallium-208	✓	0.1749	0.05375	pCi/g	0.04889	0.080	583.4	1	1.455	IDENTIFIED	15.26	☐	
Thorium-234	✓	0.9873	0.4588	pCi/g	0.4316	0.500	92.7	1	1.446	IDENTIFIED	23.28	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1201469643		30-NOV-07 14:05	0	MB	LOAD	1		GEL	N	RGSP

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1201469644	05-OCT-07 00:00	30-NOV-07 14:05	56.6	DUP	LOAD	1		SCAN00101 | GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	✓	0.8911	0.2724	pCi/g	0.2301	0.800	911.2	1	1.623	IDENTIFIED	15.29	☐	
Americium-243	JNT	0.1856	0.03409	pCi/g	0.03637	Y	74.83	1	0.9758	IDENTIFIED	8.5	☑ UJ	
Bismuth-214	✓	0.7627	0.1366	pCi/g	0.1104	0.200	609.1	1	1.285	IDENTIFIED	8.34	☐	
Cesium-137	✓	0.3244	0.06307	pCi/g	0.05512	0.100	661.4	1	1.786	IDENTIFIED	9.061	☐	
Gross Gamma		5.032	2.633	pCi/g	3.02	N		0				☐	
Lead-212	✓	0.82	0.09324	pCi/g	0.07321	0.100	238.6	1	1.032	IDENTIFIED	4.736	☐	
Lead-214	✓	0.8082	0.1059	pCi/g	0.0965	0.100	351.9	1	1.198	IDENTIFIED	6.146	☐	
Neptunium-237	JNT	0.5672	0.1579	pCi/g	0.196	Y	87.19	1	1.042	IDENTIFIED	13.64	☑ UJ	
Potassium-40	✓	7.391	0.9248	pCi/g	0.4546	1.00	1460	1	2.442	IDENTIFIED	5.746	☐	
Thallium-208	✓	0.2321	0.06512	pCi/g	0.05489	0.080	583.1	1	1.272	IDENTIFIED	13.86	☐	
Thorium-234	✓	1.256	0.5245	pCi/g	0.4248	0.500	92.71	1	1.084	IDENTIFIED	20.92	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1201469645		30-NOV-07 14:06	0	LCS	LOAD	1		GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	0.9862	0.6213	pCi/g	0.8408	0.800	911.4	1	1.509	FAIL_ABUND	31.76	☐	
Americium-241	14.41	2.106	pCi/g	0.9269	0.200	59.48	1	0.9988	IDENTIFIED	4.069	☐	
Americium-243	0.2755	0.1715	pCi/g	0.252	Y	74.55	1	1.558	IDENTIFIED	31.41	☐	
Bismuth-214	0.5823	0.3356	pCi/g	0.3534	0.200	610.1	1	1.545	FAIL_ABUND	29.22	☐	
Cesium-137	5.847	0.4776	pCi/g	0.1474	0.100	661.9	1	1.559	IDENTIFIED	2.452	☐	
Cobalt-60	8.361	0.6801	pCi/g	0.1566	0.100	1174	1	1.994	IDENTIFIED	2.443	☐	
Gross Gamma	41.06	6.989	pCi/g	9.107	N		0				☐	
Lead-212	0.924	0.2246	pCi/g	0.2059	0.100	238.5	1	1.044	IDENTIFIED	11.31	☐	
Lead-214	0.7925	0.2393	pCi/g	0.2555	0.100	352	1	1.555	IDENTIFIED	14.95	☐	
Neptunium-237	31.57	3.201	pCi/g	1.101	Y	88.02	1	1.008	IDENTIFIED	2.289	☐	
Polonium-209	243.2	44.47	pCi/g	38.18	Y	898.5	1	1.556	IDENTIFIED	7.89	☐	
Thallium-208	0.3142	0.1493	pCi/g	0.1307	0.080	583.4	1	1.715	IDENTIFIED	24.02	☐	

*** = Number of isotopes identified with a keyline at this energy.

GEL QUALS

Batch ID: 706245

Report run on: December 7, 2007 2:00 PM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
198324009-2 07-DEC-2007 05:45	Americium-243	UI	UI	UI	Data rejected due to interference.		.05373			
	Bismuth-214	UI	UI	UI	Data rejected due to low abundance.		.313		.2	.2
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.2064			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.2842			
198324016-2 07-DEC-2007 05:46	Americium-243	UI	UI	UI	Data rejected due to interference.		.04753			
	Neptunium-237	UI	UI	UI	Data rejected due to a high counting uncertainty.		.07265			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.09762			
198324001-1 30-NOV-2007 07:07	Americium-243	UI	UI	UI	Data rejected due to interference.		.248			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.398			
	Polonium-209	UI	UI	UI	Data rejected due to high peak-width.		8.069			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.4031			
198324002-1 30-NOV-2007 07:09	Actinium-228	UI	UI	UI	Data rejected due to low abundance.		.3857		.8	.8
	Americium-243	UI	UI	UI	Data rejected due to interference.		.05228			
	Bismuth-214	UI	UI	UI	Data rejected due to low abundance.		.2915		.2	.2
198324003-1 30-NOV-2007 07:52	Americium-243	UI	UI	UI	Data rejected due to interference.		.0965			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.2189			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.1657			
198324004-1 30-NOV-2007 09:54	Americium-243	UI	UI	UI	Data rejected due to interference.		.0576			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.2712			

GEL QUALS

Batch ID: 706245

Report run on: December 7, 2007 2:00 PM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
198324004-1 30-NOV-2007 09:54	Radium-223	UI	UI	UI	Data rejected due to interference.		.3248			
198324005-1 30-NOV-2007 09:55	Americium-243	UI	UI	UI	Data rejected due to interference.		.138			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.3089			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.2366			
198324006-1 30-NOV-2007 09:56	Americium-243	UI	UI	UI	Data rejected due to interference.		.1317			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.329			
198324007-1 30-NOV-2007 09:57	Americium-243	UI	UI	UI	Data rejected due to interference.		.1569			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.3409			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.2025			
198324008-1 30-NOV-2007 09:58	Americium-243	UI	UI	UI	Data rejected due to interference.		.1297			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.4264			
	Protactinium-234m	UI	UI	UI	Data rejected due to no valid peak.		2.99			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.2743			
198324010-1 30-NOV-2007 09:59	Americium-243	UI	UI	UI	Data rejected due to interference.		.07449			
	Bismuth-214	UI	UI	UI	Data rejected due to low abundance.		.2428		.2	.2
	Neptunium-236	UI	UI	UI	Data rejected due to no valid peak.		.05219			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.2703			
	Protactinium-234m	UI	UI	UI	Data rejected due to high peak-width.		11.41			
198324011-1	Americium-243	UI	UI	UI	Data rejected due to interference.		.09734			

GEL QUALS

Batch ID: 706245

Report run on: December 7, 2007 2:00 PM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
198324011-1 30-NOV-2007 10:00	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.2469			
	Protactinium-234m	UI	UI	UI	Data rejected due to high peak-width.		3.682			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.1842			
198324012-1 30-NOV-2007 10:01	Americium-243	UI	UI	UI	Data rejected due to interference.		.1061			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.4174			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.2093			
198324013-1 30-NOV-2007 10:02	Americium-243	UI	UI	UI	Data rejected due to interference.		.114			
	Bismuth-212	UI	UI	UI	Data rejected due to no valid peak.		.3291		.5	.5
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.3616			
	Protactinium-234m	UI	UI	UI	Data rejected due to high peak-width.		5.844			
198324014-1 30-NOV-2007 10:05	Americium-243	UI	UI	UI	Data rejected due to interference.		.09621			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.3255			
198324015-1 30-NOV-2007 10:06	Americium-243	UI	UI	UI	Data rejected due to interference.		.2006			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.4371			
	Protactinium-234m	UI	UI	UI	Data rejected due to no valid peak.		4.915			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.3905			
198324017-1 30-NOV-2007 11:14	Americium-243	UI	UI	UI	Data rejected due to interference.		.127			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.3362			
198324018-1	Americium-243	UI	UI	UI	Data rejected due to interference.		.1047			

GEL QUALS

Batch ID: 706245

Report run on: December 7, 2007 2:00 PM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
198324018-1 30-NOV-2007 11:15	Bismuth-214	UI	UI	UI	Data rejected due to low abundance.		.2793		.2	.2
198324019-1 30-NOV-2007 11:54	Americium-243	UI	UI	UI	Data rejected due to interference.		.1148			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.3598			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.2272			
198324020-1 30-NOV-2007 12:20	Americium-243	UI	UI	UI	Data rejected due to interference.		.1317			
	Bismuth-214	UI	UI	UI	Data rejected due to low abundance.		.3155		.2	.2
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.3549			
1201469644-1 DUP 30-NOV-2007 14:05	Americium-243	UI	UI	UI	Data rejected due to interference.		.1856			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.5672			

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:13:01.89

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324001.CNF;1
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 30-NOV-2007 07:07:32
Sample ID        : G198324001           Sample quantity  : 1.17120E+02 GRAM
Detector name    : GAM01                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.66  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706245               Detector SN#     :
Matrix Spike ID  :                      LCS ID           :
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.25*	85	445	0.96	126.55	122	10	5.88E-03	50.2	
2	5	74.98	498	651	2.38	150.02	142	17	3.46E-02	12.6	1.74E+00
3	5	77.25	483	301	1.20	154.56	142	17	3.35E-02	8.2	
4	0	80.31	54	338	1.55	160.68	159	7	3.75E-03	57.7	
5	5	84.26	104	277	1.20	168.58	166	12	7.21E-03	25.9	2.82E+00
6	5	87.11	180	468	1.29	174.30	166	12	1.25E-02	22.1	
7	0	89.49	37	459	0.97	179.05	177	7	2.57E-03	97.4	
8	0	93.17*	189	567	1.72	186.41	183	12	1.31E-02	28.1	
9	0	105.97	42	354	1.63	212.02	209	8	2.94E-03	78.6	
10	0	127.96	83	492	2.99	256.01	253	10	5.76E-03	51.0	
11	0	179.96	63	320	1.51	360.04	356	9	4.35E-03	53.0	
12	0	186.11*	209	369	1.60	372.33	368	10	1.45E-02	20.5	
13	0	209.60	139	392	1.60	419.34	414	11	9.66E-03	29.1	
14	3	238.70*	990	281	1.29	477.55	471	19	6.88E-02	4.7	1.58E+00
15	3	241.76	256	396	2.14	483.66	471	19	1.78E-02	21.3	
16	0	258.31	71	213	1.96	516.77	512	10	4.96E-03	40.4	
17	0	269.63	153	364	1.52	539.42	531	16	1.06E-02	29.1	
18	0	295.29*	358	315	1.41	590.75	583	14	2.49E-02	12.2	
19	0	300.09	57	263	1.59	600.36	597	12	3.95E-03	58.6	
20	0	328.87	42	282	1.76	657.93	651	12	2.92E-03	81.4	
21	0	338.26*	265	229	1.64	676.72	669	15	1.84E-02	14.3	
22	0	352.05*	541	305	1.58	704.30	697	16	3.75E-02	8.8	
23	0	369.33	53	145	0.82	738.88	734	10	3.68E-03	44.7	
24	0	388.73	33	135	0.97	777.68	770	10	2.26E-03	69.6	
25	0	448.81	38	300	7.87	897.86	886	23	2.62E-03	121.3	
26	0	463.59	91	163	1.79	927.43	922	15	6.34E-03	32.1	
27	0	472.53	19	96	0.76	945.32	942	9	1.34E-03	94.4	
28	0	510.90*	109	135	1.79	1022.07	1012	18	7.56E-03	34.1	
29	0	583.42*	298	90	1.39	1167.13	1161	14	2.07E-02	9.4	
30	0	609.44*	457	98	1.49	1219.19	1212	15	3.18E-02	7.0	
31	0	644.53	30	77	2.61	1289.38	1280	13	2.11E-03	63.4	
32	0	661.81*	256	149	1.85	1323.94	1318	14	1.78E-02	12.2	
33	0	703.64	21	67	0.87	1407.61	1402	10	1.44E-03	77.3	
34	0	728.10*	59	80	1.39	1456.53	1449	13	4.07E-03	36.3	
35	0	770.39	56	111	0.97	1541.13	1532	17	3.91E-03	44.9	
36	0	795.69	36	39	1.43	1591.74	1586	10	2.48E-03	37.0	
37	0	837.74*	29	110	8.33	1675.84	1665	21	2.00E-03	96.6	
38	0	861.21	48	46	1.69	1722.78	1718	12	3.35E-03	31.9	

Sample ID : G198324001 Acquisition date : 30-NOV-2007 07:07:32

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	898.16	38	73	8.81	1796.70	1785	20	2.63E-03	58.2	
40	0	911.53*	230	41	1.74	1823.44	1817	14	1.60E-02	9.6	
41	0	934.66	63	29	4.21	1869.70	1863	16	4.38E-03	22.7	
42	1	965.27	60	43	2.26	1930.94	1923	21	4.18E-03	27.9	1.51E+00
43	1	969.23*	122	24	1.98	1938.86	1923	21	8.49E-03	13.3	
44	0	1121.40*	94	47	2.00	2243.21	2233	21	6.55E-03	22.0	
45	1	1173.73	21	28	2.35	2347.87	2342	20	1.49E-03	49.7	9.06E-01
46	1	1177.89	24	10	2.35	2356.18	2342	20	1.67E-03	42.9	
47	0	1238.83	36	49	1.01	2478.06	2469	14	2.51E-03	42.2	
48	0	1286.31	40	55	9.22	2573.03	2554	29	2.79E-03	56.5	
49	0	1461.31*	432	27	1.90	2923.01	2914	16	3.00E-02	5.8	
50	0	1510.29	18	25	2.40	3020.96	3015	14	1.25E-03	63.2	
51	0	1588.31	33	6	2.18	3177.00	3170	12	2.27E-03	23.1	
52	0	1621.73	31	5	2.78	3243.83	3232	20	2.13E-03	25.5	
53	0	1731.72	13	23	2.81	3463.77	3455	13	9.27E-04	78.6	
54	0	1765.24*	54	7	2.13	3530.81	3523	13	3.75E-03	20.5	
55	0	1825.05	10	7	2.06	3650.42	3641	13	6.60E-04	64.1	
56	0	1848.94	19	15	5.29	3698.19	3690	19	1.33E-03	52.5	
57	0	1861.42	8	11	1.44	3723.15	3716	14	5.67E-04	91.5	
58	0	1962.39	14	3	2.69	3925.04	3917	15	9.56E-04	40.5	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324001       *
* Acquisition date : 30-NOV-2007 07:07:32 Detector SN#    :                 *
* Detector ID      : GAM01                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:01.66     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324001           Analyst initials: MJH1            *
* Batch Number     : 706245               Sample Quantity : 1.1712E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  7-MAR-2007 03:44:30 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	6.210E+00	7.950E-01	3.324E-01	0.000E+00
CS-137	2.292E-01	5.720E-02	4.216E-02	0.000E+00
EU-155	4.908E-02	7.567E-02	1.164E-01	0.000E+00
TL-208	2.394E-01	4.729E-02	3.664E-02	0.000E+00
PO-209	8.069E+00	9.233E+00	7.259E+00	0.000E+00
BI-212	4.103E-01	2.941E-01	2.920E-01	0.000E+00
PB-212	7.537E-01	8.553E-02	6.285E-02	0.000E+00
BI-214	7.000E-01	1.079E-01	7.693E-02	0.000E+00
PB-214	6.421E-01	1.171E-01	7.700E-02	0.000E+00
RA-223	4.031E-01	2.313E-01	1.869E-01	0.000E+00
AC-228	9.042E-01	1.907E-01	1.237E-01	0.000E+00
TH-234	9.007E-01	5.015E-01	4.615E-01	0.000E+00
NP-237	3.980E-01	1.751E-01	2.857E-01	0.000E+00
AM-243	2.480E-01	6.416E-02	4.963E-02	0.000E+00
CF-249	2.384E-02	3.254E-02	4.639E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
CO-60	2.786E-02	2.718E-02	4.361E-02	0.000E+00	FAIL ABUN
RH-101	-5.977E-03	2.469E-02	3.889E-02	0.000E+00	NOT IDENT.
SB-125	-5.486E-02	6.540E-02	1.033E-01	0.000E+00	NOT IDENT.
BI-211	6.311E-01	6.648E-01	1.077E+00	0.000E+00	NOT IDENT.
PA-233	-1.045E-02	4.288E-02	7.152E-02	0.000E+00	NOT IDENT.
PA-234M	6.491E-01	2.858E+00	4.853E+00	0.000E+00	NOT IDENT.
U-235	2.044E-01	1.332E-01	2.413E-01	0.000E+00	NOT IDENT.
NP-236	6.515E-03	4.313E-02	6.660E-02	0.000E+00	NOT IDENT.
NP-239	-1.600E-02	1.503E-01	2.560E-01	0.000E+00	NOT IDENT.
AM-241	5.059E-02	1.084E-01	1.636E-01	0.000E+00	NOT IDENT.
CM-243	6.559E-03	6.985E-02	1.074E-01	0.000E+00	NOT IDENT.
AM-246	-5.847E-03	8.687E-02	1.429E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:13:02.86

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324001.CNF;1
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 30-NOV-2007 07:07:32
Sample ID        : G198324001           Sample quantity  : 1.17120E+02 GRAM
Detector name    : GAM01                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.66  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706245               Detector SN#     :
Matrix Spike ID  :                      LCS ID           :
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	432	10.66*	1.047E+00	6.210E+00	6.210E+00	13.06
CS-137	661.66	256	85.10*	2.112E+00	2.284E-01	2.292E-01	25.46
EU-155	105.31	42	21.20*	6.653E+00	4.803E-02	4.908E-02	157.33
TL-208	277.36	------	6.31	4.337E+00	------	Line Not Found	------
	510.77	109	22.60	2.641E+00	2.923E-01	2.923E-01	68.44
	583.19	298	84.50*	2.358E+00	2.394E-01	2.394E-01	20.16
	763.13	------	1.81	1.860E+00	------	Line Not Found	------
	860.56	48	12.42	1.666E+00	3.741E-01	3.741E-01	64.57
PO-209	896.60	38	0.47*	1.603E+00	8.060E+00	8.069E+00	116.77
BI-212	727.33	59	11.80*	1.940E+00	4.103E-01	4.103E-01	73.14
	785.37	------	1.10	1.812E+00	------	Line Not Found	------
	1620.50	31	1.49	9.723E-01	3.386E+00	3.386E+00	51.36
PB-212	74.81	498	10.40	4.719E+00	1.626E+00	1.626E+00	26.40
	77.11	483	17.50	4.967E+00	8.903E-01	8.903E-01	18.23
	87.30	180	7.81	5.833E+00	6.319E-01	6.318E-01	44.90
	238.63	990	43.30*	4.863E+00	7.537E-01	7.537E-01	11.58
	300.09	57	3.28	4.077E+00	6.821E-01	6.821E-01	117.37
BI-214	609.31	457	46.10*	2.271E+00	7.000E-01	7.000E-01	15.73
	768.36	------	4.94	1.848E+00	------	Line Not Found	------
	806.17	------	1.22	1.770E+00	------	Line Not Found	------
	934.06	63	3.03	1.545E+00	2.157E+00	2.157E+00	46.31
	1120.29	94	15.10	1.309E+00	7.655E-01	7.655E-01	44.69
	1155.19	------	1.63	1.274E+00	------	Line Not Found	------
	1238.11	36	5.79	1.198E+00	8.345E-01	8.345E-01	84.55
	1280.96	------	1.43	1.164E+00	------	Line Not Found	------
	1377.67	------	4.00	1.096E+00	------	Line Not Found	------
	1401.50	------	1.27	1.081E+00	------	Line Not Found	------
	1407.98	------	2.15	1.077E+00	------	Line Not Found	------
	1509.23	18	2.11	1.021E+00	1.334E+00	1.334E+00	126.62
	1729.60	------	2.92	9.349E-01	------	Line Not Found	------
	1764.49	54	15.40	9.245E-01	6.075E-01	6.076E-01	41.44
PB-214	74.81	498	6.44	4.719E+00	2.626E+00	2.626E+00	26.40

Sample ID : G198324001 Acquisition date : 30-NOV-2007 07:07:32

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	483	10.80	4.967E+00	1.443E+00	1.443E+00	18.23
	87.30	180	4.84	5.833E+00	1.020E+00	1.020E+00	44.90
	242.00	256	7.43	4.818E+00	1.145E+00	1.146E+00	43.11
	295.22	358	19.30	4.129E+00	7.203E-01	7.203E-01	25.40
	351.93	541	37.60*	3.589E+00	6.421E-01	6.421E-01	18.60
RA-223	269.46	153	13.70*	4.433E+00	4.031E-01	4.031E-01	58.56
AC-228	129.07	83	2.42	6.758E+00	8.124E-01	8.124E-01	102.17
	209.25	139	3.89	5.341E+00	1.073E+00	1.073E+00	58.67
	270.25	153	3.46	4.433E+00	1.596E+00	1.596E+00	58.56
	338.32	265	11.27	3.706E+00	1.016E+00	1.016E+00	29.29
	409.46	------	1.92	3.174E+00	------	Line Not Found	------
	463.00	91	4.40	2.865E+00	1.161E+00	1.161E+00	64.48
	794.95	36	4.25	1.791E+00	7.521E-01	7.521E-01	74.59
	911.20	230	25.80*	1.581E+00	9.042E-01	9.042E-01	21.53
	964.77	60	4.99	1.500E+00	1.289E+00	1.289E+00	56.62
	968.97	122	15.80	1.495E+00	8.296E-01	8.296E-01	28.23
	1588.20	33	3.22	9.858E-01	1.649E+00	1.649E+00	46.59
TH-234	63.29	85	4.80	3.171E+00	8.922E-01	8.922E-01	100.77
	92.58	189	5.41*	6.202E+00	9.007E-01	9.007E-01	56.81
NP-237	86.48	180	12.40*	5.833E+00	3.980E-01	3.980E-01	44.90
AM-243	74.66	498	68.20*	4.719E+00	2.480E-01	2.480E-01	26.40
CF-249	387.59	33	66.00*	3.312E+00	2.383E-02	2.384E-02	139.29

Flag: "*" = Keyline

Sample ID : G198324001 Acquisition date : 30-NOV-2007 07:07:32

Total number of lines in spectrum 58
Number of unidentified lines 21
Number of lines tentatively identified by NID 37 63.79%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	6.210E+00	6.210E+00	0.811E+00	13.06	
CS-137	9.47E+08S	1.00	2.284E-01	2.292E-01	0.584E-01	25.46	
EU-155	1.57E+08S	1.02	4.803E-02	4.908E-02	7.721E-02	157.33	
TL-208	4.43E+17S	1.00	2.394E-01	2.394E-01	0.483E-01	20.16	
PO-209	3.22E+09S	1.00	8.060E+00	8.069E+00	9.421E+00	116.77	
BI-212	4.43E+17S	1.00	4.103E-01	4.103E-01	3.001E-01	73.14	
PB-212	4.43E+17S	1.00	7.537E-01	7.537E-01	0.873E-01	11.58	
BI-214	5.05E+10S	1.00	7.000E-01	7.000E-01	1.101E-01	15.73	
PB-214	5.05E+10S	1.00	6.421E-01	6.421E-01	1.195E-01	18.60	
RA-223	1.04E+12S	1.00	4.031E-01	4.031E-01	2.360E-01	58.56	
AC-228	4.43E+17S	1.00	9.042E-01	9.042E-01	1.946E-01	21.53	
TH-234	1.41E+17S	1.00	9.007E-01	9.007E-01	5.117E-01	56.81	
NP-237	6.75E+13S	1.00	3.980E-01	3.980E-01	1.787E-01	44.90	
AM-243	2.33E+11S	1.00	2.480E-01	2.480E-01	0.655E-01	26.40	
CF-249	1.11E+10S	1.00	2.383E-02	2.384E-02	3.321E-02	139.29	
			---	---			
		Total Activity :	2.017E+01	2.018E+01			

Grand Total Activity : 2.017E+01 2.018E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G198324001 Acquisition date : 30-NOV-2007 07:07:32

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	80.31	54	338	1.55	160.68	159	7	3.75E-03	****	5.27E+00	
5	84.26	104	277	1.20	168.58	166	12	7.21E-03	51.7	5.62E+00	
0	89.49	37	459	0.97	179.05	177	7	2.57E-03	****	5.99E+00	
0	179.96	63	320	1.51	360.04	356	9	4.35E-03	****	5.90E+00	
0	186.11	209	369	1.60	372.33	368	10	1.45E-02	41.0	5.78E+00	
0	258.31	71	213	1.96	516.77	512	10	4.96E-03	80.9	4.58E+00	
0	328.87	42	282	1.76	657.93	651	12	2.92E-03	****	3.79E+00	
0	369.33	53	145	0.82	738.88	734	10	3.68E-03	89.3	3.45E+00	
0	448.81	38	300	7.87	897.86	886	23	2.62E-03	****	2.94E+00	
0	472.53	19	96	0.76	945.32	942	9	1.34E-03	****	2.82E+00	
0	644.53	30	77	2.61	1289.38	1280	13	2.11E-03	****	2.16E+00	
0	703.64	21	67	0.87	1407.61	1402	10	1.44E-03	****	2.00E+00	
0	770.39	56	111	0.97	1541.13	1532	17	3.91E-03	89.7	1.84E+00	
0	837.74	29	110	8.33	1675.84	1665	21	2.00E-03	****	1.71E+00	
1	1173.73	21	28	2.35	2347.87	2342	20	1.49E-03	99.4	1.26E+00	T
1	1177.89	24	10	2.35	2356.18	2342	20	1.67E-03	85.8	1.25E+00	
0	1286.31	40	55	9.22	2573.03	2554	29	2.79E-03	****	1.16E+00	
0	1731.72	13	23	2.81	3463.77	3455	13	9.27E-04	****	9.34E-01	
0	1825.05	10	7	2.06	3650.42	3641	13	6.60E-04	****	9.09E-01	
0	1848.94	19	15	5.29	3698.19	3690	19	1.33E-03	****	9.04E-01	
0	1861.42	8	11	1.44	3723.15	3716	14	5.67E-04	****	9.01E-01	
0	1962.39	14	3	2.69	3925.04	3917	15	9.56E-04	81.0	8.82E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G198324001            *
* Acquisition date : 30-NOV-2007 07:07:32 Detector SN#    :                 *
* Detector ID      : GAM01                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:01.66     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324001           Analyst initials: MJH1            *
* Batch Number     : 706245               Sample Quantity : 1.1712E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME :  7-MAR-2007 03:44:30 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	6.210E+00	7.950E-01	1.663E-01	7.950E-01
CS-137	2.292E-01	5.720E-02	2.109E-02	5.720E-02
EU-155	4.908E-02	7.567E-02	5.823E-02	7.567E-02
TL-208	2.394E-01	4.729E-02	1.833E-02	4.729E-02
PO-209	8.069E+00	9.233E+00	3.632E+00	9.233E+00
BI-212	4.103E-01	2.941E-01	1.461E-01	2.941E-01
PB-212	7.537E-01	8.553E-02	3.144E-02	8.553E-02
BI-214	7.000E-01	1.079E-01	3.849E-02	1.079E-01
PB-214	6.421E-01	1.171E-01	3.852E-02	1.171E-01
RA-223	4.031E-01	2.313E-01	9.352E-02	2.313E-01
AC-228	9.042E-01	1.907E-01	6.189E-02	1.907E-01
TH-234	9.007E-01	5.015E-01	2.309E-01	5.015E-01
NP-237	3.980E-01	1.751E-01	1.429E-01	1.751E-01
AM-243	2.480E-01	6.416E-02	2.483E-02	6.416E-02
CF-249	2.384E-02	3.254E-02	2.321E-02	3.254E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	2.786E-02	2.718E-02	2.182E-02	2.718E-02	FAIL ABUN
RH-101	-5.977E-03	2.469E-02	1.946E-02	2.469E-02	NOT IDENT.
SB-125	-5.486E-02	6.540E-02	5.166E-02	6.540E-02	NOT IDENT.
BI-211	6.311E-01	6.648E-01	5.387E-01	6.648E-01	NOT IDENT.
PA-233	-1.045E-02	4.288E-02	3.578E-02	4.288E-02	NOT IDENT.
PA-234M	6.491E-01	2.858E+00	2.428E+00	2.858E+00	NOT IDENT.
U-235	2.044E-01	1.332E-01	1.207E-01	1.332E-01	NOT IDENT.
NP-236	6.515E-03	4.313E-02	3.332E-02	4.313E-02	NOT IDENT.
NP-239	-1.600E-02	1.503E-01	1.281E-01	1.503E-01	NOT IDENT.
AM-241	5.059E-02	1.084E-01	8.183E-02	1.084E-01	NOT IDENT.
CM-243	6.559E-03	6.985E-02	5.373E-02	6.985E-02	NOT IDENT.
AM-246	-5.847E-03	8.687E-02	7.151E-02	8.687E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
59.54	372.1552
63.29	433.1640
74.66	427.9471
74.81	428.0118
74.81	428.0118
77.11	449.4636
77.11	449.4636
86.48	718.4131
87.30	467.3208
87.30	467.3208
92.58	406.3445
98.44	444.7294
103.76	446.7287
105.31	441.2157
129.07	471.1004
143.76	429.3524
198.00	365.3194
209.25	370.5382
228.18	339.7147
238.63	305.7874
242.00	306.3044
269.46	225.7336
270.25	225.8156
277.36	273.0817
295.22	231.0993
300.09	234.9976
312.17	218.7644
338.32	215.9523
351.93	189.9870
387.59	182.0089
409.46	167.4622
427.87	174.9922
463.00	130.3682
510.77	116.7448
583.19	94.8539
609.31	115.4150
661.66	101.6933
727.33	79.9814
763.13	106.2510
768.36	92.8739
785.37	52.4145
794.95	51.5387
806.17	68.5648
831.80	44.5469
860.56	72.4175
896.60	53.7214
911.20	45.7526
934.06	59.5427
964.77	44.2020
968.97	37.0378
1001.03	57.9824
1078.86	53.5961
1120.29	48.7103
1155.19	47.9517
1173.23	49.4780
1238.11	74.1239
1280.96	38.2616
1332.51	27.2907
1377.67	35.0695
1401.50	33.2971
1407.98	39.9961
1460.80	24.9590
1509.23	10.1525
1588.20	29.3377
1620.50	17.6830
1729.60	16.9502
1764.49	16.0268

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198324001

Total Uranium Activity	9.4581E-02	ug/g
Total Uranium Counting Unc.	6.1652E-02	ug/g
Total Uranium Tpu	6.1652E-08	ug/g
Total Uranium Mda	5.5851E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:13:36.35

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324002.CNF;1
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 30-NOV-2007 07:09:04
Sample ID        : G198324002           Sample quantity  : 1.03840E+02 GRAM
Detector name    : GAM21                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:24.58  0.2%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706245               Detector SN#     :
Matrix Spike ID  :                      LCS ID           :
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.78	102	230	0.95	92.65	89	9	7.08E-03	28.7	
2	0	63.58	107	185	1.75	126.22	123	8	7.42E-03	24.0	
3	1	75.09*	171	278	1.29	149.20	145	20	1.18E-02	18.6	1.78E+00
4	1	77.40*	284	253	1.54	153.82	145	20	1.98E-02	12.9	
5	0	87.28	50	321	1.10	173.54	169	9	3.47E-03	66.3	
6	3	90.09	55	118	1.04	179.15	177	14	3.81E-03	30.0	8.68E-01
7	3	92.97*	129	271	1.90	184.90	177	14	8.97E-03	28.6	
8	0	185.76*	88	178	3.18	370.25	366	10	6.10E-03	33.7	
9	0	200.65	82	169	1.96	400.00	395	11	5.68E-03	33.0	
10	5	238.72*	337	156	1.56	476.04	471	16	2.34E-02	9.4	1.41E+00
11	5	241.79	86	147	1.83	482.17	471	16	6.00E-03	29.1	
12	0	295.01*	48	186	1.21	588.49	582	12	3.31E-03	63.2	
13	0	338.58	48	156	1.20	675.54	670	12	3.33E-03	54.0	
14	0	352.10*	155	96	1.65	702.56	697	12	1.07E-02	16.2	
15	0	419.76	26	33	1.37	837.77	835	6	1.81E-03	40.1	
16	0	510.87*	38	108	2.26	1019.85	1010	18	2.62E-03	83.6	
17	0	524.99	21	38	1.10	1048.06	1043	10	1.48E-03	57.8	
18	0	583.18*	61	58	2.24	1164.39	1159	11	4.25E-03	29.5	
19	0	609.38*	133	42	1.79	1216.75	1211	15	9.24E-03	14.9	
20	0	647.33	14	34	0.90	1292.63	1289	10	9.66E-04	81.8	
21	0	653.43	17	27	4.02	1304.82	1298	12	1.20E-03	64.7	
22	0	661.62	316	53	1.78	1321.19	1315	15	2.19E-02	7.5	
23	0	773.94	29	17	3.99	1545.76	1540	11	1.99E-03	34.8	
24	0	789.84	12	61	3.45	1577.56	1566	17	8.47E-04	148.0	
25	0	815.01	9	19	1.23	1627.89	1622	8	6.16E-04	95.6	
26	0	817.92	21	10	1.84	1633.71	1630	10	1.46E-03	35.6	
27	0	869.58	10	17	0.55	1737.03	1732	8	6.79E-04	83.7	
28	0	897.48*	19	12	3.51	1792.84	1788	10	1.31E-03	44.2	
29	0	911.04	65	14	1.94	1819.95	1815	11	4.52E-03	16.6	
30	0	929.76	9	19	2.89	1857.40	1848	13	6.55E-04	101.4	
31	0	969.96	23	47	1.08	1937.80	1928	14	1.61E-03	67.0	
32	0	1239.58*	7	23	1.09	2477.26	2467	15	5.02E-04	159.2	
33	0	1270.46	13	10	4.08	2539.07	2531	14	9.03E-04	59.5	
34	0	1354.74	10	21	2.70	2707.76	2694	15	6.96E-04	107.2	
35	0	1380.06	10	22	4.76	2758.44	2748	14	7.00E-04	107.7	
36	0	1430.62	7	2	0.54	2859.66	2855	8	4.90E-04	51.1	
37	0	1436.66	29	4	6.13	2871.74	2863	17	2.01E-03	24.7	
38	0	1460.73	162	20	1.77	2919.94	2914	15	1.13E-02	9.8	

Sample ID : G198324002 Acquisition date : 30-NOV-2007 07:09:04

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1501.34*	2	11	3.01	3001.23	2991	12	1.47E-04	373.5	
40	0	1516.32	11	2	0.82	3031.24	3026	10	7.45E-04	40.9	
41	0	1570.42	11	5	1.12	3139.57	3135	9	7.29E-04	47.7	
42	0	1649.09	14	7	1.05	3297.11	3290	13	9.37E-04	47.5	
43	0	1901.32	19	6	0.90	3802.37	3796	12	1.35E-03	33.7	
44	0	1907.26	4	5	1.41	3814.29	3807	9	2.43E-04	121.6	
45	0	1963.57	9	0	3.37	3927.11	3922	11	6.25E-04	33.3	
46	0	2026.76	12	0	3.15	4053.75	4049	11	8.33E-04	28.9	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324002       *
* Acquisition date : 30-NOV-2007 07:09:04 Detector SN#    :                 *
* Detector ID      : GAM21                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:24.58     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324002           Analyst initials: MJH1            *
* Batch Number     : 706245               Sample Quantity : 1.0384E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  2-JUL-2007 16:42:48 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.706E+00	7.379E-01	4.097E-01	0.000E+00
CS-137	4.097E-01	6.883E-02	4.345E-02	0.000E+00
TL-208	6.980E-02	4.062E-02	3.516E-02	0.000E+00
PO-209	6.070E+00	5.279E+00	8.413E+00	0.000E+00
PB-212	2.987E-01	5.790E-02	5.523E-02	0.000E+00
PB-214	2.322E-01	7.476E-02	7.289E-02	0.000E+00
TH-234	5.119E-01	2.894E-01	2.753E-01	0.000E+00
NP-237	8.526E-02	1.109E-01	1.271E-01	0.000E+00
AM-243	5.228E-02	1.942E-02	2.398E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	2.998E-03		2.770E-02	4.652E-02	0.000E+00	NOT IDENT.
RH-101	9.337E-04		2.078E-02	3.108E-02	0.000E+00	NOT IDENT.
SB-125	-1.605E-02		6.289E-02	1.026E-01	0.000E+00	NOT IDENT.
EU-155	2.957E-02		4.517E-02	7.691E-02	0.000E+00	NOT IDENT.
BI-211	-2.389E-01		7.373E-01	1.199E+00	0.000E+00	NOT IDENT.
BI-212	2.051E-01		2.094E-01	3.840E-01	0.000E+00	NOT IDENT.
BI-214	0.000E+00		8.784E-02	1.365E-01	0.000E+00	FAIL ABUN
RA-223	1.528E-02		1.026E-01	1.754E-01	0.000E+00	NOT IDENT.
AC-228	0.000E+00		1.282E-01	2.450E-01	0.000E+00	FAIL ABUN
PA-233	-6.633E-03		3.943E-02	6.576E-02	0.000E+00	NOT IDENT.
PA-234M	2.027E+00		3.418E+00	6.069E+00	0.000E+00	NOT IDENT.
U-235	9.295E-03		1.017E-01	1.673E-01	0.000E+00	NOT IDENT.
NP-236	1.916E-02		2.679E-02	4.059E-02	0.000E+00	NOT IDENT.
NP-239	4.171E-03		1.253E-01	2.141E-01	0.000E+00	NOT IDENT.
AM-241	1.706E-02		2.867E-02	4.367E-02	0.000E+00	NOT IDENT.
CM-243	2.001E-02		4.053E-02	6.856E-02	0.000E+00	NOT IDENT.
AM-246	-2.799E-02		9.451E-02	1.507E-01	0.000E+00	NOT IDENT.
CF-249	1.309E-02		2.639E-02	4.557E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:13:37.33

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324002.CNF;1
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 30-NOV-2007 07:09:04
Sample ID        : G198324002           Sample quantity  : 1.03840E+02 GRAM
Detector name    : GAM21                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:24.58  0.2%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706245               Detector SN#     :
Matrix Spike ID  :                      LCS ID           :
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	162	10.66*	7.434E-01	3.706E+00	3.706E+00	20.32
CS-137	661.66	316	85.10*	1.641E+00	4.083E-01	4.097E-01	17.14
TL-208	277.36	------	6.31	4.080E+00	------	Line Not Found	------
	510.77	38	22.60	2.159E+00	1.396E-01	1.396E-01	167.32
	583.19	61	84.50*	1.875E+00	6.980E-02	6.980E-02	59.38
	763.13	------	1.81	1.415E+00	------	Line Not Found	------
	860.56	------	12.42	1.251E+00	------	Line Not Found	------
PO-209	896.60	19	0.47*	1.199E+00	6.064E+00	6.070E+00	88.75
PB-212	74.81	171	10.40	8.644E+00	3.429E-01	3.429E-01	37.91
	77.11	284	17.50	8.639E+00	3.401E-01	3.401E-01	26.74
	87.30	50	7.81	8.537E+00	1.354E-01	1.354E-01	132.73
	238.63	337	43.30*	4.706E+00	2.987E-01	2.987E-01	19.78
	300.09	------	3.28	3.773E+00	------	Line Not Found	------
PB-214	74.81	171	6.44	8.644E+00	5.537E-01	5.537E-01	37.91
	77.11	284	10.80	8.639E+00	5.511E-01	5.512E-01	26.74
	87.30	50	4.84	8.537E+00	2.184E-01	2.185E-01	132.73
	242.00	86	7.43	4.651E+00	4.520E-01	4.520E-01	58.51
	295.22	48	19.30	3.838E+00	1.164E-01	1.164E-01	126.52
	351.93	155	37.60*	3.203E+00	2.322E-01	2.322E-01	32.85
TH-234	63.29	107	4.80	8.521E+00	4.723E-01	4.723E-01	48.54
	92.58	129	5.41*	8.434E+00	5.119E-01	5.119E-01	57.70
NP-237	86.48	50	12.40*	8.537E+00	8.526E-02	8.526E-02	132.73
AM-243	74.66	171	68.20*	8.644E+00	5.228E-02	5.228E-02	37.91

Flag: "*" = Keyline

Sample ID : G198324002 Acquisition date : 30-NOV-2007 07:09:04

Total number of lines in spectrum 46
Number of unidentified lines 27
Number of lines tentatively identified by NID 19 41.30%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	3.706E+00	3.706E+00	0.753E+00	20.32	
CS-137	9.47E+08S	1.00	4.083E-01	4.097E-01	0.702E-01	17.14	
TL-208	4.43E+17S	1.00	6.980E-02	6.980E-02	4.145E-02	59.38	
PO-209	3.22E+09S	1.00	6.064E+00	6.070E+00	5.387E+00	88.75	
PB-212	4.43E+17S	1.00	2.987E-01	2.987E-01	0.591E-01	19.78	
PB-214	5.05E+10S	1.00	2.322E-01	2.322E-01	0.763E-01	32.85	
TH-234	1.41E+17S	1.00	5.119E-01	5.119E-01	2.954E-01	57.70	
NP-237	6.75E+13S	1.00	8.526E-02	8.526E-02	11.32E-02	132.73	
AM-243	2.33E+11S	1.00	5.228E-02	5.228E-02	1.982E-02	37.91	
			---	---			
		Total Activity :	1.143E+01	1.144E+01			

Grand Total Activity : 1.143E+01 1.144E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G198324002 Acquisition date : 30-NOV-2007 07:09:04

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.78	102	230	0.95	92.65	89	9	7.08E-03	57.3	7.67E+00	
3	90.09	55	118	1.04	179.15	177	14	3.81E-03	60.0	8.49E+00	
0	185.76	88	178	3.18	370.25	366	10	6.10E-03	67.4	5.84E+00	
0	200.65	82	169	1.96	400.00	395	11	5.68E-03	65.9	5.48E+00	
0	338.58	48	156	1.20	675.54	670	12	3.33E-03	****	3.34E+00	T
0	419.76	26	33	1.37	837.77	835	6	1.81E-03	80.1	2.66E+00	
0	524.99	21	38	1.10	1048.06	1043	10	1.48E-03	****	2.10E+00	
0	609.38	133	42	1.79	1216.75	1211	15	9.24E-03	29.8	1.79E+00	T
0	647.33	14	34	0.90	1292.63	1289	10	9.66E-04	****	1.68E+00	
0	653.43	17	27	4.02	1304.82	1298	12	1.20E-03	****	1.66E+00	
0	773.94	29	17	3.99	1545.76	1540	11	1.99E-03	69.6	1.39E+00	
0	789.84	12	61	3.45	1577.56	1566	17	8.47E-04	****	1.37E+00	
0	815.01	9	19	1.23	1627.89	1622	8	6.16E-04	****	1.32E+00	
0	817.92	21	10	1.84	1633.71	1630	10	1.46E-03	71.3	1.32E+00	
0	869.58	10	17	0.55	1737.03	1732	8	6.79E-04	****	1.24E+00	
0	911.04	65	14	1.94	1819.95	1815	11	4.52E-03	33.2	1.18E+00	T
0	929.76	9	19	2.89	1857.40	1848	13	6.55E-04	****	1.16E+00	
0	969.96	23	47	1.08	1937.80	1928	14	1.61E-03	****	1.11E+00	T
0	1239.58	7	23	1.09	2477.26	2467	15	5.02E-04	****	8.72E-01	T
0	1270.46	13	10	4.08	2539.07	2531	14	9.03E-04	****	8.51E-01	
0	1354.74	10	21	2.70	2707.76	2694	15	6.96E-04	****	8.00E-01	
0	1380.06	10	22	4.76	2758.44	2748	14	7.00E-04	****	7.85E-01	
0	1430.62	7	2	0.54	2859.66	2855	8	4.90E-04	****	7.59E-01	
0	1436.66	29	4	6.13	2871.74	2863	17	2.01E-03	49.4	7.55E-01	
0	1501.34	2	11	3.01	3001.23	2991	12	1.47E-04	****	7.24E-01	
0	1516.32	11	2	0.82	3031.24	3026	10	7.45E-04	81.8	7.17E-01	
0	1570.42	11	5	1.12	3139.57	3135	9	7.29E-04	95.5	6.93E-01	
0	1649.09	14	7	1.05	3297.11	3290	13	9.37E-04	95.0	6.61E-01	
0	1901.32	19	6	0.90	3802.37	3796	12	1.35E-03	67.5	5.74E-01	
0	1907.26	4	5	1.41	3814.29	3807	9	2.43E-04	****	5.73E-01	
0	1963.57	9	0	3.37	3927.11	3922	11	6.25E-04	66.7	5.56E-01	
0	2026.76	12	0	3.15	4053.75	4049	11	8.33E-04	57.7	5.38E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G198324002            *
* Acquisition date : 30-NOV-2007 07:09:04 Detector SN#    :                 *
* Detector ID      : GAM21                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:24.58     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324002           Analyst initials: MJH1            *
* Batch Number     : 706245               Sample Quantity : 1.0384E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME :  2-JUL-2007 16:42:48 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	3.706E+00	7.379E-01	2.050E-01	7.379E-01
CS-137	4.097E-01	6.883E-02	2.174E-02	6.883E-02
TL-208	6.980E-02	4.062E-02	1.759E-02	4.062E-02
PO-209	6.070E+00	5.279E+00	4.209E+00	5.279E+00
PB-212	2.987E-01	5.790E-02	2.763E-02	5.790E-02
PB-214	2.322E-01	7.476E-02	3.647E-02	7.476E-02
TH-234	5.119E-01	2.894E-01	1.377E-01	2.894E-01
NP-237	8.526E-02	1.109E-01	6.357E-02	1.109E-01
AM-243	5.228E-02	1.942E-02	1.200E-02	1.942E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	2.998E-03	2.770E-02	2.328E-02	2.770E-02	NOT IDENT.
RH-101	9.337E-04	2.078E-02	1.555E-02	2.078E-02	NOT IDENT.
SB-125	-1.605E-02	6.289E-02	5.132E-02	6.289E-02	NOT IDENT.
EU-155	2.957E-02	4.517E-02	3.848E-02	4.517E-02	NOT IDENT.
BI-211	-2.389E-01	7.373E-01	6.000E-01	7.373E-01	NOT IDENT.
BI-212	2.051E-01	2.094E-01	1.921E-01	2.094E-01	NOT IDENT.
BI-214	2.915E-01	8.784E-02	6.828E-02	8.784E-02	FAIL ABUN
RA-223	1.528E-02	1.026E-01	8.773E-02	1.026E-01	NOT IDENT.
AC-228	3.857E-01	1.282E-01	1.226E-01	1.282E-01	FAIL ABUN
PA-233	-6.633E-03	3.943E-02	3.290E-02	3.943E-02	NOT IDENT.
PA-234M	2.027E+00	3.418E+00	3.037E+00	3.418E+00	NOT IDENT.
U-235	9.295E-03	1.017E-01	8.369E-02	1.017E-01	NOT IDENT.
NP-236	1.916E-02	2.679E-02	2.031E-02	2.679E-02	NOT IDENT.
NP-239	4.171E-03	1.253E-01	1.071E-01	1.253E-01	NOT IDENT.
AM-241	1.706E-02	2.867E-02	2.185E-02	2.867E-02	NOT IDENT.
CM-243	2.001E-02	4.053E-02	3.430E-02	4.053E-02	NOT IDENT.
AM-246	-2.799E-02	9.451E-02	7.539E-02	9.451E-02	NOT IDENT.
CF-249	1.309E-02	2.639E-02	2.280E-02	2.639E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
59.54	213.9914
63.29	254.2330
74.66	279.7108
74.81	279.7556
74.81	279.7556
77.11	277.0840
77.11	277.0840
86.48	254.3188
87.30	263.0090
87.30	263.0090
92.58	221.7165
98.44	197.2091
103.76	211.0815
105.31	209.2140
129.07	210.0691
143.76	227.9802
198.00	207.4796
209.25	166.1617
228.18	179.2071
238.63	179.2823
242.00	178.0281
269.46	139.0085
270.25	138.1025
277.36	129.9243
295.22	160.1539
300.09	126.4675
312.17	125.2109
338.32	122.6998
351.93	109.4750
387.59	93.9014
409.46	84.5137
427.87	90.2215
463.00	94.4792
510.77	69.6372
583.19	44.2502
609.31	58.7303
661.66	52.1789
727.33	44.9287
763.13	46.2824
768.36	29.1841
785.37	30.9340
794.95	63.6443
806.17	53.1065
831.80	43.2156
860.56	39.6378
896.60	32.1641
911.20	31.2904
934.06	21.9003
964.77	32.2196
968.97	20.3672
1001.03	32.8912
1078.86	29.3587
1120.29	36.7383
1155.19	35.9528
1173.23	23.7047
1238.11	31.2842
1280.96	21.0132
1332.51	22.2578
1377.67	12.8145
1401.50	19.2964
1407.98	17.1706
1460.80	15.1507
1509.23	21.2623
1588.20	14.1870
1620.50	14.2540
1729.60	17.3722
1764.49	20.3650

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198324002

Total Uranium Activity	4.3008E-03	ug/g
Total Uranium Counting Unc.	4.7077E-02	ug/g
Total Uranium Tpu	4.7077E-08	ug/g
Total Uranium Mda	3.8725E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:14:11.09

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324003.CNF;1
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 30-NOV-2007 07:52:12
Sample ID        : G198324003           Sample quantity  : 1.21660E+02 GRAM
Detector name    : GAM23                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:08.09  0.1%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706245               Detector SN#     :
Matrix Spike ID  :                      LCS ID           :
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.01*	29	284	1.97	91.96	89	8	2.02E-03	109.4	
2	0	63.06*	86	321	1.02	126.07	123	8	5.96E-03	41.3	
3	2	74.86	177	311	0.92	149.67	144	15	1.23E-02	17.4	9.75E-01
4	2	77.09	312	261	0.78	154.14	144	15	2.16E-02	9.6	
5	0	86.95*	94	349	1.35	173.85	172	7	6.54E-03	35.9	
6	0	92.98*	120	434	1.05	185.91	182	10	8.36E-03	38.4	
7	0	105.80	33	290	1.24	211.56	208	7	2.29E-03	87.5	
8	4	129.37	65	316	1.27	258.71	255	12	4.53E-03	48.8	7.11E-01
9	4	131.84	27	287	1.14	263.64	255	12	1.87E-03	105.8	
10	0	185.81*	126	407	1.36	371.61	368	11	8.76E-03	34.5	
11	0	209.35	66	264	0.68	418.68	415	8	4.58E-03	44.4	
12	0	220.36	42	204	1.51	440.72	437	8	2.91E-03	60.9	
13	6	238.66*	669	214	0.99	477.32	473	23	4.64E-02	5.5	1.46E+00
14	6	241.65	181	291	1.64	483.30	473	23	1.26E-02	21.9	
15	0	259.14	45	175	1.39	518.29	515	8	3.10E-03	53.7	
16	0	265.76	46	173	0.89	531.53	527	9	3.22E-03	53.2	
17	0	270.62	64	247	2.22	541.26	535	11	4.43E-03	49.4	
18	0	277.46	13	163	0.55	554.94	553	6	9.02E-04	157.6	
19	0	295.28*	254	173	1.10	590.58	586	10	1.76E-02	12.9	
20	0	300.39	69	143	0.95	600.81	597	8	4.82E-03	32.2	
21	4	326.28	20	54	0.84	652.61	651	9	1.40E-03	52.2	2.64E+00
22	4	328.05	60	120	1.19	656.13	651	9	4.15E-03	33.2	
23	0	338.38*	115	226	1.31	676.81	671	11	8.01E-03	27.8	
24	0	351.98*	378	183	1.25	704.00	699	12	2.62E-02	9.1	
25	0	416.91	34	62	1.39	833.91	831	6	2.38E-03	40.7	
26	0	463.34	43	137	0.81	926.79	921	11	3.01E-03	54.5	
27	0	510.97*	46	212	2.18	1022.07	1015	15	3.19E-03	89.7	
28	0	569.72*	12	128	1.36	1139.60	1134	14	8.01E-04	312.5	
29	0	583.49*	200	123	1.48	1167.15	1160	13	1.39E-02	14.1	
30	3	609.28*	255	70	1.56	1218.76	1213	20	1.77E-02	9.7	2.59E+00
31	3	614.40*	16	70	2.03	1228.99	1213	20	1.10E-03	113.4	
32	0	661.71	147	71	1.35	1323.65	1317	13	1.02E-02	14.5	
33	0	697.35	31	69	1.38	1394.94	1389	11	2.16E-03	54.8	
34	0	727.96	25	110	1.91	1456.20	1449	12	1.77E-03	85.0	
35	0	787.23	9	63	0.77	1574.78	1569	9	6.25E-04	162.4	
36	0	794.82	32	42	1.86	1589.97	1586	8	2.24E-03	39.0	
37	0	910.89*	150	68	1.49	1822.21	1815	15	1.04E-02	15.2	
38	2	965.03	46	25	1.94	1930.53	1927	20	3.22E-03	24.4	2.31E+00

Sample ID : G198324003 Acquisition date : 30-NOV-2007 07:52:12

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	2	968.99	80	40	2.03	1938.46	1927	20	5.58E-03	20.1	
40	0	1015.90*	28	28	1.59	2032.32	2024	16	1.91E-03	50.9	
41	0	1041.77	29	36	3.83	2084.10	2078	12	1.99E-03	46.0	
42	0	1121.50	76	58	1.86	2243.62	2235	19	5.29E-03	27.2	
43	0	1130.98	34	16	3.83	2262.61	2255	13	2.36E-03	29.9	
44	0	1280.42	28	68	11.76	2561.65	2541	30	1.96E-03	86.9	
45	0	1377.84	26	25	1.99	2756.62	2748	14	1.83E-03	44.3	
46	0	1410.96	22	22	5.59	2822.89	2815	17	1.55E-03	51.9	
47	1	1456.70	25	3	2.34	2914.42	2911	19	1.71E-03	20.4	1.11E+00
48	1	1460.77*	343	3	2.22	2922.57	2911	19	2.38E-02	5.9	
49	0	1533.10	6	16	3.81	3067.33	3055	16	4.17E-04	154.6	
50	0	1593.32	16	19	7.63	3187.86	3177	21	1.09E-03	77.0	
51	0	1622.46	21	7	1.47	3246.19	3239	14	1.46E-03	34.5	
52	0	1764.97*	12	28	1.06	3531.43	3524	13	8.14E-04	110.4	
53	0	1914.19	9	0	1.05	3830.11	3823	12	6.25E-04	33.3	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324003       *
* Acquisition date : 30-NOV-2007 07:52:12 Detector SN#    :                 *
* Detector ID      : GAM23                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:08.09     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324003           Analyst initials: MJH1            *
* Batch Number     : 706245               Sample Quantity : 1.2166E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 18-MAY-2007 16:30:26 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	4.788E+00	6.509E-01	2.753E-01	0.000E+00
CS-137	1.270E-01	3.675E-02	3.455E-02	0.000E+00
EU-155	3.879E-02	6.657E-02	8.391E-02	0.000E+00
TL-208	1.560E-01	4.401E-02	3.784E-02	0.000E+00
BI-212	1.722E-01	2.869E-01	3.045E-01	0.000E+00
PB-212	5.000E-01	6.041E-02	5.265E-02	0.000E+00
BI-214	3.787E-01	7.478E-02	6.884E-02	0.000E+00
PB-214	4.391E-01	8.155E-02	6.451E-02	0.000E+00
RA-223	1.657E-01	1.606E-01	1.623E-01	0.000E+00
AC-228	5.675E-01	1.752E-01	1.351E-01	0.000E+00
TH-234	5.955E-01	4.503E-01	3.689E-01	0.000E+00
NP-237	2.189E-01	1.550E-01	1.963E-01	0.000E+00
AM-243	9.650E-02	3.354E-02	4.117E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	-4.512E-04		2.508E-02	4.231E-02	0.000E+00	NOT IDENT.
RH-101	-1.109E-02		1.925E-02	2.982E-02	0.000E+00	NOT IDENT.
SB-125	-1.172E-02		5.212E-02	8.711E-02	0.000E+00	NOT IDENT.
PO-209	3.663E+00		4.161E+00	7.484E+00	0.000E+00	NOT IDENT.
BI-211	-5.965E-01		6.696E-01	1.037E+00	0.000E+00	NOT IDENT.
PA-233	2.630E-03		3.429E-02	6.018E-02	0.000E+00	NOT IDENT.
PA-234M	2.296E+00		2.590E+00	4.619E+00	0.000E+00	NOT IDENT.
U-235	1.268E-02		1.054E-01	1.719E-01	0.000E+00	NOT IDENT.
NP-236	-1.851E-03		3.036E-02	4.822E-02	0.000E+00	NOT IDENT.
NP-239	4.653E-02		1.121E-01	1.918E-01	0.000E+00	NOT IDENT.
AM-241	6.659E-02		8.500E-02	1.384E-01	0.000E+00	NOT IDENT.
CM-243	3.879E-03		4.717E-02	7.621E-02	0.000E+00	NOT IDENT.
AM-246	-6.603E-04		7.136E-02	1.216E-01	0.000E+00	NOT IDENT.
CF-249	-2.205E-03		2.256E-02	3.843E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:14:12.11

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324003.CNF;1
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 30-NOV-2007 07:52:12
Sample ID        : G198324003           Sample quantity  : 1.21660E+02 GRAM
Detector name    : GAM23                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:08.09  0.1%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706245               Detector SN#     :
Matrix Spike ID  :                      LCS ID           :
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	343	10.66*	1.037E+00	4.788E+00	4.788E+00	13.87
CS-137	661.66	147	85.10*	2.102E+00	1.265E-01	1.270E-01	29.53
EU-155	105.31	33	21.20*	6.317E+00	3.796E-02	3.879E-02	175.12
TL-208	277.36	13	6.31	4.252E+00	7.468E-02	7.468E-02	315.25
	510.77	46	22.60	2.613E+00	1.199E-01	1.199E-01	179.57
	583.19	200	84.50*	2.340E+00	1.560E-01	1.560E-01	28.80
	763.13	------	1.81	1.854E+00	------	Line Not Found	------
	860.56	------	12.42	1.664E+00	------	Line Not Found	------
BI-212	727.33	25	11.80*	1.934E+00	1.722E-01	1.722E-01	170.04
	785.37	9	1.10	1.803E+00	6.999E-01	6.999E-01	324.97
	1620.50	21	1.49	9.589E-01	2.268E+00	2.268E+00	69.34
PB-212	74.81	177	10.40	4.154E+00	6.328E-01	6.328E-01	35.47
	77.11	312	17.50	4.411E+00	6.228E-01	6.228E-01	20.50
	87.30	94	7.81	5.350E+00	3.475E-01	3.475E-01	72.27
	238.63	669	43.30*	4.766E+00	5.000E-01	5.000E-01	12.33
	300.09	69	3.28	3.998E+00	8.170E-01	8.170E-01	64.67
BI-214	609.31	255	46.10*	2.256E+00	3.787E-01	3.787E-01	20.15
	768.36	------	4.94	1.843E+00	------	Line Not Found	------
	806.17	------	1.22	1.765E+00	------	Line Not Found	------
	934.06	------	3.03	1.544E+00	------	Line Not Found	------
	1120.29	76	15.10	1.305E+00	5.962E-01	5.962E-01	54.67
	1155.19	------	1.63	1.270E+00	------	Line Not Found	------
	1238.11	------	5.79	1.193E+00	------	Line Not Found	------
	1280.96	28	1.43	1.158E+00	2.630E+00	2.630E+00	173.90
	1377.67	26	4.00	1.088E+00	9.363E-01	9.364E-01	88.85
	1401.50	------	1.27	1.073E+00	------	Line Not Found	------
	1407.98	------	2.15	1.069E+00	------	Line Not Found	------
	1509.23	------	2.11	1.011E+00	------	Line Not Found	------
	1729.60	------	2.92	9.196E-01	------	Line Not Found	------
	1764.49	12	15.40	9.086E-01	1.292E-01	1.292E-01	220.95
PB-214	74.81	177	6.44	4.154E+00	1.022E+00	1.022E+00	35.47
	77.11	312	10.80	4.411E+00	1.009E+00	1.009E+00	20.50

Sample ID : G198324003 Acquisition date : 30-NOV-2007 07:52:12

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	94	4.84	5.350E+00	5.608E-01	5.608E-01	72.27
	242.00	181	7.43	4.723E+00	7.976E-01	7.976E-01	44.14
	295.22	254	19.30	4.052E+00	5.009E-01	5.009E-01	26.43
	351.93	378	37.60*	3.529E+00	4.391E-01	4.391E-01	18.95
RA-223	269.46	64	13.70*	4.335E+00	1.657E-01	1.657E-01	98.93
AC-228	129.07	65	2.42	6.528E+00	6.373E-01	6.373E-01	97.93
	209.25	66	3.89	5.235E+00	5.000E-01	5.000E-01	88.92
	270.25	64	3.46	4.335E+00	6.560E-01	6.560E-01	98.93
	338.32	115	11.27	3.640E+00	4.339E-01	4.339E-01	55.83
	409.46	------	1.92	3.128E+00	------ Line Not Found		------
	463.00	43	4.40	2.831E+00	5.371E-01	5.371E-01	109.08
	794.95	32	4.25	1.788E+00	6.550E-01	6.550E-01	78.24
	911.20	150	25.80*	1.580E+00	5.675E-01	5.675E-01	31.50
	964.77	46	4.99	1.498E+00	9.565E-01	9.565E-01	49.42
	968.97	80	15.80	1.492E+00	5.257E-01	5.257E-01	40.93
	1588.20	------	3.22	9.734E-01	------ Line Not Found		------
TH-234	63.29	86	4.80	2.595E+00	1.063E+00	1.063E+00	83.02
	92.58	120	5.41*	5.768E+00	5.955E-01	5.955E-01	77.16
NP-237	86.48	94	12.40*	5.350E+00	2.189E-01	2.189E-01	72.27
AM-243	74.66	177	68.20*	4.154E+00	9.649E-02	9.650E-02	35.47

Flag: "*" = Keyline

Sample ID : G198324003 Acquisition date : 30-NOV-2007 07:52:12

Total number of lines in spectrum	53	
Number of unidentified lines	20	
Number of lines tentatively identified by NID	33	62.26%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	4.788E+00	4.788E+00	0.664E+00	13.87	
CS-137	9.47E+08S	1.00	1.265E-01	1.270E-01	0.375E-01	29.53	
EU-155	1.57E+08S	1.02	3.796E-02	3.879E-02	6.793E-02	175.12	
TL-208	4.43E+17S	1.00	1.560E-01	1.560E-01	0.449E-01	28.80	
BI-212	4.43E+17S	1.00	1.722E-01	1.722E-01	2.928E-01	170.04	
PB-212	4.43E+17S	1.00	5.000E-01	5.000E-01	0.616E-01	12.33	
BI-214	5.05E+10S	1.00	3.787E-01	3.787E-01	0.763E-01	20.15	
PB-214	5.05E+10S	1.00	4.391E-01	4.391E-01	0.832E-01	18.95	
RA-223	1.04E+12S	1.00	1.657E-01	1.657E-01	1.639E-01	98.93	
AC-228	4.43E+17S	1.00	5.675E-01	5.675E-01	1.788E-01	31.50	
TH-234	1.41E+17S	1.00	5.955E-01	5.955E-01	4.595E-01	77.16	
NP-237	6.75E+13S	1.00	2.189E-01	2.189E-01	1.582E-01	72.27	
AM-243	2.33E+11S	1.00	9.649E-02	9.650E-02	3.422E-02	35.47	
			---	---			
		Total Activity :	8.243E+00	8.244E+00			

Grand Total Activity : 8.243E+00 8.244E+00

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G198324003 Acquisition date : 30-NOV-2007 07:52:12

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.01	29	284	1.97	91.96	89	8	2.02E-03	****	5.42E-01	
4	131.84	27	287	1.14	263.64	255	12	1.87E-03	****	6.51E+00	
0	185.81	126	407	1.36	371.61	368	11	8.76E-03	69.0	5.66E+00	
0	220.36	42	204	1.51	440.72	437	8	2.91E-03	****	5.05E+00	
0	259.14	45	175	1.39	518.29	515	8	3.10E-03	****	4.48E+00	
0	265.76	46	173	0.89	531.53	527	9	3.22E-03	****	4.40E+00	
4	326.28	20	54	0.84	652.61	651	9	1.40E-03	****	3.75E+00	
4	328.05	60	120	1.19	656.13	651	9	4.15E-03	66.4	3.73E+00	
0	416.91	34	62	1.39	833.91	831	6	2.38E-03	81.4	3.08E+00	
0	569.72	12	128	1.36	1139.60	1134	14	8.01E-04	****	2.39E+00	
3	614.40	16	70	2.03	1228.99	1213	20	1.10E-03	****	2.24E+00	
0	697.35	31	69	1.38	1394.94	1389	11	2.16E-03	****	2.01E+00	
0	1015.90	28	28	1.59	2032.32	2024	16	1.91E-03	****	1.43E+00	
0	1041.77	29	36	3.83	2084.10	2078	12	1.99E-03	91.9	1.40E+00	
0	1130.98	34	16	3.83	2262.61	2255	13	2.36E-03	59.8	1.29E+00	
0	1410.96	22	22	5.59	2822.89	2815	17	1.55E-03	****	1.07E+00	
1	1456.70	25	3	2.34	2914.42	2911	19	1.71E-03	40.9	1.04E+00	
0	1533.10	6	16	3.81	3067.33	3055	16	4.17E-04	****	9.99E-01	
0	1593.32	16	19	7.63	3187.86	3177	21	1.09E-03	****	9.71E-01	
0	1914.19	9	0	1.05	3830.11	3823	12	6.25E-04	66.7	8.71E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G198324003            *
* Acquisition date : 30-NOV-2007 07:52:12 Detector SN#    :                 *
* Detector ID      : GAM23                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:08.09     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324003           Analyst initials: MJH1            *
* Batch Number     : 706245               Sample Quantity : 1.2166E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 18-MAY-2007 16:30:26 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	4.788E+00	6.509E-01	1.377E-01	6.509E-01
CS-137	1.270E-01	3.675E-02	1.729E-02	3.675E-02
EU-155	3.879E-02	6.657E-02	4.198E-02	6.657E-02
TL-208	1.560E-01	4.401E-02	1.893E-02	4.401E-02
BI-212	1.722E-01	2.869E-01	1.523E-01	2.869E-01
PB-212	5.000E-01	6.041E-02	2.634E-02	6.041E-02
BI-214	3.787E-01	7.478E-02	3.444E-02	7.478E-02
PB-214	4.391E-01	8.155E-02	3.227E-02	8.155E-02
RA-223	1.657E-01	1.606E-01	8.122E-02	1.606E-01
AC-228	5.675E-01	1.752E-01	6.757E-02	1.752E-01
TH-234	5.955E-01	4.503E-01	1.846E-01	4.503E-01
NP-237	2.189E-01	1.550E-01	9.819E-02	1.550E-01
AM-243	9.650E-02	3.354E-02	2.060E-02	3.354E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	-4.512E-04	2.508E-02	2.117E-02	2.508E-02	NOT IDENT.
RH-101	-1.109E-02	1.925E-02	1.492E-02	1.925E-02	NOT IDENT.
SB-125	-1.172E-02	5.212E-02	4.358E-02	5.212E-02	NOT IDENT.
PO-209	3.663E+00	4.161E+00	3.744E+00	4.161E+00	NOT IDENT.
BI-211	-5.965E-01	6.696E-01	5.186E-01	6.696E-01	NOT IDENT.
PA-233	2.630E-03	3.429E-02	3.011E-02	3.429E-02	NOT IDENT.
PA-234M	2.296E+00	2.590E+00	2.311E+00	2.590E+00	NOT IDENT.
U-235	1.268E-02	1.054E-01	8.600E-02	1.054E-01	NOT IDENT.
NP-236	-1.851E-03	3.036E-02	2.412E-02	3.036E-02	NOT IDENT.
NP-239	4.653E-02	1.121E-01	9.598E-02	1.121E-01	NOT IDENT.
AM-241	6.659E-02	8.500E-02	6.925E-02	8.500E-02	NOT IDENT.
CM-243	3.879E-03	4.717E-02	3.813E-02	4.717E-02	NOT IDENT.
AM-246	-6.603E-04	7.136E-02	6.082E-02	7.136E-02	NOT IDENT.
CF-249	-2.205E-03	2.256E-02	1.923E-02	2.256E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
59.54	164.1262
63.29	218.1180
74.66	243.6515
74.81	243.7680
74.81	243.7680
77.11	245.5408
77.11	245.5408
86.48	304.0085
87.30	275.3386
87.30	275.3386
92.58	239.3705
98.44	213.8797
103.76	214.4262
105.31	220.0941
129.07	226.7587
143.76	246.0433
198.00	239.4227
209.25	213.5335
228.18	176.4868
238.63	220.0631
242.00	221.0219
269.46	174.9130
270.25	190.6772
277.36	195.7505
295.22	168.3200
300.09	139.0965
312.17	149.7830
338.32	166.8292
351.93	137.8608
387.59	132.6340
409.46	99.3546
427.87	113.9707
463.00	104.6772
510.77	106.1868
583.19	106.8141
609.31	97.7759
661.66	72.4996
727.33	92.6111
763.13	87.3318
768.36	77.6039
785.37	81.9179
794.95	60.4585
806.17	91.1646
831.80	88.1416
860.56	68.5169
896.60	43.2292
911.20	58.3475
934.06	44.9788
964.77	41.5630
968.97	53.2169
1001.03	42.8886
1078.86	40.5627
1120.29	37.7424
1155.19	42.6250
1173.23	52.6311
1238.11	49.7721
1280.96	40.3564
1332.51	35.8673
1377.67	24.9229
1401.50	31.3672
1407.98	28.7321
1460.80	18.0715
1509.23	30.1567
1588.20	29.6840
1620.50	19.9512
1729.60	16.5832
1764.49	45.2395

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198324003

Total Uranium Activity	5.8682E-03	ug/g
Total Uranium Counting Unc.	4.8751E-02	ug/g
Total Uranium Tpu	4.8751E-08	ug/g
Total Uranium Mda	3.9794E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:14:46.01

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324004.CNF;1
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 30-NOV-2007 09:54:47
Sample ID        : G198324004           Sample quantity  : 1.13900E+02 GRAM
Detector name    : GAM04                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:30.85  0.2%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706245               Detector SN#     :
Matrix Spike ID  :                      LCS ID           :
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.93*	38	208	1.16	94.82	91	8	2.65E-03	74.2	
2	0	62.79*	50	301	1.08	126.51	122	10	3.46E-03	72.0	
3	1	74.65*	85	301	1.17	150.21	147	13	5.91E-03	38.4	9.80E-01
4	1	77.15*	189	248	0.98	155.21	147	13	1.31E-02	16.0	
5	0	87.21	99	220	0.82	175.33	173	6	6.86E-03	25.7	
6	0	92.80*	90	430	1.49	186.50	182	10	6.25E-03	49.1	
7	0	186.04*	130	282	1.31	372.89	368	11	9.02E-03	29.2	
8	0	209.22	113	199	1.85	419.22	415	9	7.87E-03	24.3	
9	0	213.16	30	136	0.59	427.09	424	6	2.06E-03	64.8	
10	2	238.76*	641	171	1.22	478.26	473	16	4.45E-02	5.6	1.41E+00
11	2	241.86	178	135	1.60	484.45	473	16	1.23E-02	14.8	
12	0	270.48	115	204	2.01	541.67	536	12	8.02E-03	26.4	
13	0	295.29	200	169	1.21	591.27	586	11	1.39E-02	14.4	
14	0	301.08*	3	169	2.01	602.84	597	10	2.41E-04	742.5	
15	2	338.55*	112	95	1.50	677.74	674	14	7.79E-03	18.4	8.64E-01
16	2	341.80	30	89	1.55	684.25	674	14	2.10E-03	55.3	
17	0	351.99*	276	163	1.32	704.61	699	12	1.91E-02	11.7	
18	0	395.74	14	90	1.35	792.08	786	9	1.00E-03	121.0	
19	0	408.48	70	208	6.35	817.55	803	22	4.84E-03	54.2	
20	0	477.77	21	32	0.64	956.07	953	6	1.49E-03	47.3	
21	0	490.52	18	74	1.91	981.55	972	11	1.24E-03	98.7	
22	0	511.73*	33	142	2.55	1023.95	1015	19	2.28E-03	116.4	
23	0	553.20	60	98	7.03	1106.86	1096	19	4.19E-03	41.7	
24	0	583.52*	166	116	1.27	1167.48	1160	14	1.15E-02	16.8	
25	0	609.75*	220	69	1.44	1219.91	1214	12	1.53E-02	11.2	
26	0	662.15	151	105	1.66	1324.68	1320	14	1.05E-02	16.2	
27	0	727.51	44	59	1.78	1455.35	1449	13	3.06E-03	38.9	
28	0	771.97	41	105	6.32	1544.24	1531	21	2.85E-03	59.1	
29	0	796.22	13	24	1.05	1592.72	1588	9	8.92E-04	75.0	
30	0	830.96	15	21	1.37	1662.18	1658	8	1.04E-03	59.5	
31	0	861.49	22	41	1.45	1723.23	1717	11	1.50E-03	61.5	
32	0	869.51	14	29	2.27	1739.25	1733	9	9.43E-04	76.8	
33	0	912.21*	121	50	1.61	1824.64	1817	17	8.43E-03	17.3	
34	0	970.50	49	75	1.28	1941.18	1935	14	3.39E-03	40.6	
35	0	995.30	17	20	2.12	1990.76	1986	10	1.18E-03	54.9	
36	0	1017.52	13	13	0.85	2035.21	2031	7	8.81E-04	56.0	
37	0	1065.65	17	28	4.30	2131.44	2123	14	1.21E-03	68.8	
38	0	1094.40	27	22	4.31	2188.93	2180	16	1.87E-03	44.6	

Sample ID : G198324004 Acquisition date : 30-NOV-2007 09:54:47

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	2	1113.58	21	19	2.39	2227.27	2222	30	1.46E-03	41.8	1.57E+00
40	2	1120.76	59	24	2.40	2241.63	2222	30	4.09E-03	22.0	
41	0	1179.52	10	18	3.79	2359.13	2354	9	6.99E-04	85.2	
42	0	1263.53	29	14	2.36	2527.13	2520	15	2.02E-03	34.2	
43	0	1281.83	36	14	2.48	2563.71	2553	19	2.52E-03	29.9	
44	0	1391.61	8	15	0.43	2783.25	2773	15	5.56E-04	111.3	
45	0	1461.55*	276	9	1.80	2923.12	2913	17	1.92E-02	6.8	
46	0	1609.41	13	9	2.76	3218.82	3210	13	8.74E-04	58.2	
47	0	1629.30	4	10	0.77	3258.60	3252	10	2.58E-04	168.1	
48	0	1726.00	5	5	1.31	3452.00	3443	11	3.47E-04	100.2	
49	0	1730.77*	15	4	3.17	3461.53	3455	14	1.06E-03	49.5	
50	0	1765.65*	26	19	1.46	3531.30	3524	15	1.84E-03	44.8	
51	0	1898.23	18	4	1.55	3796.47	3790	14	1.27E-03	32.1	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324004       *
* Acquisition date : 30-NOV-2007 09:54:47 Detector SN#    :                 *
* Detector ID      : GAM04                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:30.85     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324004           Analyst initials: MJH1            *
* Batch Number     : 706245               Sample Quantity : 1.1390E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  6-MAR-2007 17:58:01 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	4.031E+00	5.910E-01	3.289E-01	0.000E+00
CS-137	1.352E-01	4.389E-02	3.764E-02	0.000E+00
TL-208	1.340E-01	4.503E-02	3.061E-02	0.000E+00
BI-211	4.238E-01	4.953E-01	8.967E-01	0.000E+00
BI-212	3.077E-01	2.355E-01	2.466E-01	0.000E+00
PB-212	5.237E-01	7.752E-02	5.242E-02	0.000E+00
BI-214	3.382E-01	7.765E-02	6.188E-02	0.000E+00
PB-214	3.410E-01	8.213E-02	6.258E-02	0.000E+00
RA-223	3.248E-01	1.710E-01	1.668E-01	0.000E+00
AC-228	4.773E-01	1.684E-01	1.114E-01	0.000E+00
TH-234	5.224E-01	5.047E-01	4.711E-01	0.000E+00
NP-237	2.712E-01	1.389E-01	2.390E-01	0.000E+00
AM-243	5.760E-02	4.368E-02	5.253E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	-1.084E-02		2.856E-02	3.851E-02	0.000E+00	NOT IDENT.
RH-101	1.368E-02		2.155E-02	3.477E-02	0.000E+00	NOT IDENT.
SB-125	-1.401E-02		5.072E-02	8.620E-02	0.000E+00	NOT IDENT.
EU-155	-1.227E-02		6.536E-02	1.017E-01	0.000E+00	NOT IDENT.
PO-209	5.899E-01		3.794E+00	6.587E+00	0.000E+00	NOT IDENT.
PA-233	-6.317E-03		3.579E-02	5.926E-02	0.000E+00	NOT IDENT.
PA-234M	-1.239E+00		3.118E+00	4.127E+00	0.000E+00	NOT IDENT.
U-235	-1.223E-02		1.207E-01	1.928E-01	0.000E+00	NOT IDENT.
NP-236	9.128E-03		3.524E-02	5.665E-02	0.000E+00	NOT IDENT.
NP-239	-4.629E-02		1.244E-01	2.087E-01	0.000E+00	NOT IDENT.
AM-241	3.528E-02		1.230E-01	1.910E-01	0.000E+00	NOT IDENT.
CM-243	-6.520E-03		5.815E-02	9.061E-02	0.000E+00	NOT IDENT.
AM-246	-5.006E-02		6.608E-02	1.003E-01	0.000E+00	NOT IDENT.
CF-249	1.806E-02		2.160E-02	3.771E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:14:47.24

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324004.CNF;1
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 30-NOV-2007 09:54:47
Sample ID        : G198324004           Sample quantity  : 1.13900E+02 GRAM
Detector name    : GAM04                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:30.85  0.2%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706245               Detector SN#     :
Matrix Spike ID  :                      LCS ID           :
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	276	10.66*	1.059E+00	4.031E+00	4.031E+00	14.96
CS-137	661.66	151	85.10*	2.170E+00	1.347E-01	1.352E-01	33.12
TL-208	277.36	------	6.31	4.202E+00	------	Line Not Found	------
	510.77	33	22.60	2.678E+00	8.923E-02	8.923E-02	232.84
	583.19	166	84.50*	2.411E+00	1.340E-01	1.340E-01	34.29
	763.13	------	1.81	1.915E+00	------	Line Not Found	------
	860.56	22	12.42	1.714E+00	1.672E-01	1.672E-01	123.33
BI-211	831.80	15	3.30*	1.772E+00	4.238E-01	4.238E-01	119.27
BI-212	727.33	44	11.80*	1.999E+00	3.077E-01	3.077E-01	78.11
	785.37	------	1.10	1.866E+00	------	Line Not Found	------
	1620.50	------	1.49	9.849E-01	------	Line Not Found	------
PB-212	74.81	85	10.40	3.570E+00	3.777E-01	3.777E-01	77.39
	77.11	189	17.50	3.860E+00	4.606E-01	4.606E-01	33.32
	87.30	99	7.81	4.840E+00	4.306E-01	4.306E-01	52.26
	238.63	641	43.30*	4.662E+00	5.237E-01	5.237E-01	15.11
	300.09	3	3.28	3.964E+00	4.401E-02	4.401E-02	1485.05
BI-214	609.31	220	46.10*	2.326E+00	3.381E-01	3.382E-01	23.43
	768.36	------	4.94	1.904E+00	------	Line Not Found	------
	806.17	------	1.22	1.822E+00	------	Line Not Found	------
	934.06	------	3.03	1.589E+00	------	Line Not Found	------
	1120.29	59	15.10	1.337E+00	4.809E-01	4.809E-01	44.62
	1155.19	------	1.63	1.299E+00	------	Line Not Found	------
	1238.11	------	5.79	1.219E+00	------	Line Not Found	------
	1280.96	36	1.43	1.182E+00	3.538E+00	3.539E+00	60.12
	1377.67	------	4.00	1.111E+00	------	Line Not Found	------
	1401.50	------	1.27	1.095E+00	------	Line Not Found	------
	1407.98	------	2.15	1.091E+00	------	Line Not Found	------
	1509.23	------	2.11	1.034E+00	------	Line Not Found	------
	1729.60	15	2.92	9.486E-01	9.084E-01	9.085E-01	99.09
	1764.49	26	15.40	9.395E-01	3.015E-01	3.015E-01	89.84
PB-214	74.81	85	6.44	3.570E+00	6.099E-01	6.100E-01	77.39
	77.11	189	10.80	3.860E+00	7.464E-01	7.465E-01	33.32

Sample ID : G198324004 Acquisition date : 30-NOV-2007 09:54:47

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	99	4.84	4.840E+00	6.948E-01	6.948E-01	52.26
	242.00	178	7.43	4.621E+00	8.523E-01	8.524E-01	31.36
	295.22	200	19.30	4.019E+00	4.255E-01	4.256E-01	30.20
	351.93	276	37.60*	3.543E+00	3.410E-01	3.410E-01	24.57
RA-223	269.46	115	13.70*	4.276E+00	3.248E-01	3.248E-01	53.73
AC-228	129.07	------	2.42	6.175E+00	------	Line Not Found	------
	209.25	113	3.89	5.084E+00	9.437E-01	9.437E-01	49.71
	270.25	115	3.46	4.276E+00	1.286E+00	1.286E+00	53.73
	338.32	112	11.27	3.644E+00	4.503E-01	4.503E-01	37.73
	409.46	70	1.92	3.177E+00	1.884E+00	1.884E+00	108.52
	463.00	------	4.40	2.892E+00	------	Line Not Found	------
	794.95	13	4.25	1.843E+00	2.701E-01	2.701E-01	150.23
	911.20	121	25.80*	1.624E+00	4.773E-01	4.773E-01	35.99
	964.77	------	4.99	1.541E+00	------	Line Not Found	------
	968.97	49	15.80	1.532E+00	3.326E-01	3.326E-01	81.75
	1588.20	------	3.22	9.978E-01	------	Line Not Found	------
TH-234	63.29	50	4.80	2.056E+00	8.317E-01	8.317E-01	144.54
	92.58	90	5.41*	5.250E+00	5.224E-01	5.224E-01	98.60
NP-237	86.48	99	12.40*	4.840E+00	2.712E-01	2.712E-01	52.26
AM-243	74.66	85	68.20*	3.570E+00	5.760E-02	5.760E-02	77.39

Flag: "*" = Keyline

Sample ID : G198324004 Acquisition date : 30-NOV-2007 09:54:47

Total number of lines in spectrum 51
Number of unidentified lines 22
Number of lines tentatively identified by NID 29 56.86%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	4.031E+00	4.031E+00	0.603E+00	14.96	
CS-137	9.47E+08S	1.00	1.347E-01	1.352E-01	0.448E-01	33.12	
TL-208	4.43E+17S	1.00	1.340E-01	1.340E-01	0.459E-01	34.29	
BI-211	2.22E+16S	1.00	4.238E-01	4.238E-01	5.054E-01	119.27	
BI-212	4.43E+17S	1.00	3.077E-01	3.077E-01	2.404E-01	78.11	
PB-212	4.43E+17S	1.00	5.237E-01	5.237E-01	0.791E-01	15.11	
BI-214	5.05E+10S	1.00	3.381E-01	3.382E-01	0.792E-01	23.43	
PB-214	5.05E+10S	1.00	3.410E-01	3.410E-01	0.838E-01	24.57	
RA-223	1.04E+12S	1.00	3.248E-01	3.248E-01	1.745E-01	53.73	
AC-228	4.43E+17S	1.00	4.773E-01	4.773E-01	1.718E-01	35.99	
TH-234	1.41E+17S	1.00	5.224E-01	5.224E-01	5.150E-01	98.60	
NP-237	6.75E+13S	1.00	2.712E-01	2.712E-01	1.417E-01	52.26	
AM-243	2.33E+11S	1.00	5.760E-02	5.760E-02	4.457E-02	77.39	
			---	---			
		Total Activity :	7.887E+00	7.887E+00			

Grand Total Activity : 7.887E+00 7.887E+00

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G198324004 Acquisition date : 30-NOV-2007 09:54:47

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.93	38	208	1.16	94.82	91	8	2.65E-03	****	3.99E-01	
0	186.04	130	282	1.31	372.89	368	11	9.02E-03	58.5	5.45E+00	
0	213.16	30	136	0.59	427.09	424	6	2.06E-03	****	5.02E+00	
2	341.80	30	89	1.55	684.25	674	14	2.10E-03	****	3.62E+00	
0	395.74	14	90	1.35	792.08	786	9	1.00E-03	****	3.25E+00	
0	477.77	21	32	0.64	956.07	953	6	1.49E-03	94.6	2.82E+00	
0	490.52	18	74	1.91	981.55	972	11	1.24E-03	****	2.77E+00	
0	553.20	60	98	7.03	1106.86	1096	19	4.19E-03	83.4	2.52E+00	
0	771.97	41	105	6.32	1544.24	1531	21	2.85E-03	****	1.90E+00	
0	869.51	14	29	2.27	1739.25	1733	9	9.43E-04	****	1.70E+00	
0	995.30	17	20	2.12	1990.76	1986	10	1.18E-03	****	1.50E+00	
0	1017.52	13	13	0.85	2035.21	2031	7	8.81E-04	****	1.46E+00	
0	1065.65	17	28	4.30	2131.44	2123	14	1.21E-03	****	1.40E+00	
0	1094.40	27	22	4.31	2188.93	2180	16	1.87E-03	89.2	1.37E+00	
2	1113.58	21	19	2.39	2227.27	2222	30	1.46E-03	83.6	1.34E+00	
0	1179.52	10	18	3.79	2359.13	2354	9	6.99E-04	****	1.27E+00	
0	1263.53	29	14	2.36	2527.13	2520	15	2.02E-03	68.5	1.20E+00	
0	1391.61	8	15	0.43	2783.25	2773	15	5.56E-04	****	1.10E+00	
0	1609.41	13	9	2.76	3218.82	3210	13	8.74E-04	****	9.89E-01	
0	1629.30	4	10	0.77	3258.60	3252	10	2.58E-04	****	9.82E-01	
0	1726.00	5	5	1.31	3452.00	3443	11	3.47E-04	****	9.50E-01	
0	1898.23	18	4	1.55	3796.47	3790	14	1.27E-03	64.1	9.14E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G198324004            *
* Acquisition date : 30-NOV-2007 09:54:47 Detector SN#    :                 *
* Detector ID      : GAM04                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:30.85     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324004           Analyst initials: MJH1            *
* Batch Number     : 706245               Sample Quantity : 1.1390E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME :  6-MAR-2007 17:58:01 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	4.031E+00	5.910E-01	1.646E-01	5.910E-01
CS-137	1.352E-01	4.389E-02	1.883E-02	4.389E-02
TL-208	1.340E-01	4.503E-02	1.531E-02	4.503E-02
BI-211	4.238E-01	4.953E-01	4.486E-01	4.953E-01
BI-212	3.077E-01	2.355E-01	1.234E-01	2.355E-01
PB-212	5.237E-01	7.752E-02	2.623E-02	7.752E-02
BI-214	3.382E-01	7.765E-02	3.096E-02	7.765E-02
PB-214	3.410E-01	8.213E-02	3.131E-02	8.213E-02
RA-223	3.248E-01	1.710E-01	8.345E-02	1.710E-01
AC-228	4.773E-01	1.684E-01	5.571E-02	1.684E-01
TH-234	5.224E-01	5.047E-01	2.357E-01	5.047E-01
NP-237	2.712E-01	1.389E-01	1.196E-01	1.389E-01
AM-243	5.760E-02	4.368E-02	2.628E-02	4.368E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	-1.084E-02	2.856E-02	1.927E-02	2.856E-02	NOT IDENT.
RH-101	1.368E-02	2.155E-02	1.740E-02	2.155E-02	NOT IDENT.
SB-125	-1.401E-02	5.072E-02	4.313E-02	5.072E-02	NOT IDENT.
EU-155	-1.227E-02	6.536E-02	5.088E-02	6.536E-02	NOT IDENT.
PO-209	5.899E-01	3.794E+00	3.296E+00	3.794E+00	NOT IDENT.
PA-233	-6.317E-03	3.579E-02	2.965E-02	3.579E-02	NOT IDENT.
PA-234M	-1.239E+00	3.118E+00	2.065E+00	3.118E+00	NOT IDENT.
U-235	-1.223E-02	1.207E-01	9.644E-02	1.207E-01	NOT IDENT.
NP-236	9.128E-03	3.524E-02	2.834E-02	3.524E-02	NOT IDENT.
NP-239	-4.629E-02	1.244E-01	1.044E-01	1.244E-01	NOT IDENT.
AM-241	3.528E-02	1.230E-01	9.554E-02	1.230E-01	NOT IDENT.
CM-243	-6.520E-03	5.815E-02	4.533E-02	5.815E-02	NOT IDENT.
AM-246	-5.006E-02	6.608E-02	5.017E-02	6.608E-02	NOT IDENT.
CF-249	1.806E-02	2.160E-02	1.887E-02	2.160E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
59.54	192.8129
63.29	206.3994
74.66	266.6900
74.81	266.7718
74.81	266.7718
77.11	267.9961
77.11	267.9961
86.48	327.6923
87.30	339.6123
87.30	339.6123
92.58	291.1795
98.44	223.7515
103.76	220.5729
105.31	236.8395
129.07	261.6949
143.76	252.6927
198.00	216.0235
209.25	216.2161
228.18	207.9217
238.63	186.2862
242.00	175.5851
269.46	159.9697
270.25	160.0758
277.36	164.2213
295.22	142.2422
300.09	137.7991
312.17	136.1394
338.32	143.4480
351.93	116.3683
387.59	89.3600
409.46	101.7738
427.87	104.0405
463.00	94.1632
510.77	79.5631
583.19	65.7634
609.31	74.5056
661.66	81.3164
727.33	57.4250
763.13	49.4033
768.36	44.5512
785.37	56.5778
794.95	49.2793
806.17	41.9517
831.80	46.6817
860.56	47.1530
896.60	41.6281
911.20	37.1826
934.06	45.8887
964.77	47.0158
968.97	74.6762
1001.03	45.9082
1078.86	37.1913
1120.29	31.6888
1155.19	28.9953
1173.23	48.2266
1238.11	45.9906
1280.96	27.8954
1332.51	25.1123
1377.67	25.3848
1401.50	24.4628
1407.98	24.4993
1460.80	23.7179
1509.23	16.8122
1588.20	19.9482
1620.50	10.7109
1729.60	0.0000
1764.49	12.0547

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198324004

Total Uranium Activity	-5.6603E-03	ug/g
Total Uranium Counting Unc.	5.5847E-02	ug/g
Total Uranium Tpu	5.5847E-08	ug/g
Total Uranium Mda	4.4625E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:15:20.89

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324005.CNF;1
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 30-NOV-2007 09:55:31
Sample ID        : G198324005           Sample quantity  : 1.12020E+02 GRAM
Detector name    : GAM06                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.47  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706245               Detector SN#     :
Matrix Spike ID  :                      LCS ID           :
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	45.62*	19	358	1.34	91.30	88	8	1.29E-03	193.7	
2	0	62.68*	55	370	1.27	125.40	122	8	3.83E-03	66.0	
3	3	74.50	232	283	0.83	149.02	145	13	1.61E-02	12.6	9.38E-01
4	3	76.67*	332	310	0.98	153.34	145	13	2.30E-02	10.8	
5	3	83.82*	55	422	1.29	167.63	164	13	3.82E-03	68.7	1.22E+00
6	3	86.72	118	310	1.08	173.42	164	13	8.23E-03	25.4	
7	0	92.47*	160	456	1.49	184.91	181	10	1.11E-02	28.9	
8	0	128.58	67	309	1.19	257.07	254	8	4.65E-03	47.2	
9	0	143.07*	36	286	1.86	286.01	282	8	2.52E-03	92.0	
10	0	185.64*	208	430	1.03	371.08	365	12	1.45E-02	22.1	
11	0	204.64	33	221	1.32	409.05	406	7	2.26E-03	77.6	
12	0	208.64	114	315	0.92	417.04	412	10	7.92E-03	30.6	
13	5	238.30*	792	221	1.10	476.32	472	16	5.50E-02	5.0	7.92E-01
14	5	241.25	221	253	1.52	482.22	472	16	1.53E-02	15.5	
15	0	270.24	78	225	1.85	540.15	535	10	5.39E-03	38.0	
16	0	276.51	35	212	1.14	552.68	549	8	2.43E-03	74.4	
17	0	294.93*	203	178	1.23	589.48	586	8	1.41E-02	14.6	
18	0	299.68	49	141	1.30	598.98	595	8	3.38E-03	44.8	
19	0	327.28	28	144	1.02	654.12	652	7	1.97E-03	72.4	
20	0	338.02*	175	241	1.53	675.59	669	14	1.22E-02	21.4	
21	0	351.47*	464	189	1.31	702.47	696	12	3.22E-02	8.1	
22	0	462.89	73	112	1.02	925.15	920	11	5.04E-03	30.7	
23	0	510.69*	97	142	2.18	1020.68	1013	15	6.72E-03	37.4	
24	1	558.53	27	35	1.68	1116.29	1114	13	1.91E-03	31.5	1.33E+01
25	1	562.04	32	51	1.68	1123.31	1114	13	2.22E-03	42.4	
26	0	583.17*	228	116	1.42	1165.54	1160	14	1.59E-02	12.9	
27	0	609.09*	310	84	1.40	1217.36	1212	12	2.16E-02	8.8	
28	0	661.55	287	92	1.55	1322.22	1316	15	1.99E-02	9.4	
29	0	702.29	9	81	3.30	1403.64	1396	10	6.25E-04	189.2	
30	0	728.06	35	105	0.88	1455.17	1449	13	2.41E-03	63.0	
31	0	766.67	103	65	4.50	1532.35	1523	19	7.15E-03	21.4	
32	0	772.96	21	23	1.76	1544.93	1541	8	1.47E-03	45.3	
33	0	785.78	49	77	7.24	1570.55	1560	22	3.40E-03	47.8	
34	0	794.76	40	57	4.07	1588.50	1582	14	2.81E-03	42.3	
35	3	806.25	27	48	2.14	1611.48	1604	14	1.91E-03	56.2	1.86E+00
36	0	840.28	10	41	1.31	1679.50	1676	8	6.93E-04	114.7	
37	0	860.43	37	55	1.10	1719.79	1713	12	2.57E-03	43.0	
38	0	911.02*	163	65	1.42	1820.93	1814	13	1.13E-02	13.6	

Sample ID : G198324005 Acquisition date : 30-NOV-2007 09:55:31

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	933.82	43	45	2.53	1866.52	1860	15	2.98E-03	37.3	
40	0	969.43*	70	81	1.35	1937.70	1930	13	4.88E-03	30.9	
41	0	987.24	16	9	1.43	1973.31	1970	8	1.08E-03	40.8	
42	0	1032.54	17	23	2.27	2063.89	2057	12	1.21E-03	60.6	
43	0	1038.94	19	25	2.29	2076.68	2072	10	1.32E-03	54.3	
44	0	1069.16	21	20	1.63	2137.11	2133	9	1.42E-03	45.4	
45	0	1110.46	25	17	1.45	2219.70	2214	10	1.71E-03	37.6	
46	4	1116.36	12	15	1.96	2231.49	2229	16	8.60E-04	50.6	1.11E+00
47	4	1120.23	74	27	2.00	2239.22	2229	16	5.11E-03	18.3	
48	0	1153.82	45	54	7.90	2306.39	2290	24	3.15E-03	45.4	
49	0	1238.51	28	26	2.74	2475.76	2471	10	1.92E-03	40.0	
50	0	1260.92	16	28	4.42	2520.56	2513	14	1.14E-03	75.4	
51	0	1294.18	16	23	4.41	2587.08	2579	12	1.11E-03	66.0	
52	0	1332.33*	18	8	0.75	2663.38	2658	11	1.26E-03	47.2	
53	0	1377.21	30	14	5.14	2753.13	2745	14	2.11E-03	31.7	
54	0	1383.75	24	11	0.88	2766.22	2759	15	1.70E-03	36.0	
55	0	1402.64	16	16	2.52	2803.99	2793	17	1.14E-03	62.4	
56	0	1408.75	39	13	4.00	2816.22	2810	15	2.68E-03	26.9	
57	0	1460.44*	329	42	2.22	2919.59	2911	17	2.29E-02	7.5	
58	0	1495.01	12	10	1.55	2988.75	2985	8	8.62E-04	52.2	
59	0	1587.81	26	11	0.85	3174.37	3167	15	1.78E-03	34.8	
60	0	1637.87	14	12	1.11	3274.51	3268	15	9.96E-04	57.6	
61	0	1648.27	8	3	1.35	3295.31	3291	8	5.37E-04	56.4	
62	0	1715.13	9	6	0.72	3429.06	3422	11	5.90E-04	63.5	
63	4	1726.98	10	1	1.65	3452.76	3451	11	6.85E-04	36.5	5.49E-01
64	4	1729.35	27	8	2.55	3457.50	3451	11	1.87E-03	26.0	
65	0	1755.36	13	3	0.78	3509.53	3503	13	8.81E-04	40.6	
66	0	1764.69*	54	16	1.58	3528.19	3519	16	3.74E-03	24.0	
67	0	1782.36	11	3	0.57	3563.54	3556	13	7.49E-04	46.0	
68	0	1786.40	8	0	1.05	3571.63	3568	8	5.56E-04	35.4	
69	0	1935.80	9	2	0.95	3870.54	3865	10	6.03E-04	47.8	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324005       *
* Acquisition date : 30-NOV-2007 09:55:31 Detector SN#    :                 *
* Detector ID      : GAM06                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:01.47     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324005           Analyst initials: MJH1            *
* Batch Number     : 706245               Sample Quantity : 1.1202E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 20-FEB-2007 10:58:43 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	5.388E+00	8.602E-01	4.290E-01	0.000E+00
CS-137	2.870E-01	5.625E-02	3.653E-02	0.000E+00
TL-208	2.057E-01	5.387E-02	3.660E-02	0.000E+00
BI-212	2.713E-01	3.357E-01	3.069E-01	0.000E+00
PB-212	6.966E-01	8.040E-02	6.437E-02	0.000E+00
BI-214	5.316E-01	9.843E-02	7.419E-02	0.000E+00
PB-214	6.283E-01	1.065E-01	7.529E-02	0.000E+00
RA-223	2.366E-01	1.770E-01	2.099E-01	0.000E+00
AC-228	7.153E-01	2.032E-01	1.536E-01	0.000E+00
TH-234	9.011E-01	5.160E-01	4.716E-01	0.000E+00
U-235	9.412E-02	1.697E-01	2.028E-01	0.000E+00
NP-237	3.089E-01	1.560E-01	2.356E-01	0.000E+00
AM-243	1.380E-01	3.595E-02	4.903E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	-1.087E-02		2.594E-02	4.183E-02	0.000E+00	FAIL ABUN
RH-101	1.851E-02		2.102E-02	3.800E-02	0.000E+00	NOT IDENT.
SB-125	4.019E-04		6.082E-02	1.011E-01	0.000E+00	NOT IDENT.
EU-155	-9.457E-04		6.129E-02	1.038E-01	0.000E+00	NOT IDENT.
PO-209	2.324E+00		4.158E+00	7.295E+00	0.000E+00	NOT IDENT.
BI-211	-8.889E-02		6.681E-01	1.098E+00	0.000E+00	NOT IDENT.
PA-233	1.999E-02		4.247E-02	7.400E-02	0.000E+00	NOT IDENT.
PA-234M	1.236E+00		3.361E+00	5.067E+00	0.000E+00	NOT IDENT.
NP-236	1.975E-02		3.296E-02	5.752E-02	0.000E+00	NOT IDENT.
NP-239	-2.873E-02		1.363E-01	2.345E-01	0.000E+00	NOT IDENT.
AM-241	3.653E-02		9.741E-02	1.557E-01	0.000E+00	NOT IDENT.
CM-243	4.294E-02		5.335E-02	9.362E-02	0.000E+00	NOT IDENT.
AM-246	-1.478E-02		8.201E-02	1.369E-01	0.000E+00	NOT IDENT.
CF-249	1.046E-02		2.682E-02	4.595E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:15:22.01

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324005.CNF;1
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 30-NOV-2007 09:55:31
Sample ID        : G198324005           Sample quantity  : 1.12020E+02 GRAM
Detector name    : GAM06                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.47  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706245               Detector SN#     :
Matrix Spike ID  :                      LCS ID           :
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	329	10.66*	9.604E-01	5.388E+00	5.388E+00	16.29
CS-137	661.66	287	85.10*	1.976E+00	2.860E-01	2.870E-01	20.00
TL-208	277.36	35	6.31	3.945E+00	2.352E-01	2.352E-01	148.85
	510.77	97	22.60	2.457E+00	2.919E-01	2.919E-01	75.18
	583.19	228	84.50*	2.202E+00	2.057E-01	2.057E-01	26.73
	763.13	------	1.81	1.741E+00	------	Line Not Found	------
	860.56	37	12.42	1.559E+00	3.206E-01	3.206E-01	86.59
BI-212	727.33	35	11.80*	1.816E+00	2.713E-01	2.713E-01	126.27
	785.37	49	1.10	1.695E+00	4.403E+00	4.403E+00	96.06
	1620.50	------	1.49	8.878E-01	------	Line Not Found	------
PB-212	74.81	232	10.40	4.129E+00	9.052E-01	9.052E-01	26.57
	77.11	332	17.50	4.351E+00	7.296E-01	7.296E-01	23.06
	87.30	118	7.81	5.181E+00	4.905E-01	4.905E-01	51.53
	238.63	792	43.30*	4.398E+00	6.966E-01	6.966E-01	11.78
	300.09	49	3.28	3.716E+00	6.687E-01	6.687E-01	89.75
BI-214	609.31	310	46.10*	2.122E+00	5.316E-01	5.316E-01	18.89
	768.36	103	4.94	1.733E+00	2.015E+00	2.015E+00	43.50
	806.17	27	1.22	1.656E+00	2.281E+00	2.281E+00	112.68
	934.06	43	3.03	1.444E+00	1.644E+00	1.644E+00	75.30
	1120.29	74	15.10	1.216E+00	6.719E-01	6.719E-01	37.39
	1155.19	45	1.63	1.183E+00	3.938E+00	3.938E+00	91.05
	1238.11	28	5.79	1.108E+00	7.234E-01	7.235E-01	80.27
	1280.96	------	1.43	1.075E+00	------	Line Not Found	------
	1377.67	30	4.00	1.008E+00	1.263E+00	1.263E+00	63.75
	1401.50	16	1.27	9.929E-01	2.176E+00	2.176E+00	124.87
	1407.98	39	2.15	9.893E-01	3.042E+00	3.042E+00	54.27
	1509.23	------	2.11	9.357E-01	------	Line Not Found	------
	1729.60	27	2.92	8.510E-01	1.818E+00	1.818E+00	52.39
	1764.49	54	15.40	8.410E-01	6.974E-01	6.974E-01	48.42
PB-214	74.81	232	6.44	4.129E+00	1.462E+00	1.462E+00	26.57
	77.11	332	10.80	4.351E+00	1.182E+00	1.182E+00	23.06
	87.30	118	4.84	5.181E+00	7.914E-01	7.915E-01	51.53

Sample ID : G198324005 Acquisition date : 30-NOV-2007 09:55:31

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	242.00	221	7.43	4.359E+00	1.142E+00	1.142E+00	31.65
	295.22	203	19.30	3.760E+00	4.679E-01	4.680E-01	29.83
	351.93	464	37.60*	3.293E+00	6.282E-01	6.283E-01	17.30
RA-223	269.46	78	13.70*	4.013E+00	2.366E-01	2.366E-01	76.32
AC-228	129.07	67	2.42	6.054E+00	7.650E-01	7.650E-01	94.55
	209.25	114	3.89	4.823E+00	1.019E+00	1.019E+00	61.60
	270.25	78	3.46	4.013E+00	9.369E-01	9.369E-01	76.32
	338.32	175	11.27	3.392E+00	7.681E-01	7.681E-01	43.28
	409.46	------	1.92	2.927E+00	------	Line Not Found	------
	463.00	73	4.40	2.658E+00	1.039E+00	1.039E+00	61.70
	794.95	40	4.25	1.677E+00	9.505E-01	9.505E-01	85.09
	911.20	163	25.80*	1.478E+00	7.153E-01	7.153E-01	28.98
	964.77	------	4.99	1.400E+00	------	Line Not Found	------
	968.97	70	15.80	1.394E+00	5.344E-01	5.344E-01	62.58
	1588.20	26	3.22	9.007E-01	1.479E+00	1.479E+00	69.82
TH-234	63.29	55	4.80	2.684E+00	7.178E-01	7.178E-01	132.20
	92.58	160	5.41*	5.512E+00	9.011E-01	9.011E-01	58.43
U-235	143.76	36	10.96*	5.899E+00	9.412E-02	9.412E-02	184.00
NP-237	86.48	118	12.40*	5.181E+00	3.089E-01	3.089E-01	51.53
AM-243	74.66	232	68.20*	4.129E+00	1.380E-01	1.380E-01	26.57

Flag: "*" = Keyline

Sample ID : G198324005 Acquisition date : 30-NOV-2007 09:55:31

Total number of lines in spectrum	69	
Number of unidentified lines	28	
Number of lines tentatively identified by NID	41	59.42%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	5.388E+00	5.388E+00	0.878E+00	16.29	
CS-137	9.47E+08S	1.00	2.860E-01	2.870E-01	0.574E-01	20.00	
TL-208	4.43E+17S	1.00	2.057E-01	2.057E-01	0.550E-01	26.73	
BI-212	4.43E+17S	1.00	2.713E-01	2.713E-01	3.425E-01	126.27	
PB-212	4.43E+17S	1.00	6.966E-01	6.966E-01	0.820E-01	11.78	
BI-214	5.05E+10S	1.00	5.316E-01	5.316E-01	1.004E-01	18.89	
PB-214	5.05E+10S	1.00	6.282E-01	6.283E-01	1.087E-01	17.30	
RA-223	1.04E+12S	1.00	2.366E-01	2.366E-01	1.806E-01	76.32	
AC-228	4.43E+17S	1.00	7.153E-01	7.153E-01	2.073E-01	28.98	
TH-234	1.41E+17S	1.00	9.011E-01	9.011E-01	5.266E-01	58.43	
U-235	2.22E+16S	1.00	9.412E-02	9.412E-02	17.32E-02	184.00	
NP-237	6.75E+13S	1.00	3.089E-01	3.089E-01	1.592E-01	51.53	
AM-243	2.33E+11S	1.00	1.380E-01	1.380E-01	0.367E-01	26.57	
			---	---			
		Total Activity :	1.040E+01	1.040E+01			

Grand Total Activity : 1.040E+01 1.040E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G198324005 Acquisition date : 30-NOV-2007 09:55:31

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	45.62	19	358	1.34	91.30	88	8	1.29E-03	****	6.17E-01	
3	83.82	55	422	1.29	167.63	164	13	3.82E-03	****	4.98E+00	
0	185.64	208	430	1.03	371.08	365	12	1.45E-02	44.1	5.20E+00	
0	204.64	33	221	1.32	409.05	406	7	2.26E-03	****	4.89E+00	
0	327.28	28	144	1.02	654.12	652	7	1.97E-03	****	3.48E+00	
1	558.53	27	35	1.68	1116.29	1114	13	1.91E-03	63.0	2.28E+00	
1	562.04	32	51	1.68	1123.31	1114	13	2.22E-03	84.8	2.27E+00	
0	702.29	9	81	3.30	1403.64	1396	10	6.25E-04	****	1.88E+00	
0	772.96	21	23	1.76	1544.93	1541	8	1.47E-03	90.6	1.72E+00	
0	840.28	10	41	1.31	1679.50	1676	8	6.93E-04	****	1.59E+00	
0	987.24	16	9	1.43	1973.31	1970	8	1.08E-03	81.6	1.37E+00	
0	1032.54	17	23	2.27	2063.89	2057	12	1.21E-03	****	1.31E+00	
0	1038.94	19	25	2.29	2076.68	2072	10	1.32E-03	****	1.31E+00	
0	1069.16	21	20	1.63	2137.11	2133	9	1.42E-03	90.7	1.27E+00	
0	1110.46	25	17	1.45	2219.70	2214	10	1.71E-03	75.1	1.23E+00	
4	1116.36	12	15	1.96	2231.49	2229	16	8.60E-04	****	1.22E+00	
0	1260.92	16	28	4.42	2520.56	2513	14	1.14E-03	****	1.09E+00	
0	1294.18	16	23	4.41	2587.08	2579	12	1.11E-03	****	1.06E+00	
0	1332.33	18	8	0.75	2663.38	2658	11	1.26E-03	94.3	1.04E+00	T
0	1383.75	24	11	0.88	2766.22	2759	15	1.70E-03	72.0	1.00E+00	
0	1495.01	12	10	1.55	2988.75	2985	8	8.62E-04	****	9.43E-01	
0	1637.87	14	12	1.11	3274.51	3268	15	9.96E-04	****	8.81E-01	
0	1648.27	8	3	1.35	3295.31	3291	8	5.37E-04	****	8.78E-01	
0	1715.13	9	6	0.72	3429.06	3422	11	5.90E-04	****	8.55E-01	
4	1726.98	10	1	1.65	3452.76	3451	11	6.85E-04	73.1	8.52E-01	
0	1755.36	13	3	0.78	3509.53	3503	13	8.81E-04	81.2	8.44E-01	
0	1782.36	11	3	0.57	3563.54	3556	13	7.49E-04	91.9	8.36E-01	
0	1786.40	8	0	1.05	3571.63	3568	8	5.56E-04	70.7	8.35E-01	
0	1935.80	9	2	0.95	3870.54	3865	10	6.03E-04	95.7	8.04E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G198324005            *
* Acquisition date : 30-NOV-2007 09:55:31 Detector SN#    :                 *
* Detector ID      : GAM06                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:01.47     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324005           Analyst initials: MJH1            *
* Batch Number     : 706245               Sample Quantity : 1.1202E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 20-FEB-2007 10:58:43 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	5.388E+00	8.602E-01	2.146E-01	8.602E-01
CS-137	2.870E-01	5.625E-02	1.828E-02	5.625E-02
TL-208	2.057E-01	5.387E-02	1.831E-02	5.387E-02
BI-212	2.713E-01	3.357E-01	1.535E-01	3.357E-01
PB-212	6.966E-01	8.040E-02	3.221E-02	8.040E-02
BI-214	5.316E-01	9.843E-02	3.712E-02	9.843E-02
PB-214	6.283E-01	1.065E-01	3.767E-02	1.065E-01
RA-223	2.366E-01	1.770E-01	1.050E-01	1.770E-01
AC-228	7.153E-01	2.032E-01	7.687E-02	2.032E-01
TH-234	9.011E-01	5.160E-01	2.359E-01	5.160E-01
U-235	9.412E-02	1.697E-01	1.015E-01	1.697E-01
NP-237	3.089E-01	1.560E-01	1.179E-01	1.560E-01
AM-243	1.380E-01	3.595E-02	2.453E-02	3.595E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	-1.087E-02	2.594E-02	2.093E-02	2.594E-02	FAIL ABUN
RH-101	1.851E-02	2.102E-02	1.901E-02	2.102E-02	NOT IDENT.
SB-125	4.019E-04	6.082E-02	5.058E-02	6.082E-02	NOT IDENT.
EU-155	-9.457E-04	6.129E-02	5.194E-02	6.129E-02	NOT IDENT.
PO-209	2.324E+00	4.158E+00	3.650E+00	4.158E+00	NOT IDENT.
BI-211	-8.889E-02	6.681E-01	5.492E-01	6.681E-01	NOT IDENT.
PA-233	1.999E-02	4.247E-02	3.702E-02	4.247E-02	NOT IDENT.
PA-234M	1.236E+00	3.361E+00	2.535E+00	3.361E+00	NOT IDENT.
NP-236	1.975E-02	3.296E-02	2.878E-02	3.296E-02	NOT IDENT.
NP-239	-2.873E-02	1.363E-01	1.173E-01	1.363E-01	NOT IDENT.
AM-241	3.653E-02	9.741E-02	7.787E-02	9.741E-02	NOT IDENT.
CM-243	4.294E-02	5.335E-02	4.684E-02	5.335E-02	NOT IDENT.
AM-246	-1.478E-02	8.201E-02	6.848E-02	8.201E-02	NOT IDENT.
CF-249	1.046E-02	2.682E-02	2.299E-02	2.682E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
59.54	234.2550
63.29	294.6976
74.66	304.6656
74.81	304.7685
74.81	304.7685
77.11	306.3275
77.11	306.3275
86.48	361.8859
87.30	390.2185
87.30	390.2185
92.58	315.2548
98.44	226.6922
103.76	221.7537
105.31	262.3333
129.07	274.9786
143.76	274.5099
198.00	250.3460
209.25	262.3716
228.18	219.7534
238.63	242.1882
242.00	242.9969
269.46	216.4392
270.25	216.5971
277.36	195.6133
295.22	192.5079
300.09	148.4531
312.17	155.2104
338.32	166.4165
351.93	140.9485
387.59	127.0314
409.46	125.7751
427.87	109.2568
463.00	121.4165
510.77	105.8704
583.19	75.9561
609.31	86.3219
661.66	61.5406
727.33	71.2459
763.13	50.2112
768.36	41.9312
785.37	45.5933
794.95	47.4608
806.17	53.1159
831.80	58.7952
860.56	62.5547
896.60	33.7992
911.20	56.6224
934.06	40.6635
964.77	46.8552
968.97	67.1329
1001.03	42.6753
1078.86	41.1157
1120.29	40.5465
1155.19	52.4308
1173.23	45.1545
1238.11	48.9095
1280.96	30.6733
1332.51	22.0609
1377.67	0.0000
1401.50	22.7364
1407.98	18.3933
1460.80	32.0810
1509.23	26.1658
1588.20	31.0473
1620.50	26.8229
1729.60	14.1148
1764.49	13.2676

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198324005

Total Uranium Activity	4.3549E-02	ug/g
Total Uranium Counting Unc.	7.8526E-02	ug/g
Total Uranium Tpu	7.8526E-08	ug/g
Total Uranium Mda	4.6943E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:15:58.60

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324006.CNF;1
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 30-NOV-2007 09:56:39
Sample ID        : G198324006           Sample quantity  : 1.05530E+02 GRAM
Detector name    : GAM07                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:27.05  0.2%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706245               Detector SN#     :
Matrix Spike ID  :                      LCS ID           :
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.41*	43	429	1.28	92.34	87	11	2.97E-03	105.7	
2	0	63.26*	63	331	1.20	126.02	123	7	4.40E-03	55.6	
3	4	72.76*	27	323	0.94	145.02	142	19	1.89E-03	115.1	1.07E+00
4	4	74.94*	326	327	1.03	149.37	142	19	2.26E-02	11.0	
5	4	77.17*	541	335	1.04	153.83	142	19	3.75E-02	7.3	
6	1	84.30*	55	341	1.11	168.09	164	14	3.82E-03	60.2	1.15E+00
7	1	87.36*	164	342	1.12	174.20	164	14	1.14E-02	21.6	
8	4	90.04	85	233	1.03	179.56	177	12	5.87E-03	26.5	2.69E+00
9	4	92.83*	165	419	1.28	185.15	177	12	1.14E-02	26.1	
10	0	125.64	12	353	1.36	250.74	244	11	8.34E-04	305.6	
11	0	128.77*	68	245	1.32	257.01	254	8	4.74E-03	43.5	
12	0	159.82*	21	294	1.25	319.09	314	9	1.44E-03	157.8	
13	0	186.00*	268	349	1.61	371.43	365	13	1.86E-02	16.8	
14	1	209.41	90	207	1.32	418.24	413	12	6.22E-03	30.2	2.18E+00
15	1	210.91	38	148	1.08	421.24	413	12	2.65E-03	57.5	
16	3	238.82*	791	149	1.15	477.05	471	17	5.49E-02	4.8	3.16E+00
17	3	241.71*	177	157	1.64	482.82	471	17	1.23E-02	19.9	
18	0	270.95	55	231	2.01	541.28	534	11	3.85E-03	54.9	
19	0	295.46*	230	139	1.29	590.29	586	8	1.60E-02	11.9	
20	0	300.23	60	181	1.08	599.83	596	9	4.14E-03	42.6	
21	0	338.47	127	138	1.02	676.28	672	9	8.80E-03	18.9	
22	0	352.16*	349	177	1.10	703.65	698	12	2.43E-02	9.7	
23	0	409.86	78	126	2.44	819.03	811	14	5.43E-03	32.8	
24	0	480.28	51	98	3.49	959.83	953	12	3.55E-03	41.3	
25	0	511.28*	83	135	2.11	1021.83	1013	18	5.76E-03	45.9	
26	0	570.12	37	35	1.13	1139.46	1136	8	2.58E-03	31.9	
27	0	583.50*	223	108	1.58	1166.22	1159	15	1.55E-02	13.3	
28	0	609.57*	270	84	1.51	1218.35	1213	11	1.88E-02	9.6	
29	3	631.44	17	27	1.18	1262.08	1260	17	1.21E-03	47.3	1.39E+00
30	3	634.09	30	45	1.75	1267.38	1260	17	2.08E-03	47.4	
31	0	661.93	302	55	1.41	1323.05	1318	10	2.10E-02	7.4	
32	0	728.31*	35	70	1.53	1455.78	1451	12	2.44E-03	53.4	
33	0	787.49	37	64	5.63	1574.12	1567	15	2.54E-03	50.3	
34	0	798.09	23	89	3.86	1595.31	1584	17	1.59E-03	96.7	
35	0	840.39	13	39	0.98	1679.89	1674	8	8.69E-04	93.2	
36	0	861.21	38	42	0.76	1721.53	1717	11	2.66E-03	36.2	
37	0	872.99	8	30	1.01	1745.09	1738	9	5.61E-04	129.2	
38	0	875.59	19	13	1.39	1750.29	1747	7	1.29E-03	40.5	

Sample ID : G198324006 Acquisition date : 30-NOV-2007 09:56:39

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	911.56*	153	42	1.53	1822.21	1816	14	1.06E-02	12.8	
40	0	930.49	65	73	10.82	1860.07	1845	29	4.48E-03	39.9	
41	1	960.96*	5	42	1.96	1921.00	1911	22	3.69E-04	274.7	1.27E+00
42	1	965.07	35	28	1.61	1929.21	1911	22	2.46E-03	30.5	
43	0	969.19*	107	32	1.51	1937.44	1933	10	7.41E-03	15.0	
44	0	1028.97	14	26	0.64	2056.98	2050	10	9.59E-04	75.5	
45	0	1120.80*	100	26	2.28	2240.62	2233	20	6.92E-03	17.5	
46	0	1179.24	14	32	1.35	2357.48	2349	12	9.39E-04	89.1	
47	0	1238.03	51	30	2.31	2475.04	2466	17	3.57E-03	28.0	
48	0	1377.87	42	8	2.74	2754.67	2746	14	2.93E-03	20.5	
49	0	1461.24*	332	18	1.91	2921.39	2912	15	2.30E-02	6.6	
50	0	1587.96	24	6	1.53	3174.81	3170	11	1.66E-03	28.1	
51	0	1593.16	17	6	0.65	3185.21	3181	8	1.19E-03	34.4	
52	0	1730.20	23	2	1.81	3459.26	3453	11	1.57E-03	25.2	
53	0	1744.43	13	6	3.28	3487.72	3482	12	8.92E-04	47.4	
54	3	1765.12*	62	13	2.71	3529.10	3521	23	4.31E-03	20.4	1.66E+00
55	3	1770.06	20	6	2.90	3538.97	3521	23	1.39E-03	32.7	
56	0	1877.88	5	6	0.64	3754.60	3745	12	3.47E-04	107.7	
57	0	2012.13	11	3	1.52	4023.07	4016	13	7.56E-04	45.5	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324006       *
* Acquisition date : 30-NOV-2007 09:56:39 Detector SN#    :                 *
* Detector ID      : GAM07                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:27.05     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324006           Analyst initials: MJH1            *
* Batch Number     : 706245               Sample Quantity : 1.0553E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 31-OCT-2007 13:07:28 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	4.747E+00	6.611E-01	2.897E-01	0.000E+00
CS-137	2.721E-01	4.382E-02	3.676E-02	0.000E+00
TL-208	1.809E-01	4.866E-02	3.506E-02	0.000E+00
BI-212	2.468E-01	2.589E-01	2.827E-01	0.000E+00
PB-212	6.251E-01	6.974E-02	4.867E-02	0.000E+00
BI-214	4.169E-01	8.367E-02	6.674E-02	0.000E+00
PB-214	4.234E-01	8.382E-02	6.262E-02	0.000E+00
RA-223	1.517E-01	1.635E-01	1.543E-01	0.000E+00
AC-228	5.994E-01	1.554E-01	1.208E-01	0.000E+00
TH-234	7.425E-01	3.840E-01	3.797E-01	0.000E+00
NP-237	3.290E-01	1.415E-01	1.762E-01	0.000E+00
AM-243	1.317E-01	2.978E-02	3.458E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	1.849E-02		2.368E-02	3.875E-02	0.000E+00	NOT IDENT.
RH-101	-6.782E-03		1.845E-02	2.872E-02	0.000E+00	NOT IDENT.
SB-125	-1.121E-03		5.399E-02	8.900E-02	0.000E+00	NOT IDENT.
EU-155	3.424E-02		5.002E-02	8.601E-02	0.000E+00	NOT IDENT.
PO-209	6.460E-01		4.500E+00	7.529E+00	0.000E+00	NOT IDENT.
BI-211	-6.094E-01		5.803E-01	8.585E-01	0.000E+00	NOT IDENT.
PA-233	1.741E-02		3.529E-02	6.117E-02	0.000E+00	NOT IDENT.
PA-234M	8.603E-01		3.296E+00	4.647E+00	0.000E+00	NOT IDENT.
U-235	-6.982E-03		1.139E-01	1.756E-01	0.000E+00	NOT IDENT.
NP-236	-3.181E-03		3.009E-02	4.582E-02	0.000E+00	NOT IDENT.
NP-239	2.441E-02		1.147E-01	1.991E-01	0.000E+00	NOT IDENT.
AM-241	2.164E-02		5.188E-02	8.141E-02	0.000E+00	NOT IDENT.
CM-243	-1.106E-02		4.481E-02	7.397E-02	0.000E+00	NOT IDENT.
AM-246	-2.703E-04		7.257E-02	1.234E-01	0.000E+00	NOT IDENT.
CF-249	7.331E-03		2.289E-02	3.883E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:15:59.54

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324006.CNF;1
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 30-NOV-2007 09:56:39
Sample ID        : G198324006           Sample quantity  : 1.05530E+02 GRAM
Detector name    : GAM07                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:27.05  0.2%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706245               Detector SN#     :
Matrix Spike ID  :                      LCS ID           :
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	332	10.66*	1.166E+00	4.747E+00	4.747E+00	14.21
CS-137	661.66	302	85.10*	2.329E+00	2.711E-01	2.721E-01	16.43
TL-208	277.36	------	6.31	4.669E+00	------	Line Not Found	------
	510.77	83	22.60	2.898E+00	2.254E-01	2.254E-01	91.91
	583.19	223	84.50*	2.595E+00	1.809E-01	1.809E-01	27.45
	763.13	------	1.81	2.057E+00	------	Line Not Found	------
	860.56	38	12.42	1.847E+00	2.974E-01	2.974E-01	72.83
BI-212	727.33	35	11.80*	2.143E+00	2.468E-01	2.468E-01	107.01
	785.37	------	1.10	2.005E+00	------	Line Not Found	------
	1620.50	------	1.49	1.077E+00	------	Line Not Found	------
PB-212	74.81	326	10.40	6.452E+00	8.638E-01	8.638E-01	23.07
	77.11	541	17.50	6.613E+00	8.308E-01	8.308E-01	16.25
	87.30	164	7.81	7.133E+00	5.223E-01	5.223E-01	43.88
	238.63	791	43.30*	5.194E+00	6.251E-01	6.251E-01	11.38
	300.09	60	3.28	4.404E+00	7.344E-01	7.344E-01	85.44
BI-214	609.31	270	46.10*	2.500E+00	4.169E-01	4.169E-01	20.48
	768.36	------	4.94	2.045E+00	------	Line Not Found	------
	806.17	------	1.22	1.959E+00	------	Line Not Found	------
	934.06	------	3.03	1.718E+00	------	Line Not Found	------
	1120.29	100	15.10	1.460E+00	8.034E-01	8.034E-01	35.39
	1155.19	------	1.63	1.422E+00	------	Line Not Found	------
	1238.11	51	5.79	1.338E+00	1.181E+00	1.181E+00	56.24
	1280.96	------	1.43	1.300E+00	------	Line Not Found	------
	1377.67	42	4.00	1.223E+00	1.535E+00	1.535E+00	41.25
	1401.50	------	1.27	1.206E+00	------	Line Not Found	------
	1407.98	------	2.15	1.201E+00	------	Line Not Found	------
	1509.23	------	2.11	1.136E+00	------	Line Not Found	------
	1729.60	23	2.92	1.029E+00	1.338E+00	1.338E+00	50.81
	1764.49	62	15.40	1.015E+00	7.063E-01	7.064E-01	41.19
PB-214	74.81	326	6.44	6.452E+00	1.395E+00	1.395E+00	23.07
	77.11	541	10.80	6.613E+00	1.346E+00	1.346E+00	16.25
	87.30	164	4.84	7.133E+00	8.428E-01	8.429E-01	43.88

Sample ID : G198324006 Acquisition date : 30-NOV-2007 09:56:39

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	242.00	177	7.43	5.151E+00	8.242E-01	8.243E-01	40.24
	295.22	230	19.30	4.457E+00	4.761E-01	4.761E-01	24.54
	351.93	349	37.60*	3.902E+00	4.234E-01	4.234E-01	20.20
RA-223	269.46	55	13.70*	4.749E+00	1.517E-01	1.517E-01	110.02
AC-228	129.07	68	2.42	7.231E+00	6.940E-01	6.940E-01	87.20
	209.25	90	3.89	5.674E+00	7.219E-01	7.219E-01	60.60
	270.25	55	3.46	4.749E+00	6.006E-01	6.006E-01	110.02
	338.32	127	11.27	4.023E+00	4.969E-01	4.969E-01	38.25
	409.46	78	1.92	3.465E+00	2.089E+00	2.089E+00	65.81
	463.00	------	4.40	3.143E+00	------ Line Not Found		------
	794.95	------	4.25	1.984E+00	------ Line Not Found		------
	911.20	153	25.80*	1.756E+00	5.994E-01	5.994E-01	26.46
	964.77	35	4.99	1.668E+00	7.573E-01	7.573E-01	61.38
	968.97	107	15.80	1.662E+00	7.226E-01	7.226E-01	30.79
	1588.20	24	3.22	1.093E+00	1.209E+00	1.209E+00	56.41
TH-234	63.29	63	4.80	5.269E+00	4.459E-01	4.459E-01	111.30
	92.58	165	5.41*	7.292E+00	7.425E-01	7.425E-01	52.77
NP-237	86.48	164	12.40*	7.133E+00	3.290E-01	3.290E-01	43.88
AM-243	74.66	326	68.20*	6.452E+00	1.317E-01	1.317E-01	23.07

Flag: "*" = Keyline

Sample ID : G198324006 Acquisition date : 30-NOV-2007 09:56:39

Total number of lines in spectrum	57	
Number of unidentified lines	26	
Number of lines tentatively identified by NID	31	54.39%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	4.747E+00	4.747E+00	0.675E+00	14.21	
CS-137	9.47E+08S	1.00	2.711E-01	2.721E-01	0.447E-01	16.43	
TL-208	4.43E+17S	1.00	1.809E-01	1.809E-01	0.497E-01	27.45	
BI-212	4.43E+17S	1.00	2.468E-01	2.468E-01	2.641E-01	107.01	
PB-212	4.43E+17S	1.00	6.251E-01	6.251E-01	0.712E-01	11.38	
BI-214	5.05E+10S	1.00	4.169E-01	4.169E-01	0.854E-01	20.48	
PB-214	5.05E+10S	1.00	4.234E-01	4.234E-01	0.855E-01	20.20	
RA-223	1.04E+12S	1.00	1.517E-01	1.517E-01	1.669E-01	110.02	
AC-228	4.43E+17S	1.00	5.994E-01	5.994E-01	1.586E-01	26.46	
TH-234	1.41E+17S	1.00	7.425E-01	7.425E-01	3.918E-01	52.77	
NP-237	6.75E+13S	1.00	3.290E-01	3.290E-01	1.444E-01	43.88	
AM-243	2.33E+11S	1.00	1.317E-01	1.317E-01	0.304E-01	23.07	
			---	---			
		Total Activity :	8.866E+00	8.867E+00			
		Grand Total Activity :	8.866E+00	8.867E+00			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G198324006 Acquisition date : 30-NOV-2007 09:56:39

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.41	43	429	1.28	92.34	87	11	2.97E-03	****	2.58E+00	
4	72.76	27	323	0.94	145.02	142	19	1.89E-03	****	6.28E+00	
1	84.30	55	341	1.11	168.09	164	14	3.82E-03	****	7.01E+00	
4	90.04	85	233	1.03	179.56	177	12	5.87E-03	52.9	7.22E+00	
0	125.64	12	353	1.36	250.74	244	11	8.34E-04	****	7.28E+00	
0	159.82	21	294	1.25	319.09	314	9	1.44E-03	****	6.64E+00	
0	186.00	268	349	1.61	371.43	365	13	1.86E-02	33.5	6.11E+00	
1	210.91	38	148	1.08	421.24	413	12	2.65E-03	****	5.65E+00	
0	480.28	51	98	3.49	959.83	953	12	3.55E-03	82.7	3.05E+00	
0	570.12	37	35	1.13	1139.46	1136	8	2.58E-03	63.7	2.65E+00	
3	631.44	17	27	1.18	1262.08	1260	17	1.21E-03	94.7	2.43E+00	
3	634.09	30	45	1.75	1267.38	1260	17	2.08E-03	94.9	2.42E+00	
0	787.49	37	64	5.63	1574.12	1567	15	2.54E-03	****	2.00E+00	
0	798.09	23	89	3.86	1595.31	1584	17	1.59E-03	****	1.98E+00	
0	840.39	13	39	0.98	1679.89	1674	8	8.69E-04	****	1.89E+00	
0	872.99	8	30	1.01	1745.09	1738	9	5.61E-04	****	1.83E+00	
0	875.59	19	13	1.39	1750.29	1747	7	1.29E-03	81.0	1.82E+00	
0	930.49	65	73	10.82	1860.07	1845	29	4.48E-03	79.8	1.72E+00	
1	960.96	5	42	1.96	1921.00	1911	22	3.69E-04	****	1.67E+00	
0	1028.97	14	26	0.64	2056.98	2050	10	9.59E-04	****	1.58E+00	
0	1179.24	14	32	1.35	2357.48	2349	12	9.39E-04	****	1.40E+00	
0	1593.16	17	6	0.65	3185.21	3181	8	1.19E-03	68.9	1.09E+00	
0	1744.43	13	6	3.28	3487.72	3482	12	8.92E-04	94.7	1.02E+00	
3	1770.06	20	6	2.90	3538.97	3521	23	1.39E-03	65.4	1.01E+00	
0	1877.88	5	6	0.64	3754.60	3745	12	3.47E-04	****	9.77E-01	
0	2012.13	11	3	1.52	4023.07	4016	13	7.56E-04	91.0	9.41E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G198324006            *
* Acquisition date : 30-NOV-2007 09:56:39 Detector SN#    :                 *
* Detector ID      : GAM07                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:27.05     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324006           Analyst initials: MJH1            *
* Batch Number     : 706245               Sample Quantity : 1.0553E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 31-OCT-2007 13:07:28 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	4.747E+00	6.611E-01	1.449E-01	6.611E-01
CS-137	2.721E-01	4.382E-02	1.839E-02	4.382E-02
TL-208	1.809E-01	4.866E-02	1.754E-02	4.866E-02
BI-212	2.468E-01	2.589E-01	1.415E-01	2.589E-01
PB-212	6.251E-01	6.974E-02	2.435E-02	6.974E-02
BI-214	4.169E-01	8.367E-02	3.339E-02	8.367E-02
PB-214	4.234E-01	8.382E-02	3.133E-02	8.382E-02
RA-223	1.517E-01	1.635E-01	7.722E-02	1.635E-01
AC-228	5.994E-01	1.554E-01	6.043E-02	1.554E-01
TH-234	7.425E-01	3.840E-01	1.900E-01	3.840E-01
NP-237	3.290E-01	1.415E-01	8.816E-02	1.415E-01
AM-243	1.317E-01	2.978E-02	1.730E-02	2.978E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	1.849E-02	2.368E-02	1.939E-02	2.368E-02	NOT IDENT.
RH-101	-6.782E-03	1.845E-02	1.437E-02	1.845E-02	NOT IDENT.
SB-125	-1.121E-03	5.399E-02	4.452E-02	5.399E-02	NOT IDENT.
EU-155	3.424E-02	5.002E-02	4.303E-02	5.002E-02	NOT IDENT.
PO-209	6.460E-01	4.500E+00	3.767E+00	4.500E+00	NOT IDENT.
BI-211	-6.094E-01	5.803E-01	4.295E-01	5.803E-01	NOT IDENT.
PA-233	1.741E-02	3.529E-02	3.060E-02	3.529E-02	NOT IDENT.
PA-234M	8.603E-01	3.296E+00	2.325E+00	3.296E+00	NOT IDENT.
U-235	-6.982E-03	1.139E-01	8.785E-02	1.139E-01	NOT IDENT.
NP-236	-3.181E-03	3.009E-02	2.292E-02	3.009E-02	NOT IDENT.
NP-239	2.441E-02	1.147E-01	9.962E-02	1.147E-01	NOT IDENT.
AM-241	2.164E-02	5.188E-02	4.073E-02	5.188E-02	NOT IDENT.
CM-243	-1.106E-02	4.481E-02	3.701E-02	4.481E-02	NOT IDENT.
AM-246	-2.703E-04	7.257E-02	6.174E-02	7.257E-02	NOT IDENT.
CF-249	7.331E-03	2.289E-02	1.943E-02	2.289E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
59.54	257.0216
63.29	311.9324
74.66	330.6686
74.81	330.7723
74.81	330.7723
77.11	332.3352
77.11	332.3352
86.48	346.5784
87.30	347.1124
87.30	347.1124
92.58	322.8186
98.44	224.6929
103.76	239.2673
105.31	224.1695
129.07	224.9023
143.76	225.0833
198.00	201.3354
209.25	209.9969
228.18	183.8032
238.63	174.5502
242.00	175.0952
269.46	148.0876
270.25	148.1876
277.36	166.2792
295.22	144.2862
300.09	138.8745
312.17	132.6517
338.32	136.2552
351.93	123.4185
387.59	116.0640
409.46	104.0349
427.87	107.3449
463.00	92.2217
510.77	79.0760
583.19	86.8513
609.31	86.9854
661.66	77.5512
727.33	75.4369
763.13	61.8698
768.36	56.9944
785.37	67.0931
794.95	53.3875
806.17	50.7117
831.80	64.4981
860.56	44.8187
896.60	55.5025
911.20	44.2005
934.06	41.3556
964.77	80.3247
968.97	35.7479
1001.03	37.9155
1078.86	39.7386
1120.29	32.7327
1155.19	40.6082
1173.23	27.6594
1238.11	41.5233
1280.96	39.0544
1332.51	28.6802
1377.67	17.1408
1401.50	35.1937
1407.98	23.1628
1460.80	19.2239
1509.23	27.8251
1588.20	19.7695
1620.50	21.1100
1729.60	20.5037
1764.49	12.1072

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198324006

Total Uranium Activity	-3.2306E-03	ug/g
Total Uranium Counting Unc.	5.2714E-02	ug/g
Total Uranium Tpu	5.2714E-08	ug/g
Total Uranium Mda	4.0648E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:16:33.13

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324007.CNF;1
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 30-NOV-2007 09:57:25
Sample ID        : G198324007           Sample quantity  : 1.20050E+02 GRAM
Detector name    : GAM08                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.31  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706245               Detector SN#     :
Matrix Spike ID  :                      LCS ID           :
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.39*	80	478	0.93	126.84	122	10	5.54E-03	54.9	
2	3	74.82*	313	457	1.48	149.71	143	17	2.17E-02	14.4	1.38E+00
3	3	77.12	435	371	1.10	154.30	143	17	3.02E-02	9.0	
4	3	84.02*	71	396	1.35	168.09	164	20	4.91E-03	53.2	3.34E+00
5	3	87.29	155	321	0.96	174.63	164	20	1.07E-02	20.0	
6	3	90.07	80	451	1.31	180.19	164	20	5.58E-03	45.5	
7	0	93.00*	188	490	1.54	186.05	183	11	1.30E-02	25.8	
8	0	99.49	77	340	2.04	199.02	194	9	5.36E-03	45.0	
9	0	105.39	43	261	1.46	210.82	209	7	2.95E-03	64.6	
10	0	129.05	53	316	1.26	258.12	254	8	3.65E-03	60.1	
11	0	185.94*	202	319	1.39	371.88	368	10	1.40E-02	19.7	
12	0	191.56	90	323	3.41	383.11	378	11	6.24E-03	40.3	
13	0	209.90	84	337	0.87	419.80	415	10	5.86E-03	42.2	
14	0	221.06	48	204	1.45	442.11	439	8	3.30E-03	53.9	
15	2	238.73*	782	182	1.21	477.44	471	19	5.43E-02	5.1	1.45E+00
16	2	241.93	266	238	1.67	483.84	471	19	1.85E-02	13.5	
17	0	270.69	79	292	2.14	541.35	533	13	5.48E-03	46.2	
18	0	287.47	50	168	2.09	574.89	572	9	3.48E-03	48.6	
19	0	295.19*	382	187	1.24	590.33	585	10	2.65E-02	8.9	
20	0	300.25	54	125	1.01	600.45	598	7	3.73E-03	37.2	
21	0	327.35	55	180	1.37	654.64	651	9	3.82E-03	45.8	
22	0	338.10	176	230	1.10	676.15	672	11	1.22E-02	18.3	
23	0	351.98*	654	230	1.33	703.90	697	15	4.54E-02	6.6	
24	0	463.40	52	111	1.11	926.72	922	10	3.64E-03	40.2	
25	0	486.30	12	111	1.13	972.52	969	10	8.10E-04	171.0	
26	0	511.34*	65	201	2.13	1022.59	1016	19	4.55E-03	63.5	
27	0	564.51	32	82	2.96	1128.92	1123	10	2.21E-03	56.8	
28	0	583.16*	297	114	1.45	1166.22	1160	14	2.06E-02	10.0	
29	0	609.42*	393	127	1.69	1218.74	1212	16	2.73E-02	8.6	
30	0	661.85	451	83	1.54	1323.60	1318	15	3.13E-02	6.5	
31	0	726.92	70	82	1.11	1453.76	1447	13	4.88E-03	29.0	
32	0	742.26	25	36	2.52	1484.44	1480	9	1.74E-03	47.7	
33	0	768.70	41	81	3.55	1537.32	1530	13	2.84E-03	48.0	
34	0	787.55	36	71	3.61	1575.01	1566	14	2.49E-03	53.3	
35	0	911.41*	154	79	1.00	1822.77	1814	18	1.07E-02	16.8	
36	0	960.11	15	43	4.10	1920.18	1912	11	1.01E-03	85.9	
37	0	969.11*	94	88	1.32	1938.20	1929	14	6.54E-03	24.3	
38	0	1119.97	107	48	1.63	2239.97	2231	15	7.46E-03	17.1	

Sample ID : G198324007 Acquisition date : 30-NOV-2007 09:57:25

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1238.51	46	32	1.54	2477.12	2471	13	3.20E-03	29.4	
40	0	1372.88	11	11	3.83	2745.95	2739	12	7.86E-04	67.3	
41	0	1377.79	34	9	1.82	2755.77	2750	12	2.37E-03	24.5	
42	0	1460.68*	459	40	2.22	2921.63	2910	20	3.19E-02	5.9	
43	0	1509.80	21	13	1.40	3019.92	3015	10	1.45E-03	40.4	
44	0	1529.14	15	6	3.97	3058.60	3052	12	1.04E-03	41.6	
45	0	1579.53	11	21	0.70	3159.44	3148	17	7.69E-04	99.8	
46	0	1588.89	28	20	1.38	3178.16	3171	16	1.93E-03	40.7	
47	0	1631.15	9	15	0.69	3262.72	3258	10	6.25E-04	87.1	
48	0	1729.33*	28	7	1.50	3459.20	3452	14	1.96E-03	30.0	
49	0	1764.89*	57	22	2.60	3530.36	3520	17	3.93E-03	25.9	
50	0	1791.10	10	5	1.43	3582.80	3576	11	6.81E-04	56.0	
51	0	1834.80	14	3	3.39	3670.26	3663	13	9.58E-04	38.1	
52	0	1867.61	7	13	2.75	3735.92	3723	17	4.77E-04	125.3	
53	0	1871.94	10	5	1.02	3744.60	3739	10	6.94E-04	52.4	
54	0	1940.10	9	0	1.19	3881.00	3876	10	6.25E-04	33.3	
55	0	1944.15	9	0	1.50	3889.11	3885	8	6.25E-04	33.3	
56	0	1949.09	9	0	1.07	3899.00	3894	10	6.25E-04	33.3	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324007       *
* Acquisition date : 30-NOV-2007 09:57:25 Detector SN#    :                 *
* Detector ID      : GAM08                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:01.31     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324007           Analyst initials: MJH1            *
* Batch Number     : 706245               Sample Quantity : 1.2005E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 30-OCT-2007 13:19:07 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	6.255E+00	8.348E-01	3.833E-01	0.000E+00
CS-137	3.789E-01	5.415E-02	3.826E-02	0.000E+00
EU-155	4.912E-02	6.225E-02	9.078E-02	0.000E+00
TL-208	2.246E-01	4.606E-02	3.615E-02	0.000E+00
BI-212	4.604E-01	2.637E-01	2.745E-01	0.000E+00
PB-212	5.794E-01	7.074E-02	5.700E-02	0.000E+00
BI-214	5.651E-01	1.012E-01	6.775E-02	0.000E+00
PB-214	7.440E-01	1.079E-01	6.846E-02	0.000E+00
RA-223	2.025E-01	1.842E-01	1.677E-01	0.000E+00
AC-228	5.680E-01	1.924E-01	1.267E-01	0.000E+00
TH-234	8.935E-01	4.581E-01	3.612E-01	0.000E+00
NP-236	4.993E-02	4.416E-02	5.621E-02	0.000E+00
NP-237	3.409E-01	1.371E-01	2.131E-01	0.000E+00
AM-243	1.569E-01	4.646E-02	4.649E-02	0.000E+00
CM-243	4.447E-02	5.637E-02	7.196E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
CO-60	1.108E-02	2.450E-02	4.238E-02	0.000E+00	NOT IDENT.
RH-101	1.714E-02	1.948E-02	3.352E-02	0.000E+00	NOT IDENT.
SB-125	-1.488E-02	5.539E-02	9.383E-02	0.000E+00	NOT IDENT.
PO-209	2.313E+00	4.544E+00	7.951E+00	0.000E+00	NOT IDENT.
BI-211	-2.520E-01	6.175E-01	1.020E+00	0.000E+00	NOT IDENT.
PA-233	-1.236E-02	3.584E-02	5.840E-02	0.000E+00	NOT IDENT.
PA-234M	1.960E+00	2.299E+00	4.182E+00	0.000E+00	NOT IDENT.
U-235	-2.839E-02	1.175E-01	1.937E-01	0.000E+00	NOT IDENT.
NP-239	3.013E-02	1.263E-01	2.170E-01	0.000E+00	NOT IDENT.
AM-241	1.942E-02	9.629E-02	1.478E-01	0.000E+00	NOT IDENT.
AM-246	1.582E-02	8.587E-02	1.457E-01	0.000E+00	NOT IDENT.
CF-249	9.114E-03	2.349E-02	4.152E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:16:34.11

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324007.CNF;1
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 30-NOV-2007 09:57:25
Sample ID        : G198324007           Sample quantity  : 1.20050E+02 GRAM
Detector name    : GAM08                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.31  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706245               Detector SN#     :
Matrix Spike ID  :                      LCS ID           :
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	459	10.66*	1.077E+00	6.255E+00	6.255E+00	13.62
CS-137	661.66	451	85.10*	2.197E+00	3.776E-01	3.789E-01	14.58
EU-155	105.31	43	21.20*	6.525E+00	4.807E-02	4.912E-02	129.34
TL-208	277.36	------	6.31	4.371E+00	------	Line Not Found	------
	510.77	65	22.60	2.726E+00	1.662E-01	1.662E-01	127.13
	583.19	297	84.50*	2.447E+00	2.246E-01	2.246E-01	20.93
	763.13	------	1.81	1.937E+00	------	Line Not Found	------
	860.56	------	12.42	1.737E+00	------	Line Not Found	------
BI-212	727.33	70	11.80*	2.023E+00	4.604E-01	4.604E-01	58.44
	785.37	------	1.10	1.888E+00	------	Line Not Found	------
	1620.50	------	1.49	9.955E-01	------	Line Not Found	------
PB-212	74.81	313	10.40	4.574E+00	1.029E+00	1.029E+00	30.22
	77.11	435	17.50	4.827E+00	8.044E-01	8.044E-01	20.03
	87.30	155	7.81	5.720E+00	5.413E-01	5.413E-01	41.03
	238.63	782	43.30*	4.872E+00	5.794E-01	5.794E-01	12.46
	300.09	54	3.28	4.121E+00	6.210E-01	6.210E-01	74.92
BI-214	609.31	393	46.10*	2.358E+00	5.651E-01	5.651E-01	18.28
	768.36	41	4.94	1.925E+00	6.732E-01	6.732E-01	96.27
	806.17	------	1.22	1.844E+00	------	Line Not Found	------
	934.06	------	3.03	1.610E+00	------	Line Not Found	------
	1120.29	107	15.10	1.360E+00	8.184E-01	8.185E-01	34.80
	1155.19	------	1.63	1.321E+00	------	Line Not Found	------
	1238.11	46	5.79	1.240E+00	1.005E+00	1.005E+00	59.05
	1280.96	------	1.43	1.203E+00	------	Line Not Found	------
	1377.67	34	4.00	1.130E+00	1.182E+00	1.182E+00	49.41
	1401.50	------	1.27	1.114E+00	------	Line Not Found	------
	1407.98	------	2.15	1.109E+00	------	Line Not Found	------
	1509.23	21	2.11	1.049E+00	1.479E+00	1.479E+00	81.03
	1729.60	28	2.92	9.539E-01	1.582E+00	1.582E+00	60.42
	1764.49	57	15.40	9.424E-01	6.103E-01	6.103E-01	52.11
PB-214	74.81	313	6.44	4.574E+00	1.661E+00	1.661E+00	30.22
	77.11	435	10.80	4.827E+00	1.303E+00	1.304E+00	20.03

Sample ID : G198324007 Acquisition date : 30-NOV-2007 09:57:25

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	155	4.84	5.720E+00	8.734E-01	8.735E-01	41.03
	242.00	266	7.43	4.826E+00	1.159E+00	1.159E+00	27.94
	295.22	382	19.30	4.173E+00	7.415E-01	7.415E-01	19.60
	351.93	654	37.60*	3.654E+00	7.439E-01	7.440E-01	14.80
RA-223	269.46	79	13.70*	4.450E+00	2.025E-01	2.025E-01	92.84
AC-228	129.07	53	2.42	6.655E+00	5.107E-01	5.107E-01	120.42
	209.25	84	3.89	5.322E+00	6.374E-01	6.374E-01	84.71
	270.25	79	3.46	4.450E+00	8.017E-01	8.017E-01	92.84
	338.32	176	11.27	3.768E+00	6.472E-01	6.472E-01	37.29
	409.46	------	1.92	3.252E+00	------ Line Not Found		------
	463.00	52	4.40	2.950E+00	6.320E-01	6.320E-01	80.52
	794.95	------	4.25	1.867E+00	------ Line Not Found		------
	911.20	154	25.80*	1.647E+00	5.680E-01	5.680E-01	34.57
	964.77	------	4.99	1.562E+00	------ Line Not Found		------
	968.97	94	15.80	1.556E+00	5.988E-01	5.988E-01	49.23
	1588.20	28	3.22	1.010E+00	1.338E+00	1.338E+00	81.62
TH-234	63.29	80	4.80	3.076E+00	8.443E-01	8.443E-01	110.10
	92.58	188	5.41*	6.070E+00	8.935E-01	8.935E-01	52.31
NP-236	98.44	77	38.00*	6.354E+00	4.993E-02	4.993E-02	90.24
NP-237	86.48	155	12.40*	5.720E+00	3.409E-01	3.409E-01	41.03
AM-243	74.66	313	68.20*	4.574E+00	1.569E-01	1.569E-01	30.22
CM-243	103.76	43	23.00*	6.525E+00	4.431E-02	4.447E-02	129.34

Flag: "*" = Keyline

Sample ID : G198324007 Acquisition date : 30-NOV-2007 09:57:25

Total number of lines in spectrum	56	
Number of unidentified lines	23	
Number of lines tentatively identified by NID	33	58.93%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	6.255E+00	6.255E+00	0.852E+00	13.62	
CS-137	9.47E+08S	1.00	3.776E-01	3.789E-01	0.553E-01	14.58	
EU-155	1.57E+08S	1.02	4.807E-02	4.912E-02	6.352E-02	129.34	
TL-208	4.43E+17S	1.00	2.246E-01	2.246E-01	0.470E-01	20.93	
BI-212	4.43E+17S	1.00	4.604E-01	4.604E-01	2.691E-01	58.44	
PB-212	4.43E+17S	1.00	5.794E-01	5.794E-01	0.722E-01	12.46	
BI-214	5.05E+10S	1.00	5.651E-01	5.651E-01	1.033E-01	18.28	
PB-214	5.05E+10S	1.00	7.439E-01	7.440E-01	1.101E-01	14.80	
RA-223	1.04E+12S	1.00	2.025E-01	2.025E-01	1.880E-01	92.84	
AC-228	4.43E+17S	1.00	5.680E-01	5.680E-01	1.963E-01	34.57	
TH-234	1.41E+17S	1.00	8.935E-01	8.935E-01	4.674E-01	52.31	
NP-236	4.89E+12S	1.00	4.993E-02	4.993E-02	4.506E-02	90.24	
NP-237	6.75E+13S	1.00	3.409E-01	3.409E-01	1.399E-01	41.03	
AM-243	2.33E+11S	1.00	1.569E-01	1.569E-01	0.474E-01	30.22	
CM-243	8.99E+08S	1.00	4.431E-02	4.447E-02	5.752E-02	129.34	
			---	---			
		Total Activity :	1.151E+01	1.151E+01			

Grand Total Activity : 1.151E+01 1.151E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G198324007 Acquisition date : 30-NOV-2007 09:57:25

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
3	84.02	71	396	1.35	168.09	164	20	4.91E-03	****	5.47E+00	
3	90.07	80	451	1.31	180.19	164	20	5.58E-03	90.9	5.90E+00	
0	185.94	202	319	1.39	371.88	368	10	1.40E-02	39.5	5.74E+00	
0	191.56	90	323	3.41	383.11	378	11	6.24E-03	80.6	5.64E+00	
0	221.06	48	204	1.45	442.11	439	8	3.30E-03	****	5.14E+00	
0	287.47	50	168	2.09	574.89	572	9	3.48E-03	97.1	4.26E+00	
0	327.35	55	180	1.37	654.64	651	9	3.82E-03	91.6	3.86E+00	
0	486.30	12	111	1.13	972.52	969	10	8.10E-04	****	2.84E+00	
0	564.51	32	82	2.96	1128.92	1123	10	2.21E-03	****	2.51E+00	
0	742.26	25	36	2.52	1484.44	1480	9	1.74E-03	95.3	1.99E+00	
0	787.55	36	71	3.61	1575.01	1566	14	2.49E-03	****	1.88E+00	
0	960.11	15	43	4.10	1920.18	1912	11	1.01E-03	****	1.57E+00	
0	1372.88	11	11	3.83	2745.95	2739	12	7.86E-04	****	1.13E+00	
0	1529.14	15	6	3.97	3058.60	3052	12	1.04E-03	83.3	1.04E+00	
0	1579.53	11	21	0.70	3159.44	3148	17	7.69E-04	****	1.01E+00	
0	1631.15	9	15	0.69	3262.72	3258	10	6.25E-04	****	9.91E-01	
0	1791.10	10	5	1.43	3582.80	3576	11	6.81E-04	****	9.35E-01	
0	1834.80	14	3	3.39	3670.26	3663	13	9.58E-04	76.1	9.23E-01	
0	1867.61	7	13	2.75	3735.92	3723	17	4.77E-04	****	9.14E-01	
0	1871.94	10	5	1.02	3744.60	3739	10	6.94E-04	****	9.13E-01	
0	1940.10	9	0	1.19	3881.00	3876	10	6.25E-04	66.7	8.99E-01	
0	1944.15	9	0	1.50	3889.11	3885	8	6.25E-04	66.7	8.98E-01	
0	1949.09	9	0	1.07	3899.00	3894	10	6.25E-04	66.7	8.97E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G198324007            *
* Acquisition date : 30-NOV-2007 09:57:25 Detector SN#    :                 *
* Detector ID      : GAM08                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:01.31     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324007           Analyst initials: MJH1            *
* Batch Number     : 706245               Sample Quantity : 1.2005E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 30-OCT-2007 13:19:07 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	6.255E+00	8.348E-01	1.917E-01	8.348E-01
CS-137	3.789E-01	5.415E-02	1.914E-02	5.415E-02
EU-155	4.912E-02	6.225E-02	4.542E-02	6.225E-02
TL-208	2.246E-01	4.606E-02	1.809E-02	4.606E-02
BI-212	4.604E-01	2.637E-01	1.373E-01	2.637E-01
PB-212	5.794E-01	7.074E-02	2.852E-02	7.074E-02
BI-214	5.651E-01	1.012E-01	3.390E-02	1.012E-01
PB-214	7.440E-01	1.079E-01	3.425E-02	1.079E-01
RA-223	2.025E-01	1.842E-01	8.388E-02	1.842E-01
AC-228	5.680E-01	1.924E-01	6.339E-02	1.924E-01
TH-234	8.935E-01	4.581E-01	1.807E-01	4.581E-01
NP-236	4.993E-02	4.416E-02	2.812E-02	4.416E-02
NP-237	3.409E-01	1.371E-01	1.066E-01	1.371E-01
AM-243	1.569E-01	4.646E-02	2.326E-02	4.646E-02
CM-243	4.447E-02	5.637E-02	3.600E-02	5.637E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	1.108E-02	2.450E-02	2.120E-02	2.450E-02	NOT IDENT.
RH-101	1.714E-02	1.948E-02	1.677E-02	1.948E-02	NOT IDENT.
SB-125	-1.488E-02	5.539E-02	4.694E-02	5.539E-02	NOT IDENT.
PO-209	2.313E+00	4.544E+00	3.978E+00	4.544E+00	NOT IDENT.
BI-211	-2.520E-01	6.175E-01	5.101E-01	6.175E-01	NOT IDENT.
PA-233	-1.236E-02	3.584E-02	2.922E-02	3.584E-02	NOT IDENT.
PA-234M	1.960E+00	2.299E+00	2.092E+00	2.299E+00	NOT IDENT.
U-235	-2.839E-02	1.175E-01	9.693E-02	1.175E-01	NOT IDENT.
NP-239	3.013E-02	1.263E-01	1.086E-01	1.263E-01	NOT IDENT.
AM-241	1.942E-02	9.629E-02	7.394E-02	9.629E-02	NOT IDENT.
AM-246	1.582E-02	8.587E-02	7.290E-02	8.587E-02	NOT IDENT.
CF-249	9.114E-03	2.349E-02	2.077E-02	2.349E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
59.54	302.6184
63.29	327.5194
74.66	370.0450
74.81	370.1565
74.81	370.1565
77.11	371.8502
77.11	371.8502
86.48	398.4529
87.30	399.0466
87.30	399.0466
92.58	248.9458
98.44	324.7905
103.76	204.3372
105.31	269.8330
129.07	295.6710
143.76	332.1720
198.00	267.9384
209.25	311.9038
228.18	240.5006
238.63	263.4979
242.00	264.3014
269.46	192.1109
270.25	192.2352
277.36	205.1162
295.22	202.2754
300.09	187.9559
312.17	161.3644
338.32	174.5240
351.93	162.6284
387.59	146.1519
409.46	137.8448
427.87	140.3254
463.00	147.0533
510.77	108.1910
583.19	103.8801
609.31	100.9690
661.66	94.7863
727.33	80.2209
763.13	63.3789
768.36	71.3102
785.37	76.6908
794.95	51.6287
806.17	65.7389
831.80	77.7192
860.56	66.0562
896.60	56.2076
911.20	54.5326
934.06	56.9014
964.77	59.4421
968.97	59.5203
1001.03	37.0693
1078.86	57.4128
1120.29	56.9018
1155.19	43.9858
1173.23	46.3060
1238.11	44.9600
1280.96	43.2845
1332.51	36.6346
1377.67	26.5869
1401.50	38.1920
1407.98	43.9865
1460.80	36.7767
1509.23	13.6948
1588.20	27.8555
1620.50	25.0384
1729.60	5.3740
1764.49	16.2307

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198324007

Total Uranium Activity	-1.3134E-02	ug/g
Total Uranium Counting Unc.	5.4370E-02	ug/g
Total Uranium Tpu	5.4370E-08	ug/g
Total Uranium Mda	4.4850E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:17:07.75

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324008.CNF;1
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 30-NOV-2007 09:58:05
Sample ID        : G198324008           Sample quantity  : 1.22020E+02 GRAM
Detector name    : GAM11                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.95  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706245               Detector SN#     :
Matrix Spike ID  :                      LCS ID           :
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.42*	22	329	0.91	92.30	89	8	1.54E-03	156.2	
2	0	63.27*	95	426	0.86	126.03	123	8	6.59E-03	42.0	
3	2	74.83*	351	342	0.89	149.18	144	20	2.44E-02	9.8	1.25E+00
4	2	77.09	604	302	0.90	153.70	144	20	4.20E-02	6.0	
5	2	79.42	54	328	1.03	158.36	144	20	3.78E-03	58.5	
6	6	87.27*	244	362	1.22	174.08	163	30	1.70E-02	14.5	3.32E+00
7	6	89.87	164	292	1.04	179.28	163	30	1.14E-02	18.3	
8	6	92.67*	249	316	1.14	184.89	163	30	1.73E-02	16.2	
9	0	98.94	64	324	2.24	197.44	193	8	4.47E-03	50.0	
10	0	115.45	53	274	1.81	230.47	227	7	3.68E-03	53.5	
11	0	140.80*	31	227	1.37	281.23	279	6	2.13E-03	87.0	
12	0	143.97*	29	269	0.93	287.56	285	7	2.03E-03	102.0	
13	0	186.08*	181	383	1.16	371.87	367	10	1.25E-02	23.5	
14	2	205.43	50	216	1.25	410.60	406	17	3.45E-03	54.9	1.55E+00
15	2	209.14	111	228	1.25	418.02	406	17	7.74E-03	25.3	
16	9	238.68*	990	194	0.99	477.14	472	18	6.88E-02	4.1	1.93E+00
17	9	241.84	333	276	1.87	483.47	472	18	2.31E-02	13.0	
18	0	270.35	125	266	1.90	540.54	534	13	8.70E-03	28.3	
19	0	277.41	43	187	1.15	554.68	551	8	3.01E-03	57.0	
20	0	295.28*	506	200	1.14	590.44	586	11	3.51E-02	7.3	
21	0	300.13	93	110	1.16	600.16	597	7	6.46E-03	21.5	
22	0	313.26	44	158	1.59	626.42	622	9	3.06E-03	53.5	
23	0	328.17	84	193	1.52	656.27	651	11	5.81E-03	34.0	
24	0	338.34*	201	196	1.08	676.62	672	10	1.39E-02	15.8	
25	0	351.97*	807	125	0.92	703.90	699	10	5.60E-02	4.7	
26	0	462.99	83	83	1.40	926.12	921	9	5.76E-03	22.7	
27	0	511.22*	105	185	2.46	1022.65	1014	21	7.32E-03	39.3	
28	0	583.45*	305	144	1.42	1167.20	1162	13	2.12E-02	10.4	
29	0	609.48*	525	113	1.28	1219.30	1213	11	3.64E-02	6.2	
30	0	661.83	226	80	1.44	1324.08	1317	11	1.57E-02	10.2	
31	0	666.28	10	63	0.95	1332.97	1328	8	6.70E-04	145.5	
32	0	727.81	90	73	0.79	1456.12	1450	11	6.25E-03	21.3	
33	3	756.62	27	64	1.96	1513.77	1508	17	1.87E-03	60.2	1.78E+00
34	3	760.66	28	19	1.76	1521.85	1508	17	1.93E-03	29.3	
35	0	768.23*	70	40	1.95	1537.00	1532	10	4.83E-03	23.4	
36	0	774.24	15	40	0.96	1549.03	1545	6	1.03E-03	74.2	
37	0	786.03	28	62	1.26	1572.63	1568	10	1.92E-03	58.1	
38	0	795.33	48	51	1.34	1591.24	1586	10	3.36E-03	31.4	

Sample ID : G198324008 Acquisition date : 30-NOV-2007 09:58:05

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	1	803.85*	19	27	1.65	1608.30	1604	13	1.31E-03	60.3	2.79E+00
40	1	806.15	23	33	1.65	1612.90	1604	13	1.56E-03	49.1	
41	3	836.18	43	40	2.02	1672.99	1667	26	2.97E-03	35.3	6.99E-01
42	3	839.88	31	46	2.02	1680.40	1667	26	2.18E-03	48.7	
43	0	855.37	21	43	1.84	1711.39	1704	10	1.49E-03	60.7	
44	0	861.15	63	59	0.81	1722.97	1717	12	4.38E-03	27.9	
45	0	911.59*	189	66	1.53	1823.89	1818	14	1.32E-02	12.3	
46	0	929.84	14	29	1.14	1860.42	1857	9	9.58E-04	77.3	
47	0	934.61	41	37	2.66	1869.97	1865	12	2.86E-03	33.1	
48	0	969.29	131	46	1.27	1939.37	1935	9	9.11E-03	12.8	
49	1	1001.75*	29	23	1.77	2004.32	1997	16	1.98E-03	47.1	8.15E-01
50	1	1004.21	27	9	1.54	2009.25	1997	16	1.86E-03	30.5	
51	0	1120.86	138	45	1.27	2242.67	2236	12	9.58E-03	12.9	
52	0	1140.22	18	29	2.22	2281.40	2277	9	1.22E-03	59.0	
53	0	1170.99	23	43	3.86	2342.97	2333	16	1.58E-03	68.2	
54	0	1232.72	20	45	3.86	2466.50	2457	14	1.38E-03	75.1	
55	0	1238.90	46	44	1.15	2478.85	2474	12	3.16E-03	33.0	
56	0	1300.90	36	10	1.96	2602.92	2595	13	2.47E-03	24.8	
57	0	1352.96*	15	55	6.67	2707.07	2687	22	1.02E-03	135.1	
58	0	1365.73	17	23	0.85	2732.63	2724	12	1.18E-03	62.1	
59	0	1378.86	24	48	1.05	2758.90	2753	14	1.65E-03	64.0	
60	0	1403.02	8	10	1.25	2807.24	2803	6	5.32E-04	78.3	
61	0	1461.28*	548	36	1.73	2923.81	2916	14	3.80E-02	5.0	
62	0	1508.91	15	15	0.74	3019.10	3013	10	1.05E-03	54.4	
63	0	1588.70	19	12	2.17	3178.73	3175	7	1.29E-03	39.0	
64	0	1613.36	8	5	1.43	3228.07	3224	7	5.48E-04	59.7	
65	0	1649.16	12	2	0.60	3299.70	3295	10	8.26E-04	37.8	
66	0	1730.46	33	5	0.84	3462.33	3457	12	2.30E-03	22.6	
67	7	1760.81	9	2	1.53	3523.05	3521	18	5.98E-04	34.2	1.85E+00
68	7	1764.88*	105	13	2.90	3531.20	3521	18	7.27E-03	13.8	
69	0	1848.64	13	16	1.37	3698.76	3691	11	8.74E-04	68.5	
70	0	1882.01	16	3	0.93	3765.52	3759	11	1.11E-03	32.1	
71	0	1885.94	4	3	1.24	3773.38	3769	6	2.78E-04	84.8	
72	0	1949.28	6	5	0.53	3900.08	3892	11	4.10E-04	86.5	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324008       *
* Acquisition date : 30-NOV-2007 09:58:05 Detector SN#    :                 *
* Detector ID      : GAM11                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:01.95     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324008           Analyst initials: MJH1            *
* Batch Number     : 706245               Sample Quantity : 1.2202E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  2-OCT-2007 15:05:44 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	6.239E+00	7.497E-01	2.655E-01	0.000E+00
CS-137	1.618E-01	3.438E-02	2.677E-02	0.000E+00
TL-208	1.970E-01	4.239E-02	2.720E-02	0.000E+00
BI-212	5.035E-01	2.138E-01	2.187E-01	0.000E+00
PB-212	6.284E-01	6.183E-02	4.065E-02	0.000E+00
BI-214	6.443E-01	8.991E-02	5.271E-02	0.000E+00
PB-214	7.822E-01	8.297E-02	4.989E-02	0.000E+00
RA-223	2.743E-01	1.530E-01	1.273E-01	0.000E+00
AC-228	5.930E-01	1.519E-01	9.995E-02	0.000E+00
PA-233	3.817E-02	4.005E-02	4.346E-02	0.000E+00
PA-234M	2.990E+00	2.771E+00	2.916E+00	0.000E+00
TH-234	9.597E-01	3.114E-01	3.082E-01	0.000E+00
U-235	5.519E-02	1.104E-01	1.325E-01	0.000E+00
NP-236	3.438E-02	3.378E-02	3.875E-02	0.000E+00
NP-237	4.264E-01	1.254E-01	1.396E-01	0.000E+00
AM-243	1.297E-01	2.625E-02	3.284E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error	MDA (pCi/GRAM)		Ided
CO-60	-2.250E-02	2.263E-02	2.741E-02	0.000E+00	NOT IDENT.
RH-101	8.217E-03	1.556E-02	2.587E-02	0.000E+00	NOT IDENT.
SB-125	-3.958E-03	4.310E-02	7.415E-02	0.000E+00	NOT IDENT.
EU-155	2.332E-04	4.108E-02	7.302E-02	0.000E+00	NOT IDENT.
PO-209	-1.585E+00	3.114E+00	5.063E+00	0.000E+00	NOT IDENT.
BI-211	-4.595E-01	4.941E-01	6.423E-01	0.000E+00	NOT IDENT.
NP-239	2.821E-02	1.004E-01	1.720E-01	0.000E+00	NOT IDENT.
AM-241	-2.685E-02	5.348E-02	7.870E-02	0.000E+00	NOT IDENT.
CM-243	-4.503E-03	3.648E-02	6.454E-02	0.000E+00	NOT IDENT.
AM-246	3.626E-02	6.340E-02	1.128E-01	0.000E+00	NOT IDENT.
CF-249	9.481E-03	1.778E-02	3.194E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:17:08.79

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324008.CNF;1
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 30-NOV-2007 09:58:05
Sample ID        : G198324008           Sample quantity  : 1.22020E+02 GRAM
Detector name    : GAM11                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.95  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706245               Detector SN#     :
Matrix Spike ID  :                      LCS ID           :
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	548	10.66*	1.266E+00	6.239E+00	6.239E+00	12.26
CS-137	661.66	226	85.10*	2.532E+00	1.612E-01	1.618E-01	21.68
TL-208	277.36	43	6.31	5.036E+00	2.097E-01	2.097E-01	114.18
	510.77	105	22.60	3.146E+00	2.280E-01	2.280E-01	78.85
	583.19	305	84.50*	2.819E+00	1.970E-01	1.970E-01	21.96
	763.13	------	1.81	2.235E+00	------	Line Not Found	------
	860.56	63	12.42	2.005E+00	3.899E-01	3.899E-01	56.55
BI-212	727.33	90	11.80*	2.330E+00	5.035E-01	5.035E-01	43.33
	785.37	28	1.10	2.177E+00	1.780E+00	1.780E+00	116.44
	1620.50	------	1.49	1.176E+00	------	Line Not Found	------
PB-212	74.81	351	10.40	6.102E+00	8.504E-01	8.504E-01	20.66
	77.11	604	17.50	6.329E+00	8.393E-01	8.393E-01	13.67
	87.30	244	7.81	7.103E+00	6.770E-01	6.770E-01	30.01
	238.63	990	43.30*	5.598E+00	6.284E-01	6.284E-01	10.04
	300.09	93	3.28	4.755E+00	9.179E-01	9.179E-01	43.34
BI-214	609.31	525	46.10*	2.717E+00	6.443E-01	6.443E-01	14.24
	768.36	70	4.94	2.221E+00	9.758E-01	9.759E-01	47.49
	806.17	23	1.22	2.128E+00	1.333E+00	1.334E+00	98.52
	934.06	41	3.03	1.862E+00	1.122E+00	1.122E+00	66.83
	1120.29	138	15.10	1.581E+00	8.885E-01	8.886E-01	26.59
	1155.19	------	1.63	1.540E+00	------	Line Not Found	------
	1238.11	46	5.79	1.449E+00	8.344E-01	8.345E-01	66.20
	1280.96	------	1.43	1.408E+00	------	Line Not Found	------
	1377.67	24	4.00	1.325E+00	6.891E-01	6.892E-01	128.26
	1401.50	8	1.27	1.307E+00	7.104E-01	7.105E-01	156.68
	1407.98	------	2.15	1.303E+00	------	Line Not Found	------
	1509.23	15	2.11	1.236E+00	8.905E-01	8.906E-01	109.04
	1729.60	33	2.92	1.128E+00	1.545E+00	1.545E+00	45.68
	1764.49	105	15.40	1.115E+00	9.379E-01	9.380E-01	28.35
PB-214	74.81	351	6.44	6.102E+00	1.373E+00	1.373E+00	20.66
	77.11	604	10.80	6.329E+00	1.360E+00	1.360E+00	13.67
	87.30	244	4.84	7.103E+00	1.092E+00	1.092E+00	30.01

Sample ID : G198324008 Acquisition date : 30-NOV-2007 09:58:05

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	242.00	333	7.43	5.548E+00	1.241E+00	1.241E+00	26.57
	295.22	506	19.30	4.812E+00	8.376E-01	8.376E-01	15.74
	351.93	807	37.60*	4.221E+00	7.821E-01	7.822E-01	10.82
RA-223	269.46	125	13.70*	5.130E+00	2.743E-01	2.743E-01	56.91
AC-228	129.07	------	2.42	7.654E+00	------	Line Not Found	------
	209.25	111	3.89	6.110E+00	7.212E-01	7.212E-01	50.91
	270.25	125	3.46	5.130E+00	1.086E+00	1.086E+00	56.91
	338.32	201	11.27	4.349E+00	6.292E-01	6.292E-01	32.07
	409.46	------	1.92	3.757E+00	------	Line Not Found	------
	463.00	83	4.40	3.409E+00	8.500E-01	8.500E-01	45.71
	794.95	48	4.25	2.154E+00	8.123E-01	8.123E-01	63.34
	911.20	189	25.80*	1.905E+00	5.930E-01	5.930E-01	26.15
	964.77	------	4.99	1.810E+00	------	Line Not Found	------
	968.97	131	15.80	1.802E+00	7.089E-01	7.089E-01	26.94
	1588.20	19	3.22	1.191E+00	7.443E-01	7.443E-01	78.30
PA-233	312.17	44	38.60*	4.607E+00	3.817E-02	3.817E-02	107.07
PA-234M	1001.03	29	0.84*	1.749E+00	2.990E+00	2.990E+00	94.58
TH-234	63.29	95	4.80	4.592E+00	6.621E-01	6.621E-01	84.30
	92.58	249	5.41*	7.369E+00	9.597E-01	9.597E-01	33.11
U-235	143.76	29	10.96*	7.419E+00	5.519E-02	5.519E-02	204.07
NP-236	98.44	64	38.00*	7.577E+00	3.438E-02	3.438E-02	100.24
NP-237	86.48	244	12.40*	7.103E+00	4.264E-01	4.264E-01	30.01
AM-243	74.66	351	68.20*	6.102E+00	1.297E-01	1.297E-01	20.66

Flag: "*" = Keyline

Sample ID : G198324008 Acquisition date : 30-NOV-2007 09:58:05

Total number of lines in spectrum 72
Number of unidentified lines 31
Number of lines tentatively identified by NID 41 56.94%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	6.239E+00	6.239E+00	0.765E+00	12.26	
CS-137	9.47E+08S	1.00	1.612E-01	1.618E-01	0.351E-01	21.68	
TL-208	4.43E+17S	1.00	1.970E-01	1.970E-01	0.433E-01	21.96	
BI-212	4.43E+17S	1.00	5.035E-01	5.035E-01	2.182E-01	43.33	
PB-212	4.43E+17S	1.00	6.284E-01	6.284E-01	0.631E-01	10.04	
BI-214	5.05E+10S	1.00	6.443E-01	6.443E-01	0.917E-01	14.24	
PB-214	5.05E+10S	1.00	7.821E-01	7.822E-01	0.847E-01	10.82	
RA-223	1.04E+12S	1.00	2.743E-01	2.743E-01	1.561E-01	56.91	
AC-228	4.43E+17S	1.00	5.930E-01	5.930E-01	1.550E-01	26.15	
PA-233	6.75E+13S	1.00	3.817E-02	3.817E-02	4.087E-02	107.07	
PA-234M	1.41E+17S	1.00	2.990E+00	2.990E+00	2.828E+00	94.58	
TH-234	1.41E+17S	1.00	9.597E-01	9.597E-01	3.178E-01	33.11	
U-235	2.22E+16S	1.00	5.519E-02	5.519E-02	11.26E-02	204.07	
NP-236	4.89E+12S	1.00	3.438E-02	3.438E-02	3.447E-02	100.24	
NP-237	6.75E+13S	1.00	4.264E-01	4.264E-01	1.280E-01	30.01	
AM-243	2.33E+11S	1.00	1.297E-01	1.297E-01	0.268E-01	20.66	
			---	---			
	Total Activity :		1.466E+01	1.466E+01			

Grand Total Activity : 1.466E+01 1.466E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G198324008 Acquisition date : 30-NOV-2007 09:58:05

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.42	22	329	0.91	92.30	89	8	1.54E-03	****	1.73E+00	
2	79.42	54	328	1.03	158.36	144	20	3.78E-03	****	6.54E+00	
6	89.87	164	292	1.04	179.28	163	30	1.14E-02	36.5	7.24E+00	
0	115.45	53	274	1.81	230.47	227	7	3.68E-03	****	7.75E+00	
0	140.80	31	227	1.37	281.23	279	6	2.13E-03	****	7.48E+00	
0	186.08	181	383	1.16	371.87	367	10	1.25E-02	47.0	6.56E+00	
2	205.43	50	216	1.25	410.60	406	17	3.45E-03	****	6.18E+00	
0	328.17	84	193	1.52	656.27	651	11	5.81E-03	67.9	4.45E+00	
0	666.28	10	63	0.95	1332.97	1328	8	6.70E-04	****	2.52E+00	
3	756.62	27	64	1.96	1513.77	1508	17	1.87E-03	****	2.25E+00	
3	760.66	28	19	1.76	1521.85	1508	17	1.93E-03	58.6	2.24E+00	
0	774.24	15	40	0.96	1549.03	1545	6	1.03E-03	****	2.21E+00	
1	803.85	19	27	1.65	1608.30	1604	13	1.31E-03	****	2.13E+00	
3	836.18	43	40	2.02	1672.99	1667	26	2.97E-03	70.6	2.06E+00	
3	839.88	31	46	2.02	1680.40	1667	26	2.18E-03	97.5	2.05E+00	
0	855.37	21	43	1.84	1711.39	1704	10	1.49E-03	****	2.02E+00	
0	929.84	14	29	1.14	1860.42	1857	9	9.58E-04	****	1.87E+00	
1	1004.21	27	9	1.54	2009.25	1997	16	1.86E-03	61.0	1.75E+00	
0	1140.22	18	29	2.22	2281.40	2277	9	1.22E-03	****	1.56E+00	
0	1170.99	23	43	3.86	2342.97	2333	16	1.58E-03	****	1.52E+00	
0	1232.72	20	45	3.86	2466.50	2457	14	1.38E-03	****	1.46E+00	
0	1300.90	36	10	1.96	2602.92	2595	13	2.47E-03	49.5	1.39E+00	
0	1352.96	15	55	6.67	2707.07	2687	22	1.02E-03	****	1.35E+00	
0	1365.73	17	23	0.85	2732.63	2724	12	1.18E-03	****	1.34E+00	
0	1613.36	8	5	1.43	3228.07	3224	7	5.48E-04	****	1.18E+00	
0	1649.16	12	2	0.60	3299.70	3295	10	8.26E-04	75.7	1.16E+00	
7	1760.81	9	2	1.53	3523.05	3521	18	5.98E-04	68.5	1.12E+00	
0	1848.64	13	16	1.37	3698.76	3691	11	8.74E-04	****	1.09E+00	
0	1882.01	16	3	0.93	3765.52	3759	11	1.11E-03	64.2	1.08E+00	
0	1885.94	4	3	1.24	3773.38	3769	6	2.78E-04	****	1.08E+00	
0	1949.28	6	5	0.53	3900.08	3892	11	4.10E-04	****	1.06E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G198324008            *
* Acquisition date : 30-NOV-2007 09:58:05 Detector SN#    :                 *
* Detector ID      : GAM11                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:01.95     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324008           Analyst initials: MJH1            *
* Batch Number     : 706245               Sample Quantity : 1.2202E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME :  2-OCT-2007 15:05:44 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	6.239E+00	7.497E-01	1.328E-01	7.497E-01
CS-137	1.618E-01	3.438E-02	1.339E-02	3.438E-02
TL-208	1.970E-01	4.239E-02	1.361E-02	4.239E-02
BI-212	5.035E-01	2.138E-01	1.094E-01	2.138E-01
PB-212	6.284E-01	6.183E-02	2.033E-02	6.183E-02
BI-214	6.443E-01	8.991E-02	2.637E-02	8.991E-02
PB-214	7.822E-01	8.297E-02	2.496E-02	8.297E-02
RA-223	2.743E-01	1.530E-01	6.366E-02	1.530E-01
AC-228	5.930E-01	1.519E-01	5.000E-02	1.519E-01
PA-233	3.817E-02	4.005E-02	2.174E-02	4.005E-02
PA-234M	2.990E+00	2.771E+00	1.459E+00	2.771E+00
TH-234	9.597E-01	3.114E-01	1.542E-01	3.114E-01
U-235	5.519E-02	1.104E-01	6.628E-02	1.104E-01
NP-236	3.438E-02	3.378E-02	1.938E-02	3.378E-02
NP-237	4.264E-01	1.254E-01	6.984E-02	1.254E-01
AM-243	1.297E-01	2.625E-02	1.643E-02	2.625E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	-2.250E-02	2.263E-02	1.371E-02	2.263E-02	NOT IDENT.
RH-101	8.217E-03	1.556E-02	1.294E-02	1.556E-02	NOT IDENT.
SB-125	-3.958E-03	4.310E-02	3.710E-02	4.310E-02	NOT IDENT.
EU-155	2.332E-04	4.108E-02	3.653E-02	4.108E-02	NOT IDENT.
PO-209	-1.585E+00	3.114E+00	2.533E+00	3.114E+00	NOT IDENT.
BI-211	-4.595E-01	4.941E-01	3.213E-01	4.941E-01	NOT IDENT.
NP-239	2.821E-02	1.004E-01	8.607E-02	1.004E-01	NOT IDENT.
AM-241	-2.685E-02	5.348E-02	3.938E-02	5.348E-02	NOT IDENT.
CM-243	-4.503E-03	3.648E-02	3.229E-02	3.648E-02	NOT IDENT.
AM-246	3.626E-02	6.340E-02	5.645E-02	6.340E-02	NOT IDENT.
CF-249	9.481E-03	1.778E-02	1.598E-02	1.778E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
59.54	255.2611
63.29	289.3636
74.66	337.8893
74.81	338.0034
74.81	338.0034
77.11	339.7613
77.11	339.7613
86.48	272.6562
87.30	273.1160
87.30	273.1160
92.58	276.0320
98.44	227.3259
103.76	241.6649
105.31	249.5267
129.07	229.7917
143.76	214.8811
198.00	216.1106
209.25	199.1680
228.18	202.1953
238.63	181.8978
242.00	182.5117
269.46	150.9949
270.25	151.1064
277.36	154.3049
295.22	148.8491
300.09	137.5799
312.17	113.2381
338.32	139.2754
351.93	118.6015
387.59	113.5254
409.46	118.0000
427.87	115.7032
463.00	96.1473
510.77	80.4297
583.19	80.5381
609.31	83.6573
661.66	63.5229
727.33	69.7461
763.13	35.3965
768.36	67.9874
785.37	71.4297
794.95	59.3792
806.17	63.0171
831.80	57.5814
860.56	50.5474
896.60	50.2822
911.20	46.8005
934.06	18.8701
964.77	52.4393
968.97	84.0232
1001.03	35.7046
1078.86	40.5516
1120.29	44.0666
1155.19	39.4627
1173.23	54.2474
1238.11	36.2510
1280.96	36.6731
1332.51	29.7363
1377.67	32.2280
1401.50	33.5006
1407.98	43.2949
1460.80	25.2146
1509.23	26.9289
1588.20	31.0422
1620.50	13.2634
1729.60	19.9453
1764.49	6.8354

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198324008

Total Uranium Activity	2.5539E-02	ug/g
Total Uranium Counting Unc.	5.1075E-02	ug/g
Total Uranium Tpu	5.1075E-08	ug/g
Total Uranium Mda	3.0667E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:17:46.54

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324009.CNF;3
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 7-DEC-2007 05:45:16.
Sample ID        : G198324009           Sample quantity  : 1.10400E+02 GRAM
Detector name    : GAM07                Detector geometry: CAN
Elapsed live time: 0 06:00:00.00        Elapsed real time: 0 06:00:41.16  0.2%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706245               Detector SN#     :
Matrix Spike ID  :                      LCS ID           :
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.38*	86	507	1.17	92.28	87	10	4.00E-03	56.7	
2	0	63.37*	55	476	1.14	126.25	122	8	2.53E-03	83.8	
3	2	74.91*	209	519	0.94	149.32	145	16	9.65E-03	21.1	8.08E-01
4	2	77.22*	400	481	0.98	153.94	145	16	1.85E-02	11.3	
5	0	84.20	84	485	0.87	167.89	164	8	3.90E-03	46.6	
6	4	87.25*	161	304	1.21	173.98	171	22	7.45E-03	20.6	2.67E+00
7	4	90.06*	156	458	1.40	179.60	171	22	7.20E-03	26.1	
8	4	92.78*	158	424	1.36	185.04	171	22	7.32E-03	29.0	
9	0	118.10	46	245	1.53	235.67	234	6	2.12E-03	56.1	
10	0	121.40	70	281	1.97	242.27	239	7	3.23E-03	41.6	
11	0	144.28*	28	533	3.22	288.01	284	11	1.31E-03	171.2	
12	5	185.99*	167	349	1.43	371.41	365	18	7.74E-03	25.1	2.27E+00
13	5	188.95	84	344	1.68	377.32	365	18	3.87E-03	46.6	
14	0	209.88	67	357	1.21	419.17	414	9	3.12E-03	51.9	
15	0	238.80*	691	361	1.01	476.99	473	8	3.20E-02	7.1	
16	0	241.66	133	239	0.75	482.73	481	6	6.14E-03	20.8	
17	0	270.62	163	268	1.90	540.63	535	12	7.56E-03	21.6	
18	0	277.23	45	186	1.71	553.85	551	7	2.06E-03	52.9	
19	0	295.22*	229	289	1.22	589.82	583	13	1.06E-02	18.1	
20	0	300.28*	17	245	1.56	599.93	596	10	7.78E-04	201.1	
21	0	328.84*	68	284	3.15	657.04	650	13	3.13E-03	58.3	
22	0	338.26	174	268	1.47	675.87	671	11	8.07E-03	19.7	
23	0	341.28	24	152	1.25	681.90	681	8	1.11E-03	90.6	
24	0	352.10*	342	250	1.22	703.53	699	10	1.58E-02	11.0	
25	0	453.25	14	57	1.30	905.79	904	5	6.30E-04	87.4	
26	0	463.28	70	128	0.79	925.85	920	10	3.26E-03	32.5	
27	0	479.29	13	109	0.73	957.86	950	9	5.93E-04	150.2	
28	0	511.02*	8	236	2.39	1021.31	1013	16	3.90E-04	586.2	
29	0	518.37	32	73	1.56	1036.00	1033	8	1.50E-03	48.8	
30	0	583.43*	264	153	1.31	1166.10	1161	13	1.22E-02	12.5	
31	0	609.54*	318	123	1.48	1218.29	1211	15	1.47E-02	10.5	
32	0	661.84	567	93	1.14	1322.87	1318	10	2.63E-02	5.3	
33	0	720.91	16	57	2.28	1440.98	1436	8	7.41E-04	88.6	
34	0	727.74*	38	88	1.84	1454.65	1449	14	1.77E-03	64.1	
35	0	794.96	37	94	1.68	1589.05	1582	15	1.70E-03	59.9	
36	0	857.76	11	32	0.95	1714.62	1711	7	5.26E-04	87.2	
37	0	861.08*	33	36	0.82	1721.27	1717	10	1.52E-03	49.6	
38	0	911.26*	178	53	1.21	1821.62	1816	13	8.24E-03	12.1	

Sample ID : G198324009 Acquisition date : 7-DEC-2007 05:45:16

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	965.25	39	56	1.45	1929.56	1924	10	1.82E-03	39.3	
40	0	969.37	90	79	1.44	1937.80	1933	13	4.15E-03	22.9	
41	0	981.26	14	42	2.71	1961.57	1956	11	6.68E-04	90.2	
42	0	994.53	31	25	2.45	1988.11	1982	13	1.43E-03	38.4	
43	0	1001.09*	16	42	1.02	2001.24	1995	13	7.49E-04	109.0	
44	0	1018.96	17	50	0.58	2036.97	2031	11	7.64E-04	86.2	
45	0	1066.83	18	45	4.31	2132.69	2121	15	8.26E-04	87.9	
46	0	1072.20	40	32	6.10	2143.43	2135	16	1.84E-03	35.5	
47	0	1115.20	23	30	3.58	2229.42	2224	10	1.05E-03	47.2	
48	0	1120.36	81	34	1.92	2239.74	2234	11	3.73E-03	18.1	
49	0	1240.32	62	54	5.73	2479.61	2471	20	2.86E-03	32.0	
50	0	1267.90	15	50	1.87	2534.76	2528	16	6.77E-04	109.6	
51	0	1394.06	10	20	3.69	2787.05	2778	13	4.40E-04	101.2	
52	0	1402.83	15	21	0.96	2804.59	2797	12	7.14E-04	64.5	
53	0	1461.05*	372	48	2.21	2921.02	2910	23	1.72E-02	7.8	
54	0	1564.43	18	30	2.19	3127.75	3118	22	8.13E-04	80.4	
55	0	1588.58	22	20	1.12	3176.05	3171	10	9.99E-04	45.9	
56	0	1594.65	27	11	6.80	3188.19	3180	17	1.26E-03	35.2	
57	0	1621.55	22	12	1.40	3241.97	3237	11	1.02E-03	38.4	
58	0	1647.51	7	9	1.35	3293.89	3289	8	3.39E-04	82.1	
59	0	1744.78	11	6	1.03	3488.42	3485	8	5.31E-04	46.9	
60	0	1765.32*	77	10	2.11	3529.50	3522	19	3.58E-03	17.8	
61	0	1946.57	11	10	4.18	3891.96	3885	13	5.16E-04	65.1	
62	0	1988.96	6	6	0.83	3976.74	3970	9	2.66E-04	90.7	
63	0	2010.41	11	0	4.07	4019.64	4014	12	5.09E-04	30.2	
64	0	2020.44	6	4	0.82	4039.70	4036	8	2.59E-04	75.8	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324009       *
* Acquisition date :  7-DEC-2007 05:45:16 Detector SN#    :                 *
* Detector ID      : GAM07                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 06:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 06:00:41.16     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324009           Analyst initials: MJH1            *
* Batch Number     : 706245               Sample Quantity : 1.1040E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 31-OCT-2007 13:07:28 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.388E+00	5.472E-01	2.409E-01	0.000E+00
CS-137	3.256E-01	4.089E-02	2.777E-02	0.000E+00
TL-208	1.367E-01	3.476E-02	2.206E-02	0.000E+00
BI-212	1.711E-01	2.155E-01	1.715E-01	0.000E+00
PB-212	3.484E-01	5.250E-02	4.099E-02	0.000E+00
PB-214	2.642E-01	5.891E-02	4.911E-02	0.000E+00
RA-223	2.842E-01	1.214E-01	1.190E-01	0.000E+00
AC-228	4.454E-01	1.099E-01	8.831E-02	0.000E+00
PA-234M	1.352E+00	2.888E+00	2.551E+00	0.000E+00
TH-234	4.547E-01	2.611E-01	2.496E-01	0.000E+00
U-235	4.199E-02	1.409E-01	1.283E-01	0.000E+00
NP-237	2.064E-01	8.492E-02	1.060E-01	0.000E+00
AM-243	5.373E-02	2.250E-02	2.674E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	-1.813E-02		1.669E-02	2.528E-02	0.000E+00	NOT IDENT.
RH-101	3.522E-03		1.447E-02	2.247E-02	0.000E+00	NOT IDENT.
SB-125	-7.837E-03		4.190E-02	6.872E-02	0.000E+00	NOT IDENT.
EU-155	4.574E-02		3.713E-02	6.521E-02	0.000E+00	NOT IDENT.
PO-209	2.005E+00		3.012E+00	5.273E+00	0.000E+00	NOT IDENT.
BI-211	-4.872E-01		4.143E-01	6.142E-01	0.000E+00	NOT IDENT.
BI-214	0.000E+00		6.796E-02	9.427E-02	0.000E+00	FAIL ABUN
PA-233	-1.205E-02		2.643E-02	4.378E-02	0.000E+00	NOT IDENT.
NP-236	1.613E-02		2.232E-02	3.487E-02	0.000E+00	NOT IDENT.
NP-239	5.413E-03		8.807E-02	1.527E-01	0.000E+00	NOT IDENT.
AM-241	-4.986E-03		3.780E-02	5.814E-02	0.000E+00	NOT IDENT.
CM-243	2.046E-02		3.283E-02	5.658E-02	0.000E+00	NOT IDENT.
AM-246	3.355E-02		5.570E-02	8.888E-02	0.000E+00	NOT IDENT.
CF-249	1.224E-02		1.656E-02	2.879E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:17:48.77

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324009.CNF;3
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 7-DEC-2007 05:45:16.
Sample ID        : G198324009           Sample quantity  : 1.10400E+02 GRAM
Detector name    : GAM07                Detector geometry: CAN
Elapsed live time: 0 06:00:00.00        Elapsed real time: 0 06:00:41.16  0.2%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706245               Detector SN#     :
Matrix Spike ID  :                      LCS ID           :
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	372	10.66*	1.166E+00	3.388E+00	3.388E+00	16.48
CS-137	661.66	567	85.10*	2.330E+00	3.242E-01	3.256E-01	12.82
TL-208	277.36	45	6.31	4.671E+00	1.712E-01	1.712E-01	106.08
	510.77	8	22.60	2.899E+00	1.458E-02	1.458E-02	1172.38
	583.19	264	84.50*	2.595E+00	1.367E-01	1.367E-01	25.95
	763.13	------	1.81	2.057E+00	------	Line Not Found	------
	860.56	33	12.42	1.848E+00	1.622E-01	1.622E-01	99.45
BI-212	727.33	38	11.80*	2.145E+00	1.711E-01	1.711E-01	128.49
	785.37	------	1.10	2.005E+00	------	Line Not Found	------
	1620.50	22	1.49	1.077E+00	1.558E+00	1.558E+00	77.03
PB-212	74.81	209	10.40	6.450E+00	3.523E-01	3.523E-01	42.73
	77.11	400	17.50	6.617E+00	3.917E-01	3.917E-01	23.71
	87.30	161	7.81	7.129E+00	3.276E-01	3.276E-01	41.99
	238.63	691	43.30*	5.195E+00	3.484E-01	3.484E-01	15.38
	300.09	17	3.28	4.404E+00	1.319E-01	1.319E-01	402.17
PB-214	74.81	209	6.44	6.450E+00	5.690E-01	5.690E-01	42.73
	77.11	400	10.80	6.617E+00	6.347E-01	6.348E-01	23.71
	87.30	161	4.84	7.129E+00	5.287E-01	5.287E-01	41.99
	242.00	133	7.43	5.152E+00	3.925E-01	3.925E-01	42.00
	295.22	229	19.30	4.460E+00	3.015E-01	3.015E-01	36.74
	351.93	342	37.60*	3.903E+00	2.641E-01	2.642E-01	22.76
RA-223	269.46	163	13.70*	4.753E+00	2.842E-01	2.842E-01	43.58
AC-228	129.07	------	2.42	7.226E+00	------	Line Not Found	------
	209.25	67	3.89	5.666E+00	3.465E-01	3.465E-01	104.00
	270.25	163	3.46	4.753E+00	1.125E+00	1.125E+00	43.58
	338.32	174	11.27	4.025E+00	4.358E-01	4.358E-01	39.86
	409.46	------	1.92	3.468E+00	------	Line Not Found	------
	463.00	70	4.40	3.141E+00	5.770E-01	5.770E-01	65.25
	794.95	37	4.25	1.984E+00	4.927E-01	4.927E-01	120.08
	911.20	178	25.80*	1.756E+00	4.454E-01	4.454E-01	25.19
	964.77	39	4.99	1.668E+00	5.357E-01	5.357E-01	78.83
	968.97	90	15.80	1.662E+00	3.872E-01	3.872E-01	46.31

Sample ID : G198324009 Acquisition date : 7-DEC-2007 05:45:16

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	1588.20	22	3.22	1.093E+00	6.950E-01	6.950E-01	92.02
PA-234M	1001.03	16	0.84*	1.615E+00	1.352E+00	1.352E+00	218.01
TH-234	63.29	55	4.80	5.283E+00	2.444E-01	2.444E-01	167.66
	92.58	158	5.41*	7.290E+00	4.547E-01	4.547E-01	58.60
U-235	143.76	28	10.96*	6.951E+00	4.199E-02	4.199E-02	342.46
NP-237	86.48	161	12.40*	7.129E+00	2.064E-01	2.064E-01	41.99
AM-243	74.66	209	68.20*	6.450E+00	5.373E-02	5.373E-02	42.73

Flag: "*" = Keyline

Sample ID : G198324009 Acquisition date : 7-DEC-2007 05:45:16

Total number of lines in spectrum	64	
Number of unidentified lines	31	
Number of lines tentatively identified by NID	33	51.56%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	3.388E+00	3.388E+00	0.558E+00	16.48	
CS-137	9.47E+08S	1.00	3.242E-01	3.256E-01	0.417E-01	12.82	
TL-208	4.43E+17S	1.00	1.367E-01	1.367E-01	0.355E-01	25.95	
BI-212	4.43E+17S	1.00	1.711E-01	1.711E-01	2.199E-01	128.49	
PB-212	4.43E+17S	1.00	3.484E-01	3.484E-01	0.536E-01	15.38	
PB-214	5.05E+10S	1.00	2.641E-01	2.642E-01	0.601E-01	22.76	
RA-223	1.04E+12S	1.00	2.842E-01	2.842E-01	1.239E-01	43.58	
AC-228	4.43E+17S	1.00	4.454E-01	4.454E-01	1.122E-01	25.19	
PA-234M	1.41E+17S	1.00	1.352E+00	1.352E+00	2.947E+00	218.01	
TH-234	1.41E+17S	1.00	4.547E-01	4.547E-01	2.664E-01	58.60	
U-235	2.22E+16S	1.00	4.199E-02	4.199E-02	14.38E-02	342.46	
NP-237	6.75E+13S	1.00	2.064E-01	2.064E-01	0.867E-01	41.99	
AM-243	2.33E+11S	1.00	5.373E-02	5.373E-02	2.296E-02	42.73	
			---	---			
		Total Activity :	7.471E+00	7.472E+00			

Grand Total Activity : 7.471E+00 7.472E+00

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G198324009 Acquisition date : 7-DEC-2007 05:45:16

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.38	86	507	1.17	92.28	87	10	4.00E-03	****	2.58E+00	
0	84.20	84	485	0.87	167.89	164	8	3.90E-03	93.2	7.01E+00	
4	90.06	156	458	1.40	179.60	171	22	7.20E-03	52.3	7.22E+00	
0	118.10	46	245	1.53	235.67	234	6	2.12E-03	****	7.37E+00	
0	121.40	70	281	1.97	242.27	239	7	3.23E-03	83.1	7.34E+00	
5	185.99	167	349	1.43	371.41	365	18	7.74E-03	50.1	6.11E+00	
5	188.95	84	344	1.68	377.32	365	18	3.87E-03	93.2	6.05E+00	
0	328.84	68	284	3.15	657.04	650	13	3.13E-03	****	4.11E+00	
0	341.28	24	152	1.25	681.90	681	8	1.11E-03	****	4.00E+00	
0	453.25	14	57	1.30	905.79	904	5	6.30E-04	****	3.20E+00	
0	479.29	13	109	0.73	957.86	950	9	5.93E-04	****	3.06E+00	
0	518.37	32	73	1.56	1036.00	1033	8	1.50E-03	97.5	2.86E+00	
0	609.54	318	123	1.48	1218.29	1211	15	1.47E-02	21.1	2.50E+00	T
0	720.91	16	57	2.28	1440.98	1436	8	7.41E-04	****	2.16E+00	
0	857.76	11	32	0.95	1714.62	1711	7	5.26E-04	****	1.85E+00	
0	981.26	14	42	2.71	1961.57	1956	11	6.68E-04	****	1.64E+00	
0	994.53	31	25	2.45	1988.11	1982	13	1.43E-03	76.9	1.62E+00	
0	1018.96	17	50	0.58	2036.97	2031	11	7.64E-04	****	1.59E+00	
0	1066.83	18	45	4.31	2132.69	2121	15	8.26E-04	****	1.53E+00	
0	1072.20	40	32	6.10	2143.43	2135	16	1.84E-03	71.1	1.52E+00	
0	1115.20	23	30	3.58	2229.42	2224	10	1.05E-03	94.4	1.47E+00	
0	1120.36	81	34	1.92	2239.74	2234	11	3.73E-03	36.2	1.46E+00	T
0	1240.32	62	54	5.73	2479.61	2471	20	2.86E-03	63.9	1.34E+00	
0	1267.90	15	50	1.87	2534.76	2528	16	6.77E-04	****	1.31E+00	
0	1394.06	10	20	3.69	2787.05	2778	13	4.40E-04	****	1.21E+00	
0	1402.83	15	21	0.96	2804.59	2797	12	7.14E-04	****	1.20E+00	T
0	1564.43	18	30	2.19	3127.75	3118	22	8.13E-04	****	1.11E+00	
0	1594.65	27	11	6.80	3188.19	3180	17	1.26E-03	70.4	1.09E+00	
0	1647.51	7	9	1.35	3293.89	3289	8	3.39E-04	****	1.06E+00	
0	1744.78	11	6	1.03	3488.42	3485	8	5.31E-04	93.9	1.02E+00	
0	1765.32	77	10	2.11	3529.50	3522	19	3.58E-03	35.7	1.02E+00	T
0	1946.57	11	10	4.18	3891.96	3885	13	5.16E-04	****	9.58E-01	
0	1988.96	6	6	0.83	3976.74	3970	9	2.66E-04	****	9.47E-01	
0	2010.41	11	0	4.07	4019.64	4014	12	5.09E-04	60.3	9.42E-01	
0	2020.44	6	4	0.82	4039.70	4036	8	2.59E-04	****	9.39E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G198324009            *
* Acquisition date :  7-DEC-2007 05:45:16 Detector SN#    :                 *
* Detector ID      : GAM07                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 06:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 06:00:41.16     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324009           Analyst initials: MJH1            *
* Batch Number     : 706245               Sample Quantity : 1.1040E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 31-OCT-2007 13:07:28 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	3.388E+00	5.472E-01	1.205E-01	5.472E-01
CS-137	3.256E-01	4.089E-02	1.389E-02	4.089E-02
TL-208	1.367E-01	3.476E-02	1.104E-02	3.476E-02
BI-212	1.711E-01	2.155E-01	8.579E-02	2.155E-01
PB-212	3.484E-01	5.250E-02	2.051E-02	5.250E-02
PB-214	2.642E-01	5.891E-02	2.457E-02	5.891E-02
RA-223	2.842E-01	1.214E-01	5.955E-02	1.214E-01
AC-228	4.454E-01	1.099E-01	4.418E-02	1.099E-01
PA-234M	1.352E+00	2.888E+00	1.276E+00	2.888E+00
TH-234	4.547E-01	2.611E-01	1.249E-01	2.611E-01
U-235	4.199E-02	1.409E-01	6.420E-02	1.409E-01
NP-237	2.064E-01	8.492E-02	5.303E-02	8.492E-02
AM-243	5.373E-02	2.250E-02	1.338E-02	2.250E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	-1.813E-02	1.669E-02	1.265E-02	1.669E-02	NOT IDENT.
RH-101	3.522E-03	1.447E-02	1.124E-02	1.447E-02	NOT IDENT.
SB-125	-7.837E-03	4.190E-02	3.438E-02	4.190E-02	NOT IDENT.
EU-155	4.574E-02	3.713E-02	3.263E-02	3.713E-02	NOT IDENT.
PO-209	2.005E+00	3.012E+00	2.638E+00	3.012E+00	NOT IDENT.
BI-211	-4.872E-01	4.143E-01	3.073E-01	4.143E-01	NOT IDENT.
BI-214	3.130E-01	6.796E-02	4.716E-02	6.796E-02	FAIL ABUN
PA-233	-1.205E-02	2.643E-02	2.190E-02	2.643E-02	NOT IDENT.
NP-236	1.613E-02	2.232E-02	1.744E-02	2.232E-02	NOT IDENT.
NP-239	5.413E-03	8.807E-02	7.637E-02	8.807E-02	NOT IDENT.
AM-241	-4.986E-03	3.780E-02	2.909E-02	3.780E-02	NOT IDENT.
CM-243	2.046E-02	3.283E-02	2.831E-02	3.283E-02	NOT IDENT.
AM-246	3.355E-02	5.570E-02	4.447E-02	5.570E-02	NOT IDENT.
CF-249	1.224E-02	1.656E-02	1.440E-02	1.656E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
59.54	350.3535
63.29	366.0136
74.66	479.1725
74.81	479.3227
74.81	479.3227
77.11	481.5875
77.11	481.5875
86.48	304.0161
87.30	334.9330
87.30	334.9330
92.58	338.1909
98.44	295.1036
103.76	293.5988
105.31	290.1633
129.07	336.8101
143.76	337.0706
198.00	263.4212
209.25	308.7134
228.18	271.5899
238.63	301.4453
242.00	327.5856
269.46	214.5372
270.25	214.6821
277.36	229.3506
295.22	209.4478
300.09	207.1436
312.17	203.3992
338.32	211.5964
351.93	185.1278
387.59	143.0074
409.46	147.1201
427.87	160.4859
463.00	102.4203
510.77	114.7159
583.19	84.0795
609.31	109.4333
661.66	108.1887
727.33	67.8932
763.13	90.8089
768.36	93.9908
785.37	56.3582
794.95	67.6723
806.17	80.1244
831.80	80.8786
860.56	10.3428
896.60	55.5025
911.20	57.8816
934.06	56.2012
964.77	60.6898
968.97	32.1731
1001.03	43.3320
1078.86	38.0223
1120.29	36.8744
1155.19	45.3301
1173.23	65.4877
1238.11	51.3178
1280.96	46.8652
1332.51	38.5699
1377.67	26.9967
1401.50	27.4237
1407.98	18.9907
1460.80	32.6224
1509.23	31.9473
1588.20	37.7417
1620.50	25.3320
1729.60	18.3454
1764.49	24.4473

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198324009

Total Uranium Activity	1.9428E-02	ug/g
Total Uranium Counting Unc.	6.5201E-02	ug/g
Total Uranium Tpu	6.5201E-08	ug/g
Total Uranium Mda	2.9705E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:18:22.60

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324010.CNF;1
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 30-NOV-2007 09:59:41
Sample ID        : G198324010           Sample quantity  : 1.27800E+02 GRAM
Detector name    : GAM13                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:03.81  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706245               Detector SN#     :
Matrix Spike ID  :                      LCS ID           :
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.73*	68	493	0.88	92.92	89	8	4.73E-03	68.6	
2	0	53.77*	35	414	1.48	107.00	103	7	2.43E-03	109.4	
3	1	59.84	55	331	0.84	119.15	117	14	3.79E-03	52.3	9.82E-01
4	1	63.32*	116	335	0.84	126.11	117	14	8.05E-03	38.7	
5	0	67.13*	65	561	1.40	133.75	131	8	4.51E-03	68.2	
6	2	74.83	266	470	0.98	149.16	143	15	1.85E-02	14.2	9.31E-01
7	2	77.18*	474	434	0.97	153.87	143	15	3.30E-02	9.1	
8	0	80.45*	8	506	1.87	160.41	158	7	5.38E-04	543.5	
9	2	84.18*	52	439	1.01	167.88	165	13	3.60E-03	75.6	1.02E+00
10	2	87.27	173	421	0.97	174.07	165	13	1.20E-02	20.3	
11	3	89.93	152	257	1.03	179.39	177	15	1.06E-02	16.4	2.85E+00
12	3	92.67*	247	437	1.12	184.87	177	15	1.72E-02	22.7	
13	0	98.92*	100	393	1.20	197.37	194	8	6.96E-03	38.6	
14	0	105.17*	21	293	0.56	209.90	208	5	1.47E-03	148.1	
15	0	128.26	58	418	1.55	256.12	254	8	4.06E-03	61.6	
16	0	143.58*	38	384	0.86	286.79	283	8	2.65E-03	100.4	
17	0	185.83*	42	436	0.99	371.34	366	9	2.94E-03	111.3	
18	0	205.62*	10	317	0.99	410.96	407	8	6.87E-04	343.0	
19	0	209.31	92	297	1.12	418.34	415	8	6.42E-03	34.0	
20	3	238.66*	612	284	1.08	477.09	473	22	4.25E-02	6.7	6.99E-01
21	3	241.76	148	324	1.51	483.29	473	22	1.03E-02	24.5	
22	0	270.64	48	318	1.82	541.10	535	10	3.30E-03	71.8	
23	0	276.63	39	196	1.50	553.10	551	6	2.69E-03	59.1	
24	0	295.16*	175	268	1.25	590.19	586	9	1.21E-02	19.6	
25	0	328.46	20	250	1.03	656.84	651	9	1.42E-03	141.1	
26	0	338.54*	81	267	1.10	677.02	672	9	5.61E-03	41.7	
27	0	351.90*	299	229	1.13	703.74	699	10	2.08E-02	11.8	
28	0	356.20*	7	168	1.09	712.35	709	8	5.18E-04	362.8	
29	0	463.28	90	238	1.50	926.66	921	13	6.23E-03	37.1	
30	0	510.96*	130	227	2.18	1022.09	1014	18	9.01E-03	35.2	
31	0	565.16	38	78	2.32	1130.56	1127	8	2.61E-03	44.3	
32	0	568.81*	30	97	1.98	1137.86	1134	8	2.11E-03	68.2	
33	6	582.93*	207	104	1.77	1166.12	1159	18	1.44E-02	13.4	1.71E+00
34	6	586.49	24	86	2.07	1173.24	1159	18	1.65E-03	68.6	
35	0	601.51	55	149	1.82	1203.29	1197	12	3.79E-03	47.5	
36	0	609.36*	169	230	1.53	1219.01	1212	13	1.17E-02	21.0	
37	0	661.70	430	205	1.33	1323.75	1316	13	2.99E-02	8.4	
38	0	728.49*	0	119	2.10	1457.40	1450	12	4.74E-06	*****	
39	0	794.73	52	87	3.59	1589.94	1583	12	3.61E-03	38.5	

Sample ID : G198324010 Acquisition date : 30-NOV-2007 09:59:41

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
40	0	807.63	16	73	0.70	1615.76	1611	9	1.11E-03	99.2	
41	0	860.77	24	63	1.03	1722.08	1718	8	1.69E-03	60.4	
42	0	910.86*	138	111	2.20	1822.29	1814	17	9.59E-03	21.5	
43	0	969.14	98	110	1.64	1938.90	1933	15	6.83E-03	25.8	
44	0	1001.84*	94	90	3.37	2004.33	1994	22	6.54E-03	29.9	
45	0	1120.07	76	55	1.68	2240.86	2236	12	5.29E-03	22.5	
46	0	1221.92	43	59	4.47	2444.60	2437	16	3.01E-03	42.6	
47	0	1243.19	23	83	6.32	2487.15	2471	18	1.63E-03	94.6	
48	0	1460.62	243	42	2.29	2922.07	2914	15	1.69E-02	8.6	
49	6	1558.16	13	2	1.43	3117.15	3115	16	9.29E-04	29.5	8.97E-01
50	6	1562.14	22	2	2.99	3125.10	3115	16	1.50E-03	28.1	
51	0	1764.23*	41	6	2.01	3529.26	3524	11	2.85E-03	25.8	
52	0	1863.57	14	3	3.95	3727.90	3721	13	9.72E-04	37.5	
53	0	1919.22	23	0	4.84	3839.17	3832	15	1.60E-03	20.9	
54	0	1936.32	16	8	4.96	3873.38	3863	16	1.11E-03	46.8	
55	0	1950.28	6	4	1.57	3901.28	3897	8	4.17E-04	70.7	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324010       *
* Acquisition date : 30-NOV-2007 09:59:41 Detector SN#    :                 *
* Detector ID      : GAM13                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:03.81     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324010           Analyst initials: MJH1            *
* Batch Number     : 706245               Sample Quantity : 1.2780E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  2-JUL-2007 15:48:48 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.163E+00	5.611E-01	4.053E-01	0.000E+00
CS-137	3.609E-01	6.584E-02	5.037E-02	0.000E+00
EU-155	2.055E-02	5.968E-02	8.265E-02	0.000E+00
TL-208	1.560E-01	4.247E-02	4.057E-02	0.000E+00
BI-212	4.475E-04	3.302E-01	3.263E-01	0.000E+00
PB-212	4.307E-01	6.325E-02	5.604E-02	0.000E+00
PB-214	3.277E-01	7.761E-02	7.448E-02	0.000E+00
RA-223	1.159E-01	1.633E-01	1.701E-01	0.000E+00
AC-228	5.026E-01	2.144E-01	1.643E-01	0.000E+00
PA-234M	1.141E+01	6.716E+00	4.979E+00	0.000E+00
TH-234	8.921E-01	4.026E-01	3.188E-01	0.000E+00
U-235	7.843E-02	1.545E-01	1.750E-01	0.000E+00
NP-236	5.219E-02	3.973E-02	4.376E-02	0.000E+00
NP-237	2.703E-01	1.095E-01	1.499E-01	0.000E+00
AM-241	2.930E-02	3.012E-02	4.728E-02	0.000E+00
AM-243	7.449E-02	2.158E-02	2.764E-02	0.000E+00
CM-243	1.861E-02	5.404E-02	7.280E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
CO-60	1.852E-02	2.930E-02	5.148E-02	0.000E+00	NOT IDENT.
RH-101	-1.720E-02	2.132E-02	3.147E-02	0.000E+00	NOT IDENT.
SB-125	4.318E-02	6.328E-02	1.109E-01	0.000E+00	NOT IDENT.
PO-209	-1.376E+00	5.308E+00	8.584E+00	0.000E+00	NOT IDENT.
BI-211	-5.206E-01	7.385E-01	1.164E+00	0.000E+00	NOT IDENT.
BI-214	0.000E+00	1.014E-01	1.296E-01	0.000E+00	FAIL ABUN
PA-233	1.272E-03	3.876E-02	6.787E-02	0.000E+00	NOT IDENT.
NP-239	6.618E-02	1.255E-01	2.156E-01	0.000E+00	NOT IDENT.
AM-246	-5.492E-02	1.005E-01	1.630E-01	0.000E+00	NOT IDENT.
CF-249	-1.363E-03	2.618E-02	4.467E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:18:23.61

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324010.CNF;1
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 30-NOV-2007 09:59:41
Sample ID        : G198324010           Sample quantity  : 1.27800E+02 GRAM
Detector name    : GAM13                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:03.81  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706245               Detector SN#     :
Matrix Spike ID  :                      LCS ID           :
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	243	10.66*	1.061E+00	3.163E+00	3.163E+00	18.10
CS-137	661.66	430	85.10*	2.063E+00	3.596E-01	3.609E-01	18.62
EU-155	105.31	21	21.20*	7.311E+00	2.011E-02	2.055E-02	296.35
TL-208	277.36	39	6.31	4.324E+00	2.088E-01	2.088E-01	118.31
	510.77	130	22.60	2.590E+00	3.255E-01	3.255E-01	70.74
	583.19	207	84.50*	2.306E+00	1.560E-01	1.560E-01	27.78
	763.13	------	1.81	1.821E+00	------	Line Not Found	------
	860.56	24	12.42	1.641E+00	1.748E-01	1.748E-01	121.04
BI-212	727.33	0	11.80*	1.897E+00	4.475E-04	4.475E-04	75289.82
	785.37	------	1.10	1.777E+00	------	Line Not Found	------
	1620.50	------	1.49	9.772E-01	------	Line Not Found	------
PB-212	74.81	266	10.40	7.694E+00	4.885E-01	4.885E-01	29.57
	77.11	474	17.50	7.684E+00	5.183E-01	5.183E-01	19.77
	87.30	173	7.81	7.592E+00	4.292E-01	4.292E-01	41.32
	238.63	612	43.30*	4.823E+00	4.307E-01	4.307E-01	14.98
	300.09	------	3.28	4.058E+00	------	Line Not Found	------
PB-214	74.81	266	6.44	7.694E+00	7.889E-01	7.889E-01	29.57
	77.11	474	10.80	7.684E+00	8.398E-01	8.398E-01	19.77
	87.30	173	4.84	7.592E+00	6.925E-01	6.926E-01	41.32
	242.00	148	7.43	4.778E+00	6.109E-01	6.110E-01	49.38
	295.22	175	19.30	4.112E+00	3.238E-01	3.238E-01	39.64
	351.93	299	37.60*	3.567E+00	3.277E-01	3.277E-01	24.17
RA-223	269.46	48	13.70*	4.396E+00	1.159E-01	1.159E-01	143.73
AC-228	129.07	58	2.42	6.848E+00	5.179E-01	5.179E-01	123.58
	209.25	92	3.89	5.277E+00	6.614E-01	6.614E-01	68.30
	270.25	48	3.46	4.396E+00	4.591E-01	4.591E-01	143.73
	338.32	81	11.27	3.683E+00	2.858E-01	2.858E-01	83.51
	409.46	------	1.92	3.139E+00	------	Line Not Found	------
	463.00	90	4.40	2.821E+00	1.061E+00	1.061E+00	74.50
	794.95	52	4.25	1.758E+00	1.021E+00	1.021E+00	77.34
	911.20	138	25.80*	1.564E+00	5.026E-01	5.026E-01	43.52
	964.77	------	4.99	1.490E+00	------	Line Not Found	------

Sample ID : G198324010 Acquisition date : 30-NOV-2007 09:59:41

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	968.97	98	15.80	1.484E+00	6.162E-01	6.162E-01	51.95
	1588.20	------	3.22	9.927E-01	------	Line Not Found	------
PA-234M	1001.03	94	0.84*	1.443E+00	1.141E+01	1.141E+01	60.04
TH-234	63.29	116	4.80	7.666E+00	4.628E-01	4.628E-01	77.72
	92.58	247	5.41*	7.520E+00	8.921E-01	8.921E-01	46.04
U-235	143.76	38	10.96*	6.526E+00	7.843E-02	7.843E-02	201.05
NP-236	98.44	100	38.00*	7.422E+00	5.219E-02	5.219E-02	77.69
NP-237	86.48	173	12.40*	7.592E+00	2.703E-01	2.703E-01	41.32
AM-241	59.54	55	35.90*	7.624E+00	2.930E-02	2.930E-02	104.89
AM-243	74.66	266	68.20*	7.694E+00	7.449E-02	7.449E-02	29.57
CM-243	103.76	21	23.00*	7.311E+00	1.854E-02	1.861E-02	296.35

Flag: "*" = Keyline

Sample ID : G198324010 Acquisition date : 30-NOV-2007 09:59:41

Total number of lines in spectrum 55
Number of unidentified lines 22
Number of lines tentatively identified by NID 33 60.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	3.163E+00	3.163E+00	0.573E+00	18.10	
CS-137	9.47E+08S	1.00	3.596E-01	3.609E-01	0.672E-01	18.62	
EU-155	1.57E+08S	1.02	2.011E-02	2.055E-02	6.090E-02	296.35	
TL-208	4.43E+17S	1.00	1.560E-01	1.560E-01	0.433E-01	27.78	
BI-212	4.43E+17S	1.00	4.475E-04	4.475E-04	3369.E-04	75289.82	
PB-212	4.43E+17S	1.00	4.307E-01	4.307E-01	0.645E-01	14.98	
PB-214	5.05E+10S	1.00	3.277E-01	3.277E-01	0.792E-01	24.17	
RA-223	1.04E+12S	1.00	1.159E-01	1.159E-01	1.667E-01	143.73	
AC-228	4.43E+17S	1.00	5.026E-01	5.026E-01	2.188E-01	43.52	
PA-234M	1.41E+17S	1.00	1.141E+01	1.141E+01	0.685E+01	60.04	
TH-234	1.41E+17S	1.00	8.921E-01	8.921E-01	4.108E-01	46.04	
U-235	2.22E+16S	1.00	7.843E-02	7.843E-02	15.77E-02	201.05	
NP-236	4.89E+12S	1.00	5.219E-02	5.219E-02	4.055E-02	77.69	
NP-237	6.75E+13S	1.00	2.703E-01	2.703E-01	1.117E-01	41.32	
AM-241	1.36E+10S	1.00	2.930E-02	2.930E-02	3.074E-02	104.89	
AM-243	2.33E+11S	1.00	7.449E-02	7.449E-02	2.203E-02	29.57	
CM-243	8.99E+08S	1.00	1.854E-02	1.861E-02	5.514E-02	296.35	
			---	---			
	Total Activity :		1.791E+01	1.791E+01			

Grand Total Activity : 1.791E+01 1.791E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G198324010 Acquisition date : 30-NOV-2007 09:59:41

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.73	68	493	0.88	92.92	89	8	4.73E-03	****	7.27E+00	
0	53.77	35	414	1.48	107.00	103	7	2.43E-03	****	7.50E+00	
0	67.13	65	561	1.40	133.75	131	8	4.51E-03	****	7.69E+00	
0	80.45	8	506	1.87	160.41	158	7	5.38E-04	****	7.66E+00	
2	84.18	52	439	1.01	167.88	165	13	3.60E-03	****	7.63E+00	
3	89.93	152	257	1.03	179.39	177	15	1.06E-02	32.7	7.56E+00	
0	185.83	42	436	0.99	371.34	366	9	2.94E-03	****	5.69E+00	
0	205.62	10	317	0.99	410.96	407	8	6.87E-04	****	5.34E+00	
0	328.46	20	250	1.03	656.84	651	9	1.42E-03	****	3.77E+00	
0	356.20	7	168	1.09	712.35	709	8	5.18E-04	****	3.53E+00	
0	565.16	38	78	2.32	1130.56	1127	8	2.61E-03	88.6	2.37E+00	
0	568.81	30	97	1.98	1137.86	1134	8	2.11E-03	****	2.36E+00	
6	586.49	24	86	2.07	1173.24	1159	18	1.65E-03	****	2.29E+00	
0	601.51	55	149	1.82	1203.29	1197	12	3.79E-03	95.0	2.24E+00	
0	609.36	169	230	1.53	1219.01	1212	13	1.17E-02	42.0	2.22E+00	T
0	807.63	16	73	0.70	1615.76	1611	9	1.11E-03	****	1.73E+00	T
0	1120.07	76	55	1.68	2240.86	2236	12	5.29E-03	45.0	1.31E+00	T
0	1221.92	43	59	4.47	2444.60	2437	16	3.01E-03	85.2	1.22E+00	
0	1243.19	23	83	6.32	2487.15	2471	18	1.63E-03	****	1.21E+00	
6	1558.16	13	2	1.43	3117.15	3115	16	9.29E-04	59.0	1.01E+00	
6	1562.14	22	2	2.99	3125.10	3115	16	1.50E-03	56.1	1.01E+00	
0	1764.23	41	6	2.01	3529.26	3524	11	2.85E-03	51.6	9.14E-01	T
0	1863.57	14	3	3.95	3727.90	3721	13	9.72E-04	75.0	8.76E-01	
0	1919.22	23	0	4.84	3839.17	3832	15	1.60E-03	41.7	8.57E-01	
0	1936.32	16	8	4.96	3873.38	3863	16	1.11E-03	93.5	8.51E-01	
0	1950.28	6	4	1.57	3901.28	3897	8	4.17E-04	****	8.46E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G198324010            *
* Acquisition date : 30-NOV-2007 09:59:41 Detector SN#    :                 *
* Detector ID      : GAM13                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:03.81     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324010           Analyst initials: MJH1            *
* Batch Number     : 706245               Sample Quantity : 1.2780E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME :  2-JUL-2007 15:48:48 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	3.163E+00	5.611E-01	2.028E-01	5.611E-01
CS-137	3.609E-01	6.584E-02	2.520E-02	6.584E-02
EU-155	2.055E-02	5.968E-02	4.135E-02	5.968E-02
TL-208	1.560E-01	4.247E-02	2.030E-02	4.247E-02
BI-212	4.475E-04	3.302E-01	1.632E-01	3.302E-01
PB-212	4.307E-01	6.325E-02	2.804E-02	6.325E-02
PB-214	3.277E-01	7.761E-02	3.726E-02	7.761E-02
RA-223	1.159E-01	1.633E-01	8.510E-02	1.633E-01
AC-228	5.026E-01	2.144E-01	8.221E-02	2.144E-01
PA-234M	1.141E+01	6.716E+00	2.491E+00	6.716E+00
TH-234	8.921E-01	4.026E-01	1.595E-01	4.026E-01
U-235	7.843E-02	1.545E-01	8.758E-02	1.545E-01
NP-236	5.219E-02	3.973E-02	2.189E-02	3.973E-02
NP-237	2.703E-01	1.095E-01	7.500E-02	1.095E-01
AM-241	2.930E-02	3.012E-02	2.365E-02	3.012E-02
AM-243	7.449E-02	2.158E-02	1.383E-02	2.158E-02
CM-243	1.861E-02	5.404E-02	3.642E-02	5.404E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	1.852E-02	2.930E-02	2.576E-02	2.930E-02	NOT IDENT.
RH-101	-1.720E-02	2.132E-02	1.574E-02	2.132E-02	NOT IDENT.
SB-125	4.318E-02	6.328E-02	5.550E-02	6.328E-02	NOT IDENT.
PO-209	-1.376E+00	5.308E+00	4.295E+00	5.308E+00	NOT IDENT.
BI-211	-5.206E-01	7.385E-01	5.822E-01	7.385E-01	NOT IDENT.
BI-214	2.428E-01	1.014E-01	6.483E-02	1.014E-01	FAIL ABUN
PA-233	1.272E-03	3.876E-02	3.395E-02	3.876E-02	NOT IDENT.
NP-239	6.618E-02	1.255E-01	1.078E-01	1.255E-01	NOT IDENT.
AM-246	-5.492E-02	1.005E-01	8.156E-02	1.005E-01	NOT IDENT.
CF-249	-1.363E-03	2.618E-02	2.235E-02	2.618E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
59.54	325.7262
63.29	336.8060
74.66	412.4866
74.81	412.6967
74.81	412.6967
77.11	415.9132
77.11	415.9132
86.48	393.2540
87.30	394.2371
87.30	394.2371
92.58	332.0087
98.44	301.7249
103.76	296.5771
105.31	311.0883
129.07	306.0528
143.76	312.9489
198.00	306.6162
209.25	269.0817
228.18	245.9133
238.63	277.8630
242.00	279.1366
269.46	215.1241
270.25	215.3355
277.36	230.6119
295.22	230.9297
300.09	251.1187
312.17	215.8079
338.32	232.3584
351.93	204.7225
387.59	195.5029
409.46	154.3547
427.87	165.0969
463.00	165.5673
510.77	140.5883
583.19	130.2041
609.31	155.9846
661.66	162.5244
727.33	112.2086
763.13	140.0375
768.36	117.6933
785.37	99.9492
794.95	101.1177
806.17	117.4408
831.80	108.5854
860.56	94.9287
896.60	93.1742
911.20	92.8484
934.06	77.0475
964.77	78.9756
968.97	111.1315
1001.03	77.2740
1078.86	94.3516
1120.29	73.8344
1155.19	71.7194
1173.23	71.1507
1238.11	68.5593
1280.96	57.9272
1332.51	67.4271
1377.67	52.0762
1401.50	43.0785
1407.98	48.7881
1460.80	45.0071
1509.23	33.7891
1588.20	46.3394
1620.50	27.8379
1729.60	19.4089
1764.49	32.9621

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198324010

Total Uranium Activity	3.6290E-02	ug/g
Total Uranium Counting Unc.	7.1504E-02	ug/g
Total Uranium Tpu	7.1504E-08	ug/g
Total Uranium Mda	4.0521E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:18:57.03

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324011.CNF;1
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 30-NOV-2007 10:00:43
Sample ID        : G198324011           Sample quantity  : 1.10980E+02 GRAM
Detector name    : GAM14                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.38  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706245               Detector SN#     :
Matrix Spike ID  :                      LCS ID           :
*****************************************************************************
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Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.53*	6	479	1.04	127.02	121	12	4.50E-04	706.7	
2	2	74.81*	251	380	1.68	149.58	142	20	1.74E-02	17.7	2.59E+00
3	2	77.25*	342	300	1.39	154.45	142	20	2.38E-02	11.7	
4	2	83.73*	88	360	1.69	167.41	162	31	6.13E-03	42.9	1.38E+00
5	2	87.32*	134	346	1.70	174.59	162	31	9.30E-03	28.8	
6	2	89.78	92	269	1.41	179.50	162	31	6.40E-03	34.4	
7	2	92.78*	160	321	1.71	185.50	162	31	1.11E-02	26.0	
8	0	129.30	42	270	0.77	258.52	255	9	2.92E-03	72.2	
9	0	185.59*	148	331	1.59	371.07	364	13	1.03E-02	29.1	
10	0	214.32	42	142	1.13	428.52	426	7	2.91E-03	49.5	
11	0	227.26	36	156	1.40	454.39	451	8	2.50E-03	62.4	
12	2	238.43*	627	162	1.40	476.72	468	22	4.35E-02	6.1	8.72E-01
13	2	241.41	200	224	1.88	482.69	468	22	1.39E-02	19.1	
14	0	270.26	77	199	1.98	540.36	534	13	5.35E-03	39.6	
15	0	295.17	189	136	1.46	590.18	585	10	1.32E-02	13.6	
16	0	300.27	59	146	2.02	600.38	596	11	4.09E-03	41.8	
17	0	328.28	29	197	0.72	656.37	652	11	2.00E-03	96.8	
18	0	338.42*	102	177	1.75	676.67	671	11	7.10E-03	29.0	
19	0	351.80*	231	188	1.21	703.43	697	12	1.60E-02	14.4	
20	0	384.31	44	102	0.87	768.43	762	11	3.09E-03	46.4	
21	0	462.66	44	92	0.81	925.11	920	11	3.04E-03	45.3	
22	0	499.71	57	127	7.40	999.22	988	19	3.93E-03	49.8	
23	0	511.11*	9	186	2.16	1022.01	1014	17	6.21E-04	435.3	
24	0	568.68*	77	71	1.70	1137.15	1130	15	5.32E-03	30.6	
25	0	583.24*	182	80	1.38	1166.28	1160	12	1.26E-02	13.4	
26	0	609.53*	227	105	1.83	1218.86	1211	18	1.58E-02	13.0	
27	0	661.77*	387	124	1.40	1323.35	1315	16	2.69E-02	8.7	
28	0	727.45	61	55	0.81	1454.72	1447	13	4.27E-03	28.0	
29	1	763.42	22	41	2.02	1526.68	1517	38	1.51E-03	61.3	1.59E+00
30	1	768.08	30	36	1.84	1536.00	1517	38	2.10E-03	42.1	
31	1	775.58	23	27	1.84	1551.00	1517	38	1.62E-03	44.8	
32	1	780.15	35	30	2.03	1560.13	1555	21	2.42E-03	32.1	1.16E+00
33	1	785.26	23	36	2.03	1570.37	1555	21	1.61E-03	55.6	
34	0	794.49*	25	49	1.28	1588.83	1582	13	1.73E-03	66.3	
35	0	815.81	44	35	4.18	1631.46	1622	18	3.09E-03	34.9	
36	0	836.02	30	25	2.49	1671.90	1667	9	2.10E-03	34.8	
37	0	860.63	55	28	2.43	1721.13	1715	11	3.85E-03	22.7	
38	0	887.10	22	34	1.57	1774.08	1766	13	1.50E-03	60.7	

Sample ID : G198324011 Acquisition date : 30-NOV-2007 10:00:43

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	892.40	23	23	4.48	1784.70	1779	13	1.60E-03	47.6	
40	0	911.52	139	80	2.03	1822.95	1813	16	9.65E-03	16.7	
41	0	964.95*	24	33	1.80	1929.84	1926	9	1.67E-03	51.2	
42	0	969.49*	83	31	1.54	1938.91	1934	14	5.74E-03	20.0	
43	0	1001.94	31	21	3.23	2003.85	1996	12	2.17E-03	34.3	
44	8	1043.58	18	15	2.74	2087.16	2083	26	1.27E-03	41.8	2.22E+00
45	8	1048.46	20	24	2.40	2096.91	2083	26	1.36E-03	58.9	
46	8	1052.71	18	11	1.76	2105.42	2083	26	1.28E-03	36.9	
47	0	1121.54*	58	33	1.76	2243.14	2236	17	4.02E-03	28.6	
48	0	1143.60	17	19	1.39	2287.29	2284	10	1.20E-03	51.5	
49	0	1205.13	36	64	5.41	2410.40	2396	28	2.52E-03	64.2	
50	0	1212.83	9	15	0.98	2425.81	2423	7	6.02E-04	80.4	
51	0	1238.09	31	27	2.32	2476.36	2469	12	2.15E-03	38.0	
52	0	1317.44	25	21	5.26	2635.15	2628	16	1.77E-03	44.2	
53	0	1460.98*	234	39	1.94	2922.43	2914	16	1.63E-02	9.3	
54	7	1530.90	26	3	2.80	3062.37	3053	17	1.78E-03	26.0	1.67E+00
55	7	1533.20	7	0	2.20	3066.97	3053	17	5.12E-04	47.1	
56	0	1549.78	9	17	4.93	3100.16	3085	17	6.54E-04	105.2	
57	0	1590.49	12	22	2.28	3181.64	3170	13	8.32E-04	86.7	
58	0	1592.92	7	12	1.30	3186.51	3182	9	5.04E-04	91.7	
59	0	1621.60	18	7	5.84	3243.93	3236	16	1.27E-03	41.4	
60	0	1628.30*	9	6	0.59	3257.33	3252	11	6.05E-04	82.0	
61	0	1717.45	19	0	4.11	3435.79	3429	14	1.32E-03	22.9	
62	0	1730.14	24	11	2.04	3461.19	3452	15	1.64E-03	37.2	
63	0	1765.33*	35	20	2.55	3531.65	3523	19	2.41E-03	37.1	
64	0	1785.55	12	3	4.13	3572.12	3566	12	8.22E-04	41.4	
65	0	1935.06	9	2	1.32	3871.46	3867	9	6.28E-04	44.3	
66	0	1995.73	10	2	2.21	3992.93	3989	8	6.80E-04	40.9	
67	0	2026.09	7	2	0.53	4053.72	4049	9	4.90E-04	53.1	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324011       *
* Acquisition date : 30-NOV-2007 10:00:43 Detector SN#    :                 *
* Detector ID      : GAM14                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:01.38     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324011           Analyst initials: MJH1            *
* Batch Number     : 706245               Sample Quantity : 1.1098E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  7-MAR-2007 18:40:51 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.020E+00	5.723E-01	3.447E-01	0.000E+00
CS-137	3.088E-01	5.742E-02	3.002E-02	0.000E+00
TL-208	1.300E-01	3.527E-02	2.963E-02	0.000E+00
BI-212	3.831E-01	2.123E-01	2.069E-01	0.000E+00
PB-212	4.336E-01	5.826E-02	4.640E-02	0.000E+00
BI-214	3.095E-01	8.217E-02	6.025E-02	0.000E+00
PB-214	2.459E-01	7.080E-02	5.642E-02	0.000E+00
RA-223	1.842E-01	1.435E-01	1.473E-01	0.000E+00
AC-228	4.877E-01	1.651E-01	1.039E-01	0.000E+00
PA-234M	3.682E+00	2.491E+00	3.513E+00	0.000E+00
TH-234	6.548E-01	3.372E-01	3.391E-01	0.000E+00
NP-237	2.469E-01	1.408E-01	1.536E-01	0.000E+00
NP-239	9.691E-02	1.186E-01	1.707E-01	0.000E+00
AM-243	9.734E-02	3.449E-02	3.294E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	6.173E-03		2.054E-02	3.546E-02	0.000E+00	NOT IDENT.
RH-101	-1.483E-04		1.888E-02	2.916E-02	0.000E+00	NOT IDENT.
SB-125	1.159E-02		5.253E-02	8.960E-02	0.000E+00	NOT IDENT.
EU-155	9.573E-03		4.816E-02	8.133E-02	0.000E+00	NOT IDENT.
PO-209	2.525E-01		3.780E+00	5.590E+00	0.000E+00	NOT IDENT.
BI-211	-9.824E-02		5.234E-01	7.481E-01	0.000E+00	NOT IDENT.
PA-233	-1.536E-02		3.368E-02	5.606E-02	0.000E+00	NOT IDENT.
U-235	3.590E-03		1.092E-01	1.689E-01	0.000E+00	NOT IDENT.
NP-236	1.646E-02		3.092E-02	4.672E-02	0.000E+00	NOT IDENT.
AM-241	2.466E-02		6.313E-02	8.968E-02	0.000E+00	NOT IDENT.
CM-243	1.197E-02		4.313E-02	7.311E-02	0.000E+00	NOT IDENT.
AM-246	4.286E-02		6.722E-02	1.203E-01	0.000E+00	NOT IDENT.
CF-249	-1.724E-03		2.431E-02	3.541E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:18:58.05

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324011.CNF;1
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 30-NOV-2007 10:00:43
Sample ID        : G198324011           Sample quantity  : 1.10980E+02 GRAM
Detector name    : GAM14                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.38  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706245               Detector SN#     :
Matrix Spike ID  :                      LCS ID           :
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	234	10.66*	1.230E+00	3.020E+00	3.020E+00	19.34
CS-137	661.66	387	85.10*	2.502E+00	3.077E-01	3.088E-01	18.97
TL-208	277.36	------	6.31	5.062E+00	------	Line Not Found	------
	510.77	9	22.60	3.127E+00	2.140E-02	2.140E-02	870.58
	583.19	182	84.50*	2.795E+00	1.300E-01	1.300E-01	27.67
	763.13	22	1.81	2.200E+00	9.223E-01	9.223E-01	122.81
	860.56	55	12.42	1.971E+00	3.827E-01	3.827E-01	46.32
BI-212	727.33	61	11.80*	2.299E+00	3.831E-01	3.831E-01	56.56
	785.37	23	1.10	2.144E+00	1.665E+00	1.665E+00	111.62
	1620.50	18	1.49	1.139E+00	1.817E+00	1.817E+00	82.98
PB-212	74.81	251	10.40	6.400E+00	6.383E-01	6.383E-01	36.16
	77.11	342	17.50	6.644E+00	4.981E-01	4.981E-01	24.52
	87.30	134	7.81	7.394E+00	3.920E-01	3.920E-01	58.18
	238.63	627	43.30*	5.647E+00	4.336E-01	4.336E-01	13.71
	300.09	59	3.28	4.771E+00	6.368E-01	6.368E-01	83.77
BI-214	609.31	227	46.10*	2.690E+00	3.095E-01	3.095E-01	27.09
	768.36	30	4.94	2.188E+00	4.738E-01	4.738E-01	84.57
	806.17	------	1.22	2.093E+00	------	Line Not Found	------
	934.06	------	3.03	1.826E+00	------	Line Not Found	------
	1120.29	58	15.10	1.543E+00	4.201E-01	4.201E-01	57.58
	1155.19	------	1.63	1.502E+00	------	Line Not Found	------
	1238.11	31	5.79	1.412E+00	6.419E-01	6.419E-01	76.24
	1280.96	------	1.43	1.371E+00	------	Line Not Found	------
	1377.67	------	4.00	1.289E+00	------	Line Not Found	------
	1401.50	------	1.27	1.271E+00	------	Line Not Found	------
	1407.98	------	2.15	1.266E+00	------	Line Not Found	------
	1509.23	------	2.11	1.199E+00	------	Line Not Found	------
	1729.60	24	2.92	1.093E+00	1.253E+00	1.253E+00	74.53
	1764.49	35	15.40	1.080E+00	3.534E-01	3.534E-01	74.42
PB-214	74.81	251	6.44	6.400E+00	1.031E+00	1.031E+00	36.16
	77.11	342	10.80	6.644E+00	8.071E-01	8.072E-01	24.52
	87.30	134	4.84	7.394E+00	6.326E-01	6.326E-01	58.18

Sample ID : G198324011 Acquisition date : 30-NOV-2007 10:00:43

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	242.00	200	7.43	5.598E+00	8.128E-01	8.129E-01	38.77
	295.22	189	19.30	4.833E+00	3.435E-01	3.435E-01	28.00
	351.93	231	37.60*	4.227E+00	2.459E-01	2.459E-01	29.38
RA-223	269.46	77	13.70*	5.160E+00	1.842E-01	1.842E-01	79.52
AC-228	129.07	42	2.42	7.832E+00	3.748E-01	3.748E-01	144.55
	209.25	------	3.89	6.173E+00	------	Line Not Found	------
	270.25	77	3.46	5.160E+00	7.292E-01	7.292E-01	79.52
	338.32	102	11.27	4.355E+00	3.522E-01	3.522E-01	58.23
	409.46	------	1.92	3.750E+00	------	Line Not Found	------
	463.00	44	4.40	3.396E+00	4.951E-01	4.951E-01	90.85
	794.95	25	4.25	2.121E+00	4.662E-01	4.662E-01	132.90
	911.20	139	25.80*	1.868E+00	4.877E-01	4.877E-01	34.55
	964.77	24	4.99	1.772E+00	4.593E-01	4.593E-01	102.76
	968.97	83	15.80	1.764E+00	5.015E-01	5.015E-01	40.97
	1588.20	------	3.22	1.156E+00	------	Line Not Found	------
PA-234M	1001.03	31	0.84*	1.711E+00	3.682E+00	3.682E+00	69.02
TH-234	63.29	6	4.80	4.909E+00	4.652E-02	4.652E-02	1413.49
	92.58	160	5.41*	7.650E+00	6.548E-01	6.548E-01	52.54
NP-237	86.48	134	12.40*	7.394E+00	2.469E-01	2.469E-01	58.18
NP-239	228.18	36	10.76*	5.839E+00	9.691E-02	9.691E-02	124.88
AM-243	74.66	251	68.20*	6.400E+00	9.734E-02	9.734E-02	36.16

Flag: "*" = Keyline

Sample ID : G198324011 Acquisition date : 30-NOV-2007 10:00:43

Total number of lines in spectrum 67
Number of unidentified lines 32
Number of lines tentatively identified by NID 35 52.24%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	3.020E+00	3.020E+00	0.584E+00	19.34	
CS-137	9.47E+08S	1.00	3.077E-01	3.088E-01	0.586E-01	18.97	
TL-208	4.43E+17S	1.00	1.300E-01	1.300E-01	0.360E-01	27.67	
BI-212	4.43E+17S	1.00	3.831E-01	3.831E-01	2.166E-01	56.56	
PB-212	4.43E+17S	1.00	4.336E-01	4.336E-01	0.594E-01	13.71	
BI-214	5.05E+10S	1.00	3.095E-01	3.095E-01	0.838E-01	27.09	
PB-214	5.05E+10S	1.00	2.459E-01	2.459E-01	0.722E-01	29.38	
RA-223	1.04E+12S	1.00	1.842E-01	1.842E-01	1.464E-01	79.52	
AC-228	4.43E+17S	1.00	4.877E-01	4.877E-01	1.685E-01	34.55	
PA-234M	1.41E+17S	1.00	3.682E+00	3.682E+00	2.542E+00	69.02	
TH-234	1.41E+17S	1.00	6.548E-01	6.548E-01	3.441E-01	52.54	
NP-237	6.75E+13S	1.00	2.469E-01	2.469E-01	1.437E-01	58.18	
NP-239	2.33E+11S	1.00	9.691E-02	9.691E-02	12.10E-02	124.88	
AM-243	2.33E+11S	1.00	9.734E-02	9.734E-02	3.519E-02	36.16	
			---	---			
	Total Activity :		1.028E+01	1.028E+01			

Grand Total Activity : 1.028E+01 1.028E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G198324011 Acquisition date : 30-NOV-2007 10:00:43

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
2	83.73	88	360	1.69	167.41	162	31	6.13E-03	85.8	7.17E+00	
2	89.78	92	269	1.41	179.50	162	31	6.40E-03	68.7	7.52E+00	
0	185.59	148	331	1.59	371.07	364	13	1.03E-02	58.2	6.66E+00	
0	214.32	42	142	1.13	428.52	426	7	2.91E-03	99.1	6.08E+00	
0	328.28	29	197	0.72	656.37	652	11	2.00E-03	****	4.46E+00	
0	384.31	44	102	0.87	768.43	762	11	3.09E-03	92.9	3.94E+00	
0	499.71	57	127	7.40	999.22	988	19	3.93E-03	99.6	3.19E+00	
0	568.68	77	71	1.70	1137.15	1130	15	5.32E-03	61.2	2.86E+00	
1	775.58	23	27	1.84	1551.00	1517	38	1.62E-03	89.5	2.17E+00	
1	780.15	35	30	2.03	1560.13	1555	21	2.42E-03	64.3	2.16E+00	
0	815.81	44	35	4.18	1631.46	1622	18	3.09E-03	69.8	2.07E+00	
0	836.02	30	25	2.49	1671.90	1667	9	2.10E-03	69.5	2.02E+00	
0	887.10	22	34	1.57	1774.08	1766	13	1.50E-03	****	1.92E+00	
0	892.40	23	23	4.48	1784.70	1779	13	1.60E-03	95.2	1.91E+00	
8	1043.58	18	15	2.74	2087.16	2083	26	1.27E-03	83.6	1.65E+00	
8	1048.46	20	24	2.40	2096.91	2083	26	1.36E-03	****	1.64E+00	
8	1052.71	18	11	1.76	2105.42	2083	26	1.28E-03	73.7	1.63E+00	
0	1143.60	17	19	1.39	2287.29	2284	10	1.20E-03	****	1.52E+00	
0	1205.13	36	64	5.41	2410.40	2396	28	2.52E-03	****	1.45E+00	
0	1212.83	9	15	0.98	2425.81	2423	7	6.02E-04	****	1.44E+00	
0	1317.44	25	21	5.26	2635.15	2628	16	1.77E-03	88.3	1.34E+00	
7	1530.90	26	3	2.80	3062.37	3053	17	1.78E-03	51.9	1.19E+00	
7	1533.20	7	0	2.20	3066.97	3053	17	5.12E-04	94.2	1.19E+00	
0	1549.78	9	17	4.93	3100.16	3085	17	6.54E-04	****	1.18E+00	
0	1590.49	12	22	2.28	3181.64	3170	13	8.32E-04	****	1.15E+00	
0	1592.92	7	12	1.30	3186.51	3182	9	5.04E-04	****	1.15E+00	
0	1628.30	9	6	0.59	3257.33	3252	11	6.05E-04	****	1.14E+00	
0	1717.45	19	0	4.11	3435.79	3429	14	1.32E-03	45.9	1.10E+00	
0	1785.55	12	3	4.13	3572.12	3566	12	8.22E-04	82.8	1.07E+00	
0	1935.06	9	2	1.32	3871.46	3867	9	6.28E-04	88.6	1.03E+00	
0	1995.73	10	2	2.21	3992.93	3989	8	6.80E-04	81.7	1.02E+00	
0	2026.09	7	2	0.53	4053.72	4049	9	4.90E-04	****	1.01E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G198324011            *
* Acquisition date : 30-NOV-2007 10:00:43 Detector SN#    :                 *
* Detector ID      : GAM14                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:01.38     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324011           Analyst initials: MJH1            *
* Batch Number     : 706245               Sample Quantity : 1.1098E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME :  7-MAR-2007 18:40:51 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	3.020E+00	5.723E-01	1.724E-01	5.723E-01
CS-137	3.088E-01	5.742E-02	1.502E-02	5.742E-02
TL-208	1.300E-01	3.527E-02	1.482E-02	3.527E-02
BI-212	3.831E-01	2.123E-01	1.035E-01	2.123E-01
PB-212	4.336E-01	5.826E-02	2.321E-02	5.826E-02
BI-214	3.095E-01	8.217E-02	3.014E-02	8.217E-02
PB-214	2.459E-01	7.080E-02	2.823E-02	7.080E-02
RA-223	1.842E-01	1.435E-01	7.369E-02	1.435E-01
AC-228	4.877E-01	1.651E-01	5.200E-02	1.651E-01
PA-234M	3.682E+00	2.491E+00	1.757E+00	2.491E+00
TH-234	6.548E-01	3.372E-01	1.697E-01	3.372E-01
NP-237	2.469E-01	1.408E-01	7.683E-02	1.408E-01
NP-239	9.691E-02	1.186E-01	8.541E-02	1.186E-01
AM-243	9.734E-02	3.449E-02	1.648E-02	3.449E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	6.173E-03	2.054E-02	1.774E-02	2.054E-02	NOT IDENT.
RH-101	-1.483E-04	1.888E-02	1.459E-02	1.888E-02	NOT IDENT.
SB-125	1.159E-02	5.253E-02	4.483E-02	5.253E-02	NOT IDENT.
EU-155	9.573E-03	4.816E-02	4.069E-02	4.816E-02	NOT IDENT.
PO-209	2.525E-01	3.780E+00	2.796E+00	3.780E+00	NOT IDENT.
BI-211	-9.824E-02	5.234E-01	3.743E-01	5.234E-01	NOT IDENT.
PA-233	-1.536E-02	3.368E-02	2.805E-02	3.368E-02	NOT IDENT.
U-235	3.590E-03	1.092E-01	8.450E-02	1.092E-01	NOT IDENT.
NP-236	1.646E-02	3.092E-02	2.338E-02	3.092E-02	NOT IDENT.
AM-241	2.466E-02	6.313E-02	4.487E-02	6.313E-02	NOT IDENT.
CM-243	1.197E-02	4.313E-02	3.658E-02	4.313E-02	NOT IDENT.
AM-246	4.286E-02	6.722E-02	6.021E-02	6.722E-02	NOT IDENT.
CF-249	-1.724E-03	2.431E-02	1.772E-02	2.431E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
59.54	253.8716
63.29	310.4295
74.66	321.1641
74.81	321.2112
74.81	321.2112
77.11	321.9321
77.11	321.9321
86.48	306.2552
87.30	306.4818
87.30	306.4818
92.58	307.9171
98.44	273.7550
103.76	263.6464
105.31	272.5280
129.07	252.4597
143.76	281.4258
198.00	249.9556
209.25	273.0460
228.18	181.6358
238.63	204.2520
242.00	204.5903
269.46	173.3490
270.25	173.4119
277.36	176.0986
295.22	123.8872
300.09	100.2717
312.17	176.6148
338.32	160.0714
351.93	128.4168
387.59	136.7359
409.46	151.4229
427.87	131.3374
463.00	98.0555
510.77	106.0591
583.19	78.8727
609.31	90.0323
661.66	65.5080
727.33	50.9391
763.13	55.0427
768.36	55.1086
785.37	42.4156
794.95	57.0297
806.17	59.2917
831.80	44.7227
860.56	52.5034
896.60	38.8686
911.20	40.7464
934.06	43.7932
964.77	50.9059
968.97	11.5046
1001.03	41.4839
1078.86	35.2427
1120.29	37.2002
1155.19	42.6763
1173.23	37.8315
1238.11	34.5117
1280.96	25.3428
1332.51	25.5534
1377.67	26.7638
1401.50	27.8954
1407.98	31.0254
1460.80	33.3568
1509.23	23.0957
1588.20	38.2192
1620.50	16.4531
1729.60	18.5512
1764.49	16.7720

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198324011

Total Uranium Activity	1.6613E-03	ug/g
Total Uranium Counting Unc.	5.0532E-02	ug/g
Total Uranium Tpu	5.0532E-08	ug/g
Total Uranium Mda	3.9096E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:19:31.94

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324012.CNF;2
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 30-NOV-2007 10:01:27
Sample ID        : G198324012           Sample quantity  : 1.16480E+02 GRAM
Detector name    : GAM16                Detector geometry: CAN
Elapsed live time: 0 06:00:00.00        Elapsed real time: 0 06:00:01.83  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706245               Detector SN#     :
Matrix Spike ID  :                      LCS ID           :
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.30*	47	521	1.87	92.82	89	9	2.17E-03	100.5	
2	0	63.73*	6	914	0.92	127.68	122	12	3.01E-04	997.5	
3	3	74.79*	412	666	1.37	149.80	146	19	1.91E-02	12.6	4.54E+00
4	3	77.12*	560	589	1.31	154.45	146	19	2.59E-02	9.7	
5	2	84.22*	130	523	1.54	168.64	164	28	6.04E-03	35.8	1.65E+00
6	2	87.18	345	517	1.46	174.56	164	28	1.60E-02	13.1	
7	2	90.03	205	398	1.24	180.27	164	28	9.50E-03	17.9	
8	2	92.65*	308	506	1.43	185.51	164	28	1.43E-02	17.7	
9	0	105.31	53	414	1.33	210.83	206	8	2.47E-03	67.4	
10	0	129.14	72	473	1.27	258.49	254	9	3.35E-03	55.6	
11	0	143.84*	35	649	4.43	287.89	280	13	1.63E-03	164.7	
12	0	185.89*	191	503	1.15	371.99	366	12	8.86E-03	28.7	
13	0	209.45	143	344	1.17	419.11	415	10	6.62E-03	25.9	
14	4	238.69*	1191	221	1.23	477.59	471	19	5.51E-02	4.1	1.34E+00
15	4	241.55*	309	378	2.15	483.32	471	19	1.43E-02	18.8	
16	0	270.06	142	324	1.14	540.33	534	13	6.55E-03	27.6	
17	0	295.36	323	317	1.18	590.95	586	11	1.50E-02	12.1	
18	0	300.28	72	217	1.67	600.77	597	9	3.35E-03	38.6	
19	0	328.07	102	232	2.27	656.38	652	11	4.74E-03	30.4	
20	0	338.45	235	223	1.36	677.12	673	10	1.09E-02	13.6	
21	0	352.15*	581	339	1.48	704.52	698	15	2.69E-02	8.4	
22	0	409.51	42	93	1.13	819.28	816	6	1.93E-03	39.9	
23	0	462.42	49	182	1.01	925.10	922	11	2.26E-03	55.1	
24	0	510.88*	30	290	2.40	1022.04	1015	16	1.38E-03	171.0	
25	0	560.57	53	193	7.54	1121.45	1111	18	2.44E-03	63.5	
26	0	583.22*	432	109	1.29	1166.75	1160	14	2.00E-02	7.8	
27	0	609.36*	403	197	1.44	1219.05	1212	15	1.87E-02	9.8	
28	0	661.50	345	173	1.51	1323.37	1318	14	1.60E-02	9.6	
29	0	727.52	120	100	2.05	1455.43	1448	15	5.56E-03	20.4	
30	0	767.85	50	99	2.26	1536.12	1529	13	2.32E-03	43.6	
31	0	780.31	80	253	14.87	1561.06	1542	35	3.69E-03	63.4	
32	0	796.07	66	116	1.56	1592.58	1584	14	3.06E-03	37.0	
33	0	806.63	23	56	2.23	1613.71	1610	10	1.07E-03	63.9	
34	0	838.01*	51	91	6.53	1676.49	1668	19	2.36E-03	56.4	
35	0	860.96	74	79	1.50	1722.42	1716	15	3.43E-03	29.0	
36	1	897.34	31	67	2.09	1795.22	1789	25	1.45E-03	52.9	1.96E+00
37	1	905.04	39	24	2.09	1810.62	1789	25	1.82E-03	26.1	
38	0	911.28*	211	67	1.64	1823.10	1818	14	9.77E-03	11.5	

Sample ID : G198324012 Acquisition date : 30-NOV-2007 10:01:27

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	933.53	190	118	22.10	1867.63	1845	47	8.77E-03	21.7	
40	1	964.81	41	65	2.12	1930.21	1925	40	1.89E-03	39.3	2.01E+00
41	1	968.90	184	60	2.13	1938.39	1925	40	8.50E-03	11.4	
42	0	1005.59	37	128	7.59	2011.81	1997	26	1.71E-03	86.2	
43	0	1119.98*	82	81	1.62	2240.71	2234	16	3.80E-03	31.1	
44	0	1144.69	15	46	3.33	2290.16	2282	13	6.91E-04	99.2	
45	0	1161.66	26	49	0.78	2324.12	2316	16	1.19E-03	63.7	
46	0	1238.38	57	95	1.63	2477.66	2469	18	2.65E-03	42.0	
47	0	1248.80	32	40	0.78	2498.50	2489	15	1.47E-03	47.5	
48	0	1302.41	23	39	2.51	2605.80	2596	16	1.08E-03	64.1	
49	0	1356.00	22	17	1.83	2713.05	2708	11	9.95E-04	42.5	
50	4	1367.78	19	23	3.09	2736.62	2729	23	8.95E-04	60.0	7.59E-01
51	4	1373.22	19	14	3.09	2747.51	2729	23	8.96E-04	38.1	
52	0	1377.62	29	28	2.25	2756.30	2751	12	1.33E-03	41.0	
53	0	1408.63	22	33	1.47	2818.37	2810	12	1.01E-03	56.7	
54	0	1460.70*	504	52	1.90	2922.60	2913	19	2.33E-02	6.0	
55	0	1590.90	54	40	5.93	3183.19	3171	24	2.49E-03	34.6	
56	0	1620.81	8	20	0.97	3243.07	3239	9	3.47E-04	109.5	
57	0	1764.40*	67	27	2.47	3530.50	3523	18	3.11E-03	25.6	
58	0	1819.58	15	10	4.86	3640.97	3634	13	6.91E-04	50.5	
59	0	1930.24	3	10	1.23	3862.51	3856	9	1.51E-04	176.4	
60	7	1931.96	10	2	1.61	3865.94	3864	13	4.54E-04	36.8	7.98E-01
61	7	1935.16	12	8	3.58	3872.35	3864	13	5.49E-04	45.5	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324012       *
* Acquisition date : 30-NOV-2007 10:01:27 Detector SN#    :                 *
* Detector ID      : GAM16                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 06:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 06:00:01.83     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324012           Analyst initials: MJH1            *
* Batch Number     : 706245               Sample Quantity : 1.1648E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  1-OCT-2007 14:23:01 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.878E+00	5.124E-01	2.450E-01	0.000E+00
CS-137	1.668E-01	3.443E-02	2.669E-02	0.000E+00
EU-155	3.533E-02	4.670E-02	6.952E-02	0.000E+00
TL-208	1.887E-01	3.203E-02	2.034E-02	0.000E+00
PO-209	3.583E+00	3.724E+00	5.126E+00	0.000E+00
BI-212	4.539E-01	1.853E-01	1.703E-01	0.000E+00
PB-212	5.114E-01	4.961E-02	3.714E-02	0.000E+00
BI-214	3.349E-01	6.886E-02	4.675E-02	0.000E+00
PB-214	3.807E-01	6.597E-02	4.574E-02	0.000E+00
RA-223	2.093E-01	1.136E-01	1.102E-01	0.000E+00
AC-228	4.456E-01	1.065E-01	8.947E-02	0.000E+00
TH-234	8.215E-01	2.903E-01	2.606E-01	0.000E+00
U-235	4.533E-02	1.463E-01	1.283E-01	0.000E+00
NP-237	4.174E-01	1.117E-01	1.186E-01	0.000E+00
AM-243	1.061E-01	2.702E-02	3.013E-02	0.000E+00
CM-243	3.199E-02	4.229E-02	5.554E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error	MDA (pCi/GRAM)		Ided
CO-60	1.128E-03	1.583E-02	2.659E-02	0.000E+00	NOT IDENT.
RH-101	-2.160E-02	1.598E-02	2.159E-02	0.000E+00	NOT IDENT.
SB-125	-6.602E-03	3.649E-02	6.162E-02	0.000E+00	NOT IDENT.
BI-211	2.818E-02	4.095E-01	6.088E-01	0.000E+00	NOT IDENT.
PA-233	-1.928E-04	2.388E-02	4.140E-02	0.000E+00	NOT IDENT.
PA-234M	4.659E-01	1.968E+00	3.161E+00	0.000E+00	NOT IDENT.
NP-236	1.350E-02	2.386E-02	3.717E-02	0.000E+00	NOT IDENT.
NP-239	9.285E-03	8.524E-02	1.427E-01	0.000E+00	NOT IDENT.
AM-241	2.811E-02	4.897E-02	7.780E-02	0.000E+00	NOT IDENT.
AM-246	4.195E-02	5.276E-02	9.415E-02	0.000E+00	NOT IDENT.
CF-249	6.597E-03	1.514E-02	2.650E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:19:32.95

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324012.CNF;2
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 30-NOV-2007 10:01:27
Sample ID        : G198324012           Sample quantity  : 1.16480E+02 GRAM
Detector name    : GAM16                Detector geometry: CAN
Elapsed live time: 0 06:00:00.00        Elapsed real time: 0 06:00:01.83  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706245               Detector SN#     :
Matrix Spike ID  :                      LCS ID           :
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	504	10.66*	1.310E+00	3.878E+00	3.878E+00	13.48
CS-137	661.66	345	85.10*	2.618E+00	1.662E-01	1.668E-01	21.06
EU-155	105.31	53	21.20*	7.817E+00	3.458E-02	3.533E-02	134.89
TL-208	277.36	------	6.31	5.201E+00	------	Line Not Found	------
	510.77	30	22.60	3.251E+00	4.344E-02	4.344E-02	342.09
	583.19	432	84.50*	2.913E+00	1.887E-01	1.887E-01	17.32
	763.13	------	1.81	2.311E+00	------	Line Not Found	------
	860.56	74	12.42	2.076E+00	3.085E-01	3.085E-01	58.71
PO-209	896.60	31	0.47*	2.000E+00	3.580E+00	3.583E+00	106.04
BI-212	727.33	120	11.80*	2.410E+00	4.539E-01	4.539E-01	41.65
	785.37	------	1.10	2.253E+00	------	Line Not Found	------
	1620.50	8	1.49	1.212E+00	4.461E-01	4.461E-01	219.17
PB-212	74.81	412	10.40	6.122E+00	6.957E-01	6.957E-01	25.99
	77.11	560	17.50	6.363E+00	5.403E-01	5.403E-01	20.55
	87.30	345	7.81	7.162E+00	6.627E-01	6.627E-01	27.30
	238.63	1191	43.30*	5.778E+00	5.114E-01	5.114E-01	9.90
	300.09	72	3.28	4.910E+00	4.823E-01	4.823E-01	77.45
BI-214	609.31	403	46.10*	2.808E+00	3.349E-01	3.349E-01	20.98
	768.36	50	4.94	2.298E+00	4.735E-01	4.735E-01	87.65
	806.17	23	1.22	2.200E+00	9.210E-01	9.210E-01	128.16
	934.06	190	3.03	1.930E+00	3.480E+00	3.481E+00	44.12
	1120.29	82	15.10	1.640E+00	3.564E-01	3.564E-01	62.42
	1155.19	------	1.63	1.595E+00	------	Line Not Found	------
	1238.11	57	5.79	1.501E+00	7.062E-01	7.063E-01	84.28
	1280.96	------	1.43	1.458E+00	------	Line Not Found	------
	1377.67	29	4.00	1.372E+00	5.603E-01	5.603E-01	82.28
	1401.50	------	1.27	1.353E+00	------	Line Not Found	------
	1407.98	22	2.15	1.348E+00	8.115E-01	8.115E-01	113.54
	1509.23	------	2.11	1.277E+00	------	Line Not Found	------
	1729.60	------	2.92	1.161E+00	------	Line Not Found	------
	1764.49	67	15.40	1.146E+00	4.088E-01	4.088E-01	51.43
PB-214	74.81	412	6.44	6.122E+00	1.123E+00	1.124E+00	25.99

Sample ID : G198324012 Acquisition date : 30-NOV-2007 10:01:27

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	560	10.80	6.363E+00	8.755E-01	8.755E-01	20.55
	87.30	345	4.84	7.162E+00	1.069E+00	1.070E+00	27.30
	242.00	309	7.43	5.731E+00	7.800E-01	7.801E-01	38.10
	295.22	323	19.30	4.969E+00	3.621E-01	3.621E-01	24.77
	351.93	581	37.60*	4.358E+00	3.806E-01	3.807E-01	17.68
RA-223	269.46	142	13.70*	5.301E+00	2.093E-01	2.093E-01	55.41
AC-228	129.07	72	2.42	7.820E+00	4.105E-01	4.105E-01	111.46
	209.25	143	3.89	6.294E+00	6.273E-01	6.273E-01	52.04
	270.25	142	3.46	5.301E+00	8.287E-01	8.287E-01	55.41
	338.32	235	11.27	4.491E+00	4.987E-01	4.987E-01	27.79
	409.46	42	1.92	3.879E+00	6.017E-01	6.017E-01	79.92
	463.00	49	4.40	3.523E+00	3.379E-01	3.379E-01	110.40
	794.95	66	4.25	2.226E+00	7.516E-01	7.516E-01	74.42
	911.20	211	25.80*	1.973E+00	4.456E-01	4.456E-01	24.39
	964.77	41	4.99	1.874E+00	4.692E-01	4.692E-01	78.91
	968.97	184	15.80	1.867E+00	6.689E-01	6.689E-01	24.06
	1588.20	------	3.22	1.230E+00	------	Line Not Found	------
TH-234	63.29	6	4.80	4.663E+00	3.119E-02	3.119E-02	1995.09
	92.58	308	5.41*	7.450E+00	8.215E-01	8.215E-01	36.06
U-235	143.76	35	10.96*	7.604E+00	4.533E-02	4.533E-02	329.41
NP-237	86.48	345	12.40*	7.162E+00	4.174E-01	4.174E-01	27.30
AM-243	74.66	412	68.20*	6.122E+00	1.061E-01	1.061E-01	25.99
CM-243	103.76	53	23.00*	7.817E+00	3.187E-02	3.199E-02	134.89

Flag: "*" = Keyline

Sample ID : G198324012 Acquisition date : 30-NOV-2007 10:01:27

Total number of lines in spectrum	61	
Number of unidentified lines	22	
Number of lines tentatively identified by NID	39	63.93%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	3.878E+00	3.878E+00	0.523E+00	13.48	
CS-137	9.47E+08S	1.00	1.662E-01	1.668E-01	0.351E-01	21.06	
EU-155	1.57E+08S	1.02	3.458E-02	3.533E-02	4.766E-02	134.89	
TL-208	4.43E+17S	1.00	1.887E-01	1.887E-01	0.327E-01	17.32	
PO-209	3.22E+09S	1.00	3.580E+00	3.583E+00	3.800E+00	106.04	
BI-212	4.43E+17S	1.00	4.539E-01	4.539E-01	1.890E-01	41.65	
PB-212	4.43E+17S	1.00	5.114E-01	5.114E-01	0.506E-01	9.90	
BI-214	5.05E+10S	1.00	3.349E-01	3.349E-01	0.703E-01	20.98	
PB-214	5.05E+10S	1.00	3.806E-01	3.807E-01	0.673E-01	17.68	
RA-223	1.04E+12S	1.00	2.093E-01	2.093E-01	1.160E-01	55.41	
AC-228	4.43E+17S	1.00	4.456E-01	4.456E-01	1.087E-01	24.39	
TH-234	1.41E+17S	1.00	8.215E-01	8.215E-01	2.962E-01	36.06	
U-235	2.22E+16S	1.00	4.533E-02	4.533E-02	14.93E-02	329.41	
NP-237	6.75E+13S	1.00	4.174E-01	4.174E-01	1.140E-01	27.30	
AM-243	2.33E+11S	1.00	1.061E-01	1.061E-01	0.276E-01	25.99	
CM-243	8.99E+08S	1.00	3.187E-02	3.199E-02	4.315E-02	134.89	
			---	---			
		Total Activity :	1.160E+01	1.161E+01			

Grand Total Activity : 1.160E+01 1.161E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G198324012 Acquisition date : 30-NOV-2007 10:01:27

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.30	47	521	1.87	92.82	89	9	2.17E-03	****	1.71E+00	
2	84.22	130	523	1.54	168.64	164	28	6.04E-03	71.7	6.97E+00	
2	90.03	205	398	1.24	180.27	164	28	9.50E-03	35.8	7.32E+00	
0	185.89	191	503	1.15	371.99	366	12	8.86E-03	57.5	6.76E+00	
0	328.07	102	232	2.27	656.38	652	11	4.74E-03	60.8	4.60E+00	
0	560.57	53	193	7.54	1121.45	1111	18	2.44E-03	****	3.01E+00	
0	780.31	80	253	14.87	1561.06	1542	35	3.69E-03	****	2.27E+00	
0	838.01	51	91	6.53	1676.49	1668	19	2.36E-03	****	2.13E+00	
1	905.04	39	24	2.09	1810.62	1789	25	1.82E-03	52.2	1.98E+00	
0	1005.59	37	128	7.59	2011.81	1997	26	1.71E-03	****	1.81E+00	
0	1144.69	15	46	3.33	2290.16	2282	13	6.91E-04	****	1.61E+00	
0	1161.66	26	49	0.78	2324.12	2316	16	1.19E-03	****	1.59E+00	
0	1248.80	32	40	0.78	2498.50	2489	15	1.47E-03	94.9	1.49E+00	
0	1302.41	23	39	2.51	2605.80	2596	16	1.08E-03	****	1.44E+00	
0	1356.00	22	17	1.83	2713.05	2708	11	9.95E-04	84.9	1.39E+00	
4	1367.78	19	23	3.09	2736.62	2729	23	8.95E-04	****	1.38E+00	
4	1373.22	19	14	3.09	2747.51	2729	23	8.96E-04	76.2	1.38E+00	
0	1590.90	54	40	5.93	3183.19	3171	24	2.49E-03	69.1	1.23E+00	
0	1819.58	15	10	4.86	3640.97	3634	13	6.91E-04	****	1.13E+00	
0	1930.24	3	10	1.23	3862.51	3856	9	1.51E-04	****	1.09E+00	
7	1931.96	10	2	1.61	3865.94	3864	13	4.54E-04	73.6	1.09E+00	
7	1935.16	12	8	3.58	3872.35	3864	13	5.49E-04	91.1	1.09E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G198324012            *
* Acquisition date : 30-NOV-2007 10:01:27 Detector SN#    :                 *
* Detector ID      : GAM16                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 06:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 06:00:01.83     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324012           Analyst initials: MJH1            *
* Batch Number     : 706245               Sample Quantity : 1.1648E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME :  1-OCT-2007 14:23:01 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	3.878E+00	5.124E-01	1.226E-01	5.124E-01
CS-137	1.668E-01	3.443E-02	1.335E-02	3.443E-02
EU-155	3.533E-02	4.670E-02	3.478E-02	4.670E-02
TL-208	1.887E-01	3.203E-02	1.018E-02	3.203E-02
PO-209	3.583E+00	3.724E+00	2.565E+00	3.724E+00
BI-212	4.539E-01	1.853E-01	8.519E-02	1.853E-01
PB-212	5.114E-01	4.961E-02	1.858E-02	4.961E-02
BI-214	3.349E-01	6.886E-02	2.339E-02	6.886E-02
PB-214	3.807E-01	6.597E-02	2.288E-02	6.597E-02
RA-223	2.093E-01	1.136E-01	5.515E-02	1.136E-01
AC-228	4.456E-01	1.065E-01	4.476E-02	1.065E-01
TH-234	8.215E-01	2.903E-01	1.304E-01	2.903E-01
U-235	4.533E-02	1.463E-01	6.420E-02	1.463E-01
NP-237	4.174E-01	1.117E-01	5.932E-02	1.117E-01
AM-243	1.061E-01	2.702E-02	1.507E-02	2.702E-02
CM-243	3.199E-02	4.229E-02	2.778E-02	4.229E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	1.128E-03	1.583E-02	1.330E-02	1.583E-02	NOT IDENT.
RH-101	-2.160E-02	1.598E-02	1.080E-02	1.598E-02	NOT IDENT.
SB-125	-6.602E-03	3.649E-02	3.083E-02	3.649E-02	NOT IDENT.
BI-211	2.818E-02	4.095E-01	3.046E-01	4.095E-01	NOT IDENT.
PA-233	-1.928E-04	2.388E-02	2.071E-02	2.388E-02	NOT IDENT.
PA-234M	4.659E-01	1.968E+00	1.581E+00	1.968E+00	NOT IDENT.
NP-236	1.350E-02	2.386E-02	1.860E-02	2.386E-02	NOT IDENT.
NP-239	9.285E-03	8.524E-02	7.139E-02	8.524E-02	NOT IDENT.
AM-241	2.811E-02	4.897E-02	3.892E-02	4.897E-02	NOT IDENT.
AM-246	4.195E-02	5.276E-02	4.710E-02	5.276E-02	NOT IDENT.
CF-249	6.597E-03	1.514E-02	1.326E-02	1.514E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
59.54	431.4771
63.29	526.6992
74.66	598.3312
74.81	598.4545
74.81	598.4545
77.11	600.3349
77.11	600.3349
86.48	417.4264
87.30	417.8564
87.30	417.8564
92.58	420.5823
98.44	411.0611
103.76	375.9785
105.31	486.4847
129.07	399.1990
143.76	440.5067
198.00	410.6075
209.25	407.7864
228.18	319.3086
238.63	335.8291
242.00	336.5785
269.46	250.7114
270.25	250.8345
277.36	237.7765
295.22	260.6385
300.09	223.3771
312.17	227.6532
338.32	234.6135
351.93	220.3354
387.59	180.3621
409.46	195.7220
427.87	178.8946
463.00	169.4747
510.77	160.0685
583.19	99.3211
609.31	145.1491
661.66	139.2419
727.33	93.3402
763.13	78.6304
768.36	65.9312
785.37	102.5464
794.95	94.1309
806.17	104.7501
831.80	71.9385
860.56	72.3771
896.60	92.7383
911.20	82.8865
934.06	67.0848
964.77	77.8192
968.97	81.2144
1001.03	65.2920
1078.86	60.5483
1120.29	48.0957
1155.19	58.8525
1173.23	65.8913
1238.11	50.8716
1280.96	38.3610
1332.51	38.7570
1377.67	47.0978
1401.50	36.3923
1407.98	40.0806
1460.80	47.2209
1509.23	36.8098
1588.20	33.8718
1620.50	30.2746
1729.60	25.0433
1764.49	17.4344

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198324012

Total Uranium Activity	2.0976E-02	ug/g
Total Uranium Counting Unc.	6.7714E-02	ug/g
Total Uranium Tpu	6.7714E-08	ug/g
Total Uranium Mda	2.9705E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:20:08.08

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324013.CNF;1
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 30-NOV-2007 10:02:54
Sample ID        : G198324013           Sample quantity  : 1.16880E+02 GRAM
Detector name    : GAM17                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:04.90  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706245               Detector SN#     :
Matrix Spike ID  :                      LCS ID           :
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.45*	99	385	0.86	93.40	88	10	6.88E-03	42.9	
2	0	63.32*	134	372	0.85	127.11	123	8	9.27E-03	31.6	
3	3	74.90*	343	329	0.83	150.24	146	14	2.38E-02	10.2	8.55E-01
4	3	77.15*	517	293	0.85	154.74	146	14	3.59E-02	7.2	
5	4	84.14*	82	403	1.33	168.71	165	28	5.70E-03	46.3	2.26E+00
6	4	87.33*	196	339	1.11	175.08	165	28	1.36E-02	17.6	
7	4	89.84	119	235	0.84	180.10	165	28	8.27E-03	21.0	
8	4	92.74*	254	313	1.22	185.88	165	28	1.77E-02	17.3	
9	0	99.14*	61	267	1.48	198.67	196	7	4.21E-03	51.1	
10	0	105.92	66	296	2.02	212.22	208	8	4.61E-03	46.5	
11	0	129.83	52	365	1.06	260.01	255	10	3.61E-03	70.1	
12	0	143.87*	23	287	1.01	288.06	285	8	1.59E-03	142.0	
13	0	185.96*	155	374	1.10	372.17	366	12	1.08E-02	29.3	
14	0	198.54*	27	232	1.05	397.30	394	8	1.87E-03	110.4	
15	0	205.58*	15	158	0.97	411.38	409	6	1.05E-03	151.9	
16	0	208.93	58	226	1.12	418.07	415	8	4.01E-03	47.0	
17	0	223.94	32	138	1.00	448.06	445	6	2.20E-03	61.4	
18	4	238.73*	669	167	0.93	477.61	473	16	4.65E-02	5.3	2.72E+00
19	4	241.75*	170	199	1.53	483.64	473	16	1.18E-02	19.2	
20	0	270.15	13	187	0.86	540.40	537	8	8.70E-04	191.5	
21	0	277.74	54	164	0.74	555.57	552	8	3.75E-03	43.4	
22	0	286.29	37	75	1.25	572.65	571	5	2.54E-03	38.9	
23	0	295.29*	204	200	1.04	590.64	586	10	1.41E-02	15.5	
24	0	320.68	15	107	1.30	641.38	640	7	1.04E-03	117.4	
25	0	327.70	52	166	1.32	655.40	651	10	3.62E-03	48.2	
26	0	338.29*	112	130	1.46	676.57	673	9	7.75E-03	22.7	
27	0	351.87*	341	157	1.21	703.72	698	11	2.37E-02	9.8	
28	0	397.17	33	69	1.78	794.25	791	7	2.27E-03	46.1	
29	0	462.82	52	71	1.05	925.43	922	8	3.60E-03	31.3	
30	0	510.94*	44	177	2.08	1021.61	1014	16	3.03E-03	89.3	
31	0	583.45*	187	126	1.27	1166.54	1160	14	1.30E-02	15.7	
32	0	609.50*	275	107	1.24	1218.60	1213	13	1.91E-02	10.3	
33	0	634.09	21	54	2.68	1267.74	1263	9	1.48E-03	66.5	
34	0	650.54*	10	62	2.57	1300.63	1292	11	6.91E-04	173.6	
35	0	661.64	224	91	1.61	1322.80	1316	13	1.56E-02	11.0	
36	2	727.60*	40	59	1.83	1454.63	1448	16	2.75E-03	46.1	1.63E+00
37	2	729.78*	33	34	1.51	1459.00	1448	16	2.28E-03	48.1	
38	0	796.10	19	55	1.85	1591.56	1585	10	1.29E-03	78.6	

Sample ID : G198324013 Acquisition date : 30-NOV-2007 10:02:54

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	823.94	9	44	1.24	1647.21	1643	9	5.92E-04	143.2	
40	0	911.49*	93	93	1.36	1822.21	1816	14	6.44E-03	25.5	
41	3	964.98	41	47	2.20	1929.14	1923	25	2.82E-03	40.2	4.37E-01
42	3	969.14*	73	50	2.19	1937.45	1923	25	5.06E-03	26.1	
43	0	1002.62*	37	31	7.36	2004.38	1997	17	2.60E-03	42.8	
44	0	1043.50	14	28	0.83	2086.09	2081	9	9.89E-04	71.2	
45	0	1120.73*	89	23	1.91	2240.49	2232	19	6.19E-03	17.5	
46	0	1138.33	14	49	3.16	2275.67	2265	14	9.39E-04	113.2	
47	0	1190.70	34	65	8.32	2380.37	2366	24	2.37E-03	65.1	
48	0	1213.71	12	27	0.53	2426.37	2420	9	8.50E-04	81.6	
49	0	1238.21	22	28	1.13	2475.36	2469	10	1.51E-03	51.6	
50	0	1408.36	9	11	0.62	2815.54	2811	7	6.42E-04	69.6	
51	0	1446.82	29	19	1.38	2892.44	2884	16	2.02E-03	38.9	
52	0	1460.84*	258	6	1.96	2920.47	2915	12	1.79E-02	6.9	
53	0	1486.19	8	5	1.43	2971.15	2968	7	5.69E-04	57.5	
54	0	1509.83	12	12	4.29	3018.42	3010	12	8.33E-04	64.5	
55	0	1644.24	11	0	1.50	3287.18	3284	7	7.64E-04	30.2	
56	0	1677.10	9	5	0.55	3352.88	3347	9	5.90E-04	56.6	
57	0	1679.83	7	4	0.95	3358.36	3355	8	4.86E-04	62.3	
58	0	1764.41*	35	12	1.98	3527.49	3521	12	2.40E-03	31.3	
59	0	1800.59	11	5	1.90	3599.84	3593	11	7.42E-04	52.2	
60	0	1891.01	10	7	4.65	3780.65	3772	14	6.94E-04	64.4	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324013       *
* Acquisition date : 30-NOV-2007 10:02:54 Detector SN#    :                 *
* Detector ID      : GAM17                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:04.90     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324013           Analyst initials: MJH1            *
* Batch Number     : 706245               Sample Quantity : 1.1688E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  5-FEB-2007 16:40:35 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	4.355E+00	6.337E-01	3.803E-01	0.000E+00
RH-101	1.213E-02	2.626E-02	3.055E-02	0.000E+00
CS-137	2.374E-01	5.404E-02	4.339E-02	0.000E+00
EU-155	7.572E-02	6.933E-02	8.689E-02	0.000E+00
TL-208	1.764E-01	5.560E-02	4.014E-02	0.000E+00
BI-212	3.291E-01	2.982E-01	2.997E-01	0.000E+00
PB-212	5.611E-01	7.313E-02	5.130E-02	0.000E+00
BI-214	4.954E-01	1.061E-01	6.820E-02	0.000E+00
PB-214	4.539E-01	9.183E-02	6.961E-02	0.000E+00
RA-223	3.658E-02	1.373E-01	1.732E-01	0.000E+00
AC-228	4.329E-01	2.184E-01	1.559E-01	0.000E+00
PA-234M	5.844E+00	4.912E+00	5.213E+00	0.000E+00
TH-234	1.083E+00	3.753E-01	3.396E-01	0.000E+00
U-235	5.538E-02	1.542E-01	1.711E-01	0.000E+00
NP-236	3.713E-02	3.728E-02	4.731E-02	0.000E+00
NP-237	3.616E-01	1.272E-01	1.461E-01	0.000E+00
AM-243	1.140E-01	2.385E-02	2.855E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
CO-60	-2.901E-03	2.693E-02	4.397E-02	0.000E+00	NOT IDENT.
SB-125	4.042E-02	5.746E-02	1.025E-01	0.000E+00	NOT IDENT.
PO-209	-4.365E+00	4.635E+00	7.051E+00	0.000E+00	NOT IDENT.
BI-211	2.744E-01	6.763E-01	1.195E+00	0.000E+00	NOT IDENT.
PA-233	-3.472E-02	3.569E-02	5.861E-02	0.000E+00	NOT IDENT.
NP-239	2.688E-03	1.239E-01	1.960E-01	0.000E+00	NOT IDENT.
AM-241	2.709E-02	2.910E-02	4.929E-02	0.000E+00	NOT IDENT.
CM-243	4.139E-02	5.073E-02	7.667E-02	0.000E+00	NOT IDENT.
AM-246	-1.538E-02	8.343E-02	1.360E-01	0.000E+00	NOT IDENT.
CF-249	5.351E-03	2.455E-02	4.273E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:20:09.16

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324013.CNF;1
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 30-NOV-2007 10:02:54
Sample ID        : G198324013           Sample quantity  : 1.16880E+02 GRAM
Detector name    : GAM17                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:04.90  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706245               Detector SN#     :
Matrix Spike ID  :                      LCS ID           :
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	258	10.66*	8.924E-01	4.355E+00	4.355E+00	14.85
RH-101	198.00	27	73.00*	5.042E+00	1.174E-02	1.213E-02	221.00
CS-137	661.66	224	85.10*	1.790E+00	2.365E-01	2.374E-01	23.23
EU-155	105.31	66	21.20*	6.786E+00	7.410E-02	7.572E-02	93.44
TL-208	277.36	54	6.31	3.928E+00	3.499E-01	3.499E-01	87.19
	510.77	44	22.60	2.281E+00	1.359E-01	1.359E-01	178.73
	583.19	187	84.50*	2.014E+00	1.764E-01	1.764E-01	32.15
	763.13	------	1.81	1.568E+00	------	Line Not Found	------
	860.56	------	12.42	1.404E+00	------	Line Not Found	------
BI-212	727.33	40	11.80*	1.638E+00	3.291E-01	3.291E-01	92.46
	785.37	------	1.10	1.527E+00	------	Line Not Found	------
	1620.50	------	1.49	8.223E-01	------	Line Not Found	------
PB-212	74.81	343	10.40	7.088E+00	7.477E-01	7.477E-01	21.34
	77.11	517	17.50	7.087E+00	6.692E-01	6.692E-01	15.80
	87.30	196	7.81	7.032E+00	5.741E-01	5.741E-01	35.90
	238.63	669	43.30*	4.423E+00	5.611E-01	5.611E-01	13.30
	300.09	------	3.28	3.684E+00	------	Line Not Found	------
BI-214	609.31	275	46.10*	1.933E+00	4.954E-01	4.954E-01	21.85
	768.36	------	4.94	1.558E+00	------	Line Not Found	------
	806.17	------	1.22	1.490E+00	------	Line Not Found	------
	934.06	------	3.03	1.304E+00	------	Line Not Found	------
	1120.29	89	15.10	1.112E+00	8.523E-01	8.524E-01	35.49
	1155.19	------	1.63	1.083E+00	------	Line Not Found	------
	1238.11	22	5.79	1.022E+00	5.885E-01	5.885E-01	103.30
	1280.96	------	1.43	9.933E-01	------	Line Not Found	------
	1377.67	------	4.00	9.356E-01	------	Line Not Found	------
	1401.50	------	1.27	9.227E-01	------	Line Not Found	------
	1407.98	9	2.15	9.191E-01	7.517E-01	7.518E-01	139.29
	1509.23	12	2.11	8.693E-01	1.051E+00	1.051E+00	129.22
	1729.60	------	2.92	7.820E-01	------	Line Not Found	------
	1764.49	35	15.40	7.702E-01	4.685E-01	4.685E-01	62.75
PB-214	74.81	343	6.44	7.088E+00	1.207E+00	1.207E+00	21.34

Sample ID : G198324013 Acquisition date : 30-NOV-2007 10:02:54

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	517	10.80	7.087E+00	1.084E+00	1.084E+00	15.80
	87.30	196	4.84	7.032E+00	9.264E-01	9.265E-01	35.90
	242.00	170	7.43	4.381E+00	8.372E-01	8.372E-01	39.20
	295.22	204	19.30	3.734E+00	4.535E-01	4.535E-01	31.98
	351.93	341	37.60*	3.211E+00	4.538E-01	4.539E-01	20.65
RA-223	269.46	13	13.70*	4.017E+00	3.658E-02	3.658E-02	383.01
AC-228	129.07	52	2.42	6.342E+00	5.441E-01	5.441E-01	140.58
	209.25	58	3.89	4.870E+00	4.892E-01	4.892E-01	94.36
	270.25	13	3.46	4.017E+00	1.448E-01	1.448E-01	383.01
	338.32	112	11.27	3.324E+00	4.784E-01	4.784E-01	45.86
	409.46	------	1.92	2.802E+00	------	Line Not Found	------
	463.00	52	4.40	2.502E+00	7.553E-01	7.553E-01	62.93
	794.95	19	4.25	1.508E+00	4.640E-01	4.640E-01	157.27
	911.20	93	25.80*	1.333E+00	4.329E-01	4.329E-01	51.48
	964.77	41	4.99	1.267E+00	1.030E+00	1.030E+00	80.75
	968.97	73	15.80	1.262E+00	5.866E-01	5.866E-01	52.60
	1588.20	------	3.22	8.353E-01	------	Line Not Found	------
PA-234M	1001.03	37	0.84*	1.225E+00	5.844E+00	5.844E+00	85.77
TH-234	63.29	134	4.80	7.001E+00	6.382E-01	6.382E-01	63.47
	92.58	254	5.41*	6.975E+00	1.083E+00	1.083E+00	35.37
U-235	143.76	23	10.96*	6.063E+00	5.538E-02	5.538E-02	284.09
NP-236	98.44	61	38.00*	6.891E+00	3.713E-02	3.713E-02	102.45
NP-237	86.48	196	12.40*	7.032E+00	3.616E-01	3.616E-01	35.90
AM-243	74.66	343	68.20*	7.088E+00	1.140E-01	1.140E-01	21.34

Flag: "*" = Keyline

Sample ID : G198324013 Acquisition date : 30-NOV-2007 10:02:54

Total number of lines in spectrum 60
Number of unidentified lines 25
Number of lines tentatively identified by NID 35 58.33%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	4.355E+00	4.355E+00	0.647E+00	14.85	
RH-101	1.04E+08S	1.03	1.174E-02	1.213E-02	2.680E-02	221.00	
CS-137	9.47E+08S	1.00	2.365E-01	2.374E-01	0.551E-01	23.23	
EU-155	1.57E+08S	1.02	7.410E-02	7.572E-02	7.075E-02	93.44	
TL-208	4.43E+17S	1.00	1.764E-01	1.764E-01	0.567E-01	32.15	
BI-212	4.43E+17S	1.00	3.291E-01	3.291E-01	3.043E-01	92.46	
PB-212	4.43E+17S	1.00	5.611E-01	5.611E-01	0.746E-01	13.30	
BI-214	5.05E+10S	1.00	4.954E-01	4.954E-01	1.082E-01	21.85	
PB-214	5.05E+10S	1.00	4.538E-01	4.539E-01	0.937E-01	20.65	
RA-223	1.04E+12S	1.00	3.658E-02	3.658E-02	14.01E-02	383.01	
AC-228	4.43E+17S	1.00	4.329E-01	4.329E-01	2.229E-01	51.48	
PA-234M	1.41E+17S	1.00	5.844E+00	5.844E+00	5.013E+00	85.77	
TH-234	1.41E+17S	1.00	1.083E+00	1.083E+00	0.383E+00	35.37	
U-235	2.22E+16S	1.00	5.538E-02	5.538E-02	15.73E-02	284.09	
NP-236	4.89E+12S	1.00	3.713E-02	3.713E-02	3.804E-02	102.45	
NP-237	6.75E+13S	1.00	3.616E-01	3.616E-01	1.298E-01	35.90	
AM-243	2.33E+11S	1.00	1.140E-01	1.140E-01	0.243E-01	21.34	
			---	---			
	Total Activity :		1.466E+01	1.466E+01			

Grand Total Activity : 1.466E+01 1.466E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G198324013 Acquisition date : 30-NOV-2007 10:02:54

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.45	99	385	0.86	93.40	88	10	6.88E-03	85.9	6.47E+00	
4	84.14	82	403	1.33	168.71	165	28	5.70E-03	92.6	7.06E+00	
4	89.84	119	235	0.84	180.10	165	28	8.27E-03	42.1	7.01E+00	
0	185.96	155	374	1.10	372.17	366	12	1.08E-02	58.6	5.26E+00	
0	205.58	15	158	0.97	411.38	409	6	1.05E-03	****	4.92E+00	
0	223.94	32	138	1.00	448.06	445	6	2.20E-03	****	4.64E+00	
0	286.29	37	75	1.25	572.65	571	5	2.54E-03	77.9	3.83E+00	
0	320.68	15	107	1.30	641.38	640	7	1.04E-03	****	3.48E+00	
0	327.70	52	166	1.32	655.40	651	10	3.62E-03	96.4	3.42E+00	
0	397.17	33	69	1.78	794.25	791	7	2.27E-03	92.1	2.88E+00	
0	634.09	21	54	2.68	1267.74	1263	9	1.48E-03	****	1.86E+00	
0	650.54	10	62	2.57	1300.63	1292	11	6.91E-04	****	1.82E+00	
2	729.78	33	34	1.51	1459.00	1448	16	2.28E-03	96.2	1.63E+00	
0	823.94	9	44	1.24	1647.21	1643	9	5.92E-04	****	1.46E+00	
0	1043.50	14	28	0.83	2086.09	2081	9	9.89E-04	****	1.18E+00	
0	1138.33	14	49	3.16	2275.67	2265	14	9.39E-04	****	1.10E+00	
0	1190.70	34	65	8.32	2380.37	2366	24	2.37E-03	****	1.06E+00	
0	1213.71	12	27	0.53	2426.37	2420	9	8.50E-04	****	1.04E+00	
0	1446.82	29	19	1.38	2892.44	2884	16	2.02E-03	77.9	8.99E-01	
0	1486.19	8	5	1.43	2971.15	2968	7	5.69E-04	****	8.80E-01	
0	1644.24	11	0	1.50	3287.18	3284	7	7.64E-04	60.3	8.13E-01	
0	1677.10	9	5	0.55	3352.88	3347	9	5.90E-04	****	8.01E-01	
0	1679.83	7	4	0.95	3358.36	3355	8	4.86E-04	****	8.00E-01	
0	1800.59	11	5	1.90	3599.84	3593	11	7.42E-04	****	7.58E-01	
0	1891.01	10	7	4.65	3780.65	3772	14	6.94E-04	****	7.31E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G198324013            *
* Acquisition date : 30-NOV-2007 10:02:54 Detector SN#    :                 *
* Detector ID      : GAM17                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:04.90     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324013           Analyst initials: MJH1            *
* Batch Number     : 706245               Sample Quantity : 1.1688E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME :  5-FEB-2007 16:40:35 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	4.355E+00	6.337E-01	1.903E-01	6.337E-01
RH-101	1.213E-02	2.626E-02	1.529E-02	2.626E-02
CS-137	2.374E-01	5.404E-02	2.171E-02	5.404E-02
EU-155	7.572E-02	6.933E-02	4.347E-02	6.933E-02
TL-208	1.764E-01	5.560E-02	2.008E-02	5.560E-02
BI-212	3.291E-01	2.982E-01	1.500E-01	2.982E-01
PB-212	5.611E-01	7.313E-02	2.566E-02	7.313E-02
BI-214	4.954E-01	1.061E-01	3.412E-02	1.061E-01
PB-214	4.539E-01	9.183E-02	3.483E-02	9.183E-02
RA-223	3.658E-02	1.373E-01	8.665E-02	1.373E-01
AC-228	4.329E-01	2.184E-01	7.801E-02	2.184E-01
PA-234M	5.844E+00	4.912E+00	2.608E+00	4.912E+00
TH-234	1.083E+00	3.753E-01	1.699E-01	3.753E-01
U-235	5.538E-02	1.542E-01	8.558E-02	1.542E-01
NP-236	3.713E-02	3.728E-02	2.367E-02	3.728E-02
NP-237	3.616E-01	1.272E-01	7.309E-02	1.272E-01
AM-243	1.140E-01	2.385E-02	1.429E-02	2.385E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	-2.901E-03	2.693E-02	2.200E-02	2.693E-02	NOT IDENT.
SB-125	4.042E-02	5.746E-02	5.127E-02	5.746E-02	NOT IDENT.
PO-209	-4.365E+00	4.635E+00	3.528E+00	4.635E+00	NOT IDENT.
BI-211	2.744E-01	6.763E-01	5.977E-01	6.763E-01	NOT IDENT.
PA-233	-3.472E-02	3.569E-02	2.932E-02	3.569E-02	NOT IDENT.
NP-239	2.688E-03	1.239E-01	9.807E-02	1.239E-01	NOT IDENT.
AM-241	2.709E-02	2.910E-02	2.466E-02	2.910E-02	NOT IDENT.
CM-243	4.139E-02	5.073E-02	3.836E-02	5.073E-02	NOT IDENT.
AM-246	-1.538E-02	8.343E-02	6.803E-02	8.343E-02	NOT IDENT.
CF-249	5.351E-03	2.455E-02	2.138E-02	2.455E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
59.54	212.2478
63.29	270.9549
74.66	323.5497
74.81	323.6562
74.81	323.6562
77.11	325.2835
77.11	325.2835
86.48	277.0014
87.30	277.4544
87.30	277.4544
92.58	280.3196
98.44	262.8976
103.76	205.1866
105.31	256.7100
129.07	215.8212
143.76	222.5126
198.00	205.9766
209.25	203.6533
228.18	160.8568
238.63	167.9123
242.00	168.4647
269.46	159.0010
270.25	146.4303
277.36	165.3397
295.22	160.8163
300.09	151.8872
312.17	143.3545
338.32	132.5855
351.93	123.7746
387.59	114.6173
409.46	109.5730
427.87	90.4514
463.00	86.4557
510.77	91.9109
583.19	82.7250
609.31	65.5255
661.66	77.0389
727.33	59.7803
763.13	68.0128
768.36	64.4714
785.37	59.3422
794.95	61.4254
806.17	55.1483
831.80	50.0213
860.56	69.6316
896.60	53.1416
911.20	51.4706
934.06	49.9180
964.77	47.4680
968.97	47.5336
1001.03	51.7007
1078.86	36.9070
1120.29	38.4020
1155.19	46.1291
1173.23	40.0429
1238.11	35.7585
1280.96	40.1454
1332.51	38.4829
1377.67	28.7257
1401.50	31.0682
1407.98	22.4043
1460.80	23.6338
1509.23	19.6657
1588.20	28.2165
1620.50	16.6569
1729.60	10.0236
1764.49	12.1133

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198324013

Total Uranium Activity	2.5622E-02	ug/g
Total Uranium Counting Unc.	7.1335E-02	ug/g
Total Uranium Tpu	7.1335E-08	ug/g
Total Uranium Mda	3.9598E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:20:43.23

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324014.CNF;1
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 30-NOV-2007 10:05:39
Sample ID        : G198324014           Sample quantity  : 1.07190E+02 GRAM
Detector name    : GAM18                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.87  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706245               Detector SN#     :
Matrix Spike ID  :                      LCS ID           :
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	62.91*	33	398	0.70	124.81	121	8	2.32E-03	118.2	
2	1	74.61	183	274	1.08	148.20	142	16	1.27E-02	16.2	1.47E+00
3	1	76.92*	318	308	1.09	152.80	142	16	2.21E-02	11.6	
4	0	87.16	149	448	1.08	173.28	169	8	1.03E-02	26.0	
5	0	92.87*	107	585	1.09	184.69	179	11	7.40E-03	49.8	
6	0	127.83*	62	360	1.05	254.56	250	10	4.32E-03	62.1	
7	0	143.20*	22	282	0.57	285.30	281	8	1.54E-03	145.1	
8	0	153.36	50	280	1.68	305.61	302	8	3.47E-03	59.9	
9	0	163.07	117	351	2.28	325.01	321	12	8.12E-03	33.2	
10	0	185.88*	123	415	1.23	370.60	365	11	8.54E-03	37.1	
11	0	209.15	85	270	1.14	417.11	413	9	5.94E-03	36.3	
12	3	238.36*	804	194	1.22	475.50	469	19	5.59E-02	5.0	8.51E-01
13	3	241.30	228	237	1.72	481.38	469	19	1.58E-02	17.5	
14	0	271.71	84	385	2.06	542.18	532	17	5.82E-03	54.8	
15	0	295.12*	224	245	1.17	588.98	584	11	1.56E-02	16.4	
16	0	299.59*	47	116	1.31	597.91	595	7	3.29E-03	46.7	
17	0	327.73	53	142	1.60	654.17	651	8	3.70E-03	41.1	
18	0	337.93*	213	265	1.40	674.55	667	16	1.48E-02	19.2	
19	0	351.54*	434	188	1.07	701.77	697	11	3.01E-02	8.4	
20	0	462.98	70	121	1.60	924.57	919	12	4.88E-03	33.4	
21	0	482.29	29	67	1.24	963.17	960	8	1.99E-03	53.2	
22	0	510.44*	85	229	2.16	1019.45	1010	20	5.92E-03	57.9	
23	0	582.81*	244	124	1.49	1164.15	1157	15	1.69E-02	13.2	
24	0	608.74*	316	162	1.64	1216.00	1209	13	2.20E-02	10.8	
25	0	661.58	49	77	1.16	1321.67	1318	9	3.37E-03	35.5	
26	0	726.30	93	67	1.59	1451.10	1445	12	6.43E-03	20.7	
27	0	794.56	58	56	2.04	1587.60	1583	11	4.01E-03	28.2	
28	0	811.04	54	79	7.07	1620.55	1610	20	3.76E-03	43.6	
29	0	842.94	28	104	5.39	1684.36	1675	15	1.94E-03	81.9	
30	0	861.88	18	80	0.99	1722.23	1714	10	1.28E-03	94.0	
31	0	898.92	19	36	1.33	1796.31	1792	7	1.31E-03	59.6	
32	0	910.78*	205	92	1.79	1820.03	1811	19	1.43E-02	13.9	
33	0	968.58*	92	97	1.33	1935.65	1928	12	6.39E-03	25.1	
34	0	977.26	15	45	3.79	1953.01	1945	11	1.07E-03	83.4	
35	0	1000.09*	30	55	1.02	1998.68	1991	14	2.05E-03	64.1	
36	0	1006.73	25	37	3.34	2011.95	2006	11	1.72E-03	52.2	
37	0	1119.79*	60	49	2.34	2238.10	2233	10	4.19E-03	29.0	
38	0	1237.08	58	38	2.72	2472.75	2465	15	3.99E-03	26.7	

Sample ID : G198324014 Acquisition date : 30-NOV-2007 10:05:39

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1301.80	9	36	0.60	2602.22	2597	10	5.90E-04	134.9	
40	0	1325.17	27	68	6.19	2648.99	2634	25	1.85E-03	86.1	
41	0	1406.82	24	33	0.82	2812.36	2804	15	1.68E-03	56.0	
42	0	1459.85*	216	78	2.46	2918.47	2908	22	1.50E-02	13.3	
43	0	1508.65	42	21	1.30	3016.12	3005	21	2.92E-03	31.3	
44	0	1515.59	18	4	2.04	3030.01	3026	8	1.28E-03	29.8	
45	0	1538.94	9	9	1.40	3076.73	3071	9	6.42E-04	71.1	
46	0	1637.42	6	12	3.65	3273.79	3267	9	3.86E-04	125.2	
47	0	1691.64	4	25	0.52	3382.31	3370	14	3.05E-04	243.6	
48	0	1702.07	35	13	3.71	3403.18	3395	19	2.40E-03	31.1	
49	0	1711.85	13	16	5.87	3422.75	3415	15	9.23E-04	69.5	
50	0	1721.07	20	26	1.95	3441.21	3431	17	1.35E-03	63.5	
51	0	1728.90	14	29	0.63	3456.88	3448	13	9.85E-04	82.8	
52	0	1763.27*	79	4	1.52	3525.68	3517	16	5.48E-03	16.2	
53	0	1836.85	10	24	0.90	3672.95	3661	16	6.94E-04	114.0	
54	0	1969.06	8	8	1.06	3937.58	3931	10	5.71E-04	71.7	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324014       *
* Acquisition date : 30-NOV-2007 10:05:39 Detector SN#    :                 *
* Detector ID      : GAM18                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:01.87     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324014           Analyst initials: MJH1            *
* Batch Number     : 706245               Sample Quantity : 1.0719E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  1-OCT-2007 17:37:50 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	1.894E+00	5.127E-01	2.724E-01	0.000E+00
CS-137	2.820E-02	1.975E-02	2.558E-02	0.000E+00
TL-208	1.297E-01	3.462E-02	2.440E-02	0.000E+00
BI-212	4.153E-01	1.716E-01	1.993E-01	0.000E+00
PB-212	4.846E-01	5.408E-02	4.369E-02	0.000E+00
BI-214	3.183E-01	7.085E-02	5.547E-02	0.000E+00
PB-214	3.758E-01	6.474E-02	5.175E-02	0.000E+00
AC-228	5.059E-01	1.470E-01	9.401E-02	0.000E+00
PA-234M	2.418E+00	3.044E+00	3.221E+00	0.000E+00
TH-234	4.939E-01	4.845E-01	3.778E-01	0.000E+00
U-235	4.323E-02	1.229E-01	1.537E-01	0.000E+00
NP-237	3.255E-01	1.695E-01	2.043E-01	0.000E+00
AM-243	9.621E-02	3.198E-02	4.227E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	-3.801E-03		1.574E-02	2.523E-02	0.000E+00	NOT IDENT.
RH-101	-7.618E-03		1.795E-02	2.699E-02	0.000E+00	NOT IDENT.
SB-125	9.269E-03		4.948E-02	7.413E-02	0.000E+00	NOT IDENT.
EU-155	5.539E-03		4.961E-02	8.328E-02	0.000E+00	NOT IDENT.
PO-209	4.030E+00		3.652E+00	5.914E+00	0.000E+00	NOT IDENT.
BI-211	-2.337E-01		4.331E-01	7.045E-01	0.000E+00	NOT IDENT.
RA-223	8.611E-02		8.365E-02	1.474E-01	0.000E+00	NOT IDENT.
PA-233	-4.264E-03		2.994E-02	4.953E-02	0.000E+00	NOT IDENT.
NP-236	2.575E-02		2.860E-02	4.969E-02	0.000E+00	NOT IDENT.
NP-239	2.676E-02		9.746E-02	1.683E-01	0.000E+00	NOT IDENT.
AM-241	-3.900E-02		1.007E-01	1.523E-01	0.000E+00	NOT IDENT.
CM-243	1.549E-03		4.425E-02	7.411E-02	0.000E+00	NOT IDENT.
AM-246	1.462E-03		5.345E-02	8.887E-02	0.000E+00	NOT IDENT.
CF-249	7.766E-03		1.813E-02	3.046E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:20:44.16

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324014.CNF;1
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 30-NOV-2007 10:05:39
Sample ID        : G198324014           Sample quantity  : 1.07190E+02 GRAM
Detector name    : GAM18                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.87  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706245               Detector SN#     :
Matrix Spike ID  :                      LCS ID           :
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	216	10.66*	1.874E+00	1.894E+00	1.894E+00	27.62
CS-137	661.66	49	85.10*	3.551E+00	2.810E-02	2.820E-02	71.47
TL-208	277.36	------	6.31	6.171E+00	------	Line Not Found	------
	510.77	85	22.60	4.260E+00	1.551E-01	1.551E-01	115.96
	583.19	244	84.50*	3.892E+00	1.297E-01	1.297E-01	27.24
	763.13	------	1.81	3.183E+00	------	Line Not Found	------
	860.56	18	12.42	2.885E+00	8.976E-02	8.976E-02	188.23
BI-212	727.33	93	11.80*	3.309E+00	4.153E-01	4.153E-01	42.17
	785.37	------	1.10	3.111E+00	------	Line Not Found	------
	1620.50	------	1.49	1.751E+00	------	Line Not Found	------
PB-212	74.81	183	10.40	4.888E+00	6.309E-01	6.309E-01	33.92
	77.11	318	17.50	5.220E+00	6.094E-01	6.094E-01	25.14
	87.30	149	7.81	6.461E+00	5.168E-01	5.168E-01	53.13
	238.63	804	43.30*	6.712E+00	4.846E-01	4.846E-01	11.39
	300.09	47	3.28	5.905E+00	4.288E-01	4.288E-01	93.61
BI-214	609.31	316	46.10*	3.774E+00	3.182E-01	3.183E-01	22.72
	768.36	------	4.94	3.166E+00	------	Line Not Found	------
	806.17	------	1.22	3.047E+00	------	Line Not Found	------
	934.06	------	3.03	2.698E+00	------	Line Not Found	------
	1120.29	60	15.10	2.314E+00	3.022E-01	3.022E-01	58.33
	1155.19	------	1.63	2.254E+00	------	Line Not Found	------
	1238.11	58	5.79	2.129E+00	8.166E-01	8.167E-01	53.78
	1280.96	------	1.43	2.070E+00	------	Line Not Found	------
	1377.67	------	4.00	1.956E+00	------	Line Not Found	------
	1401.50	------	1.27	1.931E+00	------	Line Not Found	------
	1407.98	24	2.15	1.925E+00	1.024E+00	1.024E+00	112.20
	1509.23	42	2.11	1.832E+00	1.902E+00	1.903E+00	63.14
	1729.60	14	2.92	1.692E+00	5.028E-01	5.029E-01	165.79
	1764.49	79	15.40	1.676E+00	5.350E-01	5.350E-01	32.95
PB-214	74.81	183	6.44	4.888E+00	1.019E+00	1.019E+00	33.92
	77.11	318	10.80	5.220E+00	9.875E-01	9.876E-01	25.14
	87.30	149	4.84	6.461E+00	8.339E-01	8.340E-01	53.13

Sample ID : G198324014 Acquisition date : 30-NOV-2007 10:05:39

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	242.00	228	7.43	6.667E+00	8.058E-01	8.059E-01	35.40
	295.22	224	19.30	5.956E+00	3.416E-01	3.416E-01	33.18
	351.93	434	37.60*	5.377E+00	3.758E-01	3.758E-01	17.58
AC-228	129.07	62	2.42	8.237E+00	5.459E-01	5.459E-01	124.30
	209.25	85	3.89	7.181E+00	5.359E-01	5.359E-01	72.78
	270.25	84	3.46	6.244E+00	6.796E-01	6.796E-01	109.77
	338.32	213	11.27	5.504E+00	6.000E-01	6.000E-01	38.69
	409.46	------	1.92	4.903E+00	------	Line Not Found	------
	463.00	70	4.40	4.539E+00	6.164E-01	6.164E-01	67.00
	794.95	58	4.25	3.082E+00	7.720E-01	7.720E-01	57.11
	911.20	205	25.80*	2.756E+00	5.059E-01	5.059E-01	29.65
	964.77	------	4.99	2.625E+00	------	Line Not Found	------
	968.97	92	15.80	2.617E+00	3.899E-01	3.899E-01	51.06
	1588.20	------	3.22	1.772E+00	------	Line Not Found	------
PA-234M	1001.03	30	0.84*	2.547E+00	2.418E+00	2.418E+00	128.49
TH-234	63.29	33	4.80	2.996E+00	4.076E-01	4.076E-01	236.53
	92.58	107	5.41*	6.982E+00	4.939E-01	4.939E-01	100.09
U-235	143.76	22	10.96*	8.201E+00	4.323E-02	4.323E-02	290.20
NP-237	86.48	149	12.40*	6.461E+00	3.255E-01	3.255E-01	53.13
AM-243	74.66	183	68.20*	4.888E+00	9.621E-02	9.621E-02	33.92

Flag: "*" = Keyline

Sample ID : G198324014 Acquisition date : 30-NOV-2007 10:05:39

Total number of lines in spectrum	54	
Number of unidentified lines	21	
Number of lines tentatively identified by NID	33	61.11%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	1.894E+00	1.894E+00	0.523E+00	27.62	
CS-137	9.47E+08S	1.00	2.810E-02	2.820E-02	2.015E-02	71.47	
TL-208	4.43E+17S	1.00	1.297E-01	1.297E-01	0.353E-01	27.24	
BI-212	4.43E+17S	1.00	4.153E-01	4.153E-01	1.751E-01	42.17	
PB-212	4.43E+17S	1.00	4.846E-01	4.846E-01	0.552E-01	11.39	
BI-214	5.05E+10S	1.00	3.182E-01	3.183E-01	0.723E-01	22.72	
PB-214	5.05E+10S	1.00	3.758E-01	3.758E-01	0.661E-01	17.58	
AC-228	4.43E+17S	1.00	5.059E-01	5.059E-01	1.500E-01	29.65	
PA-234M	1.41E+17S	1.00	2.418E+00	2.418E+00	3.107E+00	128.49	
TH-234	1.41E+17S	1.00	4.939E-01	4.939E-01	4.944E-01	100.09	
U-235	2.22E+16S	1.00	4.323E-02	4.323E-02	12.54E-02	290.20	
NP-237	6.75E+13S	1.00	3.255E-01	3.255E-01	1.729E-01	53.13	
AM-243	2.33E+11S	1.00	9.621E-02	9.621E-02	3.264E-02	33.92	
			---	---			
		Total Activity :	7.528E+00	7.528E+00			
		Grand Total Activity :	7.528E+00	7.528E+00			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G198324014 Acquisition date : 30-NOV-2007 10:05:39

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	153.36	50	280	1.68	305.61	302	8	3.47E-03	****	8.10E+00	
0	163.07	117	351	2.28	325.01	321	12	8.12E-03	66.5	7.96E+00	
0	185.88	123	415	1.23	370.60	365	11	8.54E-03	74.2	7.58E+00	
0	327.73	53	142	1.60	654.17	651	8	3.70E-03	82.1	5.60E+00	
0	482.29	29	67	1.24	963.17	960	8	1.99E-03	****	4.42E+00	
0	811.04	54	79	7.07	1620.55	1610	20	3.76E-03	87.2	3.03E+00	
0	842.94	28	104	5.39	1684.36	1675	15	1.94E-03	****	2.94E+00	
0	898.92	19	36	1.33	1796.31	1792	7	1.31E-03	****	2.79E+00	
0	977.26	15	45	3.79	1953.01	1945	11	1.07E-03	****	2.60E+00	
0	1006.73	25	37	3.34	2011.95	2006	11	1.72E-03	****	2.53E+00	
0	1301.80	9	36	0.60	2602.22	2597	10	5.90E-04	****	2.04E+00	
0	1325.17	27	68	6.19	2648.99	2634	25	1.85E-03	****	2.02E+00	
0	1515.59	18	4	2.04	3030.01	3026	8	1.28E-03	59.7	1.83E+00	
0	1538.94	9	9	1.40	3076.73	3071	9	6.42E-04	****	1.81E+00	
0	1637.42	6	12	3.65	3273.79	3267	9	3.86E-04	****	1.74E+00	
0	1691.64	4	25	0.52	3382.31	3370	14	3.05E-04	****	1.71E+00	
0	1702.07	35	13	3.71	3403.18	3395	19	2.40E-03	62.2	1.70E+00	
0	1711.85	13	16	5.87	3422.75	3415	15	9.23E-04	****	1.70E+00	
0	1721.07	20	26	1.95	3441.21	3431	17	1.35E-03	****	1.70E+00	
0	1836.85	10	24	0.90	3672.95	3661	16	6.94E-04	****	1.65E+00	
0	1969.06	8	8	1.06	3937.58	3931	10	5.71E-04	****	1.62E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G198324014            *
* Acquisition date : 30-NOV-2007 10:05:39 Detector SN#    :                 *
* Detector ID      : GAM18                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:01.87     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324014           Analyst initials: MJH1            *
* Batch Number     : 706245               Sample Quantity : 1.0719E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME :  1-OCT-2007 17:37:50 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	1.894E+00	5.127E-01	1.363E-01	5.127E-01
CS-137	2.820E-02	1.975E-02	1.280E-02	1.975E-02
TL-208	1.297E-01	3.462E-02	1.221E-02	3.462E-02
BI-212	4.153E-01	1.716E-01	9.972E-02	1.716E-01
PB-212	4.846E-01	5.408E-02	2.186E-02	5.408E-02
BI-214	3.183E-01	7.085E-02	2.775E-02	7.085E-02
PB-214	3.758E-01	6.474E-02	2.589E-02	6.474E-02
AC-228	5.059E-01	1.470E-01	4.703E-02	1.470E-01
PA-234M	2.418E+00	3.044E+00	1.611E+00	3.044E+00
TH-234	4.939E-01	4.845E-01	1.890E-01	4.845E-01
U-235	4.323E-02	1.229E-01	7.689E-02	1.229E-01
NP-237	3.255E-01	1.695E-01	1.022E-01	1.695E-01
AM-243	9.621E-02	3.198E-02	2.115E-02	3.198E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	-3.801E-03	1.574E-02	1.262E-02	1.574E-02	NOT IDENT.
RH-101	-7.618E-03	1.795E-02	1.350E-02	1.795E-02	NOT IDENT.
SB-125	9.269E-03	4.948E-02	3.709E-02	4.948E-02	NOT IDENT.
EU-155	5.539E-03	4.961E-02	4.166E-02	4.961E-02	NOT IDENT.
PO-209	4.030E+00	3.652E+00	2.959E+00	3.652E+00	NOT IDENT.
BI-211	-2.337E-01	4.331E-01	3.525E-01	4.331E-01	NOT IDENT.
RA-223	8.611E-02	8.365E-02	7.375E-02	8.365E-02	NOT IDENT.
PA-233	-4.264E-03	2.994E-02	2.478E-02	2.994E-02	NOT IDENT.
NP-236	2.575E-02	2.860E-02	2.486E-02	2.860E-02	NOT IDENT.
NP-239	2.676E-02	9.746E-02	8.419E-02	9.746E-02	NOT IDENT.
AM-241	-3.900E-02	1.007E-01	7.621E-02	1.007E-01	NOT IDENT.
CM-243	1.549E-03	4.425E-02	3.708E-02	4.425E-02	NOT IDENT.
AM-246	1.462E-03	5.345E-02	4.446E-02	5.345E-02	NOT IDENT.
CF-249	7.766E-03	1.813E-02	1.524E-02	1.813E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
59.54	279.5833
63.29	293.2065
74.66	293.7228
74.81	293.8369
74.81	293.8369
77.11	295.5873
77.11	295.5873
86.48	387.2275
87.30	389.1895
87.30	389.1895
92.58	299.1418
98.44	246.2807
103.76	250.1114
105.31	260.3998
129.07	246.5152
143.76	283.2854
198.00	269.7079
209.25	266.1198
228.18	219.8599
238.63	240.7875
242.00	241.6916
269.46	198.0708
270.25	198.2287
277.36	194.2351
295.22	179.6658
300.09	167.3662
312.17	187.6975
338.32	161.2913
351.93	164.2154
387.59	141.3320
409.46	148.1536
427.87	134.6598
463.00	102.5221
510.77	118.1811
583.19	97.1989
609.31	140.5860
661.66	89.7751
727.33	91.5514
763.13	107.2617
768.36	100.9260
785.37	84.7283
794.95	74.9026
806.17	87.6045
831.80	85.4551
860.56	69.3509
896.60	61.1135
911.20	67.8210
934.06	59.6113
964.77	66.0737
968.97	71.2632
1001.03	72.0791
1078.86	52.4215
1120.29	68.7527
1155.19	55.8186
1173.23	50.8340
1238.11	68.4872
1280.96	51.5337
1332.51	43.2498
1377.67	35.6011
1401.50	45.7504
1407.98	32.2492
1460.80	45.2251
1509.23	24.3804
1588.20	36.5098
1620.50	34.7423
1729.60	40.3154
1764.49	22.1572

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198324014

Total Uranium Activity	2.0000E-02	ug/g
Total Uranium Counting Unc.	5.6880E-02	ug/g
Total Uranium Tpu	5.6880E-08	ug/g
Total Uranium Mda	3.5575E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:21:17.55

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324015.CNF;1
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 30-NOV-2007 10:06:34
Sample ID        : G198324015           Sample quantity  : 1.13240E+02 GRAM
Detector name    : GAM19                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.96  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706245               Detector SN#     :
Matrix Spike ID  :                      LCS ID           :
*****************************************************************************
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Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.83*	58	486	1.33	93.30	89	12	4.03E-03	80.0	
2	0	63.50*	87	357	1.73	126.60	123	8	6.03E-03	42.4	
3	3	75.01	420	501	1.51	149.61	144	15	2.91E-02	11.0	1.57E+00
4	3	77.27	554	354	1.19	154.13	144	15	3.85E-02	7.3	
5	0	81.42	81	269	1.85	162.42	160	6	5.63E-03	34.0	
6	1	84.34*	88	179	1.40	168.25	166	12	6.11E-03	26.1	5.42E-01
7	1	87.20	201	369	1.19	173.97	166	12	1.40E-02	17.3	
8	3	90.15	92	226	0.96	179.87	178	16	6.38E-03	24.8	1.39E+00
9	3	93.02*	212	502	1.71	185.59	178	16	1.47E-02	23.0	
10	0	129.15	96	321	1.17	257.80	254	9	6.64E-03	35.3	
11	0	134.20	29	320	1.79	267.89	262	8	2.01E-03	108.9	
12	0	162.54*	15	289	0.61	324.52	321	9	1.07E-03	212.3	
13	0	185.92*	237	425	1.51	371.25	366	13	1.64E-02	20.7	
14	0	193.79	42	260	0.75	386.97	383	9	2.92E-03	70.8	
15	0	209.89	72	414	0.83	419.15	412	12	5.00E-03	58.0	
16	2	238.39*	1087	222	1.31	476.09	471	18	7.55E-02	4.0	1.68E+00
17	2	241.32	322	232	1.73	481.96	471	18	2.23E-02	12.4	
18	0	269.64	152	273	2.88	538.55	531	14	1.06E-02	24.4	
19	0	276.23	112	259	3.93	551.71	545	14	7.81E-03	31.8	
20	0	281.20	36	105	0.74	561.65	559	6	2.53E-03	47.4	
21	1	294.88*	372	175	1.52	588.99	584	19	2.59E-02	8.6	6.28E-01
22	1	299.25	73	203	1.62	597.73	584	19	5.04E-03	38.4	
23	0	323.85	44	153	0.66	646.89	642	9	3.03E-03	54.3	
24	0	327.45	71	134	1.51	654.09	651	9	4.95E-03	31.3	
25	0	337.93	215	227	1.35	675.03	668	12	1.49E-02	15.6	
26	0	351.53*	638	231	1.57	702.22	695	14	4.43E-02	6.6	
27	0	438.89	25	110	1.47	876.82	871	9	1.77E-03	77.3	
28	0	462.19	58	160	0.83	923.39	918	12	4.05E-03	45.2	
29	0	510.22*	144	201	2.24	1019.40	1010	21	1.00E-02	30.5	
30	0	541.61	20	73	3.47	1082.14	1076	10	1.37E-03	84.2	
31	0	565.26*	97	166	2.07	1129.42	1120	17	6.77E-03	33.9	
32	0	582.60*	341	122	1.73	1164.08	1156	14	2.37E-02	9.2	
33	0	608.91*	427	163	1.63	1216.67	1211	15	2.96E-02	8.4	
34	0	648.98	21	42	1.51	1296.78	1293	8	1.47E-03	57.1	
35	2	661.28	61	88	1.93	1321.36	1313	19	4.25E-03	33.6	1.24E+00
36	2	664.75	37	46	2.04	1328.29	1313	19	2.59E-03	38.0	
37	0	672.34	14	52	2.16	1343.47	1338	8	9.73E-04	94.1	
38	0	726.55	108	93	1.55	1451.84	1446	14	7.52E-03	21.0	

Sample ID : G198324015 Acquisition date : 30-NOV-2007 10:06:34

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	767.73	59	73	0.68	1534.18	1528	14	4.12E-03	32.2	
40	0	784.65	64	66	5.73	1567.99	1559	18	4.43E-03	32.6	
41	0	794.08*	32	77	1.18	1586.85	1581	13	2.25E-03	61.6	
42	2	802.52*	27	55	2.12	1603.74	1596	23	1.86E-03	65.5	1.42E+00
43	2	805.16	24	40	1.75	1609.00	1596	23	1.66E-03	61.3	
44	0	834.78	36	50	1.76	1668.24	1662	11	2.52E-03	41.1	
45	0	860.22	29	63	0.71	1719.08	1714	11	2.02E-03	56.0	
46	0	910.61*	241	86	1.76	1819.84	1811	19	1.67E-02	11.6	
47	0	935.31	33	90	1.02	1869.23	1860	19	2.32E-03	70.2	
48	0	968.41	146	120	1.60	1935.41	1926	18	1.01E-02	19.8	
49	0	1000.27	41	27	1.99	1999.12	1993	11	2.84E-03	29.3	
50	0	1119.61	149	36	1.49	2237.75	2230	16	1.03E-02	12.2	
51	0	1225.90	11	34	1.31	2450.32	2446	8	7.89E-04	93.6	
52	0	1238.43	51	57	0.97	2475.37	2467	19	3.54E-03	38.2	
53	0	1285.57	14	23	1.18	2569.65	2564	10	9.83E-04	70.4	
54	0	1316.31	16	16	1.86	2631.13	2623	11	1.12E-03	54.8	
55	0	1375.76	56	22	1.93	2750.03	2743	14	3.87E-03	22.9	
56	0	1408.93*	27	52	3.41	2816.38	2804	26	1.85E-03	78.7	
57	0	1460.05*	475	63	1.64	2918.62	2910	18	3.30E-02	6.2	
58	0	1477.77	11	16	1.66	2954.07	2945	13	7.52E-04	82.5	
59	0	1568.04	9	20	0.69	3134.65	3127	13	5.90E-04	112.5	
60	0	1580.25	17	9	3.41	3159.08	3154	12	1.15E-03	44.0	
61	0	1587.88	9	20	1.54	3174.33	3169	10	6.25E-04	98.8	
62	0	1630.13	27	21	1.08	3258.85	3248	21	1.87E-03	46.6	
63	0	1638.46	6	15	0.55	3275.52	3269	10	3.84E-04	138.5	
64	0	1730.71	11	25	2.20	3460.07	3449	13	7.39E-04	103.2	
65	0	1763.43	97	21	2.95	3525.53	3517	17	6.71E-03	14.9	
66	0	1804.49	7	7	1.00	3607.68	3603	9	4.74E-04	79.2	
67	0	1846.82	24	7	1.50	3692.37	3687	10	1.63E-03	30.0	
68	0	1924.00	17	3	3.90	3846.79	3841	12	1.17E-03	31.9	
69	0	2037.15	7	4	0.79	4073.20	4067	9	4.67E-04	68.3	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324015       *
* Acquisition date : 30-NOV-2007 10:06:34 Detector SN#    :                 *
* Detector ID      : GAM19                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:01.96     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324015           Analyst initials: MJH1            *
* Batch Number     : 706245               Sample Quantity : 1.1324E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  6-MAR-2007 21:45:12 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	6.207E+00	8.422E-01	3.425E-01	0.000E+00
CS-137	5.088E-02	3.377E-02	3.758E-02	0.000E+00
TL-208	2.561E-01	4.977E-02	3.181E-02	0.000E+00
BI-212	7.006E-01	2.950E-01	2.596E-01	0.000E+00
PB-212	8.091E-01	8.133E-02	5.448E-02	0.000E+00
BI-214	6.089E-01	1.103E-01	6.679E-02	0.000E+00
PB-214	7.251E-01	1.033E-01	6.946E-02	0.000E+00
RA-223	3.905E-01	1.884E-01	1.645E-01	0.000E+00
AC-228	8.671E-01	2.162E-01	1.267E-01	0.000E+00
PA-234M	4.915E+00	2.859E+00	3.838E+00	0.000E+00
TH-234	1.000E+00	4.564E-01	4.241E-01	0.000E+00
NP-237	4.371E-01	1.507E-01	2.059E-01	0.000E+00
AM-243	2.006E-01	4.524E-02	4.890E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
CO-60	2.210E-02	2.497E-02	4.539E-02	0.000E+00	NOT IDENT.
RH-101	6.954E-03	2.398E-02	3.458E-02	0.000E+00	NOT IDENT.
SB-125	3.161E-02	5.197E-02	9.232E-02	0.000E+00	NOT IDENT.
EU-155	5.677E-02	5.946E-02	1.056E-01	0.000E+00	NOT IDENT.
PO-209	5.236E+00	4.569E+00	8.200E+00	0.000E+00	NOT IDENT.
BI-211	-3.635E-01	7.137E-01	9.513E-01	0.000E+00	NOT IDENT.
PA-233	2.686E-03	3.830E-02	6.333E-02	0.000E+00	NOT IDENT.
U-235	8.116E-03	1.192E-01	1.957E-01	0.000E+00	NOT IDENT.
NP-236	2.377E-02	3.623E-02	5.673E-02	0.000E+00	NOT IDENT.
NP-239	-1.793E-02	1.241E-01	2.060E-01	0.000E+00	NOT IDENT.
AM-241	9.393E-02	8.706E-02	1.410E-01	0.000E+00	NOT IDENT.
CM-243	1.686E-02	5.272E-02	9.180E-02	0.000E+00	NOT IDENT.
AM-246	6.503E-02	8.019E-02	1.456E-01	0.000E+00	NOT IDENT.
CF-249	1.125E-02	2.273E-02	4.021E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:21:18.57

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324015.CNF;1
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 30-NOV-2007 10:06:34
Sample ID        : G198324015           Sample quantity  : 1.13240E+02 GRAM
Detector name    : GAM19                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.96  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706245               Detector SN#     :
Matrix Spike ID  :                      LCS ID           :
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	475	10.66*	1.189E+00	6.207E+00	6.207E+00	13.84
CS-137	661.66	61	85.10*	2.353E+00	5.070E-02	5.088E-02	67.72
TL-208	277.36	112	6.31	4.633E+00	6.377E-01	6.377E-01	63.87
	510.77	144	22.60	2.908E+00	3.638E-01	3.638E-01	61.42
	583.19	341	84.50*	2.613E+00	2.561E-01	2.561E-01	19.83
	763.13	------	1.81	2.083E+00	------	Line Not Found	------
	860.56	29	12.42	1.876E+00	2.071E-01	2.071E-01	112.51
BI-212	727.33	108	11.80*	2.172E+00	7.006E-01	7.006E-01	42.97
	785.37	64	1.10	2.033E+00	4.730E+00	4.729E+00	65.94
	1620.50	------	1.49	1.102E+00	------	Line Not Found	------
PB-212	74.81	420	10.40	5.083E+00	1.316E+00	1.316E+00	23.01
	77.11	554	17.50	5.324E+00	9.853E-01	9.853E-01	16.01
	87.30	201	7.81	6.155E+00	6.940E-01	6.940E-01	35.18
	238.63	1087	43.30*	5.144E+00	8.091E-01	8.091E-01	10.26
	300.09	73	3.28	4.370E+00	8.395E-01	8.395E-01	77.13
BI-214	609.31	427	46.10*	2.520E+00	6.089E-01	6.089E-01	18.48
	768.36	59	4.94	2.072E+00	9.618E-01	9.619E-01	64.97
	806.17	24	1.22	1.988E+00	1.634E+00	1.635E+00	122.99
	934.06	33	3.03	1.742E+00	1.050E+00	1.050E+00	140.83
	1120.29	149	15.10	1.485E+00	1.100E+00	1.100E+00	25.43
	1155.19	------	1.63	1.445E+00	------	Line Not Found	------
	1238.11	51	5.79	1.361E+00	1.073E+00	1.073E+00	76.57
	1280.96	------	1.43	1.322E+00	------	Line Not Found	------
	1377.67	56	4.00	1.247E+00	1.854E+00	1.854E+00	46.30
	1401.50	------	1.27	1.228E+00	------	Line Not Found	------
	1407.98	27	2.15	1.223E+00	1.675E+00	1.675E+00	157.60
	1509.23	------	2.11	1.160E+00	------	Line Not Found	------
	1729.60	11	2.92	1.057E+00	5.714E-01	5.714E-01	206.45
	1764.49	97	15.40	1.045E+00	9.952E-01	9.952E-01	30.43
PB-214	74.81	420	6.44	5.083E+00	2.125E+00	2.125E+00	23.01
	77.11	554	10.80	5.324E+00	1.597E+00	1.597E+00	16.01
	87.30	201	4.84	6.155E+00	1.120E+00	1.120E+00	35.18

Sample ID : G198324015 Acquisition date : 30-NOV-2007 10:06:34

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	242.00	322	7.43	5.100E+00	1.407E+00	1.407E+00	25.65
	295.22	372	19.30	4.418E+00	7.238E-01	7.239E-01	18.37
	351.93	638	37.60*	3.876E+00	7.250E-01	7.251E-01	14.54
RA-223	269.46	152	13.70*	4.715E+00	3.905E-01	3.905E-01	49.24
AC-228	129.07	96	2.42	6.984E+00	9.374E-01	9.374E-01	70.78
	209.25	72	3.89	5.602E+00	5.478E-01	5.478E-01	116.20
	270.25	152	3.46	4.715E+00	1.546E+00	1.546E+00	49.24
	338.32	215	11.27	3.993E+00	7.904E-01	7.904E-01	31.86
	409.46	------	1.92	3.452E+00	------ Line Not Found		------
	463.00	58	4.40	3.143E+00	6.993E-01	6.993E-01	90.59
	794.95	32	4.25	2.012E+00	6.272E-01	6.272E-01	123.66
	911.20	241	25.80*	1.784E+00	8.671E-01	8.671E-01	25.45
	964.77	------	4.99	1.695E+00	------ Line Not Found		------
	968.97	146	15.80	1.689E+00	9.059E-01	9.059E-01	40.75
	1588.20	9	3.22	1.118E+00	4.144E-01	4.144E-01	197.61
PA-234M	1001.03	41	0.84*	1.641E+00	4.915E+00	4.915E+00	59.36
TH-234	63.29	87	4.80	3.583E+00	8.371E-01	8.371E-01	85.13
	92.58	212	5.41*	6.489E+00	1.000E+00	1.000E+00	46.55
NP-237	86.48	201	12.40*	6.155E+00	4.371E-01	4.371E-01	35.18
AM-243	74.66	420	68.20*	5.083E+00	2.006E-01	2.006E-01	23.01

Flag: "*" = Keyline

Sample ID : G198324015 Acquisition date : 30-NOV-2007 10:06:34

Total number of lines in spectrum 69
Number of unidentified lines 31
Number of lines tentatively identified by NID 38 55.07%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	6.207E+00	6.207E+00	0.859E+00	13.84	
CS-137	9.47E+08S	1.00	5.070E-02	5.088E-02	3.446E-02	67.72	
TL-208	4.43E+17S	1.00	2.561E-01	2.561E-01	0.508E-01	19.83	
BI-212	4.43E+17S	1.00	7.006E-01	7.006E-01	3.010E-01	42.97	
PB-212	4.43E+17S	1.00	8.091E-01	8.091E-01	0.830E-01	10.26	
BI-214	5.05E+10S	1.00	6.089E-01	6.089E-01	1.125E-01	18.48	
PB-214	5.05E+10S	1.00	7.250E-01	7.251E-01	1.054E-01	14.54	
RA-223	1.04E+12S	1.00	3.905E-01	3.905E-01	1.923E-01	49.24	
AC-228	4.43E+17S	1.00	8.671E-01	8.671E-01	2.206E-01	25.45	
PA-234M	1.41E+17S	1.00	4.915E+00	4.915E+00	2.917E+00	59.36	
TH-234	1.41E+17S	1.00	1.000E+00	1.000E+00	0.466E+00	46.55	
NP-237	6.75E+13S	1.00	4.371E-01	4.371E-01	1.538E-01	35.18	
AM-243	2.33E+11S	1.00	2.006E-01	2.006E-01	0.462E-01	23.01	
			---	---			
		Total Activity :	1.717E+01	1.717E+01			

Grand Total Activity : 1.717E+01 1.717E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G198324015 Acquisition date : 30-NOV-2007 10:06:34

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.83	58	486	1.33	93.30	89	12	4.03E-03	****	1.13E+00	
0	81.42	81	269	1.85	162.42	160	6	5.63E-03	68.0	5.71E+00	
1	84.34	88	179	1.40	168.25	166	12	6.11E-03	52.3	5.95E+00	
3	90.15	92	226	0.96	179.87	178	16	6.38E-03	49.6	6.34E+00	
0	134.20	29	320	1.79	267.89	262	8	2.01E-03	****	6.93E+00	
0	162.54	15	289	0.61	324.52	321	9	1.07E-03	****	6.48E+00	
0	185.92	237	425	1.51	371.25	366	13	1.64E-02	41.3	6.04E+00	
0	193.79	42	260	0.75	386.97	383	9	2.92E-03	****	5.89E+00	
0	281.20	36	105	0.74	561.65	559	6	2.53E-03	94.7	4.57E+00	
0	323.85	44	153	0.66	646.89	642	9	3.03E-03	****	4.12E+00	
0	327.45	71	134	1.51	654.09	651	9	4.95E-03	62.6	4.09E+00	
0	438.89	25	110	1.47	876.82	871	9	1.77E-03	****	3.27E+00	
0	541.61	20	73	3.47	1082.14	1076	10	1.37E-03	****	2.77E+00	
0	565.26	97	166	2.07	1129.42	1120	17	6.77E-03	67.7	2.68E+00	
0	648.98	21	42	1.51	1296.78	1293	8	1.47E-03	****	2.39E+00	
2	664.75	37	46	2.04	1328.29	1313	19	2.59E-03	76.1	2.34E+00	
0	672.34	14	52	2.16	1343.47	1338	8	9.73E-04	****	2.32E+00	
2	802.52	27	55	2.12	1603.74	1596	23	1.86E-03	****	1.99E+00	
0	834.78	36	50	1.76	1668.24	1662	11	2.52E-03	82.2	1.93E+00	
0	1225.90	11	34	1.31	2450.32	2446	8	7.89E-04	****	1.37E+00	
0	1285.57	14	23	1.18	2569.65	2564	10	9.83E-04	****	1.32E+00	
0	1316.31	16	16	1.86	2631.13	2623	11	1.12E-03	****	1.29E+00	
0	1477.77	11	16	1.66	2954.07	2945	13	7.52E-04	****	1.18E+00	
0	1568.04	9	20	0.69	3134.65	3127	13	5.90E-04	****	1.13E+00	
0	1580.25	17	9	3.41	3159.08	3154	12	1.15E-03	88.0	1.12E+00	
0	1630.13	27	21	1.08	3258.85	3248	21	1.87E-03	93.2	1.10E+00	
0	1638.46	6	15	0.55	3275.52	3269	10	3.84E-04	****	1.09E+00	
0	1804.49	7	7	1.00	3607.68	3603	9	4.74E-04	****	1.03E+00	
0	1846.82	24	7	1.50	3692.37	3687	10	1.63E-03	60.0	1.02E+00	
0	1924.00	17	3	3.90	3846.79	3841	12	1.17E-03	63.8	9.99E-01	
0	2037.15	7	4	0.79	4073.20	4067	9	4.67E-04	****	9.77E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G198324015            *
* Acquisition date : 30-NOV-2007 10:06:34 Detector SN#    :                 *
* Detector ID      : GAM19                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:01.96     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324015           Analyst initials: MJH1            *
* Batch Number     : 706245               Sample Quantity : 1.1324E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME :  6-MAR-2007 21:45:12 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	6.207E+00	8.422E-01	1.713E-01	8.422E-01
CS-137	5.088E-02	3.377E-02	1.880E-02	3.377E-02
TL-208	2.561E-01	4.977E-02	1.591E-02	4.977E-02
BI-212	7.006E-01	2.950E-01	1.299E-01	2.950E-01
PB-212	8.091E-01	8.133E-02	2.726E-02	8.133E-02
BI-214	6.089E-01	1.103E-01	3.341E-02	1.103E-01
PB-214	7.251E-01	1.033E-01	3.475E-02	1.033E-01
RA-223	3.905E-01	1.884E-01	8.231E-02	1.884E-01
AC-228	8.671E-01	2.162E-01	6.336E-02	2.162E-01
PA-234M	4.915E+00	2.859E+00	1.920E+00	2.859E+00
TH-234	1.000E+00	4.564E-01	2.122E-01	4.564E-01
NP-237	4.371E-01	1.507E-01	1.030E-01	1.507E-01
AM-243	2.006E-01	4.524E-02	2.447E-02	4.524E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	2.210E-02	2.497E-02	2.271E-02	2.497E-02	NOT IDENT.
RH-101	6.954E-03	2.398E-02	1.730E-02	2.398E-02	NOT IDENT.
SB-125	3.161E-02	5.197E-02	4.619E-02	5.197E-02	NOT IDENT.
EU-155	5.677E-02	5.946E-02	5.284E-02	5.946E-02	NOT IDENT.
PO-209	5.236E+00	4.569E+00	4.103E+00	4.569E+00	NOT IDENT.
BI-211	-3.635E-01	7.137E-01	4.759E-01	7.137E-01	NOT IDENT.
PA-233	2.686E-03	3.830E-02	3.169E-02	3.830E-02	NOT IDENT.
U-235	8.116E-03	1.192E-01	9.790E-02	1.192E-01	NOT IDENT.
NP-236	2.377E-02	3.623E-02	2.838E-02	3.623E-02	NOT IDENT.
NP-239	-1.793E-02	1.241E-01	1.030E-01	1.241E-01	NOT IDENT.
AM-241	9.393E-02	8.706E-02	7.056E-02	8.706E-02	NOT IDENT.
CM-243	1.686E-02	5.272E-02	4.593E-02	5.272E-02	NOT IDENT.
AM-246	6.503E-02	8.019E-02	7.286E-02	8.019E-02	NOT IDENT.
CF-249	1.125E-02	2.273E-02	2.012E-02	2.273E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
59.54	306.2296
63.29	389.3021
74.66	456.7063
74.81	456.7858
74.81	456.7858
77.11	457.9934
77.11	457.9934
86.48	393.2486
87.30	450.9085
87.30	450.9085
92.58	356.5641
98.44	303.0092
103.76	322.4457
105.31	321.9480
129.07	300.4020
143.76	296.5530
198.00	275.7587
209.25	273.5165
228.18	233.0300
238.63	241.9372
242.00	242.4010
269.46	186.3984
270.25	186.4768
277.36	179.2999
295.22	205.2057
300.09	219.4128
312.17	174.6510
338.32	187.6857
351.93	169.5007
387.59	135.3039
409.46	149.5205
427.87	111.3243
463.00	104.2865
510.77	83.9032
583.19	82.3161
609.31	100.5833
661.66	94.0740
727.33	74.1867
763.13	69.3522
768.36	78.1274
785.37	61.6162
794.95	57.6882
806.17	61.6101
831.80	75.8694
860.56	61.8332
896.60	54.8387
911.20	57.1846
934.06	45.5540
964.77	52.7867
968.97	45.9129
1001.03	47.1805
1078.86	48.4940
1120.29	47.0215
1155.19	46.4001
1173.23	49.4144
1238.11	48.1018
1280.96	36.5695
1332.51	33.2723
1377.67	33.8170
1401.50	22.0708
1407.98	34.6995
1460.80	32.0065
1509.23	19.1539
1588.20	47.6351
1620.50	14.0681
1729.60	16.0859
1764.49	16.1669

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198324015

Total Uranium Activity	3.7552E-03	ug/g
Total Uranium Counting Unc.	5.5149E-02	ug/g
Total Uranium Tpu	5.5149E-08	ug/g
Total Uranium Mda	4.5299E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:21:52.60

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324016.CNF;2
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 7-DEC-2007 05:46:10.
Sample ID        : G198324016           Sample quantity  : 1.18270E+02 GRAM
Detector name    : GAM11                Detector geometry: CAN
Elapsed live time: 0 08:00:00.00        Elapsed real time: 0 08:00:02.73  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706245               Detector SN#     :
Matrix Spike ID  :                      LCS ID           :
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.40*	123	518	1.15	92.25	87	10	4.26E-03	41.2	
2	0	63.04*	85	603	0.75	125.58	121	9	2.96E-03	62.1	
3	2	74.76*	249	425	0.87	149.03	145	27	8.64E-03	15.8	3.24E+00
4	2	77.08*	356	391	0.91	153.67	145	27	1.23E-02	11.2	
5	2	84.38*	38	402	1.04	168.30	145	27	1.31E-03	127.9	
6	0	87.28*	81	438	1.15	174.09	171	7	2.80E-03	62.3	
7	2	89.81	115	328	0.78	179.16	177	14	4.00E-03	24.8	1.92E+00
8	2	92.56*	233	387	1.06	184.66	177	14	8.08E-03	21.1	
9	0	128.83	97	441	0.83	257.27	253	9	3.37E-03	40.3	
10	0	153.61	105	309	1.65	306.87	303	8	3.65E-03	30.6	
11	0	157.10	82	248	2.15	313.86	311	7	2.84E-03	33.9	
12	0	185.65*	116	374	0.95	371.01	367	8	4.04E-03	40.3	
13	0	201.77	36	297	1.24	403.27	402	7	1.24E-03	81.9	
14	0	209.46	68	346	0.99	418.67	415	9	2.36E-03	50.8	
15	6	238.48*	846	218	0.97	476.74	471	17	2.94E-02	5.2	8.64E-01
16	6	241.22	189	361	1.59	482.23	471	17	6.57E-03	23.9	
17	0	269.75	87	296	1.28	539.34	535	10	3.01E-03	38.7	
18	0	277.42	26	206	0.82	554.69	552	7	8.97E-04	94.5	
19	0	294.90*	163	332	1.16	589.69	583	12	5.65E-03	27.2	
20	0	299.69	87	227	1.05	599.27	595	9	3.04E-03	32.9	
21	1	327.65	51	163	1.27	655.23	651	14	1.78E-03	47.8	3.19E+00
22	1	329.03	34	161	1.16	658.00	651	14	1.17E-03	67.0	
23	0	337.94*	165	200	0.93	675.83	670	10	5.74E-03	19.8	
24	0	351.74*	289	259	1.08	703.45	698	11	1.00E-02	14.2	
25	0	366.23	33	174	1.10	732.45	730	8	1.15E-03	70.6	
26	0	408.29	20	162	1.60	816.63	815	8	6.83E-04	114.4	
27	0	462.91	82	155	1.07	925.95	921	11	2.85E-03	31.3	
28	0	468.70	17	114	0.82	937.55	933	8	5.95E-04	111.2	
29	0	491.63	51	106	2.07	983.44	979	10	1.77E-03	40.1	
30	0	510.91*	89	313	2.43	1022.03	1014	20	3.08E-03	66.9	
31	0	569.66	33	102	1.39	1139.60	1136	9	1.15E-03	57.8	
32	0	583.00*	326	108	1.11	1166.32	1160	12	1.13E-02	9.6	
33	0	600.24	27	103	0.85	1200.80	1198	8	9.51E-04	67.9	
34	0	608.99*	215	173	1.05	1218.32	1213	11	7.48E-03	15.2	
35	0	623.26	20	101	1.70	1246.89	1244	9	6.98E-04	92.9	
36	0	632.19	16	70	1.24	1264.76	1263	7	5.40E-04	92.2	
37	0	661.81	113	179	1.17	1324.04	1318	13	3.92E-03	26.3	
38	0	696.68	23	88	1.02	1393.83	1390	8	7.99E-04	73.7	

Sample ID : G198324016 Acquisition date : 7-DEC-2007 05:46:10

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	727.33	68	102	1.46	1455.16	1450	11	2.38E-03	31.0	
40	0	767.82	34	84	1.00	1536.19	1532	9	1.17E-03	52.7	
41	0	794.47	67	67	0.77	1589.51	1583	14	2.32E-03	28.7	
42	0	807.41	145	183	12.26	1615.41	1601	32	5.02E-03	29.9	
43	0	824.65	16	55	0.72	1649.92	1646	8	5.62E-04	82.6	
44	0	831.83	21	50	1.05	1664.30	1659	8	7.32E-04	62.0	
45	0	860.09	68	118	0.88	1720.84	1712	18	2.37E-03	39.0	
46	0	911.07*	199	69	1.45	1822.87	1817	14	6.92E-03	12.4	
47	0	934.14	37	46	2.45	1869.02	1865	9	1.27E-03	37.5	
48	2	964.45	37	38	1.92	1929.69	1926	22	1.29E-03	33.3	1.06E+00
49	2	968.86*	88	48	1.92	1938.51	1926	22	3.04E-03	24.3	
50	6	1119.88	67	35	2.16	2240.70	2236	21	2.33E-03	19.2	9.83E-01
51	6	1124.67	29	30	2.96	2250.29	2236	21	1.02E-03	51.9	
52	0	1129.67	23	28	0.67	2260.29	2256	10	7.89E-04	48.2	
53	0	1243.75	38	143	6.39	2488.56	2470	29	1.31E-03	93.1	
54	0	1329.45	8	20	1.18	2660.05	2655	7	2.86E-04	99.8	
55	4	1330.99	16	3	1.23	2663.12	2661	10	5.40E-04	23.4	1.70E+00
56	4	1333.57	11	5	1.44	2668.29	2661	10	3.98E-04	38.2	
57	0	1379.11	24	42	2.38	2759.39	2748	14	8.34E-04	60.7	
58	0	1434.06	23	14	3.91	2869.35	2862	14	7.99E-04	40.3	
59	0	1460.39	562	36	1.84	2922.02	2914	16	1.95E-02	4.8	
60	0	1508.59	16	11	1.84	3018.45	3015	7	5.38E-04	43.0	
61	0	1621.09	8	16	1.34	3243.53	3236	9	2.89E-04	92.5	
62	0	1740.40	20	14	5.04	3482.22	3475	14	6.95E-04	48.7	
63	0	1746.07	8	2	2.30	3493.57	3490	7	2.85E-04	44.1	
64	0	1764.64*	30	30	1.64	3530.71	3522	17	1.03E-03	54.9	
65	0	1783.01	9	4	0.83	3567.47	3564	7	2.95E-04	50.1	
66	0	1796.19	17	14	4.70	3593.82	3587	14	5.90E-04	52.6	
67	0	1847.72	10	11	0.86	3696.91	3692	10	3.60E-04	69.8	
68	0	1871.16	17	11	1.36	3743.81	3737	14	5.98E-04	46.7	
69	0	1965.02	7	19	5.75	3931.57	3918	15	2.46E-04	138.3	
70	0	1992.64	12	26	3.37	3986.81	3970	21	4.11E-04	112.0	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324016       *
* Acquisition date :  7-DEC-2007 05:46:10 Detector SN#    :                 *
* Detector ID      : GAM11                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 08:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 08:00:02.73     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324016           Analyst initials: MJH1            *
* Batch Number     : 706245               Sample Quantity : 1.1827E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  2-OCT-2007 15:05:44 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.303E+00	3.874E-01	1.482E-01	0.000E+00
CS-137	4.172E-02	2.176E-02	1.678E-02	0.000E+00
TL-208	1.085E-01	2.168E-02	1.636E-02	0.000E+00
BI-211	2.450E-01	2.986E-01	5.463E-01	0.000E+00
BI-212	1.975E-01	1.209E-01	1.185E-01	0.000E+00
PB-212	2.769E-01	3.263E-02	2.364E-02	0.000E+00
BI-214	1.364E-01	4.179E-02	3.342E-02	0.000E+00
PB-214	1.445E-01	4.099E-02	3.172E-02	0.000E+00
RA-223	9.762E-02	7.418E-02	7.494E-02	0.000E+00
AC-228	3.218E-01	8.318E-02	5.637E-02	0.000E+00
TH-234	4.636E-01	1.944E-01	1.690E-01	0.000E+00
NP-237	7.265E-02	8.891E-02	7.194E-02	0.000E+00
AM-243	4.753E-02	1.503E-02	1.811E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	-3.194E-03		1.124E-02	1.826E-02	0.000E+00	FAIL ABUN
RH-101	6.351E-03		8.664E-03	1.451E-02	0.000E+00	NOT IDENT.
SB-125	-6.903E-03		2.456E-02	4.168E-02	0.000E+00	NOT IDENT.
EU-155	8.831E-03		2.288E-02	4.101E-02	0.000E+00	NOT IDENT.
PO-209	6.953E-01		1.929E+00	3.395E+00	0.000E+00	NOT IDENT.
PA-233	-5.286E-03		1.713E-02	2.764E-02	0.000E+00	NOT IDENT.
PA-234M	-7.153E-01		1.656E+00	2.255E+00	0.000E+00	NOT IDENT.
U-235	-5.249E-03		6.433E-02	8.856E-02	0.000E+00	NOT IDENT.
NP-236	8.789E-03		1.662E-02	2.504E-02	0.000E+00	NOT IDENT.
NP-239	1.197E-02		5.611E-02	9.534E-02	0.000E+00	NOT IDENT.
AM-241	-6.916E-03		3.060E-02	4.565E-02	0.000E+00	NOT IDENT.
CM-243	-2.143E-03		2.045E-02	3.603E-02	0.000E+00	NOT IDENT.
AM-246	-3.001E-03		3.593E-02	5.999E-02	0.000E+00	NOT IDENT.
CF-249	-2.567E-03		1.071E-02	1.839E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:21:53.67

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324016.CNF;2
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 7-DEC-2007 05:46:10.
Sample ID        : G198324016           Sample quantity  : 1.18270E+02 GRAM
Detector name    : GAM11                Detector geometry: CAN
Elapsed live time: 0 08:00:00.00        Elapsed real time: 0 08:00:02.73  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706245               Detector SN#     :
Matrix Spike ID  :                      LCS ID           :
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	562	10.66*	1.267E+00	3.303E+00	3.303E+00	11.97
CS-137	661.66	113	85.10*	2.532E+00	4.155E-02	4.172E-02	53.23
TL-208	277.36	26	6.31	5.036E+00	6.454E-02	6.454E-02	189.07
	510.77	89	22.60	3.148E+00	9.896E-02	9.896E-02	133.99
	583.19	326	84.50*	2.821E+00	1.085E-01	1.085E-01	20.38
	763.13	------	1.81	2.235E+00	------	Line Not Found	------
	860.56	68	12.42	2.008E+00	2.177E-01	2.177E-01	78.54
BI-211	831.80	21	3.30*	2.069E+00	2.450E-01	2.450E-01	124.38
BI-212	727.33	68	11.80*	2.332E+00	1.975E-01	1.975E-01	62.45
	785.37	------	1.10	2.178E+00	------	Line Not Found	------
	1620.50	8	1.49	1.175E+00	3.776E-01	3.776E-01	185.15
PB-212	74.81	249	10.40	6.094E+00	3.117E-01	3.117E-01	32.26
	77.11	356	17.50	6.328E+00	2.548E-01	2.548E-01	23.35
	87.30	81	7.81	7.104E+00	1.153E-01	1.153E-01	124.88
	238.63	846	43.30*	5.601E+00	2.769E-01	2.769E-01	12.03
	300.09	87	3.28	4.760E+00	4.443E-01	4.443E-01	65.99
BI-214	609.31	215	46.10*	2.719E+00	1.364E-01	1.364E-01	31.26
	768.36	34	4.94	2.222E+00	2.437E-01	2.437E-01	105.66
	806.17	145	1.22	2.125E+00	4.425E+00	4.425E+00	60.33
	934.06	37	3.03	1.863E+00	5.158E-01	5.158E-01	75.47
	1120.29	67	15.10	1.583E+00	2.230E-01	2.230E-01	38.96
	1155.19	------	1.63	1.540E+00	------	Line Not Found	------
	1238.11	------	5.79	1.450E+00	------	Line Not Found	------
	1280.96	------	1.43	1.408E+00	------	Line Not Found	------
	1377.67	24	4.00	1.325E+00	3.597E-01	3.598E-01	121.68
	1401.50	------	1.27	1.308E+00	------	Line Not Found	------
	1407.98	------	2.15	1.303E+00	------	Line Not Found	------
	1509.23	16	2.11	1.236E+00	4.715E-01	4.715E-01	86.23
	1729.60	------	2.92	1.128E+00	------	Line Not Found	------
	1764.49	30	15.40	1.115E+00	1.369E-01	1.369E-01	109.89
PB-214	74.81	249	6.44	6.094E+00	5.034E-01	5.034E-01	32.26
	77.11	356	10.80	6.328E+00	4.129E-01	4.130E-01	23.35

Sample ID : G198324016 Acquisition date : 7-DEC-2007 05:46:10

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	81	4.84	7.104E+00	1.861E-01	1.861E-01	124.88
	242.00	189	7.43	5.558E+00	3.634E-01	3.634E-01	48.16
	295.22	163	19.30	4.817E+00	1.390E-01	1.390E-01	54.83
	351.93	289	37.60*	4.223E+00	1.445E-01	1.445E-01	28.95
RA-223	269.46	87	13.70*	5.138E+00	9.762E-02	9.762E-02	77.54
AC-228	129.07	97	2.42	7.657E+00	4.154E-01	4.154E-01	80.85
	209.25	68	3.89	6.104E+00	2.275E-01	2.275E-01	101.86
	270.25	87	3.46	5.138E+00	3.865E-01	3.865E-01	77.54
	338.32	165	11.27	4.353E+00	2.675E-01	2.675E-01	40.06
	409.46	20	1.92	3.765E+00	2.158E-01	2.158E-01	228.93
	463.00	82	4.40	3.409E+00	4.346E-01	4.346E-01	62.81
	794.95	67	4.25	2.156E+00	5.784E-01	5.784E-01	57.95
	911.20	199	25.80*	1.906E+00	3.218E-01	3.218E-01	26.38
	964.77	37	4.99	1.810E+00	3.251E-01	3.251E-01	67.14
	968.97	88	15.80	1.803E+00	2.438E-01	2.438E-01	49.28
	1588.20	------	3.22	1.192E+00	------	Line Not Found	------
TH-234	63.29	85	4.80	4.557E+00	3.097E-01	3.097E-01	124.41
	92.58	233	5.41*	7.364E+00	4.636E-01	4.636E-01	42.79
NP-237	86.48	81	12.40*	7.104E+00	7.265E-02	7.265E-02	124.88
AM-243	74.66	249	68.20*	6.094E+00	4.753E-02	4.753E-02	32.26

Flag: "*" = Keyline

Sample ID : G198324016 Acquisition date : 7-DEC-2007 05:46:10

Total number of lines in spectrum 70
Number of unidentified lines 32
Number of lines tentatively identified by NID 38 54.29%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	3.303E+00	3.303E+00	0.395E+00	11.97	
CS-137	9.47E+08S	1.00	4.155E-02	4.172E-02	2.221E-02	53.23	
TL-208	4.43E+17S	1.00	1.085E-01	1.085E-01	0.221E-01	20.38	
BI-211	2.22E+16S	1.00	2.450E-01	2.450E-01	3.047E-01	124.38	
BI-212	4.43E+17S	1.00	1.975E-01	1.975E-01	1.234E-01	62.45	
PB-212	4.43E+17S	1.00	2.769E-01	2.769E-01	0.333E-01	12.03	
BI-214	5.05E+10S	1.00	1.364E-01	1.364E-01	0.426E-01	31.26	
PB-214	5.05E+10S	1.00	1.445E-01	1.445E-01	0.418E-01	28.95	
RA-223	1.04E+12S	1.00	9.762E-02	9.762E-02	7.570E-02	77.54	
AC-228	4.43E+17S	1.00	3.218E-01	3.218E-01	0.849E-01	26.38	
TH-234	1.41E+17S	1.00	4.636E-01	4.636E-01	1.984E-01	42.79	
NP-237	6.75E+13S	1.00	7.265E-02	7.265E-02	9.072E-02	124.88	
AM-243	2.33E+11S	1.00	4.753E-02	4.753E-02	1.533E-02	32.26	
			---	---			
	Total Activity :		5.457E+00	5.457E+00			

Grand Total Activity : 5.457E+00 5.457E+00

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G198324016 Acquisition date : 7-DEC-2007 05:46:10

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.40	123	518	1.15	92.25	87	10	4.26E-03	82.3	1.73E+00	
2	84.38	38	402	1.04	168.30	145	27	1.31E-03	****	6.92E+00	
2	89.81	115	328	0.78	179.16	177	14	4.00E-03	49.6	7.24E+00	
0	153.61	105	309	1.65	306.87	303	8	3.65E-03	61.2	7.23E+00	
0	157.10	82	248	2.15	313.86	311	7	2.84E-03	67.8	7.16E+00	
0	185.65	116	374	0.95	371.01	367	8	4.04E-03	80.6	6.57E+00	
0	201.77	36	297	1.24	403.27	402	7	1.24E-03	****	6.25E+00	
1	327.65	51	163	1.27	655.23	651	14	1.78E-03	95.7	4.46E+00	
1	329.03	34	161	1.16	658.00	651	14	1.17E-03	****	4.44E+00	
0	366.23	33	174	1.10	732.45	730	8	1.15E-03	****	4.10E+00	
0	468.70	17	114	0.82	937.55	933	8	5.95E-04	****	3.38E+00	
0	491.63	51	106	2.07	983.44	979	10	1.77E-03	80.3	3.25E+00	
0	569.66	33	102	1.39	1139.60	1136	9	1.15E-03	****	2.88E+00	
0	600.24	27	103	0.85	1200.80	1198	8	9.51E-04	****	2.75E+00	
0	623.26	20	101	1.70	1246.89	1244	9	6.98E-04	****	2.67E+00	
0	632.19	16	70	1.24	1264.76	1263	7	5.40E-04	****	2.63E+00	
0	696.68	23	88	1.02	1393.83	1390	8	7.99E-04	****	2.42E+00	
0	824.65	16	55	0.72	1649.92	1646	8	5.62E-04	****	2.09E+00	
6	1124.67	29	30	2.96	2250.29	2236	21	1.02E-03	****	1.58E+00	
0	1129.67	23	28	0.67	2260.29	2256	10	7.89E-04	96.3	1.57E+00	
0	1243.75	38	143	6.39	2488.56	2470	29	1.31E-03	****	1.44E+00	
0	1329.45	8	20	1.18	2660.05	2655	7	2.86E-04	****	1.37E+00	
4	1330.99	16	3	1.23	2663.12	2661	10	5.40E-04	46.8	1.36E+00	
4	1333.57	11	5	1.44	2668.29	2661	10	3.98E-04	76.5	1.36E+00	T
0	1434.06	23	14	3.91	2869.35	2862	14	7.99E-04	80.6	1.28E+00	
0	1740.40	20	14	5.04	3482.22	3475	14	6.95E-04	97.5	1.12E+00	
0	1746.07	8	2	2.30	3493.57	3490	7	2.85E-04	88.2	1.12E+00	
0	1783.01	9	4	0.83	3567.47	3564	7	2.95E-04	****	1.11E+00	
0	1796.19	17	14	4.70	3593.82	3587	14	5.90E-04	****	1.10E+00	
0	1847.72	10	11	0.86	3696.91	3692	10	3.60E-04	****	1.09E+00	
0	1871.16	17	11	1.36	3743.81	3737	14	5.98E-04	93.5	1.08E+00	
0	1965.02	7	19	5.75	3931.57	3918	15	2.46E-04	****	1.06E+00	
0	1992.64	12	26	3.37	3986.81	3970	21	4.11E-04	****	1.05E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G198324016            *
* Acquisition date :  7-DEC-2007 05:46:10 Detector SN#    :                 *
* Detector ID      : GAM11                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 08:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 08:00:02.73     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324016           Analyst initials: MJH1            *
* Batch Number     : 706245               Sample Quantity : 1.1827E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME :  2-OCT-2007 15:05:44 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	3.303E+00	3.874E-01	7.416E-02	3.874E-01
CS-137	4.172E-02	2.176E-02	8.397E-03	2.176E-02
TL-208	1.085E-01	2.168E-02	8.187E-03	2.168E-02
BI-211	2.450E-01	2.986E-01	2.733E-01	2.986E-01
BI-212	1.975E-01	1.209E-01	5.930E-02	1.209E-01
PB-212	2.769E-01	3.263E-02	1.183E-02	3.263E-02
BI-214	1.364E-01	4.179E-02	1.672E-02	4.179E-02
PB-214	1.445E-01	4.099E-02	1.587E-02	4.099E-02
RA-223	9.762E-02	7.418E-02	3.749E-02	7.418E-02
AC-228	3.218E-01	8.318E-02	2.820E-02	8.318E-02
TH-234	4.636E-01	1.944E-01	8.455E-02	1.944E-01
NP-237	7.265E-02	8.891E-02	3.599E-02	8.891E-02
AM-243	4.753E-02	1.503E-02	9.062E-03	1.503E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	-3.194E-03	1.124E-02	9.135E-03	1.124E-02	FAIL ABUN
RH-101	6.351E-03	8.664E-03	7.261E-03	8.664E-03	NOT IDENT.
SB-125	-6.903E-03	2.456E-02	2.085E-02	2.456E-02	NOT IDENT.
EU-155	8.831E-03	2.288E-02	2.052E-02	2.288E-02	NOT IDENT.
PO-209	6.953E-01	1.929E+00	1.698E+00	1.929E+00	NOT IDENT.
PA-233	-5.286E-03	1.713E-02	1.383E-02	1.713E-02	NOT IDENT.
PA-234M	-7.153E-01	1.656E+00	1.128E+00	1.656E+00	NOT IDENT.
U-235	-5.249E-03	6.433E-02	4.431E-02	6.433E-02	NOT IDENT.
NP-236	8.789E-03	1.662E-02	1.253E-02	1.662E-02	NOT IDENT.
NP-239	1.197E-02	5.611E-02	4.770E-02	5.611E-02	NOT IDENT.
AM-241	-6.916E-03	3.060E-02	2.284E-02	3.060E-02	NOT IDENT.
CM-243	-2.143E-03	2.045E-02	1.803E-02	2.045E-02	NOT IDENT.
AM-246	-3.001E-03	3.593E-02	3.001E-02	3.593E-02	NOT IDENT.
CF-249	-2.567E-03	1.071E-02	9.201E-03	1.071E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
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ENERGY	MDA COUNTS
59.54	307.2889
63.29	342.3110
74.66	391.0404
74.81	391.1724
74.81	391.1724
77.11	393.2069
77.11	393.2069
86.48	275.2529
87.30	387.5646
87.30	387.5646
92.58	315.4651
98.44	292.4661
103.76	284.6275
105.31	280.0443
129.07	289.5749
143.76	301.7886
198.00	259.3327
209.25	270.7440
228.18	239.2468
238.63	233.2572
242.00	234.0444
269.46	198.3875
270.25	198.5339
277.36	192.0486
295.22	196.2102
300.09	190.2339
312.17	185.2987
338.32	162.5756
351.93	181.4426
387.59	170.7422
409.46	146.5781
427.87	142.7628
463.00	119.0395
510.77	127.5105
583.19	110.1028
609.31	127.0352
661.66	94.2257
727.33	77.3746
763.13	109.7291
768.36	83.3584
785.37	94.8676
794.95	70.5828
806.17	69.0187
831.80	101.5251
860.56	60.6568
896.60	61.4561
911.20	56.1606
934.06	73.5935
964.77	60.0669
968.97	60.1530
1001.03	55.9694
1078.86	56.3766
1120.29	48.4065
1155.19	56.6645
1173.23	60.0112
1238.11	63.1803
1280.96	50.2945
1332.51	30.0903
1377.67	42.9707
1401.50	41.0652
1407.98	32.4712
1460.80	29.5998
1509.23	30.4930
1588.20	42.3303
1620.50	35.7300
1729.60	25.2087
1764.49	31.2474

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198324016

Total Uranium Activity	-2.4289E-03	ug/g
Total Uranium Counting Unc.	2.9765E-02	ug/g
Total Uranium Tpu	2.9765E-08	ug/g
Total Uranium Mda	2.0501E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:22:26.81

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324017.CNF;1
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 30-NOV-2007 11:14:25
Sample ID        : G198324017           Sample quantity  : 1.20050E+02 GRAM
Detector name    : GAM01                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.49  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706245               Detector SN#     :
Matrix Spike ID  :                      LCS ID           :
*****************************************************************************
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Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.70	49	353	2.43	93.45	88	11	3.42E-03	75.2	
2	0	63.47*	61	372	1.62	127.00	123	9	4.26E-03	62.0	
3	1	74.93	261	415	1.63	149.91	141	25	1.81E-02	16.9	3.44E+00
4	1	77.32	469	400	1.63	154.70	141	25	3.26E-02	9.5	
5	0	87.26	89	507	0.91	174.58	171	9	6.21E-03	46.5	
6	0	93.17*	137	506	1.86	186.40	181	11	9.52E-03	35.8	
7	0	98.92	77	383	1.16	197.90	193	11	5.32E-03	51.0	
8	0	155.01	37	297	1.38	310.12	306	8	2.54E-03	83.6	
9	0	186.11*	136	415	1.15	372.34	367	12	9.42E-03	34.0	
10	0	208.86	117	253	1.85	417.85	414	9	8.10E-03	26.3	
11	2	238.73*	825	214	1.39	477.61	472	19	5.73E-02	5.0	9.06E-01
12	2	241.58	173	287	2.00	483.30	472	19	1.20E-02	26.5	
13	0	270.35	130	292	1.83	540.86	532	15	9.05E-03	29.9	
14	0	277.53	57	192	3.25	555.22	551	10	3.98E-03	46.9	
15	0	295.51*	181	247	1.01	591.20	585	12	1.26E-02	20.0	
16	0	300.66	47	169	1.46	601.50	597	10	3.28E-03	53.7	
17	0	328.75	107	182	2.64	657.70	653	13	7.46E-03	27.5	
18	0	338.51*	145	187	1.19	677.22	672	12	1.01E-02	21.5	
19	0	352.10*	322	165	1.39	704.41	699	10	2.24E-02	10.2	
20	0	462.50	36	134	0.77	925.25	919	13	2.51E-03	67.9	
21	0	469.06	33	125	6.04	938.37	931	15	2.31E-03	74.9	
22	0	487.32	28	122	4.11	974.89	965	14	1.92E-03	86.8	
23	0	510.88*	108	118	2.25	1022.02	1012	18	7.49E-03	33.1	
24	0	553.59	19	39	1.35	1107.46	1104	7	1.28E-03	60.3	
25	0	583.50*	246	75	1.69	1167.29	1161	13	1.71E-02	10.3	
26	0	609.55*	233	100	1.94	1219.41	1211	14	1.62E-02	11.9	
27	0	662.24*	84	89	1.69	1324.81	1319	16	5.83E-03	29.0	
28	0	727.86*	58	79	1.44	1456.06	1451	14	4.04E-03	36.3	
29	0	767.70*	24	52	3.26	1535.75	1530	11	1.66E-03	70.4	
30	0	794.65	35	33	2.32	1589.65	1584	11	2.43E-03	36.1	
31	0	849.48	12	62	5.31	1699.33	1687	14	8.66E-04	140.5	
32	0	860.92	52	39	1.61	1722.22	1717	10	3.60E-03	26.7	
33	0	911.47*	135	67	1.93	1823.33	1815	14	9.39E-03	16.9	
34	2	964.87	41	52	2.49	1930.14	1922	24	2.86E-03	40.1	3.72E+00
35	2	969.56*	87	34	2.49	1939.51	1922	24	6.03E-03	19.8	
36	0	1120.78*	79	28	1.72	2241.97	2234	18	5.50E-03	20.8	
37	0	1189.55	12	38	0.69	2379.50	2370	13	8.61E-04	107.2	
38	0	1205.70	20	33	2.94	2411.80	2400	19	1.39E-03	72.7	

Sample ID : G198324017 Acquisition date : 30-NOV-2007 11:14:25

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1240.34	17	52	1.62	2481.08	2473	14	1.19E-03	92.6	
40	0	1318.25	13	5	0.65	2636.91	2631	10	9.03E-04	42.5	
41	0	1334.87	15	28	0.70	2670.14	2658	17	1.04E-03	87.3	
42	0	1378.73	28	17	1.63	2757.85	2750	14	1.96E-03	36.5	
43	0	1461.35*	435	35	1.77	2923.09	2913	20	3.02E-02	6.1	
44	0	1562.99	13	5	0.97	3126.37	3121	10	9.18E-04	41.8	
45	0	1589.42	14	23	0.60	3179.21	3171	12	9.82E-04	73.9	
46	0	1597.28	2	4	0.67	3194.93	3193	4	1.74E-04	144.2	
47	0	1630.79	21	0	2.25	3261.95	3256	11	1.46E-03	21.8	
48	5	1660.84	14	11	2.79	3322.03	3318	12	9.40E-04	45.1	2.30E+00
49	5	1663.31	7	1	2.12	3326.98	3318	12	5.16E-04	49.0	
50	0	1677.33	8	6	1.34	3355.02	3346	12	5.56E-04	70.7	
51	0	1694.40	13	0	1.18	3389.15	3384	10	9.03E-04	27.7	
52	0	1765.13*	29	8	1.89	3530.59	3522	15	2.01E-03	35.5	
53	0	1829.01	8	5	1.41	3658.33	3651	10	5.50E-04	63.7	
54	0	1969.67*	9	0	2.65	3939.62	3933	12	6.15E-04	48.9	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324017       *
* Acquisition date : 30-NOV-2007 11:14:25 Detector SN#    :                 *
* Detector ID      : GAM01                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:01.49     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324017           Analyst initials: MJH1            *
* Batch Number     : 706245               Sample Quantity : 1.2005E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  7-MAR-2007 03:44:30 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	6.094E+00	8.117E-01	3.119E-01	0.000E+00
CS-137	7.325E-02	4.196E-02	4.059E-02	0.000E+00
TL-208	1.927E-01	4.131E-02	3.228E-02	0.000E+00
BI-212	3.972E-01	2.846E-01	2.737E-01	0.000E+00
PB-212	6.126E-01	7.325E-02	5.948E-02	0.000E+00
BI-214	3.475E-01	8.491E-02	7.187E-02	0.000E+00
PB-214	3.736E-01	7.805E-02	7.259E-02	0.000E+00
RA-223	3.362E-01	1.983E-01	1.845E-01	0.000E+00
AC-228	5.179E-01	1.780E-01	1.547E-01	0.000E+00
TH-234	6.388E-01	4.505E-01	4.744E-01	0.000E+00
NP-236	4.882E-02	4.894E-02	5.609E-02	0.000E+00
NP-237	1.931E-01	1.766E-01	2.284E-01	0.000E+00
AM-243	1.270E-01	4.314E-02	4.804E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	-1.288E-02		2.265E-02	3.481E-02	0.000E+00	NOT IDENT.
RH-101	-2.466E-04		2.207E-02	3.460E-02	0.000E+00	NOT IDENT.
SB-125	-5.571E-03		5.794E-02	9.605E-02	0.000E+00	NOT IDENT.
EU-155	-2.122E-03		6.468E-02	1.039E-01	0.000E+00	NOT IDENT.
PO-209	2.506E+00		4.464E+00	7.850E+00	0.000E+00	NOT IDENT.
BI-211	-5.492E-02		5.863E-01	9.796E-01	0.000E+00	NOT IDENT.
PA-233	9.366E-03		3.850E-02	6.601E-02	0.000E+00	NOT IDENT.
PA-234M	-1.270E+00		2.789E+00	4.446E+00	0.000E+00	NOT IDENT.
U-235	4.281E-02		1.170E-01	2.068E-01	0.000E+00	NOT IDENT.
NP-239	7.173E-02		1.361E-01	2.383E-01	0.000E+00	NOT IDENT.
AM-241	7.113E-02		9.720E-02	1.497E-01	0.000E+00	NOT IDENT.
CM-243	-9.374E-03		5.993E-02	9.144E-02	0.000E+00	NOT IDENT.
AM-246	4.648E-03		7.412E-02	1.238E-01	0.000E+00	NOT IDENT.
CF-249	-2.852E-03		2.488E-02	4.141E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:22:27.76

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324017.CNF;1
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 30-NOV-2007 11:14:25
Sample ID        : G198324017           Sample quantity  : 1.20050E+02 GRAM
Detector name    : GAM01                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.49  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706245               Detector SN#     :
Matrix Spike ID  :                      LCS ID           :
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	435	10.66*	1.047E+00	6.094E+00	6.094E+00	13.59
CS-137	661.66	84	85.10*	2.111E+00	7.299E-02	7.325E-02	58.45
TL-208	277.36	57	6.31	4.335E+00	3.276E-01	3.276E-01	94.15
	510.77	108	22.60	2.641E+00	2.825E-01	2.825E-01	66.55
	583.19	246	84.50*	2.358E+00	1.927E-01	1.927E-01	21.87
	763.13	------	1.81	1.860E+00	------	Line Not Found	------
	860.56	52	12.42	1.666E+00	3.914E-01	3.914E-01	54.17
BI-212	727.33	58	11.80*	1.941E+00	3.972E-01	3.972E-01	73.11
	785.37	------	1.10	1.812E+00	------	Line Not Found	------
	1620.50	------	1.49	9.727E-01	------	Line Not Found	------
PB-212	74.81	261	10.40	4.712E+00	8.331E-01	8.331E-01	34.65
	77.11	469	17.50	4.975E+00	8.431E-01	8.431E-01	20.59
	87.30	89	7.81	5.843E+00	3.066E-01	3.066E-01	93.34
	238.63	825	43.30*	4.863E+00	6.126E-01	6.126E-01	12.20
	300.09	47	3.28	4.071E+00	5.522E-01	5.522E-01	107.57
BI-214	609.31	233	46.10*	2.270E+00	3.474E-01	3.475E-01	24.93
	768.36	24	4.94	1.850E+00	4.088E-01	4.088E-01	141.08
	806.17	------	1.22	1.770E+00	------	Line Not Found	------
	934.06	------	3.03	1.546E+00	------	Line Not Found	------
	1120.29	79	15.10	1.309E+00	6.264E-01	6.264E-01	42.24
	1155.19	------	1.63	1.274E+00	------	Line Not Found	------
	1238.11	------	5.79	1.199E+00	------	Line Not Found	------
	1280.96	------	1.43	1.164E+00	------	Line Not Found	------
	1377.67	28	4.00	1.096E+00	1.007E+00	1.007E+00	73.24
	1401.50	------	1.27	1.081E+00	------	Line Not Found	------
	1407.98	------	2.15	1.077E+00	------	Line Not Found	------
	1509.23	------	2.11	1.022E+00	------	Line Not Found	------
	1729.60	------	2.92	9.349E-01	------	Line Not Found	------
	1764.49	29	15.40	9.245E-01	3.182E-01	3.182E-01	71.18
PB-214	74.81	261	6.44	4.712E+00	1.345E+00	1.345E+00	34.65
	77.11	469	10.80	4.975E+00	1.366E+00	1.366E+00	20.59
	87.30	89	4.84	5.843E+00	4.947E-01	4.947E-01	93.34

Sample ID : G198324017 Acquisition date : 30-NOV-2007 11:14:25

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	242.00	173	7.43	4.820E+00	7.569E-01	7.570E-01	53.47
	295.22	181	19.30	4.127E+00	3.557E-01	3.557E-01	40.67
	351.93	322	37.60*	3.588E+00	3.736E-01	3.736E-01	21.32
RA-223	269.46	130	13.70*	4.424E+00	3.362E-01	3.362E-01	60.19
AC-228	129.07	------	2.42	6.750E+00	------	Line Not Found	------
	209.25	117	3.89	5.355E+00	8.753E-01	8.753E-01	53.08
	270.25	130	3.46	4.424E+00	1.331E+00	1.331E+00	60.19
	338.32	145	11.27	3.704E+00	5.435E-01	5.435E-01	43.42
	409.46	------	1.92	3.174E+00	------	Line Not Found	------
	463.00	36	4.40	2.871E+00	4.480E-01	4.480E-01	135.85
	794.95	35	4.25	1.793E+00	7.169E-01	7.169E-01	72.66
	911.20	135	25.80*	1.581E+00	5.179E-01	5.179E-01	35.08
	964.77	41	4.99	1.501E+00	8.602E-01	8.602E-01	80.69
	968.97	87	15.80	1.494E+00	5.755E-01	5.755E-01	40.60
	1588.20	14	3.22	9.853E-01	6.965E-01	6.965E-01	147.84
TH-234	63.29	61	4.80	3.204E+00	6.235E-01	6.235E-01	124.18
	92.58	137	5.41*	6.202E+00	6.388E-01	6.388E-01	71.96
NP-236	98.44	77	38.00*	6.454E+00	4.882E-02	4.882E-02	102.30
NP-237	86.48	89	12.40*	5.843E+00	1.931E-01	1.931E-01	93.34
AM-243	74.66	261	68.20*	4.712E+00	1.270E-01	1.270E-01	34.65

Flag: "*" = Keyline

Sample ID : G198324017 Acquisition date : 30-NOV-2007 11:14:25

Total number of lines in spectrum 54
Number of unidentified lines 22
Number of lines tentatively identified by NID 32 59.26%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	6.094E+00	6.094E+00	0.828E+00	13.59	
CS-137	9.47E+08S	1.00	7.299E-02	7.325E-02	4.282E-02	58.45	
TL-208	4.43E+17S	1.00	1.927E-01	1.927E-01	0.422E-01	21.87	
BI-212	4.43E+17S	1.00	3.972E-01	3.972E-01	2.904E-01	73.11	
PB-212	4.43E+17S	1.00	6.126E-01	6.126E-01	0.747E-01	12.20	
BI-214	5.05E+10S	1.00	3.474E-01	3.475E-01	0.866E-01	24.93	
PB-214	5.05E+10S	1.00	3.736E-01	3.736E-01	0.796E-01	21.32	
RA-223	1.04E+12S	1.00	3.362E-01	3.362E-01	2.024E-01	60.19	
AC-228	4.43E+17S	1.00	5.179E-01	5.179E-01	1.817E-01	35.08	
TH-234	1.41E+17S	1.00	6.388E-01	6.388E-01	4.597E-01	71.96	
NP-236	4.89E+12S	1.00	4.882E-02	4.882E-02	4.994E-02	102.30	
NP-237	6.75E+13S	1.00	1.931E-01	1.931E-01	1.802E-01	93.34	
AM-243	2.33E+11S	1.00	1.270E-01	1.270E-01	0.440E-01	34.65	
			---	---			
		Total Activity :	9.952E+00	9.953E+00			

Grand Total Activity : 9.952E+00 9.953E+00

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G198324017 Acquisition date : 30-NOV-2007 11:14:25

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.70	49	353	2.43	93.45	88	11	3.42E-03	****	8.81E-01	
0	155.01	37	297	1.38	310.12	306	8	2.54E-03	****	6.38E+00	
0	186.11	136	415	1.15	372.34	367	12	9.42E-03	68.0	5.78E+00	
0	328.75	107	182	2.64	657.70	653	13	7.46E-03	54.9	3.79E+00	
0	469.06	33	125	6.04	938.37	931	15	2.31E-03	****	2.84E+00	
0	487.32	28	122	4.11	974.89	965	14	1.92E-03	****	2.75E+00	
0	553.59	19	39	1.35	1107.46	1104	7	1.28E-03	****	2.47E+00	
0	849.48	12	62	5.31	1699.33	1687	14	8.66E-04	****	1.69E+00	
0	1189.55	12	38	0.69	2379.50	2370	13	8.61E-04	****	1.24E+00	
0	1205.70	20	33	2.94	2411.80	2400	19	1.39E-03	****	1.23E+00	
0	1240.34	17	52	1.62	2481.08	2473	14	1.19E-03	****	1.20E+00	
0	1318.25	13	5	0.65	2636.91	2631	10	9.03E-04	85.0	1.14E+00	
0	1334.87	15	28	0.70	2670.14	2658	17	1.04E-03	****	1.12E+00	
0	1562.99	13	5	0.97	3126.37	3121	10	9.18E-04	83.5	9.97E-01	
0	1597.28	2	4	0.67	3194.93	3193	4	1.74E-04	****	9.82E-01	
0	1630.79	21	0	2.25	3261.95	3256	11	1.46E-03	43.6	9.69E-01	
5	1660.84	14	11	2.79	3322.03	3318	12	9.40E-04	90.2	9.58E-01	
5	1663.31	7	1	2.12	3326.98	3318	12	5.16E-04	98.0	9.57E-01	
0	1677.33	8	6	1.34	3355.02	3346	12	5.56E-04	****	9.52E-01	
0	1694.40	13	0	1.18	3389.15	3384	10	9.03E-04	55.5	9.46E-01	
0	1829.01	8	5	1.41	3658.33	3651	10	5.50E-04	****	9.08E-01	
0	1969.67	9	0	2.65	3939.62	3933	12	6.15E-04	97.8	8.81E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G198324017            *
* Acquisition date : 30-NOV-2007 11:14:25 Detector SN#    :                 *
* Detector ID      : GAM01                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:01.49     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324017           Analyst initials: MJH1            *
* Batch Number     : 706245               Sample Quantity : 1.2005E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME :  7-MAR-2007 03:44:30 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	6.094E+00	8.117E-01	1.560E-01	8.117E-01
CS-137	7.325E-02	4.196E-02	2.031E-02	4.196E-02
TL-208	1.927E-01	4.131E-02	1.615E-02	4.131E-02
BI-212	3.972E-01	2.846E-01	1.369E-01	2.846E-01
PB-212	6.126E-01	7.325E-02	2.976E-02	7.325E-02
BI-214	3.475E-01	8.491E-02	3.596E-02	8.491E-02
PB-214	3.736E-01	7.805E-02	3.632E-02	7.805E-02
RA-223	3.362E-01	1.983E-01	9.230E-02	1.983E-01
AC-228	5.179E-01	1.780E-01	7.740E-02	1.780E-01
TH-234	6.388E-01	4.505E-01	2.373E-01	4.505E-01
NP-236	4.882E-02	4.894E-02	2.806E-02	4.894E-02
NP-237	1.931E-01	1.766E-01	1.143E-01	1.766E-01
AM-243	1.270E-01	4.314E-02	2.403E-02	4.314E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	-1.288E-02	2.265E-02	1.741E-02	2.265E-02	NOT IDENT.
RH-101	-2.466E-04	2.207E-02	1.731E-02	2.207E-02	NOT IDENT.
SB-125	-5.571E-03	5.794E-02	4.805E-02	5.794E-02	NOT IDENT.
EU-155	-2.122E-03	6.468E-02	5.196E-02	6.468E-02	NOT IDENT.
PO-209	2.506E+00	4.464E+00	3.928E+00	4.464E+00	NOT IDENT.
BI-211	-5.492E-02	5.863E-01	4.901E-01	5.863E-01	NOT IDENT.
PA-233	9.366E-03	3.850E-02	3.302E-02	3.850E-02	NOT IDENT.
PA-234M	-1.270E+00	2.789E+00	2.224E+00	2.789E+00	NOT IDENT.
U-235	4.281E-02	1.170E-01	1.035E-01	1.170E-01	NOT IDENT.
NP-239	7.173E-02	1.361E-01	1.192E-01	1.361E-01	NOT IDENT.
AM-241	7.113E-02	9.720E-02	7.491E-02	9.720E-02	NOT IDENT.
CM-243	-9.374E-03	5.993E-02	4.575E-02	5.993E-02	NOT IDENT.
AM-246	4.648E-03	7.412E-02	6.194E-02	7.412E-02	NOT IDENT.
CF-249	-2.852E-03	2.488E-02	2.072E-02	2.488E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
59.54	307.5085
63.29	370.6568
74.66	417.2928
74.81	417.3559
74.81	417.3559
77.11	418.3126
77.11	418.3126
86.48	478.1937
87.30	476.3077
87.30	476.3077
92.58	446.9789
98.44	335.8161
103.76	351.0012
105.31	367.7522
129.07	402.6049
143.76	379.5588
198.00	280.7907
209.25	317.7438
228.18	277.4995
238.63	285.9311
242.00	286.4145
269.46	229.5406
270.25	229.6240
277.36	225.0395
295.22	198.8134
300.09	183.9111
312.17	176.6548
338.32	161.9643
351.93	176.4164
387.59	155.5541
409.46	143.9962
427.87	134.1965
463.00	65.1841
510.77	98.3598
583.19	77.0101
609.31	105.4142
661.66	98.6781
727.33	73.5717
763.13	40.4766
768.36	75.9877
785.37	64.2819
794.95	59.4678
806.17	72.5396
831.80	59.9670
860.56	54.3131
896.60	53.7214
911.20	74.9471
934.06	53.1214
964.77	53.4536
968.97	53.4991
1001.03	65.2302
1078.86	39.9343
1120.29	42.3568
1155.19	37.2957
1173.23	44.8967
1238.11	37.0619
1280.96	41.9945
1332.51	31.9960
1377.67	18.2456
1401.50	22.8323
1407.98	27.6164
1460.80	23.0391
1509.23	26.1063
1588.20	35.2052
1620.50	12.7710
1729.60	16.9502
1764.49	12.0201

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198324017

Total Uranium Activity	1.9809E-02	ug/g
Total Uranium Counting Unc.	5.4152E-02	ug/g
Total Uranium Tpu	5.4152E-08	ug/g
Total Uranium Mda	4.7879E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:23:00.94

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324018.CNF;1
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 30-NOV-2007 11:15:07
Sample ID        : G198324018           Sample quantity  : 1.15800E+02 GRAM
Detector name    : GAM21                Detector geometry: CAN
Elapsed live time: 0 03:00:00.00        Elapsed real time: 0 03:00:18.73  0.2%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706245               Detector SN#     :
Matrix Spike ID  :                      LCS ID           :
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.60	61	186	0.81	126.26	123	7	5.60E-03	39.8	
2	3	74.95*	286	327	1.86	148.92	143	18	2.65E-02	14.4	2.45E+00
3	3	77.31*	334	246	1.28	153.64	143	18	3.09E-02	10.3	
4	0	87.59	76	330	1.26	174.16	168	9	7.07E-03	44.6	
5	1	89.87	44	201	1.28	178.72	176	13	4.07E-03	50.6	2.37E+00
6	1	93.05*	115	229	1.36	185.06	176	13	1.06E-02	26.1	
7	0	185.68*	99	201	1.33	370.09	365	12	9.20E-03	31.9	
8	0	209.23	79	108	2.15	417.14	414	9	7.35E-03	26.0	
9	3	238.57*	458	118	1.49	475.73	468	19	4.24E-02	6.7	8.96E-01
10	3	241.68	121	115	2.07	481.96	468	19	1.12E-02	21.6	
11	0	258.97	24	63	2.37	516.50	513	7	2.22E-03	54.3	
12	0	280.21	41	194	4.25	558.92	546	17	3.84E-03	79.4	
13	0	295.33*	87	128	0.93	589.13	584	11	8.03E-03	29.2	
14	0	330.55	23	146	0.86	659.51	651	18	2.11E-03	127.1	
15	0	339.48	86	139	1.62	677.34	670	16	7.95E-03	33.0	
16	0	351.70*	153	88	1.73	701.77	696	12	1.42E-02	15.4	
17	0	365.27	13	74	1.18	728.89	723	9	1.24E-03	117.8	
18	0	439.48	23	53	3.81	877.17	870	11	2.14E-03	65.2	
19	0	462.91	30	61	1.96	924.00	919	10	2.81E-03	51.1	
20	0	492.55	16	62	0.65	983.23	975	15	1.44E-03	114.2	
21	0	510.95*	69	79	2.24	1020.01	1011	21	6.40E-03	40.9	
22	0	567.17	45	32	2.96	1132.38	1127	11	4.13E-03	29.0	
23	0	582.73*	130	44	1.15	1163.49	1156	14	1.20E-02	14.7	
24	0	608.94*	107	72	1.55	1215.89	1207	17	9.88E-03	21.5	
25	0	698.00	16	26	0.74	1393.92	1389	8	1.52E-03	58.9	
26	0	808.15*	15	42	8.52	1614.19	1597	23	1.40E-03	121.1	
27	0	849.77	9	22	1.71	1697.42	1689	10	8.47E-04	102.1	
28	0	861.65	22	22	1.95	1721.17	1713	11	2.01E-03	47.0	
29	0	910.76	91	11	1.42	1819.40	1811	14	8.42E-03	12.9	
30	0	920.18	14	37	6.43	1838.23	1828	20	1.34E-03	104.1	
31	0	953.58	17	5	2.36	1905.03	1899	11	1.56E-03	36.1	
32	0	969.50	42	15	2.52	1936.88	1931	12	3.88E-03	25.1	
33	0	978.05	19	2	1.65	1953.99	1950	8	1.77E-03	26.2	
34	0	985.36	15	2	0.51	1968.61	1963	10	1.36E-03	32.8	
35	0	1044.84	16	17	3.98	2087.60	2078	14	1.45E-03	61.8	
36	0	1179.78	25	10	4.11	2357.59	2350	16	2.35E-03	35.9	
37	0	1223.74	21	9	1.78	2445.56	2439	13	1.90E-03	38.2	
38	0	1238.78*	3	20	0.61	2475.67	2471	10	2.59E-04	329.2	

Sample ID : G198324018 Acquisition date : 30-NOV-2007 11:15:07

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1257.53	11	9	1.60	2513.18	2508	9	1.02E-03	57.7	
40	0	1354.13	3	10	3.41	2706.53	2697	12	3.21E-04	182.7	
41	0	1368.39	7	5	3.10	2735.07	2729	10	6.48E-04	70.7	
42	0	1460.69	131	6	1.86	2919.85	2913	13	1.21E-02	9.6	
43	0	1562.72	9	6	0.48	3124.14	3116	11	7.87E-04	63.5	
44	0	1588.60	7	12	2.68	3175.98	3168	12	6.29E-04	109.2	
45	0	1648.23	13	3	0.53	3295.40	3287	15	1.16E-03	43.8	
46	0	1729.57	16	0	2.36	3458.31	3453	10	1.48E-03	25.0	
47	0	1765.62*	7	17	1.31	3530.51	3519	13	6.17E-04	144.6	
48	0	1770.61	13	3	2.83	3540.52	3534	11	1.22E-03	36.9	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324018       *
* Acquisition date : 30-NOV-2007 11:15:07 Detector SN#    :                 *
* Detector ID      : GAM21                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 03:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 03:00:18.73     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324018           Analyst initials: MJH1            *
* Batch Number     : 706245               Sample Quantity : 1.1580E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  2-JUL-2007 16:42:48 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.569E+00	6.993E-01	5.162E-01	0.000E+00
TL-208	1.769E-01	5.245E-02	5.060E-02	0.000E+00
PB-212	4.858E-01	7.054E-02	6.105E-02	0.000E+00
PB-214	2.748E-01	8.415E-02	7.931E-02	0.000E+00
AC-228	6.451E-01	1.692E-01	7.997E-02	0.000E+00
TH-234	5.435E-01	2.812E-01	3.392E-01	0.000E+00
NP-237	1.561E-01	1.368E-01	1.658E-01	0.000E+00
AM-243	1.047E-01	3.044E-02	2.967E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	-3.134E-02		4.204E-02	5.043E-02	0.000E+00	NOT IDENT.
RH-101	-1.006E-02		1.876E-02	3.167E-02	0.000E+00	NOT IDENT.
SB-125	1.942E-03		6.498E-02	1.095E-01	0.000E+00	NOT IDENT.
CS-137	3.311E-02		3.120E-02	5.826E-02	0.000E+00	NOT IDENT.
EU-155	-2.441E-02		5.347E-02	8.785E-02	0.000E+00	NOT IDENT.
PO-209	1.672E+00		6.152E+00	1.068E+01	0.000E+00	NOT IDENT.
BI-211	4.585E-01		8.587E-01	1.539E+00	0.000E+00	NOT IDENT.
BI-212	3.598E-01		2.515E-01	4.789E-01	0.000E+00	NOT IDENT.
BI-214	0.000E+00		1.194E-01	1.579E-01	0.000E+00	FAIL ABUN
RA-223	-9.535E-02		1.257E-01	1.927E-01	0.000E+00	NOT IDENT.
PA-233	1.472E-02		4.209E-02	7.353E-02	0.000E+00	NOT IDENT.
PA-234M	1.332E+00		3.490E+00	6.145E+00	0.000E+00	NOT IDENT.
U-235	6.723E-02		1.111E-01	1.907E-01	0.000E+00	NOT IDENT.
NP-236	-5.744E-03		2.773E-02	4.458E-02	0.000E+00	NOT IDENT.
NP-239	-4.250E-02		1.362E-01	2.315E-01	0.000E+00	NOT IDENT.
AM-241	3.056E-02		3.293E-02	5.235E-02	0.000E+00	NOT IDENT.
CM-243	-2.721E-02		4.754E-02	7.761E-02	0.000E+00	NOT IDENT.
AM-246	1.647E-03		1.001E-01	1.677E-01	0.000E+00	NOT IDENT.
CF-249	6.797E-03		2.805E-02	4.828E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:23:01.93

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324018.CNF;1
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 30-NOV-2007 11:15:07
Sample ID        : G198324018           Sample quantity  : 1.15800E+02 GRAM
Detector name    : GAM21                Detector geometry: CAN
Elapsed live time: 0 03:00:00.00        Elapsed real time: 0 03:00:18.73  0.2%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706245               Detector SN#     :
Matrix Spike ID  :                      LCS ID           :
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	131	10.66*	7.435E-01	3.569E+00	3.569E+00	20.00
TL-208	277.36	------	6.31	4.080E+00	------	Line Not Found	------
	510.77	69	22.60	2.159E+00	3.064E-01	3.064E-01	82.09
	583.19	130	84.50*	1.877E+00	1.769E-01	1.769E-01	30.25
	763.13	------	1.81	1.415E+00	------	Line Not Found	------
	860.56	22	12.42	1.250E+00	3.026E-01	3.026E-01	94.37
PB-212	74.81	286	10.40	8.644E+00	6.869E-01	6.869E-01	29.66
	77.11	334	17.50	8.639E+00	4.776E-01	4.776E-01	21.76
	87.30	76	7.81	8.532E+00	2.478E-01	2.478E-01	89.47
	238.63	458	43.30*	4.709E+00	4.858E-01	4.858E-01	14.82
	300.09	------	3.28	3.773E+00	------	Line Not Found	------
PB-214	74.81	286	6.44	8.644E+00	1.109E+00	1.109E+00	29.66
	77.11	334	10.80	8.639E+00	7.739E-01	7.740E-01	21.76
	87.30	76	4.84	8.532E+00	3.998E-01	3.998E-01	89.47
	242.00	121	7.43	4.653E+00	7.564E-01	7.564E-01	43.65
	295.22	87	19.30	3.834E+00	2.534E-01	2.534E-01	58.54
	351.93	153	37.60*	3.207E+00	2.748E-01	2.748E-01	31.24
AC-228	129.07	------	2.42	7.445E+00	------	Line Not Found	------
	209.25	79	3.89	5.294E+00	8.326E-01	8.326E-01	52.38
	270.25	------	3.46	4.184E+00	------	Line Not Found	------
	338.32	86	11.27	3.327E+00	4.949E-01	4.949E-01	66.12
	409.46	------	1.92	2.733E+00	------	Line Not Found	------
	463.00	30	4.40	2.399E+00	6.219E-01	6.219E-01	102.39
	794.95	------	4.25	1.357E+00	------	Line Not Found	------
	911.20	91	25.80*	1.181E+00	6.451E-01	6.451E-01	26.76
	964.77	------	4.99	1.115E+00	------	Line Not Found	------
	968.97	42	15.80	1.110E+00	5.170E-01	5.170E-01	50.66
	1588.20	7	3.22	6.854E-01	6.649E-01	6.649E-01	218.53
TH-234	63.29	61	4.80	8.522E+00	3.197E-01	3.197E-01	79.93
	92.58	115	5.41*	8.432E+00	5.435E-01	5.435E-01	52.79
NP-237	86.48	76	12.40*	8.532E+00	1.561E-01	1.561E-01	89.47
AM-243	74.66	286	68.20*	8.644E+00	1.047E-01	1.047E-01	29.66

Sample ID : G198324018 Acquisition date : 30-NOV-2007 11:15:07

Flag: "*" = Keyline

Sample ID : G198324018 Acquisition date : 30-NOV-2007 11:15:07

Total number of lines in spectrum 48
Number of unidentified lines 24
Number of lines tentatively identified by NID 24 50.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	3.569E+00	3.569E+00	0.714E+00	20.00	
TL-208	4.43E+17S	1.00	1.769E-01	1.769E-01	0.535E-01	30.25	
PB-212	4.43E+17S	1.00	4.858E-01	4.858E-01	0.720E-01	14.82	
PB-214	5.05E+10S	1.00	2.748E-01	2.748E-01	0.859E-01	31.24	
AC-228	4.43E+17S	1.00	6.451E-01	6.451E-01	1.726E-01	26.76	
TH-234	1.41E+17S	1.00	5.435E-01	5.435E-01	2.869E-01	52.79	
NP-237	6.75E+13S	1.00	1.561E-01	1.561E-01	1.396E-01	89.47	
AM-243	2.33E+11S	1.00	1.047E-01	1.047E-01	0.311E-01	29.66	
			---	---			
	Total Activity :		5.955E+00	5.955E+00			

Grand Total Activity : 5.955E+00 5.955E+00

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G198324018 Acquisition date : 30-NOV-2007 11:15:07

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
1	89.87	44	201	1.28	178.72	176	13	4.07E-03	****	8.49E+00	
0	185.68	99	201	1.33	370.09	365	12	9.20E-03	63.8	5.84E+00	
0	258.97	24	63	2.37	516.50	513	7	2.22E-03	****	4.36E+00	
0	280.21	41	194	4.25	558.92	546	17	3.84E-03	****	4.04E+00	
0	330.55	23	146	0.86	659.51	651	18	2.11E-03	****	3.42E+00	
0	365.27	13	74	1.18	728.89	723	9	1.24E-03	****	3.08E+00	
0	439.48	23	53	3.81	877.17	870	11	2.14E-03	****	2.54E+00	
0	492.55	16	62	0.65	983.23	975	15	1.44E-03	****	2.24E+00	
0	567.17	45	32	2.96	1132.38	1127	11	4.13E-03	58.0	1.93E+00	
0	608.94	107	72	1.55	1215.89	1207	17	9.88E-03	43.0	1.79E+00	T
0	698.00	16	26	0.74	1393.92	1389	8	1.52E-03	****	1.55E+00	
0	808.15	15	42	8.52	1614.19	1597	23	1.40E-03	****	1.33E+00	T
0	849.77	9	22	1.71	1697.42	1689	10	8.47E-04	****	1.27E+00	
0	920.18	14	37	6.43	1838.23	1828	20	1.34E-03	****	1.17E+00	
0	953.58	17	5	2.36	1905.03	1899	11	1.56E-03	72.3	1.13E+00	
0	978.05	19	2	1.65	1953.99	1950	8	1.77E-03	52.3	1.10E+00	
0	985.36	15	2	0.51	1968.61	1963	10	1.36E-03	65.6	1.09E+00	
0	1044.84	16	17	3.98	2087.60	2078	14	1.45E-03	****	1.03E+00	
0	1179.78	25	10	4.11	2357.59	2350	16	2.35E-03	71.9	9.14E-01	
0	1223.74	21	9	1.78	2445.56	2439	13	1.90E-03	76.4	8.82E-01	
0	1238.78	3	20	0.61	2475.67	2471	10	2.59E-04	****	8.72E-01	T
0	1257.53	11	9	1.60	2513.18	2508	9	1.02E-03	****	8.59E-01	
0	1354.13	3	10	3.41	2706.53	2697	12	3.21E-04	****	8.00E-01	
0	1368.39	7	5	3.10	2735.07	2729	10	6.48E-04	****	7.92E-01	
0	1562.72	9	6	0.48	3124.14	3116	11	7.87E-04	****	6.96E-01	
0	1648.23	13	3	0.53	3295.40	3287	15	1.16E-03	87.5	6.61E-01	
0	1729.57	16	0	2.36	3458.31	3453	10	1.48E-03	50.0	6.31E-01	T
0	1765.62	7	17	1.31	3530.51	3519	13	6.17E-04	****	6.18E-01	T
0	1770.61	13	3	2.83	3540.52	3534	11	1.22E-03	73.8	6.16E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G198324018            *
* Acquisition date : 30-NOV-2007 11:15:07 Detector SN#    :                 *
* Detector ID      : GAM21                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 03:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 03:00:18.73     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324018           Analyst initials: MJH1            *
* Batch Number     : 706245               Sample Quantity : 1.1580E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME :  2-JUL-2007 16:42:48 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	3.569E+00	6.993E-01	2.583E-01	6.993E-01
TL-208	1.769E-01	5.245E-02	2.531E-02	5.245E-02
PB-212	4.858E-01	7.054E-02	3.054E-02	7.054E-02
PB-214	2.748E-01	8.415E-02	3.968E-02	8.415E-02
AC-228	6.451E-01	1.692E-01	4.001E-02	1.692E-01
TH-234	5.435E-01	2.812E-01	1.697E-01	2.812E-01
NP-237	1.561E-01	1.368E-01	8.296E-02	1.368E-01
AM-243	1.047E-01	3.044E-02	1.484E-02	3.044E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	-3.134E-02	4.204E-02	2.523E-02	4.204E-02	NOT IDENT.
RH-101	-1.006E-02	1.876E-02	1.585E-02	1.876E-02	NOT IDENT.
SB-125	1.942E-03	6.498E-02	5.480E-02	6.498E-02	NOT IDENT.
CS-137	3.311E-02	3.120E-02	2.915E-02	3.120E-02	NOT IDENT.
EU-155	-2.441E-02	5.347E-02	4.395E-02	5.347E-02	NOT IDENT.
PO-209	1.672E+00	6.152E+00	5.345E+00	6.152E+00	NOT IDENT.
BI-211	4.585E-01	8.587E-01	7.699E-01	8.587E-01	NOT IDENT.
BI-212	3.598E-01	2.515E-01	2.396E-01	2.515E-01	NOT IDENT.
BI-214	2.793E-01	1.194E-01	7.900E-02	1.194E-01	FAIL ABUN
RA-223	-9.535E-02	1.257E-01	9.642E-02	1.257E-01	NOT IDENT.
PA-233	1.472E-02	4.209E-02	3.679E-02	4.209E-02	NOT IDENT.
PA-234M	1.332E+00	3.490E+00	3.074E+00	3.490E+00	NOT IDENT.
U-235	6.723E-02	1.111E-01	9.541E-02	1.111E-01	NOT IDENT.
NP-236	-5.744E-03	2.773E-02	2.230E-02	2.773E-02	NOT IDENT.
NP-239	-4.250E-02	1.362E-01	1.158E-01	1.362E-01	NOT IDENT.
AM-241	3.056E-02	3.293E-02	2.619E-02	3.293E-02	NOT IDENT.
CM-243	-2.721E-02	4.754E-02	3.883E-02	4.754E-02	NOT IDENT.
AM-246	1.647E-03	1.001E-01	8.389E-02	1.001E-01	NOT IDENT.
CF-249	6.797E-03	2.805E-02	2.416E-02	2.805E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
59.54	190.9462
63.29	229.4297
74.66	287.8759
74.81	287.9221
74.81	287.9221
77.11	288.6292
77.11	288.6292
86.48	291.6190
87.30	369.0610
87.30	369.0610
92.58	226.8330
98.44	195.9842
103.76	224.0048
105.31	227.5472
129.07	226.5667
143.76	180.1600
198.00	165.9836
209.25	180.0858
228.18	153.8741
238.63	149.0874
242.00	148.0942
269.46	143.8019
270.25	129.4711
277.36	117.4131
295.22	111.6224
300.09	124.8461
312.17	92.9300
338.32	94.0038
351.93	88.5752
387.59	76.7366
409.46	98.7690
427.87	64.5904
463.00	55.0263
510.77	62.2514
583.19	62.9576
609.31	48.9419
661.66	43.2315
727.33	40.2486
763.13	46.2824
768.36	34.9939
785.37	31.3410
794.95	38.0778
806.17	27.6813
831.80	33.6122
860.56	38.6711
896.60	29.2401
911.20	5.8669
934.06	27.5158
964.77	22.0450
968.97	37.6227
1001.03	24.9176
1078.86	21.2598
1120.29	25.5127
1155.19	20.5444
1173.23	33.5694
1238.11	25.0273
1280.96	15.7599
1332.51	21.1979
1377.67	13.8823
1401.50	15.0083
1407.98	11.8048
1460.80	16.6967
1509.23	16.8229
1588.20	16.5515
1620.50	10.4529
1729.60	12.5466
1764.49	22.0621

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198324018

Total Uranium Activity	3.1109E-02	ug/g
Total Uranium Counting Unc.	5.1429E-02	ug/g
Total Uranium Tpu	5.1429E-08	ug/g
Total Uranium Mda	4.4148E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:23:34.98

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324019.CNF;2
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 30-NOV-2007 11:54:45
Sample ID        : G198324019           Sample quantity  : 1.15110E+02 GRAM
Detector name    : GAM23                Detector geometry: CAN
Elapsed live time: 0 06:00:00.00        Elapsed real time: 0 06:00:12.69  0.1%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706245               Detector SN#     :
Matrix Spike ID  :                      LCS ID           :
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	1	44.60	39	158	0.79	89.14	88	9	1.81E-03	45.2	1.95E+00
2	1	46.45*	2	276	0.80	92.85	88	9	8.37E-05	*****	
3	0	63.35*	87	499	1.19	126.65	123	8	4.03E-03	49.8	
4	2	74.88	299	422	0.85	149.71	146	12	1.39E-02	11.6	7.27E-01
5	2	77.15	528	388	0.82	154.25	146	12	2.45E-02	7.1	
6	0	84.55	48	435	0.67	169.06	165	6	2.24E-03	69.7	
7	3	87.30	221	501	1.12	174.56	171	21	1.02E-02	18.3	1.84E+00
8	3	89.89	168	497	1.13	179.73	171	21	7.79E-03	23.6	
9	3	92.70*	256	491	1.13	185.35	171	21	1.19E-02	19.0	
10	0	105.28	46	429	1.34	210.52	207	7	2.15E-03	75.3	
11	0	129.00	140	508	1.23	257.96	254	9	6.50E-03	30.2	
12	0	186.03*	152	552	0.90	372.04	367	10	7.03E-03	34.9	
13	0	209.69	168	522	1.07	419.38	414	11	7.80E-03	27.4	
14	0	238.58*	1032	572	1.04	477.15	471	10	4.78E-02	5.7	
15	0	241.75	117	378	1.01	483.50	482	7	5.40E-03	30.5	
16	0	270.27	124	337	1.41	540.56	535	11	5.75E-03	29.9	
17	0	274.78	54	194	1.54	549.58	547	6	2.51E-03	42.7	
18	0	278.00	80	238	0.91	556.03	553	7	3.70E-03	33.9	
19	0	295.24*	256	414	1.18	590.50	585	11	1.18E-02	17.7	
20	0	299.96	61	278	1.18	599.95	597	8	2.84E-03	48.7	
21	0	327.80	54	257	1.30	655.63	653	8	2.52E-03	52.8	
22	0	338.19	227	272	1.19	676.41	672	9	1.05E-02	14.7	
23	0	351.93*	503	328	1.16	703.90	698	12	2.33E-02	8.9	
24	0	409.52	54	154	1.11	819.11	816	8	2.52E-03	41.6	
25	0	433.47*	42	202	1.84	867.03	861	10	1.96E-03	72.6	
26	0	462.30	104	221	2.77	924.70	918	14	4.81E-03	31.9	
27	0	510.88*	150	297	1.96	1021.89	1013	18	6.96E-03	35.1	
28	0	539.01	13	152	1.28	1078.16	1074	10	6.21E-04	174.3	
29	0	583.29*	340	171	1.52	1166.75	1161	13	1.58E-02	10.8	
30	0	609.00*	366	198	1.36	1218.20	1210	14	1.70E-02	10.3	
31	0	634.35	42	88	2.76	1268.90	1264	10	1.95E-03	44.4	
32	0	661.30	103	123	1.65	1322.82	1317	12	4.76E-03	23.7	
33	0	727.19	100	98	1.80	1454.65	1450	10	4.61E-03	21.1	
34	6	767.56	64	76	2.81	1535.43	1531	18	2.97E-03	27.9	1.08E+00
35	6	772.26	26	74	1.97	1544.83	1531	18	1.20E-03	60.4	
36	0	786.09	36	76	1.49	1572.51	1568	9	1.68E-03	46.6	
37	0	795.96	57	135	1.88	1592.24	1585	15	2.62E-03	47.7	
38	0	911.18*	225	68	1.72	1822.79	1817	12	1.04E-02	11.0	

Sample ID : G198324019 Acquisition date : 30-NOV-2007 11:54:45

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	934.60	38	79	4.18	1869.66	1862	15	1.76E-03	53.3	
40	2	965.14*	31	71	2.19	1930.76	1925	26	1.45E-03	59.8	1.38E+00
41	2	968.88	144	81	2.19	1938.24	1925	26	6.69E-03	15.7	
42	0	989.08	27	31	0.74	1978.67	1975	8	1.24E-03	41.4	
43	0	1063.54*	21	77	1.80	2127.65	2118	17	9.71E-04	178.1	
44	0	1121.22	51	123	1.53	2243.07	2235	17	2.38E-03	51.3	
45	0	1249.16	14	20	1.06	2499.10	2496	8	6.35E-04	64.4	
46	0	1309.94	21	20	0.51	2620.73	2613	12	9.51E-04	49.6	
47	0	1460.77*	488	100	2.09	2922.57	2914	20	2.26E-02	7.2	
48	0	1592.28	20	53	5.36	3185.77	3171	18	9.31E-04	91.2	
49	0	1647.75	4	20	1.17	3296.80	3287	11	2.01E-04	202.4	
50	0	1711.75	12	8	1.50	3424.90	3418	11	5.65E-04	53.6	
51	0	1764.14*	76	8	2.58	3529.76	3523	15	3.52E-03	17.2	
52	0	1981.42	13	0	1.87	3964.69	3961	9	6.02E-04	27.7	
53	0	2004.95	12	8	2.42	4011.79	4006	10	5.78E-04	49.9	
54	0	2035.79	6	9	3.41	4073.53	4067	11	2.92E-04	97.4	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324019       *
* Acquisition date : 30-NOV-2007 11:54:45 Detector SN#    :                 *
* Detector ID      : GAM23                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 06:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 06:00:12.69     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324019           Analyst initials: MJH1            *
* Batch Number     : 706245               Sample Quantity : 1.1511E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 18-MAY-2007 16:30:26 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	4.796E+00	7.590E-01	2.778E-01	0.000E+00
CS-137	6.269E-02	2.937E-02	3.268E-02	0.000E+00
EU-155	3.864E-02	5.709E-02	7.239E-02	0.000E+00
TL-208	1.870E-01	4.106E-02	2.803E-02	0.000E+00
BI-212	4.741E-01	1.984E-01	2.460E-01	0.000E+00
PB-212	5.434E-01	6.795E-02	5.996E-02	0.000E+00
BI-214	3.829E-01	8.016E-02	6.050E-02	0.000E+00
PB-214	4.121E-01	7.478E-02	5.657E-02	0.000E+00
RA-223	2.272E-01	1.340E-01	1.259E-01	0.000E+00
AC-228	5.996E-01	1.376E-01	1.107E-01	0.000E+00
TH-234	8.961E-01	3.391E-01	3.163E-01	0.000E+00
NP-237	3.598E-01	1.317E-01	1.493E-01	0.000E+00
AM-243	1.148E-01	2.739E-02	3.705E-02	0.000E+00
CM-243	3.498E-02	5.170E-02	6.571E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	-1.319E-02		1.992E-02	3.163E-02	0.000E+00	NOT IDENT.
RH-101	-1.458E-03		1.494E-02	2.503E-02	0.000E+00	NOT IDENT.
SB-125	-2.539E-02		5.190E-02	7.387E-02	0.000E+00	NOT IDENT.
PO-209	1.309E+00		4.109E+00	6.958E+00	0.000E+00	NOT IDENT.
BI-211	-9.390E-02		5.854E-01	9.672E-01	0.000E+00	NOT IDENT.
PA-233	-1.323E-04		3.030E-02	5.261E-02	0.000E+00	NOT IDENT.
PA-234M	-1.823E+00		2.693E+00	3.705E+00	0.000E+00	NOT IDENT.
U-235	-1.465E-02		9.448E-02	1.437E-01	0.000E+00	NOT IDENT.
NP-236	1.898E-02		2.484E-02	4.334E-02	0.000E+00	NOT IDENT.
NP-239	3.272E-02		1.041E-01	1.752E-01	0.000E+00	NOT IDENT.
AM-241	5.471E-02		7.678E-02	1.219E-01	0.000E+00	NOT IDENT.
AM-246	5.461E-02		6.758E-02	1.217E-01	0.000E+00	NOT IDENT.
CF-249	1.284E-02		1.980E-02	3.473E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:23:36.00

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324019.CNF;2
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 30-NOV-2007 11:54:45
Sample ID        : G198324019           Sample quantity  : 1.15110E+02 GRAM
Detector name    : GAM23                Detector geometry: CAN
Elapsed live time: 0 06:00:00.00        Elapsed real time: 0 06:00:12.69  0.1%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706245               Detector SN#     :
Matrix Spike ID  :                      LCS ID           :
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	488	10.66*	1.037E+00	4.796E+00	4.796E+00	16.15
CS-137	661.66	103	85.10*	2.103E+00	6.246E-02	6.269E-02	47.80
EU-155	105.31	46	21.20*	6.303E+00	3.781E-02	3.864E-02	150.80
TL-208	277.36	80	6.31	4.246E+00	3.246E-01	3.246E-01	68.02
	510.77	150	22.60	2.614E+00	2.765E-01	2.765E-01	70.50
	583.19	340	84.50*	2.341E+00	1.870E-01	1.870E-01	22.41
	763.13	------	1.81	1.854E+00	------	Line Not Found	------
	860.56	------	12.42	1.664E+00	------	Line Not Found	------
BI-212	727.33	100	11.80*	1.935E+00	4.742E-01	4.741E-01	42.69
	785.37	36	1.10	1.806E+00	1.980E+00	1.980E+00	93.42
	1620.50	------	1.49	9.597E-01	------	Line Not Found	------
PB-212	74.81	299	10.40	4.156E+00	7.527E-01	7.527E-01	24.35
	77.11	528	17.50	4.417E+00	7.430E-01	7.430E-01	15.93
	87.30	221	7.81	5.378E+00	5.712E-01	5.712E-01	37.34
	238.63	1032	43.30*	4.768E+00	5.434E-01	5.434E-01	12.76
	300.09	61	3.28	4.002E+00	5.080E-01	5.080E-01	97.48
BI-214	609.31	366	46.10*	2.257E+00	3.828E-01	3.829E-01	21.36
	768.36	64	4.94	1.845E+00	7.646E-01	7.646E-01	56.25
	806.17	------	1.22	1.765E+00	------	Line Not Found	------
	934.06	38	3.03	1.543E+00	8.851E-01	8.852E-01	106.98
	1120.29	51	15.10	1.305E+00	2.839E-01	2.839E-01	102.86
	1155.19	------	1.63	1.270E+00	------	Line Not Found	------
	1238.11	------	5.79	1.193E+00	------	Line Not Found	------
	1280.96	------	1.43	1.158E+00	------	Line Not Found	------
	1377.67	------	4.00	1.088E+00	------	Line Not Found	------
	1401.50	------	1.27	1.073E+00	------	Line Not Found	------
	1407.98	------	2.15	1.069E+00	------	Line Not Found	------
	1509.23	------	2.11	1.011E+00	------	Line Not Found	------
	1729.60	------	2.92	9.196E-01	------	Line Not Found	------
	1764.49	76	15.40	9.088E-01	5.900E-01	5.900E-01	34.88
PB-214	74.81	299	6.44	4.156E+00	1.216E+00	1.216E+00	24.35
	77.11	528	10.80	4.417E+00	1.204E+00	1.204E+00	15.93

Sample ID : G198324019 Acquisition date : 30-NOV-2007 11:54:45

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	221	4.84	5.378E+00	9.217E-01	9.218E-01	37.34
	242.00	117	7.43	4.721E+00	3.616E-01	3.617E-01	61.19
	295.22	256	19.30	4.052E+00	3.554E-01	3.555E-01	35.79
	351.93	503	37.60*	3.529E+00	4.121E-01	4.121E-01	18.52
RA-223	269.46	124	13.70*	4.339E+00	2.272E-01	2.272E-01	60.16
AC-228	129.07	140	2.42	6.530E+00	9.657E-01	9.657E-01	60.79
	209.25	168	3.89	5.229E+00	8.998E-01	8.998E-01	55.04
	270.25	124	3.46	4.339E+00	8.998E-01	8.998E-01	60.16
	338.32	227	11.27	3.642E+00	6.001E-01	6.001E-01	29.95
	409.46	54	1.92	3.128E+00	9.855E-01	9.855E-01	83.27
	463.00	104	4.40	2.836E+00	9.042E-01	9.042E-01	64.02
	794.95	57	4.25	1.786E+00	8.101E-01	8.101E-01	95.57
	911.20	225	25.80*	1.579E+00	5.996E-01	5.996E-01	23.41
	964.77	31	4.99	1.498E+00	4.554E-01	4.554E-01	119.92
	968.97	144	15.80	1.492E+00	6.658E-01	6.658E-01	32.22
	1588.20	------	3.22	9.734E-01	------ Line Not Found		------
TH-234	63.29	87	4.80	2.635E+00	7.487E-01	7.487E-01	99.95
	92.58	256	5.41*	5.751E+00	8.961E-01	8.961E-01	38.62
NP-237	86.48	221	12.40*	5.378E+00	3.598E-01	3.598E-01	37.34
AM-243	74.66	299	68.20*	4.156E+00	1.148E-01	1.148E-01	24.35
CM-243	103.76	46	23.00*	6.303E+00	3.485E-02	3.498E-02	150.80

Flag: "*" = Keyline

Sample ID : G198324019 Acquisition date : 30-NOV-2007 11:54:45

Total number of lines in spectrum 54
Number of unidentified lines 21
Number of lines tentatively identified by NID 33 61.11%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	4.796E+00	4.796E+00	0.774E+00	16.15	
CS-137	9.47E+08S	1.00	6.246E-02	6.269E-02	2.997E-02	47.80	
EU-155	1.57E+08S	1.02	3.781E-02	3.864E-02	5.826E-02	150.80	
TL-208	4.43E+17S	1.00	1.870E-01	1.870E-01	0.419E-01	22.41	
BI-212	4.43E+17S	1.00	4.742E-01	4.741E-01	2.024E-01	42.69	
PB-212	4.43E+17S	1.00	5.434E-01	5.434E-01	0.693E-01	12.76	
BI-214	5.05E+10S	1.00	3.828E-01	3.829E-01	0.818E-01	21.36	
PB-214	5.05E+10S	1.00	4.121E-01	4.121E-01	0.763E-01	18.52	
RA-223	1.04E+12S	1.00	2.272E-01	2.272E-01	1.367E-01	60.16	
AC-228	4.43E+17S	1.00	5.996E-01	5.996E-01	1.404E-01	23.41	
TH-234	1.41E+17S	1.00	8.961E-01	8.961E-01	3.460E-01	38.62	
NP-237	6.75E+13S	1.00	3.598E-01	3.598E-01	1.343E-01	37.34	
AM-243	2.33E+11S	1.00	1.148E-01	1.148E-01	0.280E-01	24.35	
CM-243	8.99E+08S	1.00	3.485E-02	3.498E-02	5.275E-02	150.80	
			---	---			
	Total Activity :		9.128E+00	9.129E+00			

Grand Total Activity : 9.128E+00 9.129E+00

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G198324019 Acquisition date : 30-NOV-2007 11:54:45

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
1	44.60	39	158	0.79	89.14	88	9	1.81E-03	90.5	4.36E-01	
1	46.45	2	276	0.80	92.85	88	9	8.37E-05	****	5.78E-01	
0	84.55	48	435	0.67	169.06	165	6	2.24E-03	****	5.15E+00	
3	89.89	168	497	1.13	179.73	171	21	7.79E-03	47.1	5.57E+00	
0	186.03	152	552	0.90	372.04	367	10	7.03E-03	69.9	5.65E+00	
0	274.78	54	194	1.54	549.58	547	6	2.51E-03	85.3	4.28E+00	
0	327.80	54	257	1.30	655.63	653	8	2.52E-03	****	3.73E+00	
0	433.47	42	202	1.84	867.03	861	10	1.96E-03	****	2.99E+00	
0	539.01	13	152	1.28	1078.16	1074	10	6.21E-04	****	2.50E+00	
0	634.35	42	88	2.76	1268.90	1264	10	1.95E-03	88.7	2.18E+00	
6	772.26	26	74	1.97	1544.83	1531	18	1.20E-03	****	1.83E+00	
0	989.08	27	31	0.74	1978.67	1975	8	1.24E-03	82.7	1.46E+00	
0	1063.54	21	77	1.80	2127.65	2118	17	9.71E-04	****	1.37E+00	
0	1249.16	14	20	1.06	2499.10	2496	8	6.35E-04	****	1.18E+00	
0	1309.94	21	20	0.51	2620.73	2613	12	9.51E-04	99.3	1.14E+00	
0	1592.28	20	53	5.36	3185.77	3171	18	9.31E-04	****	9.72E-01	
0	1647.75	4	20	1.17	3296.80	3287	11	2.01E-04	****	9.49E-01	
0	1711.75	12	8	1.50	3424.90	3418	11	5.65E-04	****	9.26E-01	
0	1981.42	13	0	1.87	3964.69	3961	9	6.02E-04	55.5	8.59E-01	
0	2004.95	12	8	2.42	4011.79	4006	10	5.78E-04	99.8	8.56E-01	
0	2035.79	6	9	3.41	4073.53	4067	11	2.92E-04	****	8.51E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G198324019            *
* Acquisition date : 30-NOV-2007 11:54:45 Detector SN#    :                 *
* Detector ID      : GAM23                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 06:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 06:00:12.69     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324019           Analyst initials: MJH1            *
* Batch Number     : 706245               Sample Quantity : 1.1511E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 18-MAY-2007 16:30:26 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	4.796E+00	7.590E-01	1.390E-01	7.590E-01
CS-137	6.269E-02	2.937E-02	1.635E-02	2.937E-02
EU-155	3.864E-02	5.709E-02	3.622E-02	5.709E-02
TL-208	1.870E-01	4.106E-02	1.402E-02	4.106E-02
BI-212	4.741E-01	1.984E-01	1.231E-01	1.984E-01
PB-212	5.434E-01	6.795E-02	3.000E-02	6.795E-02
BI-214	3.829E-01	8.016E-02	3.027E-02	8.016E-02
PB-214	4.121E-01	7.478E-02	2.830E-02	7.478E-02
RA-223	2.272E-01	1.340E-01	6.297E-02	1.340E-01
AC-228	5.996E-01	1.376E-01	5.540E-02	1.376E-01
TH-234	8.961E-01	3.391E-01	1.583E-01	3.391E-01
NP-237	3.598E-01	1.317E-01	7.471E-02	1.317E-01
AM-243	1.148E-01	2.739E-02	1.854E-02	2.739E-02
CM-243	3.498E-02	5.170E-02	3.287E-02	5.170E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	-1.319E-02	1.992E-02	1.583E-02	1.992E-02	NOT IDENT.
RH-101	-1.458E-03	1.494E-02	1.252E-02	1.494E-02	NOT IDENT.
SB-125	-2.539E-02	5.190E-02	3.696E-02	5.190E-02	NOT IDENT.
PO-209	1.309E+00	4.109E+00	3.481E+00	4.109E+00	NOT IDENT.
BI-211	-9.390E-02	5.854E-01	4.839E-01	5.854E-01	NOT IDENT.
PA-233	-1.323E-04	3.030E-02	2.632E-02	3.030E-02	NOT IDENT.
PA-234M	-1.823E+00	2.693E+00	1.853E+00	2.693E+00	NOT IDENT.
U-235	-1.465E-02	9.448E-02	7.188E-02	9.448E-02	NOT IDENT.
NP-236	1.898E-02	2.484E-02	2.168E-02	2.484E-02	NOT IDENT.
NP-239	3.272E-02	1.041E-01	8.767E-02	1.041E-01	NOT IDENT.
AM-241	5.471E-02	7.678E-02	6.097E-02	7.678E-02	NOT IDENT.
AM-246	5.461E-02	6.758E-02	6.090E-02	6.758E-02	NOT IDENT.
CF-249	1.284E-02	1.980E-02	1.737E-02	1.980E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
59.54	276.1002
63.29	318.4290
74.66	406.0858
74.81	406.2800
74.81	406.2800
77.11	409.2346
77.11	409.2346
86.48	361.7952
87.30	356.3453
87.30	356.3453
92.58	361.6114
98.44	332.2402
103.76	332.8211
105.31	336.3037
129.07	354.0782
143.76	379.1173
198.00	355.9838
209.25	311.7590
228.18	312.4146
238.63	583.5007
242.00	428.6484
269.46	214.7446
270.25	214.9452
277.36	237.6970
295.22	293.8467
300.09	259.5512
312.17	237.8373
338.32	260.0299
351.93	216.2337
387.59	190.1738
409.46	198.7091
427.87	177.5120
463.00	154.4247
510.77	143.7276
583.19	119.1821
609.31	153.5174
661.66	131.8174
727.33	122.8315
763.13	112.4728
768.36	116.4059
785.37	93.2861
794.95	113.8635
806.17	119.5269
831.80	121.9634
860.56	83.0508
896.60	98.0564
911.20	79.5648
934.06	76.0355
964.77	74.8135
968.97	74.9381
1001.03	82.4780
1078.86	63.2024
1120.29	67.0064
1155.19	55.2188
1173.23	74.0734
1238.11	54.7494
1280.96	53.4723
1332.51	38.9417
1377.67	49.8457
1401.50	44.9596
1407.98	41.9010
1460.80	37.2060
1509.23	34.4648
1588.20	35.8092
1620.50	28.5017
1729.60	22.4361
1764.49	49.1734

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198324019

Total Uranium Activity	-6.7777E-03	ug/g
Total Uranium Counting Unc.	4.3715E-02	ug/g
Total Uranium Tpu	4.3715E-08	ug/g
Total Uranium Mda	3.3258E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:24:10.35

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324020.CNF;1
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 30-NOV-2007 12:20:10
Sample ID        : G198324020           Sample quantity  : 1.06650E+02 GRAM
Detector name    : GAM05                Detector geometry: CAN
Elapsed live time: 0 03:00:00.00        Elapsed real time: 0 03:00:01.68  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706245               Detector SN#     :
Matrix Spike ID  :                      LCS ID           :
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.20*	73	244	1.12	93.18	88	9	6.79E-03	52.2	
2	0	62.99*	32	332	0.89	126.75	122	9	2.94E-03	115.6	
3	4	74.67*	281	304	1.36	150.08	143	18	2.60E-02	13.1	2.85E+00
4	4	76.95*	482	266	1.16	154.65	143	18	4.46E-02	7.6	
5	0	87.01	135	284	0.93	174.75	172	7	1.25E-02	22.4	
6	2	89.81	67	190	1.09	180.35	178	13	6.19E-03	32.3	1.12E+00
7	2	92.70*	162	293	1.45	186.13	178	13	1.50E-02	23.3	
8	0	97.82	48	205	1.19	196.35	194	8	4.48E-03	52.9	
9	0	129.01	47	193	1.29	258.71	256	8	4.33E-03	53.3	
10	0	185.86*	131	266	1.73	372.32	365	13	1.21E-02	29.1	
11	0	209.09	42	238	1.30	418.75	414	12	3.87E-03	75.4	
12	0	238.40*	516	226	1.19	477.33	470	12	4.77E-02	7.7	
13	0	241.56	72	126	1.83	483.65	482	7	6.64E-03	29.4	
14	0	249.45	23	152	0.64	499.41	492	11	2.16E-03	106.7	
15	0	259.90	19	264	4.25	520.31	507	18	1.76E-03	203.9	
16	0	295.18	140	87	1.49	590.82	585	10	1.30E-02	15.1	
17	0	300.11	57	129	1.72	600.66	596	11	5.28E-03	40.8	
18	0	330.32	62	178	4.00	661.03	653	17	5.76E-03	51.7	
19	0	337.78*	123	146	1.44	675.94	670	14	1.14E-02	23.4	
20	2	352.01*	307	83	1.54	704.37	699	17	2.85E-02	8.1	1.21E+00
21	2	355.54	34	44	1.99	711.43	699	17	3.18E-03	55.1	
22	0	443.72	23	74	3.73	887.63	879	12	2.11E-03	79.7	
23	0	461.91	57	62	3.72	924.00	917	13	5.31E-03	31.2	
24	0	510.96*	113	111	2.30	1021.99	1014	18	1.05E-02	29.4	
25	0	533.51	17	60	1.36	1067.05	1059	10	1.55E-03	91.3	
26	0	583.37*	133	56	1.46	1166.68	1162	11	1.23E-02	15.3	
27	0	609.50*	126	101	1.29	1218.89	1212	13	1.16E-02	19.4	
28	0	662.69	86	72	2.18	1325.15	1317	20	8.00E-03	26.1	
29	0	728.65*	18	64	1.94	1456.91	1446	15	1.64E-03	105.2	
30	0	796.99	26	55	0.72	1593.43	1583	17	2.36E-03	69.6	
31	0	828.79	29	47	5.50	1656.96	1647	19	2.73E-03	59.0	
32	0	862.69*	17	49	5.47	1724.68	1716	19	1.59E-03	103.5	
33	6	908.44	13	5	1.87	1816.06	1813	13	1.17E-03	41.8	3.77E+00
34	6	911.35*	78	16	1.49	1821.88	1813	13	7.26E-03	16.6	
35	0	934.93	20	10	0.68	1868.97	1864	9	1.86E-03	37.0	
36	0	943.26	21	33	3.27	1885.61	1875	19	1.91E-03	70.5	
37	0	964.10*	25	20	3.28	1927.22	1920	13	2.31E-03	47.3	
38	0	969.36*	86	9	2.22	1937.73	1932	12	7.93E-03	13.9	

Sample ID : G198324020 Acquisition date : 30-NOV-2007 12:20:10

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1001.81	15	29	3.77	2002.55	1994	13	1.39E-03	78.6	
40	0	1024.46	9	40	7.95	2047.78	2031	20	8.33E-04	175.3	
41	0	1073.82	14	30	3.43	2146.36	2136	15	1.34E-03	86.7	
42	0	1105.98	8	20	1.02	2210.59	2204	10	7.74E-04	109.8	
43	0	1123.57*	23	58	0.55	2245.72	2237	21	2.12E-03	91.2	
44	0	1188.84	14	37	4.13	2376.07	2367	17	1.26E-03	107.7	
45	0	1238.02	23	21	1.53	2474.27	2468	13	2.09E-03	48.0	
46	0	1279.74	18	4	4.50	2557.58	2552	13	1.70E-03	31.1	
47	0	1378.46	20	16	3.46	2754.70	2746	16	1.85E-03	50.0	
48	0	1419.23	18	13	1.01	2836.10	2824	19	1.63E-03	56.5	
49	0	1461.33*	235	21	1.39	2920.15	2910	16	2.18E-02	8.2	
50	0	1669.99	12	7	3.72	3336.70	3329	13	1.06E-03	54.4	
51	0	1730.39	16	0	0.83	3457.25	3451	13	1.48E-03	25.0	
52	0	1766.16	37	14	1.41	3528.64	3517	19	3.38E-03	29.8	
53	0	1805.25	9	0	0.66	3606.67	3602	9	8.33E-04	33.3	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324020       *
* Acquisition date : 30-NOV-2007 12:20:10 Detector SN#    :                 *
* Detector ID      : GAM05                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 03:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 03:00:01.68     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324020           Analyst initials: MJH1            *
* Batch Number     : 706245               Sample Quantity : 1.0665E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 31-MAY-2007 12:09:24 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	5.295E+00	9.414E-01	4.427E-01	0.000E+00
CS-137	1.268E-01	6.563E-02	5.023E-02	0.000E+00
TL-208	1.749E-01	5.375E-02	4.889E-02	0.000E+00
BI-212	2.030E-01	4.188E-01	4.000E-01	0.000E+00
PB-212	6.252E-01	1.077E-01	8.759E-02	0.000E+00
PB-214	5.859E-01	9.835E-02	9.310E-02	0.000E+00
AC-228	4.964E-01	1.680E-01	2.001E-01	0.000E+00
PA-234M	3.153E+00	4.865E+00	5.754E+00	0.000E+00
TH-234	9.873E-01	4.588E-01	4.316E-01	0.000E+00
NP-236	4.252E-02	4.422E-02	6.193E-02	0.000E+00
NP-237	3.549E-01	1.587E-01	2.245E-01	0.000E+00
AM-243	1.317E-01	3.544E-02	3.629E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
CO-60	3.099E-03	3.024E-02	5.154E-02	0.000E+00	NOT IDENT.
RH-101	-1.194E-02	3.030E-02	4.508E-02	0.000E+00	NOT IDENT.
SB-125	6.911E-02	7.511E-02	1.337E-01	0.000E+00	NOT IDENT.
EU-155	-5.010E-02	6.845E-02	1.124E-01	0.000E+00	NOT IDENT.
PO-209	4.916E-01	5.771E+00	9.642E+00	0.000E+00	NOT IDENT.
BI-211	5.545E-02	1.008E+00	1.450E+00	0.000E+00	NOT IDENT.
BI-214	0.000E+00	1.224E-01	1.766E-01	0.000E+00	FAIL ABUN
RA-223	1.251E-01	1.424E-01	2.547E-01	0.000E+00	NOT IDENT.
PA-233	3.755E-02	5.349E-02	9.447E-02	0.000E+00	NOT IDENT.
U-235	-1.021E-02	1.590E-01	2.477E-01	0.000E+00	NOT IDENT.
NP-239	1.026E-02	1.792E-01	2.942E-01	0.000E+00	NOT IDENT.
AM-241	2.357E-02	4.218E-02	6.688E-02	0.000E+00	NOT IDENT.
CM-243	5.518E-03	6.550E-02	1.039E-01	0.000E+00	NOT IDENT.
AM-246	1.021E-02	1.083E-01	1.600E-01	0.000E+00	NOT IDENT.
CF-249	8.396E-03	3.370E-02	5.747E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:24:11.31

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324020.CNF;1
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 30-NOV-2007 12:20:10
Sample ID        : G198324020           Sample quantity  : 1.06650E+02 GRAM
Detector name    : GAM05                Detector geometry: CAN
Elapsed live time: 0 03:00:00.00        Elapsed real time: 0 03:00:01.68  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706245               Detector SN#     :
Matrix Spike ID  :                      LCS ID           :
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	235	10.66*	9.766E-01	5.295E+00	5.295E+00	18.14
CS-137	661.66	86	85.10*	1.885E+00	1.264E-01	1.268E-01	52.81
TL-208	277.36	------	6.31	3.981E+00	------	Line Not Found	------
	510.77	113	22.60	2.367E+00	4.975E-01	4.975E-01	59.07
	583.19	133	84.50*	2.107E+00	1.749E-01	1.749E-01	31.36
	763.13	------	1.81	1.670E+00	------	Line Not Found	------
	860.56	------	12.42	1.508E+00	------	Line Not Found	------
BI-212	727.33	18	11.80*	1.737E+00	2.030E-01	2.030E-01	210.55
	785.37	------	1.10	1.629E+00	------	Line Not Found	------
	1620.50	------	1.49	8.967E-01	------	Line Not Found	------
PB-212	74.81	281	10.40	7.332E+00	8.635E-01	8.635E-01	27.46
	77.11	482	17.50	7.312E+00	8.837E-01	8.837E-01	17.37
	87.30	135	7.81	7.191E+00	5.634E-01	5.634E-01	45.63
	238.63	516	43.30*	4.470E+00	6.252E-01	6.252E-01	17.59
	300.09	57	3.28	3.738E+00	1.092E+00	1.092E+00	81.79
PB-214	74.81	281	6.44	7.332E+00	1.394E+00	1.395E+00	27.46
	77.11	482	10.80	7.312E+00	1.432E+00	1.432E+00	17.37
	87.30	135	4.84	7.191E+00	9.092E-01	9.092E-01	45.63
	242.00	72	7.43	4.426E+00	5.117E-01	5.117E-01	59.48
	295.22	140	19.30	3.788E+00	4.499E-01	4.499E-01	30.77
	351.93	307	37.60*	3.273E+00	5.859E-01	5.859E-01	17.13
AC-228	129.07	47	2.42	6.410E+00	7.071E-01	7.071E-01	107.00
	209.25	42	3.89	4.905E+00	5.134E-01	5.134E-01	151.10
	270.25	------	3.46	4.063E+00	------	Line Not Found	------
	338.32	123	11.27	3.389E+00	7.537E-01	7.537E-01	47.07
	409.46	------	1.92	2.874E+00	------	Line Not Found	------
	463.00	57	4.40	2.587E+00	1.183E+00	1.183E+00	62.57
	794.95	------	4.25	1.613E+00	------	Line Not Found	------
	911.20	78	25.80*	1.437E+00	4.964E-01	4.964E-01	34.54
	964.77	25	4.99	1.372E+00	8.536E-01	8.536E-01	95.06
	968.97	86	15.80	1.366E+00	9.309E-01	9.309E-01	29.09
	1588.20	------	3.22	9.118E-01	------	Line Not Found	------

Sample ID : G198324020 Acquisition date : 30-NOV-2007 12:20:10

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
PA-234M	1001.03	15	0.84*	1.329E+00	3.153E+00	3.153E+00	157.45
TH-234	63.29	32	4.80	7.386E+00	2.103E-01	2.103E-01	231.23
	92.58	162	5.41*	7.105E+00	9.873E-01	9.873E-01	47.41
NP-236	98.44	48	38.00*	7.020E+00	4.252E-02	4.252E-02	106.12
NP-237	86.48	135	12.40*	7.191E+00	3.549E-01	3.549E-01	45.63
AM-243	74.66	281	68.20*	7.332E+00	1.317E-01	1.317E-01	27.46

Flag: "*" = Keyline

Sample ID : G198324020 Acquisition date : 30-NOV-2007 12:20:10

Total number of lines in spectrum 53
Number of unidentified lines 22
Number of lines tentatively identified by NID 31 58.49%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	5.295E+00	5.295E+00	0.961E+00	18.14	
CS-137	9.47E+08S	1.00	1.264E-01	1.268E-01	0.670E-01	52.81	
TL-208	4.43E+17S	1.00	1.749E-01	1.749E-01	0.549E-01	31.36	
BI-212	4.43E+17S	1.00	2.030E-01	2.030E-01	4.274E-01	210.55	
PB-212	4.43E+17S	1.00	6.252E-01	6.252E-01	1.099E-01	17.59	
PB-214	5.05E+10S	1.00	5.859E-01	5.859E-01	1.004E-01	17.13	
AC-228	4.43E+17S	1.00	4.964E-01	4.964E-01	1.714E-01	34.54	
PA-234M	1.41E+17S	1.00	3.153E+00	3.153E+00	4.964E+00	157.45	
TH-234	1.41E+17S	1.00	9.873E-01	9.873E-01	4.681E-01	47.41	
NP-236	4.89E+12S	1.00	4.252E-02	4.252E-02	4.512E-02	106.12	
NP-237	6.75E+13S	1.00	3.549E-01	3.549E-01	1.619E-01	45.63	
AM-243	2.33E+11S	1.00	1.317E-01	1.317E-01	0.362E-01	27.46	
			---	---			
		Total Activity :	1.218E+01	1.218E+01			
		Grand Total Activity :	1.218E+01	1.218E+01			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G198324020 Acquisition date : 30-NOV-2007 12:20:10

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.20	73	244	1.12	93.18	88	9	6.79E-03	****	7.29E+00	
2	89.81	67	190	1.09	180.35	178	13	6.19E-03	64.6	7.15E+00	
0	185.86	131	266	1.73	372.32	365	13	1.21E-02	58.3	5.30E+00	
0	249.45	23	152	0.64	499.41	492	11	2.16E-03	****	4.32E+00	
0	259.90	19	264	4.25	520.31	507	18	1.76E-03	****	4.19E+00	
0	330.32	62	178	4.00	661.03	653	17	5.76E-03	****	3.45E+00	
2	355.54	34	44	1.99	711.43	699	17	3.18E-03	****	3.25E+00	
0	443.72	23	74	3.73	887.63	879	12	2.11E-03	****	2.68E+00	
0	533.51	17	60	1.36	1067.05	1059	10	1.55E-03	****	2.28E+00	
0	609.50	126	101	1.29	1218.89	1212	13	1.16E-02	38.9	2.03E+00	T
0	796.99	26	55	0.72	1593.43	1583	17	2.36E-03	****	1.61E+00	
0	828.79	29	47	5.50	1656.96	1647	19	2.73E-03	****	1.56E+00	
0	862.69	17	49	5.47	1724.68	1716	19	1.59E-03	****	1.50E+00	
6	908.44	13	5	1.87	1816.06	1813	13	1.17E-03	83.6	1.44E+00	
0	934.93	20	10	0.68	1868.97	1864	9	1.86E-03	74.1	1.41E+00	T
0	943.26	21	33	3.27	1885.61	1875	19	1.91E-03	****	1.40E+00	
0	1024.46	9	40	7.95	2047.78	2031	20	8.33E-04	****	1.30E+00	
0	1073.82	14	30	3.43	2146.36	2136	15	1.34E-03	****	1.26E+00	
0	1105.98	8	20	1.02	2210.59	2204	10	7.74E-04	****	1.23E+00	
0	1123.57	23	58	0.55	2245.72	2237	21	2.12E-03	****	1.21E+00	
0	1188.84	14	37	4.13	2376.07	2367	17	1.26E-03	****	1.16E+00	
0	1238.02	23	21	1.53	2474.27	2468	13	2.09E-03	96.0	1.12E+00	T
0	1279.74	18	4	4.50	2557.58	2552	13	1.70E-03	62.2	1.09E+00	T
0	1378.46	20	16	3.46	2754.70	2746	16	1.85E-03	****	1.02E+00	T
0	1419.23	18	13	1.01	2836.10	2824	19	1.63E-03	****	1.00E+00	
0	1669.99	12	7	3.72	3336.70	3329	13	1.06E-03	****	8.74E-01	
0	1730.39	16	0	0.83	3457.25	3451	13	1.48E-03	50.0	8.49E-01	T
0	1766.16	37	14	1.41	3528.64	3517	19	3.38E-03	59.7	8.34E-01	T
0	1805.25	9	0	0.66	3606.67	3602	9	8.33E-04	66.7	8.18E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G198324020            *
* Acquisition date : 30-NOV-2007 12:20:10 Detector SN#    :                 *
* Detector ID      : GAM05                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 03:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 03:00:01.68     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324020           Analyst initials: MJH1            *
* Batch Number     : 706245               Sample Quantity : 1.0665E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 31-MAY-2007 12:09:24 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	5.295E+00	9.414E-01	2.215E-01	9.414E-01
CS-137	1.268E-01	6.563E-02	2.513E-02	6.563E-02
TL-208	1.749E-01	5.375E-02	2.446E-02	5.375E-02
BI-212	2.030E-01	4.188E-01	2.001E-01	4.188E-01
PB-212	6.252E-01	1.077E-01	4.382E-02	1.077E-01
PB-214	5.859E-01	9.835E-02	4.658E-02	9.835E-02
AC-228	4.964E-01	1.680E-01	1.001E-01	1.680E-01
PA-234M	3.153E+00	4.865E+00	2.879E+00	4.865E+00
TH-234	9.873E-01	4.588E-01	2.159E-01	4.588E-01
NP-236	4.252E-02	4.422E-02	3.099E-02	4.422E-02
NP-237	3.549E-01	1.587E-01	1.123E-01	1.587E-01
AM-243	1.317E-01	3.544E-02	1.816E-02	3.544E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	3.099E-03	3.024E-02	2.579E-02	3.024E-02	NOT IDENT.
RH-101	-1.194E-02	3.030E-02	2.255E-02	3.030E-02	NOT IDENT.
SB-125	6.911E-02	7.511E-02	6.690E-02	7.511E-02	NOT IDENT.
EU-155	-5.010E-02	6.845E-02	5.623E-02	6.845E-02	NOT IDENT.
PO-209	4.916E-01	5.771E+00	4.824E+00	5.771E+00	NOT IDENT.
BI-211	5.545E-02	1.008E+00	7.254E-01	1.008E+00	NOT IDENT.
BI-214	3.155E-01	1.224E-01	8.833E-02	1.224E-01	FAIL ABUN
RA-223	1.251E-01	1.424E-01	1.274E-01	1.424E-01	NOT IDENT.
PA-233	3.755E-02	5.349E-02	4.726E-02	5.349E-02	NOT IDENT.
U-235	-1.021E-02	1.590E-01	1.239E-01	1.590E-01	NOT IDENT.
NP-239	1.026E-02	1.792E-01	1.472E-01	1.792E-01	NOT IDENT.
AM-241	2.357E-02	4.218E-02	3.346E-02	4.218E-02	NOT IDENT.
CM-243	5.518E-03	6.550E-02	5.200E-02	6.550E-02	NOT IDENT.
AM-246	1.021E-02	1.083E-01	8.005E-02	1.083E-01	NOT IDENT.
CF-249	8.396E-03	3.370E-02	2.875E-02	3.370E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
59.54	231.1796
63.29	290.9148
74.66	271.0415
74.81	271.1176
74.81	271.1176
77.11	272.2733
77.11	272.2733
86.48	331.0383
87.30	346.6364
87.30	346.6364
92.58	227.1415
98.44	224.5951
103.76	220.1480
105.31	243.3767
129.07	220.3885
143.76	224.5054
198.00	189.1947
209.25	178.0551
228.18	175.5637
238.63	239.2327
242.00	476.8256
269.46	138.8837
270.25	146.3824
277.36	123.9033
295.22	132.1917
300.09	142.1393
312.17	123.3043
338.32	113.5378
351.93	109.9779
387.59	102.4196
409.46	86.4630
427.87	70.9297
463.00	69.8576
510.77	81.6049
583.19	63.8691
609.31	79.5855
661.66	54.5485
727.33	56.9451
763.13	69.6411
768.36	59.8059
785.37	41.1168
794.95	50.3123
806.17	47.4791
831.80	45.4229
860.56	28.2227
896.60	35.3966
911.20	46.6172
934.06	30.6993
964.77	0.0000
968.97	20.0768
1001.03	35.0094
1078.86	24.7247
1120.29	46.6758
1155.19	36.5329
1173.23	28.0118
1238.11	35.3471
1280.96	24.3086
1332.51	27.1177
1377.67	18.2668
1401.50	25.5075
1407.98	20.6623
1460.80	18.0896
1509.23	20.8880
1588.20	24.4150
1620.50	12.8211
1729.60	9.5477
1764.49	9.6103

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198324020

Total Uranium Activity	-4.7242E-03	ug/g
Total Uranium Counting Unc.	7.3576E-02	ug/g
Total Uranium Tpu	7.3576E-08	ug/g
Total Uranium Mda	5.7337E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:24:45.92

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201469643.CNF;2
Sample date      : 29-NOV-2007 00:00:00 Acquisition date : 30-NOV-2007 14:05:01
Sample ID        : G1201469643          Sample quantity  : 1.25000E+02 GRAM
Detector name    : GAM17                Detector geometry: CAN
Elapsed live time: 0 06:00:00.00        Elapsed real time: 0 06:00:06.04  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706245               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.26*	30	282	0.73	126.99	122	8	1.40E-03	143.6	
2	0	66.53*	15	175	1.21	133.51	132	5	6.90E-04	174.2	
3	0	84.36*	11	365	1.33	169.15	165	9	4.95E-04	371.4	
4	0	144.43*	26	315	0.83	289.18	284	10	1.21E-03	148.3	
5	0	162.72*	54	283	1.20	325.73	321	11	2.49E-03	69.3	
6	0	185.79*	21	270	1.01	371.83	367	10	9.70E-04	193.2	
7	0	191.85	6	202	1.26	383.93	383	8	2.91E-04	392.9	
8	0	205.31*	2	248	1.48	410.82	407	10	8.88E-05	*****	
9	0	215.89	41	150	1.55	431.98	429	7	1.90E-03	52.0	
10	0	238.66*	13	186	1.05	477.48	473	8	6.12E-04	231.0	
11	0	255.87	39	85	0.72	511.86	510	6	1.82E-03	40.2	
12	0	392.48	31	70	1.90	784.86	781	7	1.42E-03	49.2	
13	0	592.55	8	79	1.32	1184.71	1177	9	3.66E-04	209.3	
14	0	655.84	10	66	1.07	1311.22	1306	8	4.45E-04	150.0	
15	0	727.80*	18	65	1.29	1455.05	1450	9	8.11E-04	103.8	
16	0	731.69	34	35	0.67	1462.81	1459	8	1.58E-03	34.8	
17	0	1196.02	33	13	1.75	2391.00	2385	13	1.53E-03	28.5	
18	0	1229.28	16	42	1.00	2457.50	2448	14	7.41E-04	89.5	
19	0	1238.48	9	22	1.05	2475.90	2472	8	4.16E-04	96.4	
20	0	1242.23	18	35	1.04	2483.39	2479	13	8.47E-04	68.9	
21	0	1262.70	88	21	5.98	2524.31	2512	29	4.09E-03	18.5	
22	0	1388.04	12	16	2.53	2774.92	2764	12	5.67E-04	69.7	
23	0	1393.30	6	6	1.22	2785.43	2782	7	2.72E-04	78.3	
24	0	1451.93	9	12	0.50	2902.65	2899	8	4.01E-04	77.4	
25	0	1477.18	18	8	1.93	2953.14	2947	11	8.29E-04	39.0	
26	0	1493.60	14	15	0.89	2985.97	2979	11	6.41E-04	62.3	
27	0	1544.11	16	11	2.39	3086.97	3077	14	7.43E-04	49.7	
28	0	1565.80	8	17	0.57	3130.35	3122	13	3.65E-04	111.9	
29	0	1599.71	6	12	1.10	3198.15	3192	8	2.96E-04	101.4	
30	0	1680.36	10	10	1.09	3359.42	3351	10	4.44E-04	69.9	
31	0	1807.17	6	15	5.77	3613.00	3600	15	2.78E-04	146.5	
32	0	1986.71	19	17	6.34	3972.05	3959	23	8.82E-04	61.0	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201469643      *
* Acquisition date : 30-NOV-2007 14:05:01 Detector SN#    :                 *
* Detector ID      : GAM17                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 06:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 06:00:06.04     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 29-NOV-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G1201469643          Analyst initials: MJH1            *
* Batch Number     : 706245               Sample Quantity : 1.2500E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  5-FEB-2007 16:40:35 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
BI-212	9.073E-02	1.847E-01	2.024E-01	0.000E+00
U-235	3.935E-02	1.145E-01	9.893E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
K-40	-6.018E-02		2.165E-01	2.975E-01	0.000E+00	NOT IDENT.
CO-60	1.443E-02		1.713E-02	3.093E-02	0.000E+00	NOT IDENT.
RH-101	-5.089E-03		1.413E-02	1.913E-02	0.000E+00	NOT IDENT.
SB-125	-1.779E-02		3.404E-02	5.630E-02	0.000E+00	NOT IDENT.
CS-137	8.027E-04		2.285E-02	3.026E-02	0.000E+00	NOT IDENT.
EU-155	2.246E-02		2.760E-02	5.034E-02	0.000E+00	NOT IDENT.
TL-208	-3.422E-03		2.290E-02	3.307E-02	0.000E+00	NOT IDENT.
PO-209	-1.885E-02		3.292E+00	5.601E+00	0.000E+00	NOT IDENT.
BI-211	-1.545E-01		4.652E-01	7.752E-01	0.000E+00	NOT IDENT.
PB-212	6.905E-03		3.127E-02	4.292E-02	0.000E+00	FAIL ABUN
BI-214	5.263E-02		4.254E-02	6.496E-02	0.000E+00	FAIL ABUN
PB-214	2.447E-04		3.367E-02	5.356E-02	0.000E+00	NOT IDENT.
RA-223	9.755E-03		5.987E-02	1.001E-01	0.000E+00	NOT IDENT.
AC-228	-9.106E-02		9.153E-02	1.259E-01	0.000E+00	NOT IDENT.
PA-233	-4.172E-03		2.221E-02	3.865E-02	0.000E+00	NOT IDENT.
PA-234M	5.693E-01		2.867E+00	4.187E+00	0.000E+00	NOT IDENT.
TH-234	-1.007E-01		2.226E-01	3.816E-01	0.000E+00	FAIL ABUN
NP-236	8.690E-03		1.972E-02	2.942E-02	0.000E+00	NOT IDENT.
NP-237	3.816E-02		5.328E-02	8.866E-02	0.000E+00	NOT IDENT.
NP-239	-2.002E-03		7.171E-02	1.200E-01	0.000E+00	NOT IDENT.
AM-241	1.425E-02		1.675E-02	2.876E-02	0.000E+00	NOT IDENT.
AM-243	-1.892E-02		1.188E-02	1.694E-02	0.000E+00	NOT IDENT.
CM-243	1.429E-02		2.529E-02	4.572E-02	0.000E+00	NOT IDENT.
AM-246	1.604E-03		5.820E-02	9.765E-02	0.000E+00	NOT IDENT.
CF-249	-2.358E-03		1.804E-02	2.717E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:24:46.79

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201469643.CNF;2
Sample date      : 29-NOV-2007 00:00:00 Acquisition date : 30-NOV-2007 14:05:01
Sample ID        : G1201469643          Sample quantity  : 1.25000E+02 GRAM
Detector name    : GAM17                Detector geometry: CAN
Elapsed live time: 0 06:00:00.00        Elapsed real time: 0 06:00:06.04  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706245               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
BI-212	727.33	18	11.80*	1.638E+00	9.073E-02	9.073E-02	207.74
	785.37	------	1.10	1.527E+00	------	Line Not Found	------
	1620.50	------	1.49	8.223E-01	------	Line Not Found	------
U-235	143.76	26	10.96*	6.051E+00	3.935E-02	3.935E-02	296.83

Flag: "*" = Keyline

Sample ID : G1201469643 Acquisition date : 30-NOV-2007 14:05:01

Total number of lines in spectrum 32
Number of unidentified lines 27
Number of lines tentatively identified by NID 5 15.63%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
BI-212	4.43E+17S	1.00	9.073E-02	9.073E-02	18.85E-02	207.74	
U-235	2.22E+16S	1.00	3.935E-02	3.935E-02	11.68E-02	296.83	
		Total Activity :	1.301E-01	1.301E-01			
		Grand Total Activity :	1.301E-01	1.301E-01			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1201469643 Acquisition date : 30-NOV-2007 14:05:01

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	63.26	30	282	0.73	126.99	122	8	1.40E-03	****	7.00E+00	T
0	66.53	15	175	1.21	133.51	132	5	6.90E-04	****	7.04E+00	
0	84.36	11	365	1.33	169.15	165	9	4.95E-04	****	7.06E+00	
0	162.72	54	283	1.20	325.73	321	11	2.49E-03	****	5.69E+00	
0	185.79	21	270	1.01	371.83	367	10	9.70E-04	****	5.26E+00	
0	191.85	6	202	1.26	383.93	383	8	2.91E-04	****	5.16E+00	
0	205.31	2	248	1.48	410.82	407	10	8.88E-05	****	4.93E+00	
0	215.89	41	150	1.55	431.98	429	7	1.90E-03	****	4.76E+00	
0	238.66	13	186	1.05	477.48	473	8	6.12E-04	****	4.42E+00	T
0	255.87	39	85	0.72	511.86	510	6	1.82E-03	80.4	4.19E+00	
0	392.48	31	70	1.90	784.86	781	7	1.42E-03	98.5	2.91E+00	
0	592.55	8	79	1.32	1184.71	1177	9	3.66E-04	****	1.99E+00	
0	655.84	10	66	1.07	1311.22	1306	8	4.45E-04	****	1.80E+00	
0	731.69	34	35	0.67	1462.81	1459	8	1.58E-03	69.6	1.63E+00	
0	1196.02	33	13	1.75	2391.00	2385	13	1.53E-03	56.9	1.05E+00	
0	1229.28	16	42	1.00	2457.50	2448	14	7.41E-04	****	1.03E+00	
0	1238.48	9	22	1.05	2475.90	2472	8	4.16E-04	****	1.02E+00	T
0	1242.23	18	35	1.04	2483.39	2479	13	8.47E-04	****	1.02E+00	
0	1262.70	88	21	5.98	2524.31	2512	29	4.09E-03	37.0	1.01E+00	
0	1388.04	12	16	2.53	2774.92	2764	12	5.67E-04	****	9.30E-01	
0	1393.30	6	6	1.22	2785.43	2782	7	2.72E-04	****	9.27E-01	
0	1451.93	9	12	0.50	2902.65	2899	8	4.01E-04	****	8.97E-01	
0	1477.18	18	8	1.93	2953.14	2947	11	8.29E-04	77.9	8.85E-01	
0	1493.60	14	15	0.89	2985.97	2979	11	6.41E-04	****	8.77E-01	
0	1544.11	16	11	2.39	3086.97	3077	14	7.43E-04	99.5	8.54E-01	
0	1565.80	8	17	0.57	3130.35	3122	13	3.65E-04	****	8.45E-01	
0	1599.71	6	12	1.10	3198.15	3192	8	2.96E-04	****	8.31E-01	
0	1680.36	10	10	1.09	3359.42	3351	10	4.44E-04	****	7.99E-01	
0	1807.17	6	15	5.77	3613.00	3600	15	2.78E-04	****	7.56E-01	
0	1986.71	19	17	6.34	3972.05	3959	23	8.82E-04	****	7.05E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1201469643          *
* Acquisition date : 30-NOV-2007 14:05:01 Detector SN#    :                *
* Detector ID      : GAM17                Sensitivity     : 3.000          *
* Geometry         : CAN                  Energy tolerance: 2.000          *
* Elapsed live time:    0 06:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 06:00:06.04     Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 29-NOV-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G1201469643          Analyst initials: MJH1            *
* Batch Number     : 706245               Sample Quantity : 1.2500E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME :  5-FEB-2007 16:40:35 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
BI-212	9.073E-02	1.847E-01	1.013E-01	1.847E-01
U-235	3.935E-02	1.145E-01	4.950E-02	1.145E-01

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
K-40	-6.018E-02	2.165E-01	1.488E-01	2.165E-01	NOT IDENT.
CO-60	1.443E-02	1.713E-02	1.547E-02	1.713E-02	NOT IDENT.
RH-101	-5.089E-03	1.413E-02	9.572E-03	1.413E-02	NOT IDENT.
SB-125	-1.779E-02	3.404E-02	2.817E-02	3.404E-02	NOT IDENT.
CS-137	8.027E-04	2.285E-02	1.514E-02	2.285E-02	NOT IDENT.
EU-155	2.246E-02	2.760E-02	2.519E-02	2.760E-02	NOT IDENT.
TL-208	-3.422E-03	2.290E-02	1.654E-02	2.290E-02	NOT IDENT.
PO-209	-1.885E-02	3.292E+00	2.802E+00	3.292E+00	NOT IDENT.
BI-211	-1.545E-01	4.652E-01	3.878E-01	4.652E-01	NOT IDENT.
PB-212	6.905E-03	3.127E-02	2.147E-02	3.127E-02	FAIL ABUN
BI-214	5.263E-02	4.254E-02	3.250E-02	4.254E-02	FAIL ABUN
PB-214	2.447E-04	3.367E-02	2.680E-02	3.367E-02	NOT IDENT.
RA-223	9.755E-03	5.987E-02	5.010E-02	5.987E-02	NOT IDENT.
AC-228	-9.106E-02	9.153E-02	6.297E-02	9.153E-02	NOT IDENT.
PA-233	-4.172E-03	2.221E-02	1.933E-02	2.221E-02	NOT IDENT.
PA-234M	5.693E-01	2.867E+00	2.095E+00	2.867E+00	NOT IDENT.
TH-234	-1.007E-01	2.226E-01	1.909E-01	2.226E-01	FAIL ABUN
NP-236	8.690E-03	1.972E-02	1.472E-02	1.972E-02	NOT IDENT.
NP-237	3.816E-02	5.328E-02	4.436E-02	5.328E-02	NOT IDENT.
NP-239	-2.002E-03	7.171E-02	6.002E-02	7.171E-02	NOT IDENT.
AM-241	1.425E-02	1.675E-02	1.439E-02	1.675E-02	NOT IDENT.
AM-243	-1.892E-02	1.188E-02	8.477E-03	1.188E-02	NOT IDENT.
CM-243	1.429E-02	2.529E-02	2.288E-02	2.529E-02	NOT IDENT.
AM-246	1.604E-03	5.820E-02	4.885E-02	5.820E-02	NOT IDENT.
CF-249	-2.358E-03	1.804E-02	1.360E-02	1.804E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
59.54	181.3754
63.29	189.5818
74.66	320.8831
74.81	328.9911
74.81	328.9911
77.11	296.6872
77.11	296.6872
86.48	222.7857
87.30	268.3276
87.30	268.3276
92.58	246.2017
98.44	197.6394
103.76	198.5981
105.31	193.4763
129.07	199.1441
143.76	187.4318
198.00	186.6663
209.25	184.1026
228.18	153.9882
238.63	203.1739
242.00	156.6721
269.46	129.0443
270.25	138.3594
277.36	147.3553
295.22	135.1917
300.09	148.1610
312.17	130.8110
338.32	133.4999
351.93	127.4693
387.59	128.8260
409.46	109.5730
427.87	105.0403
463.00	104.3431
510.77	118.4630
583.19	82.7250
609.31	78.4157
661.66	74.8378
727.33	69.4417
763.13	74.4464
768.36	61.7084
785.37	68.6144
794.95	53.9799
806.17	71.9732
831.80	69.8411
860.56	74.4009
896.60	57.9727
911.20	65.0666
934.06	64.5998
964.77	76.1465
968.97	53.4753
1001.03	45.0297
1078.86	44.0834
1120.29	45.6672
1155.19	38.7904
1173.23	34.7741
1238.11	53.6377
1280.96	31.4653
1332.51	38.4829
1377.67	22.2393
1401.50	35.4178
1407.98	19.6038
1460.80	31.1967
1509.23	22.9434
1588.20	23.3516
1620.50	23.5156
1729.60	17.0401
1764.49	15.1416

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1201469643

Total Uranium Activity	1.8209E-02	ug/g
Total Uranium Counting Unc.	5.2968E-02	ug/g
Total Uranium Tpu	5.2968E-08	ug/g
Total Uranium Mda	2.2902E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:25:19.49

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201469644.CNF;1
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 30-NOV-2007 14:05:31
Sample ID        : G1201469644          Sample quantity  : 1.18680E+02 GRAM
Detector name    : GAM13                Detector geometry: CAN
Elapsed live time: 0 03:00:00.00        Elapsed real time: 0 03:00:03.07  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706245               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.80*	52	471	0.95	93.06	89	8	4.77E-03	84.0	
2	0	53.23*	91	465	1.46	105.92	102	9	8.41E-03	46.3	
3	4	63.40*	88	332	0.85	126.28	120	10	8.19E-03	45.3	1.57E+00
4	3	74.83	462	424	0.98	149.16	143	15	4.28E-02	8.5	1.07E+00
5	3	77.19*	631	442	0.95	153.87	143	15	5.84E-02	6.9	
6	0	84.08*	39	412	1.41	167.68	165	6	3.64E-03	92.2	
7	3	87.19	253	392	1.04	173.90	171	20	2.35E-02	13.6	1.33E+00
8	3	90.06	144	445	1.13	179.64	171	20	1.34E-02	25.4	
9	3	92.71*	242	422	1.08	184.95	171	20	2.24E-02	20.9	
10	0	113.75*	51	528	1.04	227.07	222	11	4.69E-03	93.1	
11	0	129.25	70	322	0.81	258.10	255	7	6.48E-03	44.2	
12	0	143.80*	10	388	0.90	287.22	284	8	9.69E-04	349.8	
13	0	163.41*	72	324	1.11	326.48	322	9	6.66E-03	49.7	
14	0	172.22	50	309	1.40	344.11	340	8	4.59E-03	63.0	
15	0	185.86*	227	480	1.14	371.40	366	12	2.10E-02	22.7	
16	4	197.64*	40	212	1.48	394.99	392	9	3.70E-03	69.6	1.83E+00
17	4	199.04*	14	210	1.57	397.78	392	9	1.31E-03	198.3	
18	0	209.08	101	276	1.20	417.89	414	8	9.36E-03	30.1	
19	6	238.62*	812	194	1.03	477.02	471	19	7.52E-02	4.7	1.82E+00
20	6	241.47	217	332	1.83	482.72	471	19	2.01E-02	21.4	
21	0	295.24*	254	256	1.06	590.35	586	10	2.35E-02	13.8	
22	0	300.31	39	241	1.19	600.50	597	9	3.57E-03	74.1	
23	0	315.04	41	107	0.95	629.97	628	6	3.76E-03	42.9	
24	0	327.97	71	157	1.96	655.85	653	8	6.61E-03	32.4	
25	0	338.25*	147	184	1.21	676.43	672	8	1.36E-02	19.3	
26	1	351.90*	514	146	1.20	703.74	698	22	4.76E-02	6.1	8.00E-01
27	1	355.89*	4	169	1.43	711.74	698	22	3.83E-04	643.9	
28	0	463.31	26	126	0.72	926.72	921	7	2.36E-03	76.2	
29	0	474.46	10	164	3.36	949.03	949	11	9.04E-04	255.2	
30	0	490.29	34	131	3.50	980.72	974	12	3.13E-03	70.6	
31	0	510.99*	54	223	2.40	1022.14	1015	16	5.00E-03	75.6	
32	0	583.09*	214	141	1.27	1166.43	1161	12	1.99E-02	13.9	
33	0	609.08*	370	129	1.28	1218.45	1212	12	3.43E-02	8.3	
34	1	661.44	269	81	1.79	1323.23	1317	17	2.49E-02	9.1	1.36E+00
35	1	665.16	32	40	1.79	1330.67	1317	17	2.96E-03	40.2	
36	0	716.57	23	118	5.09	1433.54	1426	13	2.16E-03	97.7	
37	0	769.42	106	146	2.54	1539.29	1531	20	9.86E-03	29.4	
38	0	795.35	38	93	1.97	1591.17	1582	12	3.53E-03	53.1	

Sample ID : G1201469644 Acquisition date : 30-NOV-2007 14:05:31

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	863.09	47	118	4.99	1726.72	1715	17	4.33E-03	56.1	
40	0	911.18*	170	86	1.62	1822.94	1815	15	1.58E-02	15.3	
41	1	964.68	28	83	2.07	1929.98	1924	31	2.59E-03	66.9	1.50E+00
42	1	968.88	106	74	1.89	1938.38	1924	31	9.77E-03	18.4	
43	0	1091.34	13	44	3.21	2183.38	2176	11	1.20E-03	102.6	
44	0	1120.35	86	56	1.47	2241.41	2236	11	8.00E-03	19.0	
45	0	1155.29	22	51	1.40	2311.32	2303	13	2.02E-03	71.4	
46	0	1187.65	22	51	0.71	2376.05	2368	13	2.04E-03	70.4	
47	0	1237.41	37	58	1.90	2475.58	2470	14	3.43E-03	46.1	
48	0	1380.11	32	56	8.50	2761.04	2750	23	2.97E-03	63.8	
49	0	1408.01	26	34	2.39	2816.83	2806	14	2.44E-03	51.3	
50	1	1415.09*	0	11	2.19	2831.00	2828	19	4.56E-06	*****	2.70E+00
51	1	1421.58	20	4	2.42	2843.98	2828	19	1.85E-03	24.2	
52	1	1460.39	396	34	2.44	2921.60	2911	26	3.67E-02	5.7	2.77E+00
53	1	1465.41	26	17	2.45	2931.65	2911	26	2.37E-03	40.3	
54	0	1570.88	21	12	0.60	3142.58	3137	12	1.91E-03	40.3	
55	0	1587.31	31	22	2.61	3175.44	3165	18	2.83E-03	40.7	
56	0	1757.54	7	7	1.47	3515.89	3510	9	6.51E-04	76.8	
57	0	1763.86*	49	16	1.46	3528.52	3521	16	4.58E-03	25.8	
58	0	1875.05	4	7	0.84	3750.85	3742	10	4.00E-04	126.3	
59	0	2009.16	14	3	1.12	4019.02	4011	13	1.26E-03	38.7	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201469644      *
* Acquisition date : 30-NOV-2007 14:05:31 Detector SN#    :                 *
* Detector ID      : GAM13                Sensitivity     : 3.000          *
* Geometry         : CAN                  Energy tolerance: 2.000          *
* Elapsed live time:    0 03:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 03:00:03.07     Half life ratio :  8.000         *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G1201469644          Analyst initials: MJH1            *
* Batch Number     : 706245               Sample Quantity : 1.1868E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  2-JUL-2007 15:48:48 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	7.391E+00	9.248E-01	4.546E-01	0.000E+00
RH-101	2.181E-02	2.978E-02	3.985E-02	0.000E+00
CS-137	3.244E-01	6.307E-02	5.512E-02	0.000E+00
TL-208	2.321E-01	6.512E-02	5.489E-02	0.000E+00
PB-212	8.200E-01	9.324E-02	7.321E-02	0.000E+00
BI-214	7.627E-01	1.366E-01	1.104E-01	0.000E+00
PB-214	8.082E-01	1.059E-01	9.650E-02	0.000E+00
AC-228	8.911E-01	2.724E-01	2.301E-01	0.000E+00
TH-234	1.256E+00	5.245E-01	4.248E-01	0.000E+00
U-235	3.087E-02	2.117E-01	2.369E-01	0.000E+00
NP-237	5.672E-01	1.579E-01	1.960E-01	0.000E+00
AM-243	1.856E-01	3.409E-02	3.637E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
CO-60	1.012E-02	3.504E-02	6.009E-02	0.000E+00	NOT IDENT.
SB-125	-3.396E-03	8.047E-02	1.349E-01	0.000E+00	NOT IDENT.
EU-155	2.082E-02	7.198E-02	1.145E-01	0.000E+00	NOT IDENT.
PO-209	5.633E+00	7.425E+00	1.291E+01	0.000E+00	NOT IDENT.
BI-211	-8.658E-01	9.998E-01	1.539E+00	0.000E+00	NOT IDENT.
BI-212	-3.586E-02	3.352E-01	5.181E-01	0.000E+00	NOT IDENT.
RA-223	7.914E-02	1.394E-01	2.505E-01	0.000E+00	NOT IDENT.
PA-233	-3.594E-02	5.646E-02	8.216E-02	0.000E+00	NOT IDENT.
PA-234M	-5.786E-02	4.650E+00	7.421E+00	0.000E+00	NOT IDENT.
NP-236	1.511E-02	3.816E-02	6.358E-02	0.000E+00	NOT IDENT.
NP-239	9.965E-02	1.692E-01	2.887E-01	0.000E+00	NOT IDENT.
AM-241	1.831E-02	4.154E-02	6.551E-02	0.000E+00	NOT IDENT.
CM-243	-6.933E-02	6.494E-02	9.701E-02	0.000E+00	NOT IDENT.
AM-246	1.181E-01	1.243E-01	2.256E-01	0.000E+00	NOT IDENT.
CF-249	9.938E-03	3.540E-02	6.095E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:25:20.52

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201469644.CNF;1
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 30-NOV-2007 14:05:31
Sample ID        : G1201469644          Sample quantity  : 1.18680E+02 GRAM
Detector name    : GAM13                Detector geometry: CAN
Elapsed live time: 0 03:00:00.00        Elapsed real time: 0 03:00:03.07  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706245               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	396	10.66*	1.061E+00	7.391E+00	7.391E+00	12.77
RH-101	198.00	40	73.00*	5.475E+00	2.111E-02	2.181E-02	139.34
CS-137	661.66	269	85.10*	2.064E+00	3.233E-01	3.244E-01	19.84
TL-208	277.36	------	6.31	4.315E+00	------	Line Not Found	------
	510.77	54	22.60	2.590E+00	1.945E-01	1.945E-01	151.43
	583.19	214	84.50*	2.306E+00	2.321E-01	2.321E-01	28.63
	763.13	------	1.81	1.821E+00	------	Line Not Found	------
	860.56	------	12.42	1.642E+00	------	Line Not Found	------
PB-212	74.81	462	10.40	7.694E+00	1.217E+00	1.217E+00	18.74
	77.11	631	17.50	7.683E+00	9.898E-01	9.898E-01	15.87
	87.30	253	7.81	7.593E+00	9.005E-01	9.005E-01	28.40
	238.63	812	43.30*	4.823E+00	8.200E-01	8.200E-01	11.60
	300.09	39	3.28	4.056E+00	6.116E-01	6.116E-01	148.22
BI-214	609.31	370	46.10*	2.219E+00	7.627E-01	7.627E-01	18.28
	768.36	106	4.94	1.808E+00	2.513E+00	2.513E+00	59.20
	806.17	------	1.22	1.737E+00	------	Line Not Found	------
	934.06	------	3.03	1.531E+00	------	Line Not Found	------
	1120.29	86	15.10	1.315E+00	9.181E-01	9.181E-01	38.49
	1155.19	22	1.63	1.282E+00	2.199E+00	2.199E+00	142.91
	1238.11	37	5.79	1.212E+00	1.113E+00	1.113E+00	92.27
	1280.96	------	1.43	1.178E+00	------	Line Not Found	------
	1377.67	------	4.00	1.111E+00	------	Line Not Found	------
	1401.50	------	1.27	1.096E+00	------	Line Not Found	------
	1407.98	26	2.15	1.092E+00	2.365E+00	2.365E+00	102.75
	1509.23	------	2.11	1.033E+00	------	Line Not Found	------
	1729.60	------	2.92	9.286E-01	------	Line Not Found	------
	1764.49	49	15.40	9.146E-01	7.401E-01	7.401E-01	51.83
PB-214	74.81	462	6.44	7.694E+00	1.965E+00	1.965E+00	18.74
	77.11	631	10.80	7.683E+00	1.604E+00	1.604E+00	15.87
	87.30	253	4.84	7.593E+00	1.453E+00	1.453E+00	28.40
	242.00	217	7.43	4.782E+00	1.287E+00	1.287E+00	43.32
	295.22	254	19.30	4.111E+00	6.750E-01	6.751E-01	28.19

Sample ID : G1201469644 Acquisition date : 30-NOV-2007 14:05:31

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	351.93	514	37.60*	3.567E+00	8.082E-01	8.082E-01	13.37
AC-228	129.07	70	2.42	6.827E+00	8.934E-01	8.934E-01	88.85
	209.25	101	3.89	5.280E+00	1.038E+00	1.038E+00	60.64
	270.25	------	3.46	4.401E+00	------	Line Not Found	------
	338.32	147	11.27	3.685E+00	7.462E-01	7.462E-01	38.89
	409.46	------	1.92	3.139E+00	------	Line Not Found	------
	463.00	26	4.40	2.821E+00	4.338E-01	4.338E-01	152.49
	794.95	38	4.25	1.757E+00	1.077E+00	1.077E+00	106.39
	911.20	170	25.80*	1.564E+00	8.911E-01	8.911E-01	31.19
	964.77	28	4.99	1.490E+00	7.931E-01	7.931E-01	133.97
	968.97	106	15.80	1.484E+00	9.487E-01	9.487E-01	37.36
	1588.20	31	3.22	9.932E-01	2.014E+00	2.014E+00	81.53
TH-234	63.29	88	4.80	7.666E+00	5.068E-01	5.068E-01	91.02
	92.58	242	5.41*	7.519E+00	1.256E+00	1.256E+00	42.63
U-235	143.76	10	10.96*	6.521E+00	3.087E-02	3.087E-02	699.60
NP-237	86.48	253	12.40*	7.593E+00	5.672E-01	5.672E-01	28.40
AM-243	74.66	462	68.20*	7.694E+00	1.856E-01	1.856E-01	18.74

Flag: "*" = Keyline

Sample ID : G1201469644 Acquisition date : 30-NOV-2007 14:05:31

Total number of lines in spectrum	59	
Number of unidentified lines	27	
Number of lines tentatively identified by NID	32	54.24%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	7.391E+00	7.391E+00	0.944E+00	12.77	
RH-101	1.04E+08S	1.03	2.111E-02	2.181E-02	3.039E-02	139.34	
CS-137	9.47E+08S	1.00	3.233E-01	3.244E-01	0.644E-01	19.84	
TL-208	4.43E+17S	1.00	2.321E-01	2.321E-01	0.664E-01	28.63	
PB-212	4.43E+17S	1.00	8.200E-01	8.200E-01	0.951E-01	11.60	
BI-214	5.05E+10S	1.00	7.627E-01	7.627E-01	1.394E-01	18.28	
PB-214	5.05E+10S	1.00	8.082E-01	8.082E-01	1.080E-01	13.37	
AC-228	4.43E+17S	1.00	8.911E-01	8.911E-01	2.780E-01	31.19	
TH-234	1.41E+17S	1.00	1.256E+00	1.256E+00	0.535E+00	42.63	
U-235	2.22E+16S	1.00	3.087E-02	3.087E-02	21.60E-02	699.60	
NP-237	6.75E+13S	1.00	5.672E-01	5.672E-01	1.611E-01	28.40	
AM-243	2.33E+11S	1.00	1.856E-01	1.856E-01	0.348E-01	18.74	
			---	---			
		Total Activity :	1.329E+01	1.329E+01			
		Grand Total Activity :	1.329E+01	1.329E+01			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1201469644 Acquisition date : 30-NOV-2007 14:05:31

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.80	52	471	0.95	93.06	89	8	4.77E-03	****	7.27E+00	
0	53.23	91	465	1.46	105.92	102	9	8.41E-03	92.6	7.49E+00	
0	84.08	39	412	1.41	167.68	165	6	3.64E-03	****	7.63E+00	
3	90.06	144	445	1.13	179.64	171	20	1.34E-02	50.7	7.56E+00	
0	113.75	51	528	1.04	227.07	222	11	4.69E-03	****	7.15E+00	
0	163.41	72	324	1.11	326.48	322	9	6.66E-03	99.5	6.12E+00	
0	172.22	50	309	1.40	344.11	340	8	4.59E-03	****	5.94E+00	
0	185.86	227	480	1.14	371.40	366	12	2.10E-02	45.4	5.69E+00	
4	199.04	14	210	1.57	397.78	392	9	1.31E-03	****	5.45E+00	
0	315.04	41	107	0.95	629.97	628	6	3.76E-03	85.8	3.90E+00	
0	327.97	71	157	1.96	655.85	653	8	6.61E-03	64.9	3.78E+00	
1	355.89	4	169	1.43	711.74	698	22	3.83E-04	****	3.53E+00	
0	474.46	10	164	3.36	949.03	949	11	9.04E-04	****	2.76E+00	
0	490.29	34	131	3.50	980.72	974	12	3.13E-03	****	2.69E+00	
1	665.16	32	40	1.79	1330.67	1317	17	2.96E-03	80.3	2.05E+00	
0	716.57	23	118	5.09	1433.54	1426	13	2.16E-03	****	1.92E+00	
0	863.09	47	118	4.99	1726.72	1715	17	4.33E-03	****	1.64E+00	
0	1091.34	13	44	3.21	2183.38	2176	11	1.20E-03	****	1.34E+00	
0	1187.65	22	51	0.71	2376.05	2368	13	2.04E-03	****	1.25E+00	
0	1380.11	32	56	8.50	2761.04	2750	23	2.97E-03	****	1.11E+00	
1	1421.58	20	4	2.42	2843.98	2828	19	1.85E-03	48.4	1.08E+00	
1	1465.41	26	17	2.45	2931.65	2911	26	2.37E-03	80.6	1.06E+00	
0	1570.88	21	12	0.60	3142.58	3137	12	1.91E-03	80.6	1.00E+00	
0	1757.54	7	7	1.47	3515.89	3510	9	6.51E-04	****	9.17E-01	
0	1875.05	4	7	0.84	3750.85	3742	10	4.00E-04	****	8.72E-01	
0	2009.16	14	3	1.12	4019.02	4011	13	1.26E-03	77.4	8.27E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1201469644          *
* Acquisition date : 30-NOV-2007 14:05:31 Detector SN#    :                *
* Detector ID      : GAM13                Sensitivity     : 3.000          *
* Geometry         : CAN                  Energy tolerance: 2.000          *
* Elapsed live time:    0 03:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 03:00:03.07     Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G1201469644          Analyst initials: MJH1            *
* Batch Number     : 706245               Sample Quantity : 1.1868E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME :  2-JUL-2007 15:48:48 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	7.391E+00	9.248E-01	2.274E-01	9.248E-01
RH-101	2.181E-02	2.978E-02	1.994E-02	2.978E-02
CS-137	3.244E-01	6.307E-02	2.758E-02	6.307E-02
TL-208	2.321E-01	6.512E-02	2.746E-02	6.512E-02
PB-212	8.200E-01	9.324E-02	3.663E-02	9.324E-02
BI-214	7.627E-01	1.366E-01	5.525E-02	1.366E-01
PB-214	8.082E-01	1.059E-01	4.828E-02	1.059E-01
AC-228	8.911E-01	2.724E-01	1.151E-01	2.724E-01
TH-234	1.256E+00	5.245E-01	2.125E-01	5.245E-01
U-235	3.087E-02	2.117E-01	1.185E-01	2.117E-01
NP-237	5.672E-01	1.579E-01	9.805E-02	1.579E-01
AM-243	1.856E-01	3.409E-02	1.819E-02	3.409E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	1.012E-02	3.504E-02	3.006E-02	3.504E-02	NOT IDENT.
SB-125	-3.396E-03	8.047E-02	6.747E-02	8.047E-02	NOT IDENT.
EU-155	2.082E-02	7.198E-02	5.729E-02	7.198E-02	NOT IDENT.
PO-209	5.633E+00	7.425E+00	6.459E+00	7.425E+00	NOT IDENT.
BI-211	-8.658E-01	9.998E-01	7.698E-01	9.998E-01	NOT IDENT.
BI-212	-3.586E-02	3.352E-01	2.592E-01	3.352E-01	NOT IDENT.
RA-223	7.914E-02	1.394E-01	1.253E-01	1.394E-01	NOT IDENT.
PA-233	-3.594E-02	5.646E-02	4.110E-02	5.646E-02	NOT IDENT.
PA-234M	-5.786E-02	4.650E+00	3.713E+00	4.650E+00	NOT IDENT.
NP-236	1.511E-02	3.816E-02	3.181E-02	3.816E-02	NOT IDENT.
NP-239	9.965E-02	1.692E-01	1.445E-01	1.692E-01	NOT IDENT.
AM-241	1.831E-02	4.154E-02	3.277E-02	4.154E-02	NOT IDENT.
CM-243	-6.933E-02	6.494E-02	4.853E-02	6.494E-02	NOT IDENT.
AM-246	1.181E-01	1.243E-01	1.129E-01	1.243E-01	NOT IDENT.
CF-249	9.938E-03	3.540E-02	3.049E-02	3.540E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
59.54	289.0246
63.29	330.5975
74.66	356.6796
74.81	356.8613
74.81	356.8613
77.11	359.6426
77.11	359.6426
86.48	335.2742
87.30	289.3599
87.30	289.3599
92.58	293.9304
98.44	282.7583
103.76	302.7559
105.31	267.6600
129.07	279.7661
143.76	284.8514
198.00	237.1735
209.25	252.2301
228.18	214.6152
238.63	234.7659
242.00	235.8419
269.46	208.0418
270.25	180.7755
277.36	175.1935
295.22	184.0135
300.09	179.8950
312.17	183.0646
338.32	179.0020
351.93	169.6327
387.59	167.4306
409.46	162.5325
427.87	140.1766
463.00	153.8174
510.77	121.7694
583.19	117.1837
609.31	130.7750
661.66	95.5644
727.33	112.2086
763.13	99.5365
768.36	96.0130
785.37	97.8669
794.95	92.4006
806.17	93.6021
831.80	99.0044
860.56	79.8264
896.60	75.6355
911.20	89.1712
934.06	60.3384
964.77	72.3943
968.97	72.5180
1001.03	76.3200
1078.86	54.0556
1120.29	76.8277
1155.19	62.3396
1173.23	51.8384
1238.11	64.4042
1280.96	57.9272
1332.51	43.8811
1377.67	37.1973
1401.50	50.8045
1407.98	42.0328
1460.80	27.6234
1509.23	40.5469
1588.20	44.8605
1620.50	28.8321
1729.60	21.4519
1764.49	34.2496

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1201469644

Total Uranium Activity	1.4286E-02	ug/g
Total Uranium Counting Unc.	9.7943E-02	ug/g
Total Uranium Tpu	9.7943E-08	ug/g
Total Uranium Mda	5.4840E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:25:52.80

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201469645.CNF;1
Sample date      : 29-NOV-2007 00:00:00 Acquisition date : 30-NOV-2007 14:06:04
Sample ID        : G1201469645          Sample quantity  : 1.55440E+02 GRAM
Detector name    : GAM04                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00        Elapsed real time: 0 01:00:13.15  0.4%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706245               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
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Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	59.48	1751	856	1.00	119.89	115	11	4.86E-01	4.1	
2	0	66.36	63	578	0.59	133.64	130	8	1.76E-02	66.6	
3	4	74.55*	138	600	1.56	150.01	146	14	3.85E-02	31.4	2.72E+00
4	4	77.05*	174	875	1.44	155.01	146	14	4.84E-02	31.0	
5	0	88.02	3976	1061	1.01	176.95	171	12	1.10E+00	2.3	
6	0	92.66*	68	450	1.59	186.21	183	8	1.90E-02	56.0	
7	0	108.79	84	497	2.83	218.46	213	10	2.33E-02	51.1	
8	0	122.10*	1559	507	0.97	245.07	240	9	4.33E-01	3.6	
9	0	136.48	213	494	1.01	273.81	268	11	5.91E-02	21.4	
10	0	165.96	805	447	1.17	332.75	328	10	2.24E-01	6.1	
11	0	186.25*	51	374	2.20	373.31	368	10	1.42E-02	73.2	
12	0	238.47*	386	401	1.04	477.68	472	11	1.07E-01	11.3	
13	0	255.39	57	231	1.99	511.51	508	8	1.58E-02	48.1	
14	0	266.56	62	253	0.53	533.84	530	9	1.74E-02	47.5	
15	0	295.22	137	208	1.36	591.13	587	9	3.81E-02	20.8	
16	0	328.24	33	280	2.44	657.14	652	11	9.17E-03	99.7	
17	0	338.38*	98	242	1.38	677.40	671	11	2.73E-02	32.3	
18	0	352.05*	219	223	1.56	704.73	699	11	6.07E-02	15.0	
19	0	380.54	64	295	1.52	761.69	754	16	1.76E-02	61.8	
20	0	391.89	444	246	1.38	784.38	778	13	1.23E-01	8.7	
21	0	397.60	58	181	1.30	795.80	791	10	1.62E-02	45.0	
22	0	423.93	38	203	2.39	848.43	840	11	1.06E-02	74.4	
23	0	434.64	38	154	1.07	869.85	866	8	1.05E-02	59.2	
24	0	511.55*	92	221	2.47	1023.58	1017	17	2.56E-02	40.0	
25	0	583.39*	133	183	1.72	1167.22	1160	15	3.68E-02	24.0	
26	0	610.12*	129	237	1.55	1220.65	1213	17	3.59E-02	29.2	
27	0	636.47*	34	102	1.26	1273.33	1270	9	9.56E-03	55.7	
28	0	661.90	2236	170	1.56	1324.18	1318	14	6.21E-01	2.5	
29	0	700.85	61	106	1.62	1402.06	1396	14	1.69E-02	37.9	
30	0	728.17	48	160	3.90	1456.67	1449	16	1.33E-02	60.7	
31	0	747.62	31	64	1.54	1495.55	1492	8	8.55E-03	49.0	
32	0	822.95	34	89	1.49	1646.16	1640	10	9.31E-03	56.6	
33	0	831.62	10	106	0.77	1663.50	1658	9	2.90E-03	180.1	
34	0	861.06	38	116	3.19	1722.37	1715	11	1.04E-02	58.4	
35	0	898.47	390	148	1.56	1797.16	1792	11	1.08E-01	7.9	
36	0	911.43*	86	161	1.51	1823.08	1816	12	2.38E-02	31.8	
37	0	969.04	34	132	1.83	1938.27	1933	10	9.48E-03	65.3	
38	0	1121.52	26	106	1.00	2243.15	2237	14	7.19E-03	88.5	

Sample ID : G1201469645 Acquisition date : 30-NOV-2007 14:06:04

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1145.20	34	21	1.05	2290.50	2287	7	9.44E-03	28.2	
40	0	1173.72	2215	136	1.99	2347.54	2339	17	6.15E-01	2.4	
41	0	1275.55	11	30	0.65	2551.16	2543	14	3.07E-03	111.4	
42	0	1311.56	13	12	1.49	2623.18	2617	10	3.51E-03	59.4	
43	0	1314.89	22	2	2.51	2629.83	2626	8	6.16E-03	23.9	
44	0	1333.11	2031	56	1.94	2666.26	2657	17	5.64E-01	2.4	
45	0	1360.07	16	13	2.39	2720.19	2713	13	4.44E-03	52.8	
46	5	1369.18*	13	2	3.40	2738.40	2736	14	3.50E-03	23.1	1.04E+00
47	5	1373.10	13	4	1.70	2746.23	2736	14	3.73E-03	38.0	
48	0	1462.15*	19	13	1.15	2924.32	2918	11	5.34E-03	45.0	
49	0	1476.24*	17	12	1.86	2952.49	2944	14	4.67E-03	53.0	
50	0	1667.14	9	3	0.85	3334.27	3330	9	2.63E-03	43.7	
51	0	1765.34*	21	9	1.38	3530.67	3523	12	5.70E-03	38.0	
52	0	1837.18	259	20	2.06	3674.35	3665	20	7.19E-02	7.5	
53	0	1940.95	12	0	0.98	3881.92	3877	10	3.33E-03	28.9	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201469645      *
* Acquisition date : 30-NOV-2007 14:06:04 Detector SN#    :                 *
* Detector ID      : GAM04                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 01:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 01:00:13.15     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 29-NOV-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G1201469645          Analyst initials: MJH1            *
* Batch Number     : 706245               Sample Quantity : 1.5544E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  6-MAR-2007 17:58:01 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	8.222E-01	7.277E-01	9.984E-01	0.000E+00
CO-60	8.361E+00	6.801E-01	1.566E-01	0.000E+00
CS-137	5.847E+00	4.776E-01	1.474E-01	0.000E+00
TL-208	3.142E-01	1.493E-01	1.307E-01	0.000E+00
PO-209	2.432E+02	4.447E+01	3.818E+01	0.000E+00
BI-211	8.635E-01	3.048E+00	4.457E+00	0.000E+00
BI-212	9.837E-01	1.172E+00	1.044E+00	0.000E+00
PB-212	9.240E-01	2.246E-01	2.059E-01	0.000E+00
PB-214	7.925E-01	2.393E-01	2.555E-01	0.000E+00
NP-237	3.157E+01	3.201E+00	1.101E+00	0.000E+00
AM-241	1.441E+01	2.106E+00	9.269E-01	0.000E+00
AM-243	2.755E-01	1.715E-01	2.520E-01	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
RH-101	3.834E-02		5.972E-02	1.103E-01	0.000E+00	NOT IDENT.
SB-125	1.122E-01		2.327E-01	3.563E-01	0.000E+00	NOT IDENT.
EU-155	-2.968E-02		2.383E-01	3.713E-01	0.000E+00	NOT IDENT.
BI-214	0.000E+00		3.356E-01	3.534E-01	0.000E+00	FAIL ABUN
RA-223	1.417E-01		4.110E-01	6.490E-01	0.000E+00	NOT IDENT.
AC-228	0.000E+00		6.213E-01	8.408E-01	0.000E+00	FAIL ABUN
PA-233	1.673E-02		1.364E-01	2.393E-01	0.000E+00	NOT IDENT.
PA-234M	-6.191E+00		1.153E+01	1.926E+01	0.000E+00	NOT IDENT.
TH-234	1.164E+00		1.282E+00	1.867E+00	0.000E+00	FAIL ABUN
U-235	-1.199E-01		3.612E-01	6.594E-01	0.000E+00	NOT IDENT.
NP-236	5.728E-02		1.228E-01	2.210E-01	0.000E+00	NOT IDENT.
NP-239	1.240E-01		4.675E-01	8.445E-01	0.000E+00	NOT IDENT.
CM-243	3.932E-02		2.212E-01	3.506E-01	0.000E+00	NOT IDENT.
AM-246	2.775E-02		3.917E-01	6.747E-01	0.000E+00	NOT IDENT.
CF-249	7.109E-02		1.366E-01	1.556E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:25:53.79

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201469645.CNF;1
Sample date      : 29-NOV-2007 00:00:00 Acquisition date : 30-NOV-2007 14:06:04
Sample ID        : G1201469645          Sample quantity  : 1.55440E+02 GRAM
Detector name    : GAM04                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00        Elapsed real time: 0 01:00:13.15  0.4%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706245               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	19	10.66*	1.059E+00	8.222E-01	8.222E-01	90.31
CO-60	1173.23	2215	100.00*	1.280E+00	8.356E+00	8.361E+00	8.30
	1332.51	2031	100.00	1.142E+00	8.588E+00	8.593E+00	7.75
CS-137	661.66	2236	85.10*	2.170E+00	5.847E+00	5.847E+00	8.33
TL-208	277.36	------	6.31	4.202E+00	------	Line Not Found	------
	510.77	92	22.60	2.679E+00	7.358E-01	7.358E-01	80.20
	583.19	133	84.50*	2.412E+00	3.142E-01	3.142E-01	48.48
	763.13	------	1.81	1.915E+00	------	Line Not Found	------
	860.56	38	12.42	1.715E+00	8.505E-01	8.505E-01	117.12
PO-209	896.60	390	0.47*	1.648E+00	2.432E+02	2.432E+02	18.66
BI-211	831.80	10	3.30*	1.771E+00	8.635E-01	8.635E-01	360.23
BI-212	727.33	48	11.80*	1.997E+00	9.837E-01	9.837E-01	121.57
	785.37	------	1.10	1.866E+00	------	Line Not Found	------
	1620.50	------	1.49	9.849E-01	------	Line Not Found	------
PB-212	74.81	138	10.40	3.559E+00	1.807E+00	1.807E+00	63.53
	77.11	174	17.50	3.848E+00	1.249E+00	1.249E+00	62.74
	87.30	3976	7.81	4.905E+00	5.013E+01	5.013E+01	10.35
	238.63	386	43.30*	4.666E+00	9.240E-01	9.240E-01	24.81
	300.09	------	3.28	3.973E+00	------	Line Not Found	------
PB-214	74.81	138	6.44	3.559E+00	2.918E+00	2.918E+00	63.53
	77.11	174	10.80	3.848E+00	2.024E+00	2.024E+00	62.74
	87.30	3976	4.84	4.905E+00	8.089E+01	8.089E+01	10.35
	242.00	------	7.43	4.619E+00	------	Line Not Found	------
	295.22	137	19.30	4.020E+00	8.541E-01	8.541E-01	42.51
	351.93	219	37.60*	3.542E+00	7.925E-01	7.925E-01	30.81
NP-237	86.48	3976	12.40*	4.905E+00	3.157E+01	3.157E+01	10.35
AM-241	59.54	1751	35.90*	1.634E+00	1.441E+01	1.441E+01	14.91
AM-243	74.66	138	68.20*	3.559E+00	2.755E-01	2.755E-01	63.53

Flag: "*" = Keyline

Sample ID : G1201469645 Acquisition date : 30-NOV-2007 14:06:04

Total number of lines in spectrum	53	
Number of unidentified lines	29	
Number of lines tentatively identified by NID	24	45.28%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	8.222E-01	8.222E-01	7.425E-01	90.31	
CO-60	1.66E+08S	1.00	8.356E+00	8.361E+00	0.694E+00	8.30	
CS-137	9.47E+08S	1.00	5.847E+00	5.847E+00	0.487E+00	8.33	
TL-208	4.43E+17S	1.00	3.142E-01	3.142E-01	1.523E-01	48.48	
PO-209	3.22E+09S	1.00	2.432E+02	2.432E+02	0.454E+02	18.66	
BI-211	2.22E+16S	1.00	8.635E-01	8.635E-01	31.11E-01	360.23	
BI-212	4.43E+17S	1.00	9.837E-01	9.837E-01	11.96E-01	121.57	
PB-212	4.43E+17S	1.00	9.240E-01	9.240E-01	2.292E-01	24.81	
PB-214	5.05E+10S	1.00	7.925E-01	7.925E-01	2.442E-01	30.81	
NP-237	6.75E+13S	1.00	3.157E+01	3.157E+01	0.327E+01	10.35	
AM-241	1.36E+10S	1.00	1.441E+01	1.441E+01	0.215E+01	14.91	
AM-243	2.33E+11S	1.00	2.755E-01	2.755E-01	1.750E-01	63.53	
			---	---			
		Total Activity :	3.083E+02	3.083E+02			
		Grand Total Activity :	3.083E+02	3.083E+02			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1201469645 Acquisition date : 30-NOV-2007 14:06:04

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	66.36	63	578	0.59	133.64	130	8	1.76E-02	****	2.52E+00	
0	92.66	68	450	1.59	186.21	183	8	1.90E-02	****	5.24E+00	T
0	108.79	84	497	2.83	218.46	213	10	2.33E-02	****	5.96E+00	
0	122.10	1559	507	0.97	245.07	240	9	4.33E-01	7.3	6.16E+00	
0	136.48	213	494	1.01	273.81	268	11	5.91E-02	42.7	6.15E+00	
0	165.96	805	447	1.17	332.75	328	10	2.24E-01	12.1	5.78E+00	
0	186.25	51	374	2.20	373.31	368	10	1.42E-02	****	5.45E+00	
0	255.39	57	231	1.99	511.51	508	8	1.58E-02	96.2	4.45E+00	
0	266.56	62	253	0.53	533.84	530	9	1.74E-02	95.0	4.32E+00	
0	328.24	33	280	2.44	657.14	652	11	9.17E-03	****	3.73E+00	
0	338.38	98	242	1.38	677.40	671	11	2.73E-02	64.7	3.65E+00	T
0	380.54	64	295	1.52	761.69	754	16	1.76E-02	****	3.35E+00	
0	391.89	444	246	1.38	784.38	778	13	1.23E-01	17.4	3.28E+00	
0	397.60	58	181	1.30	795.80	791	10	1.62E-02	90.1	3.24E+00	
0	423.93	38	203	2.39	848.43	840	11	1.06E-02	****	3.09E+00	
0	434.64	38	154	1.07	869.85	866	8	1.05E-02	****	3.03E+00	
0	610.12	129	237	1.55	1220.65	1213	17	3.59E-02	58.4	2.32E+00	T
0	636.47	34	102	1.26	1273.33	1270	9	9.56E-03	****	2.24E+00	
0	700.85	61	106	1.62	1402.06	1396	14	1.69E-02	75.8	2.07E+00	
0	747.62	31	64	1.54	1495.55	1492	8	8.55E-03	98.0	1.95E+00	
0	822.95	34	89	1.49	1646.16	1640	10	9.31E-03	****	1.79E+00	
0	911.43	86	161	1.51	1823.08	1816	12	2.38E-02	63.5	1.63E+00	T
0	969.04	34	132	1.83	1938.27	1933	10	9.48E-03	****	1.53E+00	T
0	1121.52	26	106	1.00	2243.15	2237	14	7.19E-03	****	1.34E+00	T
0	1145.20	34	21	1.05	2290.50	2287	7	9.44E-03	56.3	1.31E+00	
0	1275.55	11	30	0.65	2551.16	2543	14	3.07E-03	****	1.19E+00	
0	1311.56	13	12	1.49	2623.18	2617	10	3.51E-03	****	1.16E+00	
0	1314.89	22	2	2.51	2629.83	2626	8	6.16E-03	47.7	1.16E+00	
0	1360.07	16	13	2.39	2720.19	2713	13	4.44E-03	****	1.12E+00	
5	1369.18	13	2	3.40	2738.40	2736	14	3.50E-03	46.2	1.12E+00	
5	1373.10	13	4	1.70	2746.23	2736	14	3.73E-03	75.9	1.11E+00	
0	1476.24	17	12	1.86	2952.49	2944	14	4.67E-03	****	1.05E+00	
0	1667.14	9	3	0.85	3334.27	3330	9	2.63E-03	87.3	9.68E-01	
0	1765.34	21	9	1.38	3530.67	3523	12	5.70E-03	76.0	9.40E-01	T
0	1837.18	259	20	2.06	3674.35	3665	20	7.19E-02	15.0	9.24E-01	
0	1940.95	12	0	0.98	3881.92	3877	10	3.33E-03	57.7	9.09E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1201469645          *
* Acquisition date : 30-NOV-2007 14:06:04 Detector SN#    :                *
* Detector ID      : GAM04                Sensitivity     : 3.000          *
* Geometry         : CAN                  Energy tolerance: 2.000          *
* Elapsed live time:    0 01:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 01:00:13.15     Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 29-NOV-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G1201469645          Analyst initials: MJH1            *
* Batch Number     : 706245               Sample Quantity : 1.5544E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME :  6-MAR-2007 17:58:01 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	8.222E-01	7.277E-01	4.995E-01	7.277E-01
CO-60	8.361E+00	6.801E-01	7.835E-02	6.801E-01
CS-137	5.847E+00	4.776E-01	7.372E-02	4.776E-01
TL-208	3.142E-01	1.493E-01	6.539E-02	1.493E-01
PO-209	2.432E+02	4.447E+01	1.910E+01	4.447E+01
BI-211	8.635E-01	3.048E+00	2.230E+00	3.048E+00
BI-212	9.837E-01	1.172E+00	5.224E-01	1.172E+00
PB-212	9.240E-01	2.246E-01	1.030E-01	2.246E-01
PB-214	7.925E-01	2.393E-01	1.278E-01	2.393E-01
NP-237	3.157E+01	3.201E+00	5.509E-01	3.201E+00
AM-241	1.441E+01	2.106E+00	4.637E-01	2.106E+00
AM-243	2.755E-01	1.715E-01	1.261E-01	1.715E-01

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
RH-101	3.834E-02	5.972E-02	5.519E-02	5.972E-02	NOT IDENT.
SB-125	1.122E-01	2.327E-01	1.782E-01	2.327E-01	NOT IDENT.
EU-155	-2.968E-02	2.383E-01	1.858E-01	2.383E-01	NOT IDENT.
BI-214	5.823E-01	3.356E-01	1.768E-01	3.356E-01	FAIL ABUN
RA-223	1.417E-01	4.110E-01	3.247E-01	4.110E-01	NOT IDENT.
AC-228	9.862E-01	6.213E-01	4.206E-01	6.213E-01	FAIL ABUN
PA-233	1.673E-02	1.364E-01	1.197E-01	1.364E-01	NOT IDENT.
PA-234M	-6.191E+00	1.153E+01	9.635E+00	1.153E+01	NOT IDENT.
TH-234	1.164E+00	1.282E+00	9.342E-01	1.282E+00	FAIL ABUN
U-235	-1.199E-01	3.612E-01	3.299E-01	3.612E-01	NOT IDENT.
NP-236	5.728E-02	1.228E-01	1.106E-01	1.228E-01	NOT IDENT.
NP-239	1.240E-01	4.675E-01	4.225E-01	4.675E-01	NOT IDENT.
CM-243	3.932E-02	2.212E-01	1.754E-01	2.212E-01	NOT IDENT.
AM-246	2.775E-02	3.917E-01	3.376E-01	3.917E-01	NOT IDENT.
CF-249	7.109E-02	1.366E-01	7.786E-02	1.366E-01	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
59.54	492.5728
63.29	429.3938
74.66	629.0060
74.81	629.1987
74.81	629.1987
77.11	632.0863
77.11	632.0863
86.48	715.7061
87.30	716.7779
87.30	716.7779
92.58	349.4154
98.44	345.1722
103.76	354.3722
105.31	361.9940
129.07	308.2184
143.76	343.4485
198.00	275.7142
209.25	310.5231
228.18	323.1083
238.63	305.5489
242.00	262.5868
269.46	241.3720
270.25	252.8792
277.36	249.6805
295.22	221.2198
300.09	212.5094
312.17	223.0591
338.32	216.8798
351.93	209.0319
387.59	176.5137
409.46	186.7716
427.87	171.8929
463.00	208.6362
510.77	150.6016
583.19	131.5267
609.31	134.1101
661.66	138.2379
727.33	113.8060
763.13	127.0371
768.36	131.5320
785.37	120.6281
794.95	119.9844
806.17	97.8872
831.80	128.1032
860.56	142.5557
896.60	166.5125
911.20	176.8830
934.06	148.9040
964.77	141.0473
968.97	159.0928
1001.03	124.3347
1078.86	127.2335
1120.29	117.1354
1155.19	76.9875
1173.23	77.3634
1238.11	57.2327
1280.96	31.8804
1332.51	41.8538
1377.67	16.3188
1401.50	27.6536
1407.98	22.3689
1460.80	24.7959
1509.23	21.4823
1588.20	28.4975
1620.50	20.0830
1729.60	18.5713
1764.49	10.8247

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1201469645

Total Uranium Activity	-5.5479E-02	ug/g
Total Uranium Counting Unc.	1.6712E-01	ug/g
Total Uranium Tpu	1.6712E-07	ug/g
Total Uranium Mda	1.5264E-01	ug/g

Radiochemistry Batch Checklist, Rev 6

Batch# 706246 Product: OS Date: 12/10/07

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			NA
If activity less 10* MDA, error is 150% or less of sample activity. If greater 10* MDA, error is 40% or less. If below the MDA, error is okay.	✓		
Instrument source check is within limits. Instument bkg check is within limits.	✓		
Method RDL has been met.	✓		
If duplicate activities are less 5* MDA, then rpd is 100% or less. If greater 5* MDA, then rpd 20% or less. If below the MDA, the rpd is 0%. Or meets the client's required RER acceptance criteria.	✓		Case Narrative
Tracer yield is 15-125%. Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			NA
Method blank is less than the RDL. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time. Special requirements page checked	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			NA
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All lineouts initialed and dated. No transcription errors are apparent.	✓		
QC data entered into QC database. Batch entered into Case Narrative.	✓		
Batch non-conformances completed If applicable.			NA
Aliquot Correction completed if required.			NA

GEL Laboratories, LLC

1/2/2007

Primary Review Performed By: [signature] 12/10/07

Secondary Review Performed By: [signature] 12/12/07

12/12 SCAN

Gamma Spec Que Sheet

11/28/2007

Batch #:706246 Analyst: MJH1 First Client DueDate 12/~~19~~12/2007 Internal Due Date: 12/08/2007

Gamma Spike Isotope: Mixed Gamma Spike Code: NA Expiration Date: NA Vol: NA Nominal Concentration: NA

Gamma LCS Isotope: Mixed Gamma LCS Code: 1032-A Expiration Date: 12/1/07 Vol: 1-0 ml Nominal Concentration: Am241 - 15.96 Cs137 - 6.1106 Co60 - 8.539 ✓

Initials: MR Prep Date: 11/29/07 Witness: NA

Sample ID	Client Description / Container ID	Type	Hazard Code	RDL	Client	Matrix	Collect Date	Wet/Dry Aliquot (1 (g) F)	Detector	Sealing Date/Time (if Applicable)
198324021-1	SB-CZ-SS-2402-SD	SAMPLE		.08 pCi/g	SCAN001	SOIL	05-OCT-07 00:00:00 MF	111.09	21	
198324022-1	SB-CZ-SS-2403-SD	SAMPLE		.08 pCi/g	SCAN001	SOIL	05-OCT-07 00:00:00 LL	127.24	2	
198324023-1	SB-CZ-SS-2404-SD	SAMPLE		.08 pCi/g	SCAN001	SOIL	05-OCT-07 00:00:00 LL	104.62	3	
198324024-1	SB-CZ-SS-2405-SD	SAMPLE		.08 pCi/g	SCAN001	SOIL	05-OCT-07 00:00:00 LL	110.34	6	
198324025-1	SB-CZ-SS-2406-SD	SAMPLE		.08 pCi/g	SCAN001	SOIL	05-OCT-07 00:00:00 LL	103.02	11	
198324026-1	SB-CZ-SS-2407-SD	SAMPLE		.08 pCi/g	SCAN001	SOIL	05-OCT-07 00:00:00 LL	104.43	12	
198324027-1	SB-CZ-SS-2408-SD	SAMPLE		.08 pCi/g	SCAN001	SOIL	05-OCT-07 00:00:00 LL	99.48	13	
198324028-1	SB-CZ-SS-2409-SD	SAMPLE		.08 pCi/g	SCAN001	SOIL	05-OCT-07 00:00:00 LL	102.22	21	
198324029-1	SB-CZ-SS-2410-ST	SAMPLE		.08 pCi/g	SCAN001	SOIL	05-OCT-07 00:00:00 LL	108.97	16	
198324030-1	SB-CZ-SS-2411-ST	SAMPLE		.08 pCi/g	SCAN001	SOIL	05-OCT-07 00:00:00 LL	108.14	23	
198324031-1	SB-CZ-SS-2412-ST	SAMPLE		.08 pCi/g	SCAN001	SOIL	05-OCT-07 00:00:00 LL	110.85	17	
198324032-1	SB-CZ-SS-2413-ST	SAMPLE		.08 pCi/g	SCAN001	SOIL	05-OCT-07 00:00:00 LL	109.36	7	
198324033-1	SB-CZ-SS-2414-ST	SAMPLE		.08 pCi/g	SCAN001	SOIL	05-OCT-07 00:00:00 LL	112.92	13 ~~8~~	HU 12/10/07
198324034-1	SB-CZ-SS-2415-ST	SAMPLE		.08 pCi/g	SCAN001	SOIL	05-OCT-07 00:00:00 LL	105.05	14	
198324035-1	SB-CZ-SS-2410-SD	SAMPLE		.08 pCi/g	SCAN001	SOIL	05-OCT-07 00:00:00 LL	100.06	19	
198324036-1	SB-CZ-SS-2411-SD	SAMPLE		.08 pCi/g	SCAN001	SOIL	05-OCT-07 00:00:00 LL	106.49	20	
198324037-1	SB-CZ-SS-2412-SD	SAMPLE		.08 pCi/g	SCAN001	SOIL	05-OCT-07 00:00:00 LL	114.44	1	
198324038-1	SB-CZ-SS-2413-SD	SAMPLE		.08 pCi/g	SCAN001	SOIL	05-OCT-07 00:00:00 LL	125.81	5	
198324039-1	SB-CZ-SS-2414-SD	SAMPLE		.08 pCi/g	SCAN001	SOIL	05-OCT-07 00:00:00 LL	105.61	18	
198324040-1	SB-CZ-SS-2415-SD	SAMPLE		.08 pCi/g	SCAN001	SOIL	05-OCT-07 00:00:00 LL	119.80	13	
1201469646-1	MB for batch 706246	MB		.08 pCi/g	QC ACCOUNT	SOIL	11/29/07 LL	130.00	21	
1201469647-1	SB-CZ-SS-2402-SD(198324021DUP	DUP		.08 pCi/g	QC ACCOUNT	SOIL	05-OCT-07 00:00:00 LL	111.73	23	
1201469648-1	LCS for batch 706246	LCS		.08 pCi/g	QC ACCOUNT	SOIL	11/29/07 LL	155.44	2	
							✓	✓	✓	MO 12/11/07

GEL Laboratories LLC, Radiochemistry Division

Data Reviewed By: Alexander G Crane 12/10/07

MD 12/12/07

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	Parmname	Result	MDA	RDL
706246	198324021	SAMPLE	30-NOV-07				
706246	198324022	SAMPLE	01-DEC-07				
706246	198324023	SAMPLE	01-DEC-07				
706246	198324024	SAMPLE	01-DEC-07				
706246	198324025	SAMPLE	01-DEC-07				
706246	198324026	SAMPLE	01-DEC-07				
706246	198324027	SAMPLE	01-DEC-07				
706246	198324028	SAMPLE	01-DEC-07				
706246	198324029	SAMPLE	01-DEC-07				
706246	198324030	SAMPLE	01-DEC-07				
706246	198324031	SAMPLE	01-DEC-07				
706246	198324032	SAMPLE	01-DEC-07				
706246	198324033	SAMPLE	07-DEC-07				
706246	198324034	SAMPLE	01-DEC-07				
706246	198324035	SAMPLE	01-DEC-07				
706246	198324036	SAMPLE	01-DEC-07				
706246	198324037	SAMPLE	01-DEC-07				
706246	198324038	SAMPLE	01-DEC-07				
706246	198324039	SAMPLE	01-DEC-07				
706246	198324040	SAMPLE	01-DEC-07				
706246	1201469646	MB	01-DEC-07				
706246	1201469647	DUP	01-DEC-07				
706246	1201469648	LCS	01-DEC-07	Antimony-125	0.0088	0.315	0.200
				Thorium-234	0.0497	1.455	0.500
				Uranium-235	0.09325	0.5779	0.500

GEL QUALS

Batch ID: 706246

Report run on: December 10, 2007 5:47 PM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
198324023-1 01-DEC-2007 05:36	Americium-243	UI	UI	UI	Data rejected due to interference.		.116			
	Bismuth-214	UI	UI	UI	Data rejected due to low abundance.		.3064		.2	.2
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.188			
	~~Potassium-40~~ 12/2/07	~~UI~~	~~UI~~	~~UI~~	~~Data rejected due to high peak-width.~~		~~2.672~~		1	1
198324024-1 01-DEC-2007 05:36	Americium-243	UI	UI	UI	Data rejected due to interference.		.1019			
	Americium-246	UI	UI	UI	Data rejected due to high peak-width.		.2391			
	Curium-243	UI	UI	UI	Data rejected due to interference.		.1104			
	Europium-155	UI	UI	UI	Data rejected due to interference.		.122		.5	.5
198324022-1 01-DEC-2007 05:37	Americium-243	UI	UI	UI	Data rejected due to interference.		.1359			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.4183			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.2642			
198324025-1 01-DEC-2007 05:37	Americium-243	UI	UI	UI	Data rejected due to interference.		.07543			
	Curium-243	UI	UI	UI	Data rejected due to interference.		.09068			
	Europium-155	UI	UI	UI	Data rejected due to interference.		.1002		.5	.5
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.2			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.1843			
198324026-1 01-DEC-2007 05:38	Americium-243	UI	UI	UI	Data rejected due to interference.		.09882			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.3836			
198324027-1 01-DEC-2007 05:39	Americium-243	UI	UI	UI	Data rejected due to interference.		.1274			

GEL QUALS

Batch ID: 706246

Report run on: December 10, 2007 5:47 PM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
198324027-1 01-DEC-2007 05:39	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.3562			
	Protactinium-234m	UI	UI	UI	Data rejected due to high peak-width.		8.833			
198324028-1 01-DEC-2007 05:40	Americium-243	UI	UI	UI	Data rejected due to interference.		.1344			
	Bismuth-214	UI	UI	UI	Data rejected due to low abundance.		.4188		.2	.2
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.2865			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.2432			
198324029-1 01-DEC-2007 05:43	Americium-243	UI	UI	UI	Data rejected due to interference.		.1186			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.3876			
198324030-1 01-DEC-2007 05:44	Americium-243	UI	UI	UI	Data rejected due to interference.		.06373			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.1324			
	Polonium-209	UI	UI	UI	Data rejected due to high peak-width.		6.518			
198324031-1 01-DEC-2007 05:51	Americium-243	UI	UI	UI	Data rejected due to interference.		.05647			
	Curium-243	UI	UI	UI	Data rejected due to interference.		.06444			
	Europium-155	UI	UI	UI	Data rejected due to interference.		.07118		.5	.5
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.23			
	Thallium-208	UI	UI	UI	Data rejected due to low abundance.		.05617		.08	.08
198324032-1 01-DEC-2007 08:09	Americium-243	UI	UI	UI	Data rejected due to interference.		.06113			
198324034-1 01-DEC-2007 08:10	Americium-243	UI	UI	UI	Data rejected due to interference.		.04483			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.1683			

GEL QUALS

Batch ID: 706246

Report run on: December 10, 2007 5:47 PM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
198324034-1 01-DEC-2007 08:10										
198324035-1 01-DEC-2007 08:11	Americium-243	UI	UI	UI	Data rejected due to interference.		.1269			
	Bismuth-214	UI	UI	UI	Data rejected due to low abundance.		.2347		.2	.2
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.2646			
	Neptunium-239	UI	UI	UI	Data rejected due to high peak-width.		.2311		2	2
	Protactinium-234m	UI	UI	UI	Data rejected due to high peak-width.		8.322			
198324036-1 01-DEC-2007 08:12	Americium-243	UI	UI	UI	Data rejected due to interference.		.06131			
	Radium-223	UI	UI	UI	Data rejected due to low abundance.		.1325			
198324037-1 01-DEC-2007 08:52	Americium-243	UI	UI	UI	Data rejected due to interference.		.05989			
	Bismuth-214	UI	UI	UI	Data rejected due to low abundance.		.2026		.2	.2
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.2447			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.2039			
198324038-1 01-DEC-2007 08:53	Americium-243	UI	UI	UI	Data rejected due to interference		0.05435			
	Bismuth-214	UI	UI	UI	Data rejected due to low abundance.		.2232		.2	.2
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.215			
198324039-1 01-DEC-2007 08:54	Americium-243	UI	UI	UI	Data rejected due to interference.		.06687			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.1579			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.09821			
198324040-1 01-DEC-2007 09:54	Americium-243	UI	UI	UI	Data rejected due to interference.		.05377			

GEL QUALS

Batch ID: 706246

Report run on: December 10, 2007 5:47 PM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
201469647-1 DUP -DEC-2007 09:56	Americium-243	UI	UI	UI	Data rejected due to interference.		.1609			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.4042			
198324033-1 07-DEC-2007 14:46	Americium-243	UI	UI	UI	Data rejected due to interference.		.05644			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.168			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.1757			
198324021-1 30-NOV-2007 14:17	Americium-243	UI	UI	UI	Data rejected due to interference.		.1772			
	Bismuth-214	UI	UI	UI	Data rejected due to low abundance.		.5218		.2	.2
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.3541			

Gamma Review Report based on Result > MDA for Batch:706246

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198324021	05-OCT-07 00:00	30-NOV-07 14:17	56.6	SAMPLE	LOAD	1	SCAN	SCAN00101|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓	**0.7601**	0.2241	pCi/g	**0.1886**	**0.800**	911	1	1.8	IDENTIFIED	14.66	☐	
Americium-243 INT	**0.1772**	0.04121	pCi/g	**0.03242**	**Y**	75.02	1	1.922	IDENTIFIED	11.35	☑ UI	
Bismuth-212 ✓	**0.8218**	0.3353	pCi/g	**0.3654**	**0.500**	727.1	1	2.269	IDENTIFIED	20.42	☐	
Bismuth-214 LA	**0.5218**	0.14	pCi/g	**0.2045**	**0.200**	609.2	1	1.582	FAIL_ABUND	13.15	☑ UI	Data rejected due to low abundance.
Cesium-137 ✓	**0.1017**	0.05237	pCi/g	**0.04824**	**0.100**	661.6	1	1.651	IDENTIFIED	25.96	☐	
Lead-212 ✓	**0.742**	0.08787	pCi/g	**0.06488**	**0.100**	238.5	1	1.36	IDENTIFIED	5.208	☐	
Lead-214 ✓	**0.471**	0.1241	pCi/g	**0.09753**	**0.100**	352.2	1	1.514	IDENTIFIED	13.19	☐	
Neptunium-237 INT	**0.3541**	0.1456	pCi/g	**0.19**	**Y**	87.15	1	1.557	IDENTIFIED	20.66	☑ UI	
Potassium-40 ✓	**5.545**	0.9729	pCi/g	**0.564**	**1.00**	1460	1	2.042	IDENTIFIED	8.515	☐	
Thallium-208 ✓	**0.2461**	0.06491	pCi/g	**0.0501**	**0.080**	583.1	1	1.411	IDENTIFIED	12.96	☐	
Thorium-234 ✓	**1.047**	0.3527	pCi/g	**0.414**	**0.500**	92.94	1	1.534	IDENTIFIED	16.76	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198324022	05-OCT-07 00:00	01-DEC-07 05:37	57.2	SAMPLE	LOAD	1	SCAN	SCAN00101|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓	**0.675**	0.1325	pCi/g	**0.1171**	**0.800**	911.1	1	1.679	IDENTIFIED	9.228	☐	
Americium-243 INT	**0.1359**	0.03995	pCi/g	**0.04563**	**Y**	74.7	1	1.207	IDENTIFIED	14.42	☑ UI	
Bismuth-212 ✓	**0.6574**	0.3031	pCi/g	**0.2324**	**0.500**	727.5	1	2.183	IDENTIFIED	23.29	☐	
Bismuth-214 ✓	**0.5913**	0.0974	pCi/g	**0.06148**	**0.200**	609.4	1	1.39	IDENTIFIED	7.846	☐	
Lead-212 ✓	**0.7093**	0.07053	pCi/g	**0.04679**	**0.100**	238.5	1	1.159	IDENTIFIED	4.024	☐	
Lead-214 ✓	**0.6085**	0.08682	pCi/g	**0.06211**	**0.100**	351.7	1	1.212	IDENTIFIED	6.654	☐	
Neptunium-237 INT	**0.4183**	0.1187	pCi/g	**0.1695**	**Y**	87.26	1	1.212	IDENTIFIED	13.83	☑ UI	
Potassium-40 ✓	**5.758**	0.7153	pCi/g	**0.2964**	**1.00**	1461	1	1.988	IDENTIFIED	5.416	☐	
Radium-223 INT	**0.2642**	0.1647	pCi/g	**0.1564**	**Y**	270.3	1	2	IDENTIFIED	31.62	☑ UI	
Thallium-208 ✓	**0.226**	0.04105	pCi/g	**0.03129**	**0.080**	583.2	1	1.31	IDENTIFIED	8.778	☐	
Thorium-234 ✓	**0.823**	0.4429	pCi/g	**0.3819**	**0.500**	92.54	1	1.258	IDENTIFIED	27.16	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198324023	05-OCT-07 00:00	01-DEC-07 05:36	57.2	SAMPLE	LOAD	1	SCAN	SCAN00101|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓	**0.4039**	0.1449	pCi/g	**0.106**	**0.800**	912.4	1	1.989	IDENTIFIED	17.43	☐	
Americium-243 INT	**0.116**	0.03495	pCi/g	**0.0323**	**Y**	74.95	1	1.812	IDENTIFIED	14.87	☑ UI	
Bismuth-212 ✓	**0.4383**	0.1768	pCi/g	**0.202**	**0.500**	727.9	1	2.837	IDENTIFIED	20.2	☐	
Bismuth-214 LA	**0.3064**	0.07225	pCi/g	**0.08711**	**0.200**	610.1	1	2.014	FAIL_ABUND	11.54	☑ UI	Data rejected due to low abundance.
Cesium-137 ✓	**0.0393**	0.03674	pCi/g	**0.02935**	**0.100**	662.2	1	1.959	IDENTIFIED	47.58	☐	
Lead-212 ✓	**0.4059**	0.05248	pCi/g	**0.0409**	**0.100**	238.8	1	1.524	IDENTIFIED	5.755	☐	
Lead-214 ✓	**0.2865**	0.07106	pCi/g	**0.05033**	**0.100**	352.3	1	1.942	IDENTIFIED	12.24	☐	
Neptunium-237 INT	**0.188**	0.1129	pCi/g	**0.1515**	**Y**	87.42	1	1.378	IDENTIFIED	30.34	☑ UI	
Potassium-40 ✓	**2.672**	0.4071	pCi/g	**0.2661**	**1.00**	1463	1	3.762	IDENTIFIED	7.212	☑ ~~UI~~	~~Data rejected due to high peak-width.~~ 12/12/07
Thallium-208 ✓	**0.1423**	0.03319	pCi/g	**0.02599**	**0.080**	583.9	1	1.725	IDENTIFIED	11.4	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198324024	05-OCT-07 00:00	01-DEC-07 05:36	57.2	SAMPLE	LOAD	1	SCAN	SCAN00101|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓	**0.509**	0.1685	pCi/g	**0.135**	**0.800**	911	1	1.674	IDENTIFIED	16.1	☐	
Americium-243 INT	**0.1019**	0.0382	pCi/g	**0.0434**	**Y**	74.35	1	1.194	IDENTIFIED	18.67	☑ UI	
Americium-246 ↑ PW	**0.2391**	0.1878	pCi/g	**0.1306**	**Y**	1078	1	10.77	IDENTIFIED	39.87	☑ UI	Data rejected due to high peak-width.

Bismuth-214 ✓	**0.4112**	0.09237	pCi/g	**0.06274**	**0.200**	609.2	1	1.635	IDENTIFIED	10.96	☐
Curium-243 INT	**0.1104**	0.06776	pCi/g	**0.09154**	**Y**	104.7	2	1.883	IDENTIFIED	31.1	☑ UI
Europium-155 INT	**0.122**	0.07486	pCi/g	**0.09571**	**0.500**	104.7	2	1.883	IDENTIFIED	31.1	☑ UI
Lead-212 ✓	**0.4727**	0.06597	pCi/g	**0.05638**	**0.100**	238.3	1	1.234	IDENTIFIED	6.398	☐
Lead-214 ✓	**0.3553**	0.09661	pCi/g	**0.0664**	**0.100**	351.7	1	1.212	IDENTIFIED	13.52	☐
Potassium-40 ✓	**4.005**	0.6799	pCi/g	**0.3071**	**1.00**	1460	1	2.269	IDENTIFIED	8.048	☐
Thallium-208 ✓	**0.1639**	0.04495	pCi/g	**0.03261**	**0.080**	583.1	1	1.284	IDENTIFIED	13.59	☐
Thorium-234 ✓	**0.673**	0.4899	pCi/g	**0.4022**	**0.500**	92.61	1	1.416	IDENTIFIED	36.91	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198324025	05-OCT-07 00:00	01-DEC-07 05:37	57.2	SAMPLE	LOAD	1	SCAN	SCAN00101|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓	**0.3752**	0.1195	pCi/g	**0.1112**	**0.800**	911.3	1	1.405	IDENTIFIED	15.65	☐	
Americium-243 INT	**0.07543**	0.02481	pCi/g	**0.03054**	**Y**	74.88	1	0.8261	IDENTIFIED	16.45	☑ UI	
Bismuth-212 ✓	**0.4104**	0.2162	pCi/g	**0.2122**	**0.500**	727	1	2.343	IDENTIFIED	26.57	☐	
Bismuth-214 ✓	**0.2974**	0.07647	pCi/g	**0.05559**	**0.200**	609.4	1	1.161	IDENTIFIED	12.63	☐	
Cesium-137 ✓	**0.2025**	0.04106	pCi/g	**0.0313**	**0.100**	661.8	1	1.298	IDENTIFIED	9.619	☐	
Curium-243 INT	**0.09068**	0.05415	pCi/g	**0.05597**	**Y**	105.3	2	2.32	IDENTIFIED	30.31	☑ UI	
Europium-155 INT	**0.1002**	0.05982	pCi/g	**0.06725**	**0.500**	105.3	2	2.32	IDENTIFIED	30.31	☑ UI	
Lead-212 ✓	**0.434**	0.05363	pCi/g	**0.03841**	**0.100**	238.7	1	0.9658	IDENTIFIED	5.579	☐	
Lead-214 ✓	**0.2902**	0.06837	pCi/g	**0.0528**	**0.100**	351.9	1	1.281	IDENTIFIED	11.7	☐	
Neptunium-237 INT	**0.2**	0.1174	pCi/g	**0.1604**	**Y**	87.32	1	0.9528	IDENTIFIED	29.72	☑ UI	
Potassium-40 ✓	**3.346**	0.5471	pCi/g	**0.3058**	**1.00**	1461	1	1.488	IDENTIFIED	7.567	☐	
Radium-223 INT	**0.1843**	0.1111	pCi/g	**0.1416**	**Y**	270	1	1.999	IDENTIFIED	30.59	☑ UI	
Thallium-208 ✓	**0.1186**	0.03269	pCi/g	**0.02578**	**0.080**	583.4	1	1.09	IDENTIFIED	13.64	☐	
Thorium-234 ✓	**0.6042**	0.327	pCi/g	**0.3365**	**0.500**	92.7	1	1.325	IDENTIFIED	27.39	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198324026	05-OCT-07 00:00	01-DEC-07 05:38	57.2	SAMPLE	LOAD	1	SCAN	SCAN00101|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓	**0.7169**	0.2104	pCi/g	**0.1153**	**0.800**	911.7	1	2.045	IDENTIFIED	14.04	☐	
Americium-243 INT	**0.09882**	0.03903	pCi/g	**0.04786**	**Y**	74.77	1	1.211	IDENTIFIED	19.82	☑ UI	
Bismuth-212 ✓	**0.4038**	0.3113	pCi/g	**0.2846**	**0.500**	727.9	1	1.584	IDENTIFIED	39.05	☐	
Bismuth-214 ✓	**0.3179**	0.1001	pCi/g	**0.06806**	**0.200**	609.5	1	1.418	IDENTIFIED	15.54	☐	
Lead-212 ✓	**0.532**	0.0668	pCi/g	**0.05344**	**0.100**	238.6	1	1.195	IDENTIFIED	5.619	☐	
Lead-214 ✓	**0.332**	0.07728	pCi/g	**0.07137**	**0.100**	352.2	1	1.372	IDENTIFIED	11.51	☐	
Neptunium-237 INT	**0.3836**	0.1836	pCi/g	**0.2077**	**Y**	87.3	1	1.427	IDENTIFIED	24.09	☑ UI	
Potassium-40 ✓	**3.705**	0.6315	pCi/g	**0.3499**	**1.00**	1461	1	2.357	IDENTIFIED	8.145	☐	
Thallium-208 ✓	**0.1628**	0.04442	pCi/g	**0.03304**	**0.080**	583.4	1	1.47	IDENTIFIED	13.35	☐	
Thorium-234 ✓	**0.8489**	0.402	pCi/g	**0.4498**	**0.500**	92.71	1	1.167	IDENTIFIED	23.86	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198324027	05-OCT-07 00:00	01-DEC-07 05:39	57.2	SAMPLE	LOAD	1	SCAN	SCAN00101|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓	**0.4994**	0.2348	pCi/g	**0.1756**	**0.800**	911.1	1	1.193	IDENTIFIED	23.79	☐	
Americium-243 INT	**0.1274**	0.02921	pCi/g	**0.03288**	**Y**	74.87	1	0.9719	IDENTIFIED	11.01	☑ UI	
Bismuth-214 ✓	**0.4644**	0.1184	pCi/g	**0.1091**	**0.200**	609.1	1	1.195	IDENTIFIED	12.45	☐	
Cesium-137 ✓	**0.0756**	0.05329	pCi/g	**0.05273**	**0.100**	661.2	1	0.9597	IDENTIFIED	35.73	☐	
Lead-212 ✓	**0.6121**	0.07992	pCi/g	**0.06695**	**0.100**	238.6	1	1.062	IDENTIFIED	5.758	☐	
Lead-214 ✓	**0.4525**	0.09507	pCi/g	**0.08421**	**0.100**	351.9	1	1.22	IDENTIFIED	10.39	☐	
Neptunium-237 INT	**0.3562**	0.1361	pCi/g	**0.1662**	**Y**	87.15	1	1.017	IDENTIFIED	19.08	☑ UI	
Potassium-40 ✓	**3.634**	0.8129	pCi/g	**0.5255**	**1.00**	1461	1	2.364	IDENTIFIED	11.07	☐	
Protactinium-234m ↑PW	**8.833**	10.02	pCi/g	**6.224**	**Y**	1003	1	8.758	IDENTIFIED	57.81	☑ UI	Data rejected due to high peak-width.

Thallium-208 ✓	**0.1441**	0.06289	pCi/g	**0.04842**	**0.080**	583.4	1	1.428	IDENTIFIED	21.97	☐
Thorium-234 ✓	**0.5195**	0.6022	pCi/g	**0.4413**	**0.500**	92.77	1	1.071	IDENTIFIED	59	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198324028	05-OCT-07 00:00	01-DEC-07 05:40	57.2	SAMPLE	LOAD	1	SCAN	SCAN00101|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓	**0.6092**	0.2289	pCi/g	**0.1763**	**0.800**	911.3	1	2.041	IDENTIFIED	18.87	☐	
Americium-243 INT	**0.1344**	0.03225	pCi/g	**0.02747**	**Y**	75.15	1	1.861	IDENTIFIED	11.74	☑ UI	
Bismuth-212 ✓	**0.4661**	0.2745	pCi/g	**0.3176**	**0.500**	727.5	1	2.551	IDENTIFIED	29.77	☐	
Bismuth-214 LA	**0.4188**	0.1055	pCi/g	**0.1647**	**0.200**	609.1	1	1.503	FAIL_ABUND	12.28	☑ UI	Data rejected due to low abundance.
Lead-212 ✓	**0.5755**	0.0726	pCi/g	**0.05873**	**0.100**	238.6	1	1.32	IDENTIFIED	5.662	☐	
Lead-214 ✓	**0.444**	0.09336	pCi/g	**0.07657**	**0.100**	351.9	1	1.646	IDENTIFIED	10.41	☐	
Neptunium-237 INT	**0.2865**	0.1218	pCi/g	**0.1393**	**Y**	87.15	1	1.557	IDENTIFIED	21.38	☑ UI	
Potassium-40 ✓	**5.185**	0.8788	pCi/g	**0.5332**	**1.00**	1461	1	2.156	IDENTIFIED	8.195	☐	
Radium-223 INT	**0.2432**	0.174	pCi/g	**0.1883**	**Y**	270.5	1	1.615	IDENTIFIED	36.4	☑ UI	
Thallium-208 ✓	**0.1577**	0.05242	pCi/g	**0.04771**	**0.080**	583.1	1	1.756	IDENTIFIED	16.57	☐	
Thorium-234 ✓	**0.6459**	0.2976	pCi/g	**0.3243**	**0.500**	93.16	1	1.566	IDENTIFIED	23.2	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198324029	05-OCT-07 00:00	01-DEC-07 05:43	57.2	SAMPLE	LOAD	1	SCAN	SCAN00101|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓	**0.531**	0.1424	pCi/g	**0.1198**	**0.800**	911.4	1	1.556	IDENTIFIED	13.03	☐	
Americium-243 INT	**0.1186**	0.04001	pCi/g	**0.03833**	**Y**	74.79	1	1.675	IDENTIFIED	16.89	☑ UI	
Bismuth-212 ✓	**0.2871**	0.2088	pCi/g	**0.2398**	**0.500**	727.9	1	1.573	IDENTIFIED	36.86	☐	
Bismuth-214 ✓	**0.4672**	0.08816	pCi/g	**0.06**	**0.200**	609.4	1	1.309	IDENTIFIED	8.826	☐	
Cesium-137 ✓	**0.09605**	0.04738	pCi/g	**0.02812**	**0.100**	662.2	1	2.011	IDENTIFIED	24.81	☐	
Lead-212 ✓	**0.561**	0.06315	pCi/g	**0.04578**	**0.100**	238.7	1	1.299	IDENTIFIED	5.014	☐	
Lead-214 ✓	**0.485**	0.06713	pCi/g	**0.05699**	**0.100**	352	1	1.47	IDENTIFIED	6.562	☐	
Neptunium-237 INT	**0.3876**	0.1449	pCi/g	**0.1914**	**Y**	87.13	1	1.406	IDENTIFIED	18.71	☑ UI	
Potassium-40 ✓	**3.784**	0.5413	pCi/g	**0.2047**	**1.00**	1461	1	2.093	IDENTIFIED	6.638	☐	
Thallium-208 ✓	**0.1705**	0.0383	pCi/g	**0.02689**	**0.080**	583.3	1	1.221	IDENTIFIED	10.86	☐	
Thorium-234 ✓	**0.7172**	0.3675	pCi/g	**0.4023**	**0.500**	92.85	1	1.466	IDENTIFIED	25.9	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198324030	05-OCT-07 00:00	01-DEC-07 05:44	57.2	SAMPLE	LOAD	1	SCAN	SCAN00101|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓	**0.3276**	0.1143	pCi/g	**0.08387**	**0.800**	910.9	1	1.99	IDENTIFIED	17.35	☐	
Americium-243 INT	**0.06373**	0.01957	pCi/g	**0.02772**	**Y**	74.95	1	0.8899	IDENTIFIED	15.26	☑ UI	
Bismuth-212 ✓	**0.2824**	0.181	pCi/g	**0.2134**	**0.500**	727.9	1	0.8271	IDENTIFIED	32.55	☐	
Bismuth-214 ✓	**0.2464**	0.0566	pCi/g	**0.04905**	**0.200**	609.4	1	1.353	IDENTIFIED	11.36	☐	
Cesium-137 ✓	**0.3347**	0.03606	pCi/g	**0.02559**	**0.100**	661.6	1	1.53	IDENTIFIED	4.636	☐	
Lead-212 ✓	**0.2647**	0.03992	pCi/g	**0.03596**	**0.100**	238.7	1	0.949	IDENTIFIED	7.16	☐	
Lead-214 ✓	**0.2051**	0.05565	pCi/g	**0.04898**	**0.100**	351.9	1	0.9444	IDENTIFIED	13.58	☐	
Neptunium-237 INT	**0.1324**	0.1398	pCi/g	**0.1277**	**Y**	86.51	1	0.8764	IDENTIFIED	53.75	☑ UI	
Polonium-209 ↑PW	**6.518**	6.285	pCi/g	**4.972**	**Y**	898	1	5.675	IDENTIFIED	49.03	☑ UI	Data rejected due to high peak-width.
Potassium-40 ✓	**1.47**	0.4594	pCi/g	**0.2424**	**1.00**	1461	1	2.053	IDENTIFIED	15.54	☐	
Thallium-208 ✓	**0.06353**	0.02921	pCi/g	**0.02466**	**0.080**	583.2	1	1.32	IDENTIFIED	23.28	☐	
Thorium-234 ✓	**0.2953**	0.3179	pCi/g	**0.2692**	**0.500**	92.84	1	0.961	IDENTIFIED	54.8	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198324031	05-OCT-07 00:00	01-DEC-07 05:51	57.2	SAMPLE	LOAD	1	SCAN	SCAN00101|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓	**0.1263**	0.1373	pCi/g	**0.1038**	**0.800**	911.3	1	1.925	IDENTIFIED	55.36	☐	
Americium-243 INT	**0.05647**	0.01547	pCi/g	**0.01834**	**Y**	74.88	1	0.818	IDENTIFIED	13.6	☑ UI	
Bismuth-212 ✓	**0.4235**	0.2413	pCi/g	**0.1995**	**0.500**	727.9	1	1.506	IDENTIFIED	28.83	☐	
Bismuth-214 ✓	**0.2564**	0.06491	pCi/g	**0.05154**	**0.200**	609.2	1	1.375	IDENTIFIED	12.42	☐	
Cesium-137 ✓	**0.4023**	0.05327	pCi/g	**0.02668**	**0.100**	661.6	1	1.552	IDENTIFIED	5.66	☐	
Curium-243 INT	**0.06444**	0.04578	pCi/g	**0.04924**	**Y**	105.6	2	1.721	IDENTIFIED	36	☑ UI	
Europium-155 INT	**0.07118**	0.05057	pCi/g	**0.05268**	**0.500**	105.6	2	1.721	IDENTIFIED	36	☑ UI	
Lead-212 ✓	**0.2113**	0.03855	pCi/g	**0.03362**	**0.100**	238.7	1	0.9786	IDENTIFIED	8.412	☐	
Lead-214 ✓	**0.2345**	0.05646	pCi/g	**0.04821**	**0.100**	351.9	1	1.336	IDENTIFIED	11.84	☐	
Neptunium-237 INT	**0.23**	0.07729	pCi/g	**0.07876**	**Y**	87.39	1	0.97	IDENTIFIED	16.81	☑ UI	
Potassium-40 ✓	**2.008**	0.4293	pCi/g	**0.2458**	**1.00**	1461	1	2.029	IDENTIFIED	10.57	☐	
Thallium-208 ✓ LA	**0.05617**	0.03303	pCi/g	**0.04273**	**0.080**	583.1	1	1.11	FAIL_ABUND	29.8	☑ UI	Data rejected due to low abundance.

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198324032	05-OCT-07 00:00	01-DEC-07 08:09	57.3	SAMPLE	LOAD	1	SCAN	SCAN00101|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓	**0.3067**	0.0995	pCi/g	**0.1096**	**0.800**	911.7	1	1.272	IDENTIFIED	16.2	☐	
Americium-243 INT	**0.06113**	0.02322	pCi/g	**0.02793**	**Y**	74.98	1	0.9752	IDENTIFIED	19.08	☑ UI	
Bismuth-214 ✓	**0.2033**	0.07021	pCi/g	**0.05683**	**0.200**	609.7	1	1.714	IDENTIFIED	17.28	☐	
Cesium-137 ✓	**0.5157**	0.06328	pCi/g	**0.02709**	**0.100**	662	1	1.405	IDENTIFIED	5.083	☐	
Lead-212 ✓	**0.3005**	0.04989	pCi/g	**0.04354**	**0.100**	238.8	1	1.199	IDENTIFIED	7.925	☐	
Lead-214 ✓	**0.154**	0.06828	pCi/g	**0.05889**	**0.100**	352.2	1	1.055	IDENTIFIED	22.45	☐	
Potassium-40 ✓	**1.401**	0.3946	pCi/g	**0.2669**	**1.00**	1461	1	1.454	IDENTIFIED	14.12	☐	
Thallium-208 ✓	**0.06083**	0.03634	pCi/g	**0.02928**	**0.080**	583.5	1	0.8899	IDENTIFIED	30.29	☐	
Thorium-234 ✓	**0.5317**	0.3285	pCi/g	**0.2923**	**0.500**	93.2	1	1.216	IDENTIFIED	31.29	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198324033	05-OCT-07 00:00	07-DEC-07 14:46	63.6	SAMPLE	LOAD	1	SCAN	SCAN00101|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓	**0.2942**	0.132	pCi/g	**0.1029**	**0.800**	910.8	1	1.572	IDENTIFIED	22.69	☐	
Americium-243 INT	**0.05644**	0.01552	pCi/g	**0.0166**	**Y**	74.9	1	0.9526	IDENTIFIED	13.47	☑ UI	
Bismuth-212 ✓	**0.2407**	0.1663	pCi/g	**0.1931**	**0.500**	726.9	1	1.106	IDENTIFIED	35.05	☐	
Bismuth-214 ✓	**0.2005**	0.06028	pCi/g	**0.05275**	**0.200**	609.1	1	1.386	IDENTIFIED	14.88	☐	
Cesium-137 ✓	**0.2839**	0.0403	pCi/g	**0.02853**	**0.100**	661.4	1	1.339	IDENTIFIED	6.017	☐	
Lead-212 ✓	**0.3074**	0.04198	pCi/g	**0.03363**	**0.100**	238.6	1	1.046	IDENTIFIED	6.109	☐	
Lead-214 ✓	**0.2416**	0.04697	pCi/g	**0.04653**	**0.100**	351.8	1	1.258	IDENTIFIED	9.566	☐	
Neptunium-237 INT	**0.168**	0.0647	pCi/g	**0.08648**	**Y**	87.21	1	1.152	IDENTIFIED	19.24	☑ UI	
Potassium-40 ✓	**1.744**	0.3962	pCi/g	**0.2343**	**1.00**	1460	1	1.977	IDENTIFIED	11.25	☐	
Radium-223 INT	**0.1757**	0.09049	pCi/g	**0.1091**	**Y**	270.2	1	1.966	IDENTIFIED	26.12	☑ UI	
Thallium-208 ✓	**0.05981**	0.03147	pCi/g	**0.02575**	**0.080**	582.9	1	1.459	IDENTIFIED	26.61	☐	
Thorium-234 ✓	**0.7173**	0.3223	pCi/g	**0.2032**	**0.500**	92.68	1	1.132	IDENTIFIED	22.55	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198324034	05-OCT-07 00:00	01-DEC-07 08:10	57.3	SAMPLE	LOAD	1	SCAN	SCAN00101|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓	**0.2978**	0.1092	pCi/g	**0.07276**	**0.800**	911.3	1	1.475	IDENTIFIED	18.17	☐	
Americium-243 INT	**0.04483**	0.02158	pCi/g	**0.02372**	**Y**	74.91	1	1.408	IDENTIFIED	24.28	☑ UI	
Bismuth-212 ✓	**0.194**	0.1796	pCi/g	**0.161**	**0.500**	727.8	1	0.9563	IDENTIFIED	47.06	☐	
Bismuth-214 ✓	**0.1857**	0.05568	pCi/g	**0.04181**	**0.200**	609.5	1	1.738	IDENTIFIED	14.84	☐	
Cesium-137 ✓	**0.3335**	0.03726	pCi/g	**0.02187**	**0.100**	661.5	1	1.731	IDENTIFIED	4.164	☐	
Lead-212 ✓	**0.2905**	0.04101	pCi/g	**0.03224**	**0.100**	238.5	1	1.408	IDENTIFIED	6.494	☐	
Lead-214 ✓	**0.2035**	0.05081	pCi/g	**0.04367**	**0.100**	351.7	1	1.527	IDENTIFIED	12.39	☐	
Neptunium-237 INT	**0.1683**	0.07411	pCi/g	**0.1202**	**Y**	87.29	1	1.211	IDENTIFIED	22.08	☑ UI	

Potassium-40 ✓	**3.027**	0.3936	pCi/g	**0.1954**	**1.00**	1461	1	2.2	IDENTIFIED	6.025	☐	
Thallium-208 ✓	**0.09081**	0.03032	pCi/g	**0.01938**	**0.080**	583.2	1	1.873	IDENTIFIED	16.65	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198324035	05-OCT-07 00:00	01-DEC-07 08:11	57.3	SAMPLE	LOAD	1	SCAN	SCAN00101 GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓	**0.4862**	0.2118	pCi/g	**0.134**	**0.800**	911.1	1	2.062	IDENTIFIED	21.6	☐	
Americium-243 INT	**0.1269**	0.04683	pCi/g	**0.04264**	**Y**	74.97	1	1.841	IDENTIFIED	18.55	☑ UI	
Bismuth-212 ✓	**0.4821**	0.2315	pCi/g	**0.2468**	**0.500**	726.6	1	1.899	IDENTIFIED	24.1	☐	
Bismuth-214 LA	**0.2347**	0.0755	pCi/g	**0.1212**	**0.200**	609	1	1.446	FAIL_ABUND	15.97	☑ UI	Data rejected due to low abundance.
Lead-212 ✓	**0.489**	0.06508	pCi/g	**0.05185**	**0.100**	238.4	1	1.291	IDENTIFIED	6.017	☐	
Lead-214 ✓	**0.3531**	0.09248	pCi/g	**0.06319**	**0.100**	351.8	1	1.44	IDENTIFIED	13.02	☐	
Neptunium-237 INT	**0.2646**	0.1503	pCi/g	**0.1904**	**Y**	87.34	1	1.314	IDENTIFIED	28.78	☑ UI	
Neptunium-239 ↑PW	**0.2311**	0.1926	pCi/g	**0.2008**	**2.00**	226.3	1	4.357	IDENTIFIED	42.41	☑ UI	Data rejected due to high peak-width.
Potassium-40 ✓	**3.189**	0.5983	pCi/g	**0.3737**	**1.00**	1460	1	1.857	IDENTIFIED	9.051	☐	
Protactinium-234m ↑PW	**8.322**	4.073	pCi/g	**3.009**	**Y**	1001	1	5.399	IDENTIFIED	24.53	☑ UI	Data rejected due to high peak-width.
Thallium-208 ✓	**0.1727**	0.04257	pCi/g	**0.0305**	**0.080**	582.9	1	1.514	IDENTIFIED	12.02	☐	
Thorium-234 ✓	**0.7271**	0.3797	pCi/g	**0.4133**	**0.500**	92.74	1	1.35	IDENTIFIED	26.44	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198324036	05-OCT-07 00:00	01-DEC-07 08:12	57.3	SAMPLE	LOAD	1	SCAN	SCAN00101 GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓	**0.3276**	0.08027	pCi/g	**0.06862**	**0.800**	911	1	1.83	IDENTIFIED	11.59	☐	
Americium-243 INT	**0.06131**	0.01994	pCi/g	**0.02297**	**Y**	74.93	1	1.242	IDENTIFIED	15.68	☑ UI	
Bismuth-212 ✓	**0.2487**	0.145	pCi/g	**0.1465**	**0.500**	726.9	1	2.032	IDENTIFIED	29.51	☐	
Bismuth-214 ✓	**0.2043**	0.04546	pCi/g	**0.03728**	**0.200**	609	1	1.436	IDENTIFIED	10.88	☐	
Cesium-137 ✓	**0.05764**	0.02699	pCi/g	**0.02052**	**0.100**	662.3	1	1.679	IDENTIFIED	23.64	☐	
Lead-212 ✓	**0.3109**	0.03968	pCi/g	**0.03095**	**0.100**	238.5	1	1.192	IDENTIFIED	5.825	☐	
Lead-214 ✓	**0.1998**	0.0569	pCi/g	**0.03913**	**0.100**	351.6	2	1.569	IDENTIFIED	14.26	☐	
Potassium-40 ✓	**1.563**	0.3111	pCi/g	**0.1002**	**1.00**	1460	1	1.644	IDENTIFIED	9.243	☐	
Radium-223 ~~INT~~ LA (overlap)	**0.1325**	0.06352	pCi/g	**0.1143**	**Y**	351.6	2	1.569	NOT_IDENTI	14.26	☑ UI	Data rejected due to low abundance.
Thallium-208 ✓	**0.08231**	0.02575	pCi/g	**0.0171**	**0.080**	582.9	1	1.399	IDENTIFIED	15.65	☐	
Thorium-234 ✓	**0.3054**	0.2307	pCi/g	**0.2021**	**0.500**	92.72	1	1.342	IDENTIFIED	38.16	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198324037	05-OCT-07 00:00	01-DEC-07 08:52	57.4	SAMPLE	LOAD	1	SCAN	SCAN00101 GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓	**0.3145**	0.1165	pCi/g	**0.08637**	**0.800**	911.5	1	1.728	IDENTIFIED	18.27	☐	
Americium-243 INT	**0.05989**	0.02197	pCi/g	**0.02986**	**Y**	74.88	1	1.384	IDENTIFIED	18.29	☑ UI	
Bismuth-212 ✓	**0.2676**	0.125	pCi/g	**0.1778**	**0.500**	727.7	1	1.448	IDENTIFIED	23.48	☐	
Bismuth-214 LA	**0.2026**	0.05334	pCi/g	**0.07687**	**0.200**	609.5	1	1.889	FAIL_ABUND	12.93	☑ UI	Data rejected due to low abundance.
Cesium-137 ✓	**0.1476**	0.03203	pCi/g	**0.02484**	**0.100**	661.8	1	1.701	IDENTIFIED	10.4	☐	
Lead-212 ✓	**0.3307**	0.04475	pCi/g	**0.03528**	**0.100**	238.6	1	1.573	IDENTIFIED	5.982	☐	
Lead-214 ✓	**0.1842**	0.06115	pCi/g	**0.04652**	**0.100**	351.8	1	1.575	IDENTIFIED	16.64	☐	
Neptunium-237 INT	**0.2447**	0.1311	pCi/g	**0.1357**	**Y**	86.62	1	1.427	IDENTIFIED	27.01	☑ UI	
Potassium-40 ✓	**1.696**	0.3882	pCi/g	**0.2055**	**1.00**	1461	1	2.48	IDENTIFIED	11.31	☐	
Radium-223 INT	**0.2039**	0.1127	pCi/g	**0.1194**	**Y**	270	1	1.916	IDENTIFIED	27.99	☑ UI	
Thallium-208 ✓	**0.06773**	0.03371	pCi/g	**0.02211**	**0.080**	583.3	1	1.378	IDENTIFIED	25.14	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198324038	05-OCT-07 00:00	01-DEC-07 08:53	57.4	SAMPLE	LOAD	1	SCAN	SCAN00101 GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓	**0.3222**	0.1416	pCi/g	**0.1069**	**0.800**	911.4	1	1.366	IDENTIFIED	21.95		
Americium-243 INT	**0.05435**	0.01944	pCi/g	**0.02565**	**Y**	74.64	1	1.007	IDENTIFIED	17.79	✓ UI	
Bismuth-214 LA	**0.2232**	0.07271	pCi/g	**0.1113**	**0.200**	609.5	1	1.546	FAIL_ABUND	16.19	☑ UI	Data rejected due to low abundance.
Cesium-137 ✓	**0.07666**	0.04871	pCi/g	**0.03662**	**0.100**	662.5	1	1.598	IDENTIFIED	32.16		
Lead-212 ✓	**0.2869**	0.05508	pCi/g	**0.04993**	**0.100**	238.7	1	1.255	IDENTIFIED	8.845		
Lead-214 ✓	**0.2099**	0.06865	pCi/g	**0.06446**	**0.100**	352	1	1.557	IDENTIFIED	16.45		
Neptunium-237 INT	**0.215**	0.0995	pCi/g	**0.1347**	**Y**	87.12	1	1.157	IDENTIFIED	23.21	✓ UI	
Potassium-40 ✓	**1.236**	0.4389	pCi/g	**0.3102**	**1.00**	1462	1	1.406	IDENTIFIED	17.68		
Thallium-208 ✓	**0.1272**	0.04137	pCi/g	**0.0306**	**0.080**	583.6	1	1.412	IDENTIFIED	16.2		
Thorium-234 ✓	**0.464**	0.2755	pCi/g	**0.3141**	**0.500**	92.52	1	1.178	IDENTIFIED	29.97		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198324039	05-OCT-07 00:00	01-DEC-07 08:54	57.4	SAMPLE	LOAD	1	SCAN	SCAN00101|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓	**0.2986**	0.09179	pCi/g	**0.07001**	**0.800**	910.7	1	1.833	IDENTIFIED	14.84		
Americium-243 INT	**0.06687**	0.02235	pCi/g	**0.02959**	**Y**	74.65	1	0.9949	IDENTIFIED	16.32	✓ UI	
Bismuth-212 ✓	**0.3132**	0.1266	pCi/g	**0.132**	**0.500**	726.8	1	1.927	IDENTIFIED	20.21		
Bismuth-214 ✓	**0.2092**	0.04561	pCi/g	**0.03817**	**0.200**	609	1	1.904	IDENTIFIED	10.58		
Lead-212 ✓	**0.3051**	0.03748	pCi/g	**0.02946**	**0.100**	238.4	1	1.119	IDENTIFIED	5.659		
Lead-214 ✓	**0.2686**	0.04415	pCi/g	**0.03618**	**0.100**	351.6	1	1.377	IDENTIFIED	7.994		
Neptunium-237 INT	**0.1579**	0.09691	pCi/g	**0.1263**	**Y**	87.03	1	0.7285	IDENTIFIED	30.87	✓ UI	
Potassium-40 ✓	**1.478**	0.3125	pCi/g	**0.168**	**1.00**	1460	1	1.773	IDENTIFIED	10.07		
Radium-223 INT	**0.09821**	0.09637	pCi/g	**0.0903**	**Y**	269.8	1	2.341	IDENTIFIED	50	✓ UI	
Thallium-208 ✓	**0.08224**	0.02543	pCi/g	**0.01767**	**0.080**	582.7	1	1.334	IDENTIFIED	15.42		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198324040	05-OCT-07 00:00	01-DEC-07 09:54	57.4	SAMPLE	LOAD	1	SCAN	SCAN00101|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Americium-243 INT	**0.05377**	0.01886	pCi/g	**0.02748**	**Y**	74.83	1	0.7807	IDENTIFIED	17.46	✓ UI	
Bismuth-214 ✓	**0.2577**	0.09323	pCi/g	**0.07648**	**0.200**	608.8	1	1.207	IDENTIFIED	18.07		
Cesium-137 ✓	**0.1992**	0.04514	pCi/g	**0.04691**	**0.100**	661.5	1	1.331	IDENTIFIED	10.83		
Lead-212 ✓	**0.2921**	0.05809	pCi/g	**0.05576**	**0.100**	238.6	1	1.129	IDENTIFIED	9.578		
Lead-214 ✓	**0.25**	0.06611	pCi/g	**0.0736**	**0.100**	351.8	1	1.563	IDENTIFIED	13.23		
Potassium-40 ✓	**2.637**	0.5425	pCi/g	**0.3803**	**1.00**	1461	1	2.253	IDENTIFIED	10.12		
Thallium-208 ✓	**0.08761**	0.05377	pCi/g	**0.04272**	**0.080**	583.3	1	1.516	IDENTIFIED	31.11		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1201469646		01-DEC-07 09:55	0	MB	LOAD	1		GEL	N	RGSP

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1201469647	05-OCT-07 00:00	01-DEC-07 09:56	57.4	DUP	LOAD	1		SCAN00101|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓	**0.6252**	0.1881	pCi/g	**0.1418**	**0.800**	911.3	1	1.777	IDENTIFIED	14.82		
Americium-243 INT	**0.1609**	0.03866	pCi/g	**0.04389**	**Y**	74.69	1	0.9773	IDENTIFIED	11.73	✓ UI	
Bismuth-212 ✓	**0.6406**	0.262	pCi/g	**0.3545**	**0.500**	727.6	1	1.235	IDENTIFIED	20.61		
Bismuth-214 ✓	**0.533**	0.09855	pCi/g	**0.08151**	**0.200**	609.3	1	1.407	IDENTIFIED	8.981		
Cesium-137 ✓	**0.08443**	0.03457	pCi/g	**0.03888**	**0.100**	661.7	1	1.975	IDENTIFIED	20.68		
Lead-212 ✓	**0.7518**	0.07579	pCi/g	**0.0564**	**0.100**	238.6	1	1.076	IDENTIFIED	4.302		
Lead-214 ✓	**0.6213**	0.08799	pCi/g	**0.06789**	**0.100**	351.9	1	1.138	IDENTIFIED	6.703		
Neptunium-237 INT	**0.4042**	0.1765	pCi/g	**0.2072**	**Y**	87.13	1	1.103	IDENTIFIED	21.97	✓ UI	
Potassium-40 ✓	**5.423**	0.8129	pCi/g	**0.3476**	**1.00**	1461	1	2.155	IDENTIFIED	6.765		
Thallium-208 ✓	**0.2301**	0.04628	pCi/g	**0.03915**	**0.080**	583.2	1	1.221	IDENTIFIED	9.86		

Thorium-234 ✓	**0.5819**	0.4213	pCi/g	**0.4339**	**0.500**	92.72	1	1.16	IDENTIFIED	36.76	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1201469648		01-DEC-07 09:57	0	LCS	LOAD	1		GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	**1.01**	0.5502	pCi/g	**0.6666**	**0.800**	911.1	1	0.7235	IDENTIFIED	27.52	☐	
Americium-241	**13.3**	1.411	pCi/g	**0.7684**	**0.200**	59.46	1	0.9105	IDENTIFIED	2.741	☐	
Bismuth-212	**1.458**	1.197	pCi/g	**1.06**	**0.500**	728.3	1	1.448	IDENTIFIED	41.75	☐	
Bismuth-214	**0.9046**	0.2347	pCi/g	**0.3692**	**0.200**	609.1	1	1.803	FAIL_ABUND	12.89	☐	
Cesium-137	**5.469**	0.4399	pCi/g	**0.1432**	**0.100**	661.5	1	1.558	IDENTIFIED	2.709	☐	
Cobalt-60	**8.258**	0.5808	pCi/g	**0.1381**	**0.100**	1173	1	1.798	IDENTIFIED	2.32	☐	
Gross Gamma	**39.41**	9.698	pCi/g	**7.652**	**N**		0				☐	
Lead-212	**0.9628**	0.1538	pCi/g	**0.1693**	**0.100**	238.5	1	1.212	IDENTIFIED	7.543	☐	
Lead-214	**0.7119**	0.2056	pCi/g	**0.2338**	**0.100**	352	1	1.445	IDENTIFIED	14.43	☐	
Neptunium-237	**28.69**	2.71	pCi/g	**0.9804**	**Y**	87.94	1	1.03	IDENTIFIED	2.114	☐	
Polonium-209	**245.5**	50.51	pCi/g	**36.89**	**Y**	897.9	1	1.687	IDENTIFIED	9.736	☐	
Potassium-40	**1.165**	0.7368	pCi/g	**0.7906**	**1.00**	1462	1	0.6511	IDENTIFIED	32.09	☐	
Thallium-208	**0.3727**	0.1322	pCi/g	**0.1182**	**0.080**	583.1	1	1.431	IDENTIFIED	17.86	☐	

*** = Number of isotopes identified with a keyline at this energy.

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:40:32.70

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324021.CNF;1
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 30-NOV-2007 14:17:18
Sample ID        : G198324021           Sample quantity  : 1.11090E+02 GRAM
Detector name    : GAM21                Detector geometry: CAN
Elapsed live time: 0 03:00:00.00        Elapsed real time: 0 03:00:18.97  0.2%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706246               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.22	149	377	1.72	125.48	120	12	1.38E-02	27.4	
2	4	75.02*	464	453	1.92	149.05	142	17	4.29E-02	11.3	2.18E+00
3	4	77.26*	516	277	1.15	153.54	142	17	4.77E-02	7.5	
4	1	87.15	166	336	1.56	173.28	169	23	1.54E-02	20.7	1.88E+00
5	1	89.87	77	306	1.56	178.72	169	23	7.16E-03	43.6	
6	1	92.94*	212	270	1.53	184.86	169	23	1.96E-02	16.8	
7	0	105.44	65	223	0.94	209.82	206	9	6.05E-03	43.3	
8	0	128.70	53	248	0.84	256.28	252	10	4.93E-03	57.0	
9	0	186.09*	146	240	1.42	370.90	366	12	1.35E-02	23.9	
10	4	202.87	47	131	2.26	404.43	401	26	4.40E-03	45.1	1.01E+00
11	4	205.66	43	151	1.55	410.00	401	26	3.96E-03	55.3	
12	4	209.13	84	176	1.69	416.94	401	26	7.82E-03	31.2	
13	7	238.52*	672	132	1.36	475.63	468	20	6.22E-02	5.2	7.66E-01
14	7	241.31	200	210	2.67	481.20	468	20	1.85E-02	21.7	
15	0	264.72	31	106	1.83	527.98	525	9	2.86E-03	62.7	
16	0	270.04	54	120	2.33	538.61	534	9	5.02E-03	38.8	
17	0	295.26*	166	126	1.78	588.99	583	11	1.53E-02	16.1	
18	0	338.32	127	87	1.56	675.03	671	9	1.17E-02	16.0	
19	0	352.20*	252	154	1.51	702.76	696	16	2.33E-02	13.2	
20	0	464.86	7	46	1.01	927.89	925	7	6.64E-04	183.2	
21	0	467.73	20	29	1.15	933.64	931	8	1.81E-03	52.5	
22	0	510.62*	68	84	2.32	1019.36	1010	16	6.29E-03	39.7	
23	0	583.08*	173	60	1.41	1164.18	1156	16	1.60E-02	13.0	
24	0	609.16*	191	81	1.58	1216.32	1207	16	1.77E-02	13.2	
25	0	653.00	24	20	0.99	1303.96	1299	10	2.22E-03	40.4	
26	0	661.56	63	50	1.65	1321.08	1314	12	5.82E-03	26.0	
27	1	675.53	33	25	1.85	1349.00	1345	16	3.08E-03	27.7	2.02E+00
28	1	678.54	21	42	2.04	1355.03	1345	16	1.97E-03	66.0	
29	2	727.11	64	31	2.27	1452.12	1446	34	5.93E-03	20.4	1.63E+00
30	2	738.19*	26	20	2.28	1474.28	1446	34	2.45E-03	44.8	
31	0	911.02	103	29	1.80	1819.91	1813	13	9.52E-03	14.7	
32	0	932.56	41	44	10.30	1863.00	1844	29	3.81E-03	48.6	
33	0	969.06	56	26	2.06	1936.00	1931	10	5.17E-03	22.0	
34	0	983.06	14	17	5.74	1964.00	1955	14	1.34E-03	66.4	
35	0	1019.09	15	24	0.63	2036.08	2027	14	1.36E-03	76.0	
36	0	1239.19*	19	53	2.43	2476.49	2465	24	1.75E-03	107.0	
37	0	1251.76	10	14	1.40	2501.63	2496	9	9.57E-04	74.6	
38	0	1268.26	13	16	2.53	2534.66	2526	12	1.16E-03	72.8	

Sample ID : G198324021 Acquisition date : 30-NOV-2007 14:17:18

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1460.46	195	17	2.04	2919.40	2912	16	1.81E-02	8.5	
40	0	1503.30	11	6	1.63	3005.18	2997	11	1.01E-03	51.8	
41	0	1619.94	10	8	0.87	3238.74	3234	10	8.87E-04	63.3	
42	0	1684.95	15	0	3.42	3368.93	3364	11	1.39E-03	25.8	
43	0	1763.75*	31	4	1.02	3526.77	3519	15	2.86E-03	26.1	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324021       *
* Acquisition date : 30-NOV-2007 14:17:18 Detector SN#    :                 *
* Detector ID      : GAM21                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 03:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 03:00:18.97     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324021           Analyst initials: MJH1            *
* Batch Number     : 706246               Sample Quantity : 1.1109E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  2-JUL-2007 16:42:48 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	5.545E+00	9.729E-01	5.640E-01	0.000E+00
CS-137	1.017E-01	5.237E-02	4.824E-02	0.000E+00
EU-155	8.717E-02	7.428E-02	9.226E-02	0.000E+00
TL-208	2.461E-01	6.491E-02	5.010E-02	0.000E+00
BI-212	8.218E-01	3.353E-01	3.654E-01	0.000E+00
PB-212	7.420E-01	8.787E-02	6.488E-02	0.000E+00
PB-214	4.710E-01	1.241E-01	9.753E-02	0.000E+00
RA-223	2.130E-01	1.623E-01	2.202E-01	0.000E+00
AC-228	7.601E-01	2.241E-01	1.886E-01	0.000E+00
TH-234	1.047E+00	3.527E-01	4.140E-01	0.000E+00
NP-237	3.541E-01	1.456E-01	1.900E-01	0.000E+00
AM-243	1.772E-01	4.121E-02	3.242E-02	0.000E+00
CM-243	7.892E-02	6.726E-02	8.655E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
CO-60	9.657E-03	3.535E-02	6.084E-02	0.000E+00	NOT IDENT.
RH-101	2.735E-02	2.564E-02	4.114E-02	0.000E+00	NOT IDENT.
SB-125	8.227E-02	7.634E-02	1.379E-01	0.000E+00	NOT IDENT.
PO-209	-4.749E+00	6.471E+00	9.882E+00	0.000E+00	NOT IDENT.
BI-211	3.276E-02	9.543E-01	1.621E+00	0.000E+00	NOT IDENT.
BI-214	0.000E+00	1.400E-01	2.045E-01	0.000E+00	FAIL ABUN
PA-233	1.005E-02	4.691E-02	8.075E-02	0.000E+00	NOT IDENT.
PA-234M	-1.517E-02	3.900E+00	6.531E+00	0.000E+00	NOT IDENT.
U-235	2.402E-02	1.330E-01	2.218E-01	0.000E+00	NOT IDENT.
NP-236	5.154E-02	3.428E-02	5.476E-02	0.000E+00	NOT IDENT.
NP-239	8.018E-02	1.645E-01	2.892E-01	0.000E+00	NOT IDENT.
AM-241	-7.063E-03	3.911E-02	5.751E-02	0.000E+00	NOT IDENT.
AM-246	-4.831E-02	1.225E-01	1.936E-01	0.000E+00	NOT IDENT.
CF-249	8.887E-04	3.146E-02	5.302E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:40:33.71

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324021.CNF;1
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 30-NOV-2007 14:17:18
Sample ID        : G198324021           Sample quantity  : 1.11090E+02 GRAM
Detector name    : GAM21                Detector geometry: CAN
Elapsed live time: 0 03:00:00.00        Elapsed real time: 0 03:00:18.97  0.2%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706246               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	195	10.66*	7.436E-01	5.545E+00	5.545E+00	17.90
CS-137	661.66	63	85.10*	1.642E+00	1.013E-01	1.017E-01	52.55
EU-155	105.31	65	21.20*	8.135E+00	8.530E-02	8.717E-02	86.96
TL-208	277.36	------	6.31	4.080E+00	------	Line Not Found	------
	510.77	68	22.60	2.160E+00	3.134E-01	3.134E-01	79.64
	583.19	173	84.50*	1.876E+00	2.461E-01	2.461E-01	26.92
	763.13	------	1.81	1.415E+00	------	Line Not Found	------
	860.56	------	12.42	1.251E+00	------	Line Not Found	------
BI-212	727.33	64	11.80*	1.487E+00	8.218E-01	8.218E-01	41.63
	785.37	------	1.10	1.374E+00	------	Line Not Found	------
	1620.50	10	1.49	6.725E-01	2.155E+00	2.155E+00	126.64
PB-212	74.81	464	10.40	8.644E+00	1.162E+00	1.162E+00	23.73
	77.11	516	17.50	8.639E+00	7.682E-01	7.682E-01	16.50
	87.30	166	7.81	8.539E+00	5.621E-01	5.621E-01	41.97
	238.63	672	43.30*	4.710E+00	7.420E-01	7.420E-01	12.08
	300.09	------	3.28	3.773E+00	------	Line Not Found	------
PB-214	74.81	464	6.44	8.644E+00	1.877E+00	1.877E+00	23.73
	77.11	516	10.80	8.639E+00	1.245E+00	1.245E+00	16.50
	87.30	166	4.84	8.539E+00	9.071E-01	9.072E-01	41.97
	242.00	200	7.43	4.660E+00	1.302E+00	1.302E+00	43.90
	295.22	166	19.30	3.835E+00	5.042E-01	5.043E-01	32.55
	351.93	252	37.60*	3.203E+00	4.710E-01	4.710E-01	26.88
RA-223	269.46	54	13.70*	4.187E+00	2.130E-01	2.130E-01	77.73
AC-228	129.07	53	2.42	7.456E+00	6.647E-01	6.647E-01	114.27
	209.25	84	3.89	5.296E+00	9.236E-01	9.236E-01	62.83
	270.25	54	3.46	4.187E+00	8.434E-01	8.434E-01	77.73
	338.32	127	11.27	3.339E+00	7.575E-01	7.575E-01	32.48
	409.46	------	1.92	2.733E+00	------	Line Not Found	------
	463.00	7	4.40	2.388E+00	1.537E-01	1.537E-01	366.35
	794.95	------	4.25	1.357E+00	------	Line Not Found	------
	911.20	103	25.80*	1.181E+00	7.601E-01	7.601E-01	30.08
	964.77	------	4.99	1.115E+00	------	Line Not Found	------

Sample ID : G198324021 Acquisition date : 30-NOV-2007 14:17:18

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	968.97	56	15.80	1.110E+00	7.171E-01	7.171E-01	44.47
	1588.20	------	3.22	6.855E-01	------	Line Not Found	------
TH-234	63.29	149	4.80	8.513E+00	8.189E-01	8.189E-01	55.12
	92.58	212	5.41*	8.434E+00	1.047E+00	1.047E+00	34.37
NP-237	86.48	166	12.40*	8.539E+00	3.541E-01	3.541E-01	41.97
AM-243	74.66	464	68.20*	8.644E+00	1.772E-01	1.772E-01	23.73
CM-243	103.76	65	23.00*	8.135E+00	7.863E-02	7.892E-02	86.96

Flag: "*" = Keyline

Sample ID : G198324021 Acquisition date : 30-NOV-2007 14:17:18

Total number of lines in spectrum 43
Number of unidentified lines 16
Number of lines tentatively identified by NID 27 62.79%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	5.545E+00	5.545E+00	0.993E+00	17.90	
CS-137	9.47E+08S	1.00	1.013E-01	1.017E-01	0.534E-01	52.55	
EU-155	1.57E+08S	1.02	8.530E-02	8.717E-02	7.580E-02	86.96	
TL-208	4.43E+17S	1.00	2.461E-01	2.461E-01	0.662E-01	26.92	
BI-212	4.43E+17S	1.00	8.218E-01	8.218E-01	3.421E-01	41.63	
PB-212	4.43E+17S	1.00	7.420E-01	7.420E-01	0.897E-01	12.08	
PB-214	5.05E+10S	1.00	4.710E-01	4.710E-01	1.266E-01	26.88	
RA-223	1.04E+12S	1.00	2.130E-01	2.130E-01	1.656E-01	77.73	
AC-228	4.43E+17S	1.00	7.601E-01	7.601E-01	2.286E-01	30.08	
TH-234	1.41E+17S	1.00	1.047E+00	1.047E+00	0.360E+00	34.37	
NP-237	6.75E+13S	1.00	3.541E-01	3.541E-01	1.486E-01	41.97	
AM-243	2.33E+11S	1.00	1.772E-01	1.772E-01	0.420E-01	23.73	
CM-243	8.99E+08S	1.00	7.863E-02	7.892E-02	6.863E-02	86.96	
			---	---			
	Total Activity :		1.064E+01	1.065E+01			

Grand Total Activity : 1.064E+01 1.065E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G198324021 Acquisition date : 30-NOV-2007 14:17:18

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
1	89.87	77	306	1.56	178.72	169	23	7.16E-03	87.1	8.49E+00	
0	186.09	146	240	1.42	370.90	366	12	1.35E-02	47.9	5.83E+00	
4	202.87	47	131	2.26	404.43	401	26	4.40E-03	90.2	5.43E+00	
4	205.66	43	151	1.55	410.00	401	26	3.96E-03	****	5.37E+00	
0	264.72	31	106	1.83	527.98	525	9	2.86E-03	****	4.27E+00	
0	467.73	20	29	1.15	933.64	931	8	1.81E-03	****	2.37E+00	
0	609.16	191	81	1.58	1216.32	1207	16	1.77E-02	26.3	1.79E+00	T
0	653.00	24	20	0.99	1303.96	1299	10	2.22E-03	80.8	1.66E+00	
1	675.53	33	25	1.85	1349.00	1345	16	3.08E-03	55.4	1.61E+00	
1	678.54	21	42	2.04	1355.03	1345	16	1.97E-03	****	1.60E+00	
2	738.19	26	20	2.28	1474.28	1446	34	2.45E-03	89.6	1.46E+00	
0	932.56	41	44	10.30	1863.00	1844	29	3.81E-03	97.2	1.15E+00	T
0	983.06	14	17	5.74	1964.00	1955	14	1.34E-03	****	1.09E+00	
0	1019.09	15	24	0.63	2036.08	2027	14	1.36E-03	****	1.06E+00	
0	1239.19	19	53	2.43	2476.49	2465	24	1.75E-03	****	8.72E-01	T
0	1251.76	10	14	1.40	2501.63	2496	9	9.57E-04	****	8.63E-01	
0	1268.26	13	16	2.53	2534.66	2526	12	1.16E-03	****	8.52E-01	
0	1503.30	11	6	1.63	3005.18	2997	11	1.01E-03	****	7.23E-01	
0	1684.95	15	0	3.42	3368.93	3364	11	1.39E-03	51.6	6.47E-01	
0	1763.75	31	4	1.02	3526.77	3519	15	2.86E-03	52.2	6.19E-01	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G198324021            *
* Acquisition date : 30-NOV-2007 14:17:18 Detector SN#    :                 *
* Detector ID      : GAM21                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 03:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 03:00:18.97     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324021           Analyst initials: MJH1            *
* Batch Number     : 706246               Sample Quantity : 1.1109E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME :  2-JUL-2007 16:42:48 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	5.545E+00	9.729E-01	2.822E-01	9.729E-01
CS-137	1.017E-01	5.237E-02	2.413E-02	5.237E-02
EU-155	8.717E-02	7.428E-02	4.616E-02	7.428E-02
TL-208	2.461E-01	6.491E-02	2.506E-02	6.491E-02
BI-212	8.218E-01	3.353E-01	1.828E-01	3.353E-01
PB-212	7.420E-01	8.787E-02	3.246E-02	8.787E-02
PB-214	4.710E-01	1.241E-01	4.879E-02	1.241E-01
RA-223	2.130E-01	1.623E-01	1.102E-01	1.623E-01
AC-228	7.601E-01	2.241E-01	9.434E-02	2.241E-01
TH-234	1.047E+00	3.527E-01	2.071E-01	3.527E-01
NP-237	3.541E-01	1.456E-01	9.507E-02	1.456E-01
AM-243	1.772E-01	4.121E-02	1.622E-02	4.121E-02
CM-243	7.892E-02	6.726E-02	4.330E-02	6.726E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	9.657E-03	3.535E-02	3.044E-02	3.535E-02	NOT IDENT.
RH-101	2.735E-02	2.564E-02	2.058E-02	2.564E-02	NOT IDENT.
SB-125	8.227E-02	7.634E-02	6.900E-02	7.634E-02	NOT IDENT.
PO-209	-4.749E+00	6.471E+00	4.944E+00	6.471E+00	NOT IDENT.
BI-211	3.276E-02	9.543E-01	8.112E-01	9.543E-01	NOT IDENT.
BI-214	5.218E-01	1.400E-01	1.023E-01	1.400E-01	FAIL ABUN
PA-233	1.005E-02	4.691E-02	4.040E-02	4.691E-02	NOT IDENT.
PA-234M	-1.517E-02	3.900E+00	3.267E+00	3.900E+00	NOT IDENT.
U-235	2.402E-02	1.330E-01	1.110E-01	1.330E-01	NOT IDENT.
NP-236	5.154E-02	3.428E-02	2.740E-02	3.428E-02	NOT IDENT.
NP-239	8.018E-02	1.645E-01	1.447E-01	1.645E-01	NOT IDENT.
AM-241	-7.063E-03	3.911E-02	2.877E-02	3.911E-02	NOT IDENT.
AM-246	-4.831E-02	1.225E-01	9.684E-02	1.225E-01	NOT IDENT.
CF-249	8.887E-04	3.146E-02	2.653E-02	3.146E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
59.54	273.2505
63.29	275.9358
74.66	321.3742
74.81	321.4258
74.81	321.4258
77.11	322.2151
77.11	322.2151
86.48	357.7419
87.30	313.9140
87.30	313.9140
92.58	315.5196
98.44	192.0645
103.76	232.6204
105.31	214.6061
129.07	224.3670
143.76	249.1101
198.00	184.4263
209.25	214.4321
228.18	189.5279
238.63	156.6362
242.00	156.9168
269.46	143.8019
270.25	126.2743
277.36	143.3979
295.22	171.4779
300.09	95.6613
312.17	108.5814
338.32	123.6893
351.93	124.4034
387.59	91.8820
409.46	97.7508
427.87	68.6914
463.00	86.5194
510.77	61.1963
583.19	57.2014
609.31	55.4675
661.66	40.9977
727.33	37.4406
763.13	55.7278
768.36	38.7770
785.37	40.8383
794.95	42.8375
806.17	41.0447
831.80	43.2156
860.56	34.8040
896.60	38.0121
911.20	30.1729
934.06	27.5158
964.77	32.2196
968.97	40.5929
1001.03	31.8945
1078.86	32.3958
1120.29	29.5947
1155.19	41.0889
1173.23	23.7047
1238.11	27.1130
1280.96	26.2665
1332.51	25.4375
1377.67	20.2896
1401.50	20.3684
1407.98	12.8779
1460.80	18.3973
1509.23	11.6306
1588.20	24.5908
1620.50	9.5027
1729.60	17.3722
1764.49	13.5767

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198324021

Total Uranium Activity	1.1115E-02	ug/g
Total Uranium Counting Unc.	6.1560E-02	ug/g
Total Uranium Tpu	6.1560E-08	ug/g
Total Uranium Mda	5.1348E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:41:07.31

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324022.CNF;1
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 1-DEC-2007 05:37:16.
Sample ID        : G198324022           Sample quantity  : 1.27240E+02 GRAM
Detector name    : GAM02                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:03.83  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706246               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	45.87*	79	345	2.04	91.31	88	8	5.52E-03	44.7	
2	0	63.01*	47	427	0.94	125.55	122	8	3.23E-03	88.2	
3	3	74.70*	260	384	1.21	148.92	144	15	1.80E-02	14.4	1.16E+00
4	3	77.00	376	313	0.97	153.51	144	15	2.61E-02	9.1	
5	0	84.03*	76	509	1.47	167.55	162	10	5.31E-03	58.9	
6	3	87.26	190	229	1.21	174.01	171	21	1.32E-02	13.8	2.30E+00
7	3	89.85	173	320	1.25	179.19	171	21	1.20E-02	19.2	
8	3	92.54*	174	363	1.26	184.57	171	21	1.21E-02	27.2	
9	0	104.49	39	323	0.95	208.44	207	7	2.73E-03	77.3	
10	0	129.30	48	269	0.73	258.01	254	6	3.34E-03	55.8	
11	0	143.78*	17	333	1.44	286.96	284	8	1.19E-03	204.9	
12	0	179.36	84	240	1.50	358.04	355	8	5.86E-03	33.7	
13	0	185.76*	270	445	1.17	370.83	364	14	1.87E-02	19.8	
14	0	208.89	28	292	1.42	417.05	414	8	1.97E-03	105.9	
15	0	226.70*	25	183	1.69	452.65	449	7	1.76E-03	107.2	
16	6	238.55*	1013	165	1.16	476.31	471	18	7.03E-02	4.0	1.22E+00
17	6	241.67	319	261	2.10	482.56	471	18	2.21E-02	15.4	
18	0	270.32	109	267	2.00	539.81	534	12	7.56E-03	31.6	
19	0	277.06	60	153	1.92	553.28	550	8	4.20E-03	37.6	
20	0	295.18	333	205	1.19	589.48	584	10	2.31E-02	9.7	
21	0	299.86	41	255	1.38	598.83	595	11	2.82E-03	77.9	
22	0	328.07	77	222	1.28	655.21	649	12	5.35E-03	40.3	
23	0	338.35*	189	186	1.47	675.75	671	10	1.31E-02	16.6	
24	0	351.74*	564	184	1.21	702.52	696	12	3.92E-02	6.7	
25	0	410.33	62	121	0.92	819.60	815	10	4.30E-03	35.7	
26	0	444.44	20	139	3.40	887.74	883	12	1.39E-03	120.8	
27	0	462.99	85	133	1.58	924.83	920	14	5.87E-03	30.6	
28	0	481.07	46	85	1.79	960.95	956	10	3.18E-03	40.8	
29	0	510.87*	116	131	2.26	1020.50	1013	18	8.06E-03	32.3	
30	0	566.41	8	72	1.27	1131.50	1125	9	5.56E-04	194.5	
31	0	583.15*	314	89	1.31	1164.95	1159	13	2.18E-02	8.8	
32	0	609.35*	433	128	1.39	1217.31	1209	16	3.00E-02	7.8	
33	0	661.38	37	51	1.54	1321.27	1318	8	2.54E-03	37.5	
34	0	727.50	106	98	2.18	1453.41	1444	16	7.33E-03	23.3	
35	0	743.73	27	77	1.42	1485.85	1479	12	1.87E-03	68.3	
36	0	768.05	44	69	2.25	1534.46	1529	10	3.02E-03	39.0	
37	0	844.08	22	85	5.40	1686.40	1673	16	1.52E-03	97.9	
38	0	860.34	57	37	1.08	1718.90	1714	10	3.94E-03	24.2	

Sample ID : G198324022 Acquisition date : 1-DEC-2007 05:37:16

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	895.04	11	40	1.09	1788.25	1782	8	7.38E-04	110.9	
40	0	898.56	12	37	0.82	1795.28	1790	9	8.50E-04	93.1	
41	0	911.11	193	33	1.68	1820.38	1815	11	1.34E-02	9.2	
42	1	964.78	43	45	1.99	1927.64	1918	28	2.97E-03	36.4	1.75E+00
43	1	968.86	124	40	1.99	1935.79	1918	28	8.64E-03	14.2	
44	0	1000.83*	7	22	2.80	1999.68	1994	10	4.69E-04	190.6	
45	0	1009.68	27	35	1.85	2017.37	2014	11	1.87E-03	47.1	
46	0	1029.57	32	31	0.80	2057.13	2049	13	2.21E-03	40.9	
47	0	1037.60	32	39	3.23	2073.17	2064	16	2.21E-03	47.7	
48	0	1121.13	130	58	2.46	2240.13	2231	22	9.06E-03	17.5	
49	0	1155.72	21	49	2.71	2309.25	2299	15	1.48E-03	74.7	
50	0	1159.22	22	15	2.02	2316.25	2313	7	1.50E-03	37.3	
51	0	1213.62	21	36	2.88	2424.97	2419	11	1.49E-03	58.0	
52	0	1239.51	29	55	1.97	2476.73	2467	13	2.02E-03	55.9	
53	0	1248.34	13	41	0.55	2494.36	2487	12	8.85E-04	105.3	
54	0	1297.17	24	13	3.63	2591.98	2587	11	1.65E-03	36.4	
55	0	1377.64	22	9	1.56	2752.82	2749	9	1.53E-03	32.5	
56	0	1395.66	9	13	1.36	2788.82	2784	10	6.46E-04	78.5	
57	0	1401.93	25	6	2.01	2801.38	2797	9	1.75E-03	27.0	
58	0	1408.04	44	10	0.69	2813.57	2806	18	3.07E-03	22.0	
59	0	1460.73*	443	17	1.99	2918.90	2911	18	3.08E-02	5.4	
60	0	1476.47	7	24	2.91	2950.36	2937	16	4.86E-04	161.0	
61	0	1542.90	16	4	1.13	3083.13	3080	8	1.10E-03	35.6	
62	0	1548.44	2	11	0.56	3094.22	3087	9	1.04E-04	378.6	
63	0	1573.35	8	7	1.69	3144.00	3139	10	5.53E-04	72.9	
64	0	1588.95	23	14	3.76	3175.19	3170	11	1.62E-03	37.2	
65	0	1657.75	4	11	1.23	3312.71	3304	10	2.92E-04	161.9	
66	0	1738.09	4	6	0.87	3473.32	3467	8	2.92E-04	111.7	
67	0	1742.09	15	10	3.20	3481.31	3475	13	1.04E-03	50.1	
68	0	1765.06	78	15	2.41	3527.23	3519	19	5.41E-03	17.4	
69	0	1847.55	14	3	0.58	3692.13	3686	12	9.64E-04	36.7	
70	0	1912.00	11	6	3.76	3820.96	3812	16	7.35E-04	66.1	
71	0	1930.56	13	3	3.16	3858.06	3852	13	9.24E-04	38.7	
72	0	1937.13	11	7	3.94	3871.20	3865	13	7.95E-04	54.7	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324022       *
* Acquisition date :  1-DEC-2007 05:37:16 Detector SN#    :                 *
* Detector ID      : GAM02                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:03.83     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324022           Analyst initials: MJH1            *
* Batch Number     : 706246               Sample Quantity : 1.2724E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 22-OCT-2007 15:13:16 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	5.758E+00	7.153E-01	2.964E-01	0.000E+00
CS-137	2.911E-02	2.150E-02	3.460E-02	0.000E+00
EU-155	4.420E-02	6.706E-02	9.139E-02	0.000E+00
TL-208	2.260E-01	4.105E-02	3.129E-02	0.000E+00
PO-209	2.010E+00	4.374E+00	4.997E+00	0.000E+00
BI-212	6.574E-01	3.031E-01	2.324E-01	0.000E+00
PB-212	7.093E-01	7.053E-02	4.679E-02	0.000E+00
BI-214	5.913E-01	9.740E-02	6.148E-02	0.000E+00
PB-214	6.085E-01	8.682E-02	6.211E-02	0.000E+00
RA-223	2.642E-01	1.647E-01	1.564E-01	0.000E+00
AC-228	6.750E-01	1.325E-01	1.171E-01	0.000E+00
PA-234M	7.936E-01	2.965E+00	3.403E+00	0.000E+00
TH-234	8.230E-01	4.429E-01	3.819E-01	0.000E+00
U-235	3.579E-02	1.437E-01	1.689E-01	0.000E+00
NP-237	4.183E-01	1.187E-01	1.695E-01	0.000E+00
NP-239	6.890E-02	1.449E-01	1.998E-01	0.000E+00
AM-243	1.359E-01	3.995E-02	4.563E-02	0.000E+00
CM-243	4.001E-02	6.071E-02	8.219E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error	MDA (pCi/GRAM)		Ided
CO-60	0.000E+00	2.188E-02	3.712E-02	0.000E+00	NOT IDENT.
RH-101	8.567E-03	1.765E-02	3.026E-02	0.000E+00	NOT IDENT.
SB-125	-1.298E-02	4.888E-02	8.115E-02	0.000E+00	NOT IDENT.
BI-211	-1.763E-02	5.552E-01	9.296E-01	0.000E+00	NOT IDENT.
PA-233	8.183E-03	3.217E-02	5.668E-02	0.000E+00	NOT IDENT.
NP-236	2.082E-03	3.684E-02	5.486E-02	0.000E+00	NOT IDENT.
AM-241	6.862E-03	9.556E-02	1.572E-01	0.000E+00	NOT IDENT.
AM-246	3.327E-02	6.963E-02	1.246E-01	0.000E+00	NOT IDENT.
CF-249	4.563E-03	2.101E-02	3.632E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:41:08.32

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324022.CNF;1
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 1-DEC-2007 05:37:16.
Sample ID        : G198324022           Sample quantity  : 1.27240E+02 GRAM
Detector name    : GAM02                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:03.83  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706246               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	443	10.66*	1.065E+00	5.758E+00	5.758E+00	12.68
CS-137	661.66	37	85.10*	2.182E+00	2.901E-02	2.911E-02	75.35
EU-155	105.31	39	21.20*	6.330E+00	4.324E-02	4.420E-02	154.81
TL-208	277.36	60	6.31	4.358E+00	3.244E-01	3.244E-01	75.52
	510.77	116	22.60	2.710E+00	2.796E-01	2.796E-01	64.93
	583.19	314	84.50*	2.429E+00	2.260E-01	2.260E-01	18.54
	763.13	------	1.81	1.923E+00	------	Line Not Found	------
	860.56	57	12.42	1.723E+00	3.910E-01	3.910E-01	48.90
PO-209	896.60	11	0.47*	1.661E+00	2.008E+00	2.010E+00	222.01
BI-212	727.33	106	11.80*	2.007E+00	6.574E-01	6.574E-01	47.04
	785.37	------	1.10	1.873E+00	------	Line Not Found	------
	1620.50	------	1.49	9.857E-01	------	Line Not Found	------
PB-212	74.81	260	10.40	4.134E+00	8.910E-01	8.910E-01	30.00
	77.11	376	17.50	4.404E+00	7.205E-01	7.205E-01	19.92
	87.30	190	7.81	5.400E+00	6.641E-01	6.641E-01	28.97
	238.63	1013	43.30*	4.863E+00	7.093E-01	7.093E-01	10.15
	300.09	41	3.28	4.106E+00	4.446E-01	4.446E-01	155.91
BI-214	609.31	433	46.10*	2.341E+00	5.912E-01	5.913E-01	16.81
	768.36	44	4.94	1.912E+00	6.800E-01	6.800E-01	78.28
	806.17	------	1.22	1.829E+00	------	Line Not Found	------
	934.06	------	3.03	1.596E+00	------	Line Not Found	------
	1120.29	130	15.10	1.345E+00	9.475E-01	9.476E-01	35.51
	1155.19	21	1.63	1.307E+00	1.474E+00	1.474E+00	149.45
	1238.11	29	5.79	1.226E+00	6.028E-01	6.029E-01	112.05
	1280.96	------	1.43	1.191E+00	------	Line Not Found	------
	1377.67	22	4.00	1.118E+00	7.258E-01	7.259E-01	65.42
	1401.50	25	1.27	1.101E+00	2.652E+00	2.652E+00	54.46
	1407.98	44	2.15	1.097E+00	2.768E+00	2.768E+00	44.40
	1509.23	------	2.11	1.038E+00	------	Line Not Found	------
	1729.60	------	2.92	9.455E-01	------	Line Not Found	------
	1764.49	78	15.40	9.345E-01	7.991E-01	7.992E-01	35.25
PB-214	74.81	260	6.44	4.134E+00	1.439E+00	1.439E+00	30.00

Sample ID : G198324022 Acquisition date : 1-DEC-2007 05:37:16

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	376	10.80	4.404E+00	1.167E+00	1.168E+00	19.92
	87.30	190	4.84	5.400E+00	1.072E+00	1.072E+00	28.97
	242.00	319	7.43	4.818E+00	1.314E+00	1.314E+00	31.52
	295.22	333	19.30	4.155E+00	6.122E-01	6.123E-01	20.60
	351.93	564	37.60*	3.635E+00	6.084E-01	6.085E-01	14.56
RA-223	269.46	109	13.70*	4.438E+00	2.642E-01	2.642E-01	63.59
AC-228	129.07	48	2.42	6.595E+00	4.447E-01	4.447E-01	111.67
	209.25	28	3.89	5.333E+00	2.014E-01	2.014E-01	211.89
	270.25	109	3.46	4.438E+00	1.046E+00	1.046E+00	63.59
	338.32	189	11.27	3.745E+00	6.617E-01	6.617E-01	33.77
	409.46	62	1.92	3.226E+00	1.476E+00	1.476E+00	71.57
	463.00	85	4.40	2.933E+00	9.659E-01	9.659E-01	61.52
	794.95	------	4.25	1.853E+00	------	Line Not Found	------
	911.20	193	25.80*	1.634E+00	6.750E-01	6.750E-01	20.03
	964.77	43	4.99	1.548E+00	8.177E-01	8.177E-01	73.17
	968.97	124	15.80	1.542E+00	7.527E-01	7.527E-01	29.41
	1588.20	23	3.22	9.993E-01	1.067E+00	1.067E+00	74.62
PA-234M	1001.03	7	0.84*	1.496E+00	7.936E-01	7.936E-01	381.21
TH-234	63.29	47	4.80	2.560E+00	5.590E-01	5.590E-01	176.72
	92.58	174	5.41*	5.776E+00	8.230E-01	8.230E-01	54.92
U-235	143.76	17	10.96*	6.462E+00	3.579E-02	3.579E-02	409.82
NP-237	86.48	190	12.40*	5.400E+00	4.183E-01	4.183E-01	28.97
NP-239	228.18	25	10.76*	5.042E+00	6.890E-02	6.890E-02	214.53
AM-243	74.66	260	68.20*	4.134E+00	1.359E-01	1.359E-01	30.00
CM-243	103.76	39	23.00*	6.330E+00	3.986E-02	4.001E-02	154.81

Flag: "*" = Keyline

Sample ID : G198324022 Acquisition date : 1-DEC-2007 05:37:16

Total number of lines in spectrum 72
Number of unidentified lines 31
Number of lines tentatively identified by NID 41 56.94%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	5.758E+00	5.758E+00	0.730E+00	12.68	
CS-137	9.47E+08S	1.00	2.901E-02	2.911E-02	2.193E-02	75.35	
EU-155	1.57E+08S	1.02	4.324E-02	4.420E-02	6.843E-02	154.81	
TL-208	4.43E+17S	1.00	2.260E-01	2.260E-01	0.419E-01	18.54	
PO-209	3.22E+09S	1.00	2.008E+00	2.010E+00	4.463E+00	222.01	
BI-212	4.43E+17S	1.00	6.574E-01	6.574E-01	3.093E-01	47.04	
PB-212	4.43E+17S	1.00	7.093E-01	7.093E-01	0.720E-01	10.15	
BI-214	5.05E+10S	1.00	5.912E-01	5.913E-01	0.994E-01	16.81	
PB-214	5.05E+10S	1.00	6.084E-01	6.085E-01	0.886E-01	14.56	
RA-223	1.04E+12S	1.00	2.642E-01	2.642E-01	1.680E-01	63.59	
AC-228	4.43E+17S	1.00	6.750E-01	6.750E-01	1.352E-01	20.03	
PA-234M	1.41E+17S	1.00	7.936E-01	7.936E-01	30.25E-01	381.21	
TH-234	1.41E+17S	1.00	8.230E-01	8.230E-01	4.520E-01	54.92	
U-235	2.22E+16S	1.00	3.579E-02	3.579E-02	14.67E-02	409.82	
NP-237	6.75E+13S	1.00	4.183E-01	4.183E-01	1.212E-01	28.97	
NP-239	2.33E+11S	1.00	6.890E-02	6.890E-02	14.78E-02	214.53	
AM-243	2.33E+11S	1.00	1.359E-01	1.359E-01	0.408E-01	30.00	
CM-243	8.99E+08S	1.00	3.986E-02	4.001E-02	6.194E-02	154.81	
			---	---			
	Total Activity :		1.388E+01	1.389E+01			

Grand Total Activity : 1.388E+01 1.389E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G198324022 Acquisition date : 1-DEC-2007 05:37:16

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	45.87	79	345	2.04	91.31	88	8	5.52E-03	89.3	5.04E-01	
0	84.03	76	509	1.47	167.55	162	10	5.31E-03	****	5.13E+00	
3	89.85	173	320	1.25	179.19	171	21	1.20E-02	38.4	5.60E+00	
0	179.36	84	240	1.50	358.04	355	8	5.86E-03	67.4	5.86E+00	
0	185.76	270	445	1.17	370.83	364	14	1.87E-02	39.7	5.74E+00	
0	328.07	77	222	1.28	655.21	649	12	5.35E-03	80.7	3.83E+00	
0	444.44	20	139	3.40	887.74	883	12	1.39E-03	****	3.03E+00	
0	481.07	46	85	1.79	960.95	956	10	3.18E-03	81.7	2.84E+00	
0	566.41	8	72	1.27	1131.50	1125	9	5.56E-04	****	2.49E+00	
0	743.73	27	77	1.42	1485.85	1479	12	1.87E-03	****	1.97E+00	
0	844.08	22	85	5.40	1686.40	1673	16	1.52E-03	****	1.75E+00	
0	898.56	12	37	0.82	1795.28	1790	9	8.50E-04	****	1.65E+00	
0	1009.68	27	35	1.85	2017.37	2014	11	1.87E-03	94.2	1.48E+00	
0	1029.57	32	31	0.80	2057.13	2049	13	2.21E-03	81.8	1.46E+00	
0	1037.60	32	39	3.23	2073.17	2064	16	2.21E-03	95.5	1.45E+00	
0	1159.22	22	15	2.02	2316.25	2313	7	1.50E-03	74.6	1.30E+00	
0	1213.62	21	36	2.88	2424.97	2419	11	1.49E-03	****	1.25E+00	
0	1248.34	13	41	0.55	2494.36	2487	12	8.85E-04	****	1.22E+00	
0	1297.17	24	13	3.63	2591.98	2587	11	1.65E-03	72.9	1.18E+00	
0	1395.66	9	13	1.36	2788.82	2784	10	6.46E-04	****	1.11E+00	
0	1476.47	7	24	2.91	2950.36	2937	16	4.86E-04	****	1.06E+00	
0	1542.90	16	4	1.13	3083.13	3080	8	1.10E-03	71.3	1.02E+00	
0	1548.44	2	11	0.56	3094.22	3087	9	1.04E-04	****	1.02E+00	
0	1573.35	8	7	1.69	3144.00	3139	10	5.53E-04	****	1.01E+00	
0	1657.75	4	11	1.23	3312.71	3304	10	2.92E-04	****	9.71E-01	
0	1738.09	4	6	0.87	3473.32	3467	8	2.92E-04	****	9.43E-01	
0	1742.09	15	10	3.20	3481.31	3475	13	1.04E-03	****	9.42E-01	
0	1847.55	14	3	0.58	3692.13	3686	12	9.64E-04	73.5	9.13E-01	
0	1912.00	11	6	3.76	3820.96	3812	16	7.35E-04	****	8.99E-01	
0	1930.56	13	3	3.16	3858.06	3852	13	9.24E-04	77.4	8.96E-01	
0	1937.13	11	7	3.94	3871.20	3865	13	7.95E-04	****	8.95E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G198324022            *
* Acquisition date :  1-DEC-2007 05:37:16 Detector SN#    :                 *
* Detector ID      : GAM02                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:03.83     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324022           Analyst initials: MJH1            *
* Batch Number     : 706246               Sample Quantity : 1.2724E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 22-OCT-2007 15:13:16 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	5.758E+00	7.153E-01	1.483E-01	7.153E-01
CS-137	2.911E-02	2.150E-02	1.731E-02	2.150E-02
EU-155	4.420E-02	6.706E-02	4.572E-02	6.706E-02
TL-208	2.260E-01	4.105E-02	1.565E-02	4.105E-02
PO-209	2.010E+00	4.374E+00	2.500E+00	4.374E+00
BI-212	6.574E-01	3.031E-01	1.162E-01	3.031E-01
PB-212	7.093E-01	7.053E-02	2.341E-02	7.053E-02
BI-214	5.913E-01	9.740E-02	3.076E-02	9.740E-02
PB-214	6.085E-01	8.682E-02	3.107E-02	8.682E-02
RA-223	2.642E-01	1.647E-01	7.824E-02	1.647E-01
AC-228	6.750E-01	1.325E-01	5.856E-02	1.325E-01
PA-234M	7.936E-01	2.965E+00	1.703E+00	2.965E+00
TH-234	8.230E-01	4.429E-01	1.910E-01	4.429E-01
U-235	3.579E-02	1.437E-01	8.450E-02	1.437E-01
NP-237	4.183E-01	1.187E-01	8.480E-02	1.187E-01
NP-239	6.890E-02	1.449E-01	9.998E-02	1.449E-01
AM-243	1.359E-01	3.995E-02	2.283E-02	3.995E-02
CM-243	4.001E-02	6.071E-02	4.112E-02	6.071E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	0.000E+00	2.188E-02	1.857E-02	0.000E+00	NOT IDENT.
RH-101	8.567E-03	1.765E-02	1.514E-02	1.765E-02	NOT IDENT.
SB-125	-1.298E-02	4.888E-02	4.060E-02	4.888E-02	NOT IDENT.
BI-211	-1.763E-02	5.552E-01	4.651E-01	5.552E-01	NOT IDENT.
PA-233	8.183E-03	3.217E-02	2.835E-02	3.217E-02	NOT IDENT.
NP-236	2.082E-03	3.684E-02	2.745E-02	3.684E-02	NOT IDENT.
AM-241	6.862E-03	9.556E-02	7.863E-02	9.556E-02	NOT IDENT.
AM-246	3.327E-02	6.963E-02	6.233E-02	6.963E-02	NOT IDENT.
CF-249	4.563E-03	2.101E-02	1.817E-02	2.101E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
59.54	260.5476
63.29	306.4583
74.66	321.4949
74.81	321.6194
74.81	321.6194
77.11	323.5009
77.11	323.5009
86.48	246.0713
87.30	275.9536
87.30	275.9536
92.58	279.2572
98.44	285.6875
103.76	277.2481
105.31	285.4002
129.07	269.4533
143.76	283.9640
198.00	256.2170
209.25	266.6635
228.18	234.2260
238.63	195.4253
242.00	196.1503
269.46	183.5977
270.25	183.7450
277.36	162.9504
295.22	172.3203
300.09	158.0511
312.17	145.5293
338.32	146.9264
351.93	146.6241
387.59	126.4992
409.46	131.6484
427.87	115.6679
463.00	80.0354
510.77	93.4791
583.19	85.2939
609.31	91.1429
661.66	84.9998
727.33	63.0453
763.13	73.3996
768.36	95.3015
785.37	57.5998
794.95	64.9359
806.17	63.2034
831.80	62.8422
860.56	48.9794
896.60	31.7029
911.20	51.0059
934.06	51.4418
964.77	52.0172
968.97	52.0957
1001.03	38.4171
1078.86	40.3737
1120.29	46.6234
1155.19	80.7974
1173.23	46.4258
1238.11	43.9457
1280.96	34.9331
1332.51	31.3847
1377.67	27.6669
1401.50	30.9338
1407.98	26.5597
1460.80	24.0781
1509.23	25.4277
1588.20	31.3093
1620.50	20.5114
1729.60	12.0366
1764.49	24.0618

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198324022

Total Uranium Activity	1.6559E-02	ug/g
Total Uranium Counting Unc.	6.6506E-02	ug/g
Total Uranium Tpu	6.6506E-08	ug/g
Total Uranium Mda	3.9099E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:41:42.20

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324023.CNF;2
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 1-DEC-2007 05:36:03.
Sample ID        : G198324023           Sample quantity  : 1.04620E+02 GRAM
Detector name    : GAM03                Detector geometry: CAN
Elapsed live time: 0 08:00:00.00        Elapsed real time: 0 08:00:03.07  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706246               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	47.28*	2	630	1.66	94.49	88	9	8.21E-05	*****	
2	0	63.49*	71	778	1.35	126.86	122	11	2.45E-03	91.6	
3	4	74.95	421	868	1.81	149.76	142	23	1.46E-02	14.9	1.68E+00
4	4	77.34*	463	701	1.48	154.53	142	23	1.61E-02	12.8	
5	4	81.03	45	461	1.32	161.90	142	23	1.55E-03	76.8	
6	3	87.42	153	724	1.38	174.66	170	22	5.31E-03	30.3	2.43E+00
7	3	89.99	131	681	1.33	179.80	170	22	4.53E-03	35.5	
8	3	92.79*	16	623	1.33	185.39	170	22	5.54E-04	427.5	
9	0	129.29	143	543	2.23	258.30	254	9	4.97E-03	30.6	
10	0	144.63*	38	643	1.19	288.96	283	10	1.33E-03	138.7	
11	0	185.81*	184	690	1.49	371.24	365	12	6.37E-03	34.3	
12	0	198.71	41	436	1.38	397.00	394	8	1.43E-03	89.8	
13	0	209.57	115	412	2.64	418.70	415	9	3.98E-03	33.4	
14	3	238.77*	980	444	1.52	477.04	472	19	3.40E-02	5.8	1.66E+00
15	3	241.72	266	478	2.13	482.94	472	19	9.22E-03	22.1	
16	0	271.01	84	439	1.88	541.45	535	12	2.90E-03	51.4	
17	0	295.50	315	368	1.85	590.40	584	12	1.09E-02	13.5	
18	0	300.19	117	256	1.61	599.77	596	9	4.07E-03	26.3	
19	0	338.60*	257	534	1.56	676.52	668	18	8.92E-03	23.9	
20	0	352.27*	454	444	1.94	703.84	695	16	1.58E-02	12.2	
21	0	361.66	21	186	1.41	722.61	719	8	7.12E-04	118.1	
22	0	463.82	60	227	2.09	926.79	918	13	2.08E-03	53.5	
23	0	583.87*	339	185	1.73	1166.76	1160	15	1.18E-02	11.4	
24	0	610.07*	384	211	2.01	1219.14	1212	18	1.33E-02	11.5	
25	6	635.87	14	41	1.29	1270.71	1269	13	4.81E-04	70.0	8.34E+00
26	6	639.09	46	99	2.75	1277.16	1269	13	1.60E-03	38.8	
27	0	662.24	84	266	1.96	1323.44	1314	19	2.93E-03	47.6	
28	0	678.94	27	107	2.23	1356.83	1349	10	9.20E-04	76.8	
29	0	727.87	121	104	2.84	1454.66	1447	14	4.18E-03	20.2	
30	0	757.05	16	75	1.56	1513.00	1507	9	5.54E-04	102.6	
31	0	778.70	42	62	2.64	1556.30	1552	9	1.45E-03	37.6	
32	0	800.25	20	36	0.61	1599.40	1598	6	6.81E-04	52.9	
33	0	807.72	62	182	6.54	1614.34	1603	25	2.16E-03	59.6	
34	0	843.52	66	205	5.90	1685.93	1672	23	2.30E-03	57.7	
35	0	862.18	65	98	2.91	1723.25	1716	15	2.24E-03	35.6	
36	0	872.04	32	97	4.89	1742.98	1734	15	1.12E-03	69.2	
37	0	912.35*	198	133	1.99	1823.60	1815	20	6.86E-03	17.4	
38	0	970.03*	170	188	2.39	1938.95	1926	25	5.89E-03	24.9	

Sample ID : G198324023 Acquisition date : 1-DEC-2007 05:36:03

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1121.39	90	104	4.31	2241.75	2232	19	3.12E-03	29.2	
40	0	1199.66	51	116	11.17	2398.35	2383	29	1.77E-03	62.3	
41	0	1434.85*	9	29	3.65	2869.05	2863	13	3.22E-04	146.9	
42	0	1443.09	10	25	1.00	2885.55	2880	10	3.47E-04	98.7	
43	0	1447.60	9	28	0.92	2894.57	2889	12	3.02E-04	124.8	
44	0	1462.64*	357	25	3.76	2924.67	2913	25	1.24E-02	7.2	
45	0	1619.81	16	40	6.91	3239.34	3222	23	5.47E-04	107.6	
46	3	1647.54	13	3	2.12	3294.85	3293	32	4.66E-04	27.1	1.77E+00
47	3	1651.85	37	19	3.21	3303.48	3293	32	1.27E-03	32.3	
48	2	1765.47	22	36	2.99	3531.00	3520	26	7.79E-04	74.2	2.78E+00
49	2	1767.50	74	44	3.62	3535.08	3520	26	2.58E-03	25.8	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324023       *
* Acquisition date :  1-DEC-2007 05:36:03 Detector SN#    :                 *
* Detector ID      : GAM03                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 08:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 08:00:03.07     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324023           Analyst initials: MJH1            *
* Batch Number     : 706246               Sample Quantity : 1.0462E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 28-MAR-2007 19:01:41 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.672E+00	4.071E-01	2.661E-01	0.000E+00
RH-101	9.272E-03	1.633E-02	2.275E-02	0.000E+00
CS-137	3.930E-02	3.674E-02	2.935E-02	0.000E+00
TL-208	1.423E-01	3.319E-02	2.599E-02	0.000E+00
BI-212	4.383E-01	1.768E-01	2.020E-01	0.000E+00
PB-212	4.059E-01	5.248E-02	4.090E-02	0.000E+00
PB-214	2.865E-01	7.106E-02	5.033E-02	0.000E+00
RA-223	1.194E-01	1.206E-01	1.333E-01	0.000E+00
AC-228	4.039E-01	1.449E-01	1.060E-01	0.000E+00
TH-234	4.265E-02	3.574E-01	3.117E-01	0.000E+00
U-235	4.765E-02	1.295E-01	1.388E-01	0.000E+00
NP-237	1.880E-01	1.129E-01	1.515E-01	0.000E+00
AM-243	1.160E-01	3.495E-02	3.230E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
CO-60	1.064E-02	1.772E-02	3.101E-02	0.000E+00	NOT IDENT.
SB-125	-2.148E-02	3.849E-02	6.388E-02	0.000E+00	NOT IDENT.
EU-155	2.700E-02	4.243E-02	7.296E-02	0.000E+00	NOT IDENT.
PO-209	2.309E+00	3.204E+00	5.573E+00	0.000E+00	NOT IDENT.
BI-211	-3.534E-01	5.253E-01	7.339E-01	0.000E+00	NOT IDENT.
BI-214	0.000E+00	7.225E-02	8.711E-02	0.000E+00	FAIL ABUN
PA-233	7.641E-03	2.754E-02	4.641E-02	0.000E+00	NOT IDENT.
PA-234M	1.934E+00	2.022E+00	3.532E+00	0.000E+00	NOT IDENT.
NP-236	4.083E-02	2.690E-02	4.226E-02	0.000E+00	NOT IDENT.
NP-239	-9.140E-03	9.080E-02	1.542E-01	0.000E+00	NOT IDENT.
AM-241	-1.612E-02	6.216E-02	9.441E-02	0.000E+00	NOT IDENT.
CM-243	-7.308E-03	3.930E-02	6.612E-02	0.000E+00	NOT IDENT.
AM-246	-2.359E-02	5.751E-02	9.452E-02	0.000E+00	NOT IDENT.
CF-249	-1.138E-02	1.762E-02	2.800E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:41:43.10

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324023.CNF;2
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 1-DEC-2007 05:36:03.
Sample ID        : G198324023           Sample quantity  : 1.04620E+02 GRAM
Detector name    : GAM03                Detector geometry: CAN
Elapsed live time: 0 08:00:00.00        Elapsed real time: 0 08:00:03.07  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706246               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	357	10.66*	1.125E+00	2.672E+00	2.672E+00	15.54
RH-101	198.00	41	73.00*	5.637E+00	8.970E-03	9.272E-03	179.67
CS-137	661.66	84	85.10*	2.273E+00	3.915E-02	3.930E-02	95.41
TL-208	277.36	------	6.31	4.504E+00	------	Line Not Found	------
	510.77	------	22.60	2.829E+00	------	Line Not Found	------
	583.19	339	84.50*	2.532E+00	1.423E-01	1.423E-01	23.80
	763.13	------	1.81	2.003E+00	------	Line Not Found	------
	860.56	65	12.42	1.792E+00	2.600E-01	2.600E-01	72.00
BI-212	727.33	121	11.80*	2.090E+00	4.383E-01	4.383E-01	41.17
	785.37	------	1.10	1.952E+00	------	Line Not Found	------
	1620.50	16	1.49	1.050E+00	9.027E-01	9.027E-01	215.37
PB-212	74.81	421	10.40	4.778E+00	7.608E-01	7.608E-01	30.74
	77.11	463	17.50	5.033E+00	4.715E-01	4.715E-01	26.83
	87.30	153	7.81	5.885E+00	2.985E-01	2.985E-01	61.27
	238.63	980	43.30*	5.003E+00	4.059E-01	4.059E-01	13.19
	300.09	117	3.28	4.254E+00	7.527E-01	7.527E-01	53.06
PB-214	74.81	421	6.44	4.778E+00	1.229E+00	1.229E+00	30.74
	77.11	463	10.80	5.033E+00	7.640E-01	7.640E-01	26.83
	87.30	153	4.84	5.885E+00	4.816E-01	4.816E-01	61.27
	242.00	266	7.43	4.961E+00	6.464E-01	6.465E-01	44.69
	295.22	315	19.30	4.303E+00	3.397E-01	3.398E-01	27.69
	351.93	454	37.60*	3.779E+00	2.864E-01	2.865E-01	25.31
RA-223	269.46	84	13.70*	4.580E+00	1.194E-01	1.194E-01	103.09
AC-228	129.07	143	2.42	6.755E+00	7.850E-01	7.850E-01	61.61
	209.25	115	3.89	5.453E+00	4.849E-01	4.849E-01	67.13
	270.25	84	3.46	4.580E+00	4.728E-01	4.728E-01	103.09
	338.32	257	11.27	3.893E+00	5.251E-01	5.251E-01	48.23
	409.46	------	1.92	3.370E+00	------	Line Not Found	------
	463.00	60	4.40	3.057E+00	3.994E-01	3.994E-01	107.20
	794.95	------	4.25	1.930E+00	------	Line Not Found	------
	911.20	198	25.80*	1.700E+00	4.039E-01	4.039E-01	36.61
	964.77	------	4.99	1.615E+00	------	Line Not Found	------

Sample ID : G198324023 Acquisition date : 1-DEC-2007 05:36:03

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	968.97	170	15.80	1.607E+00	5.995E-01	5.995E-01	50.89
	1588.20	------	3.22	1.063E+00	------	Line Not Found	------
TH-234	63.29	71	4.80	3.290E+00	4.014E-01	4.014E-01	183.33
	92.58	16	5.41*	6.201E+00	4.265E-02	4.265E-02	855.03
U-235	143.76	38	10.96*	6.580E+00	4.765E-02	4.765E-02	277.38
NP-237	86.48	153	12.40*	5.885E+00	1.880E-01	1.880E-01	61.27
AM-243	74.66	421	68.20*	4.778E+00	1.160E-01	1.160E-01	30.74

Flag: "*" = Keyline

Sample ID : G198324023 Acquisition date : 1-DEC-2007 05:36:03

Total number of lines in spectrum 49
Number of unidentified lines 20
Number of lines tentatively identified by NID 29 59.18%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	2.672E+00	2.672E+00	0.415E+00	15.54	
RH-101	1.04E+08S	1.03	8.970E-03	9.272E-03	16.66E-03	179.67	
CS-137	9.47E+08S	1.00	3.915E-02	3.930E-02	3.749E-02	95.41	
TL-208	4.43E+17S	1.00	1.423E-01	1.423E-01	0.339E-01	23.80	
BI-212	4.43E+17S	1.00	4.383E-01	4.383E-01	1.804E-01	41.17	
PB-212	4.43E+17S	1.00	4.059E-01	4.059E-01	0.536E-01	13.19	
PB-214	5.05E+10S	1.00	2.864E-01	2.865E-01	0.725E-01	25.31	
RA-223	1.04E+12S	1.00	1.194E-01	1.194E-01	1.231E-01	103.09	
AC-228	4.43E+17S	1.00	4.039E-01	4.039E-01	1.479E-01	36.61	
TH-234	1.41E+17S	1.00	4.265E-02	4.265E-02	36.47E-02	855.03	
U-235	2.22E+16S	1.00	4.765E-02	4.765E-02	13.22E-02	277.38	
NP-237	6.75E+13S	1.00	1.880E-01	1.880E-01	1.152E-01	61.27	
AM-243	2.33E+11S	1.00	1.160E-01	1.160E-01	0.357E-01	30.74	
			---	---			
	Total Activity :		4.911E+00	4.911E+00			
	Grand Total Activity :		4.911E+00	4.911E+00			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G198324023 Acquisition date : 1-DEC-2007 05:36:03

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	47.28	2	630	1.66	94.49	88	9	8.21E-05	****	1.00E+00	
4	81.03	45	461	1.32	161.90	142	23	1.55E-03	****	5.39E+00	
3	89.99	131	681	1.33	179.80	170	22	4.53E-03	71.0	6.05E+00	
0	185.81	184	690	1.49	371.24	365	12	6.37E-03	68.7	5.86E+00	
0	361.66	21	186	1.41	722.61	719	8	7.12E-04	****	3.71E+00	
0	610.07	384	211	2.01	1219.14	1212	18	1.33E-02	23.1	2.44E+00	T
6	635.87	14	41	1.29	1270.71	1269	13	4.81E-04	****	2.35E+00	
6	639.09	46	99	2.75	1277.16	1269	13	1.60E-03	77.5	2.34E+00	
0	678.94	27	107	2.23	1356.83	1349	10	9.20E-04	****	2.22E+00	
0	757.05	16	75	1.56	1513.00	1507	9	5.54E-04	****	2.02E+00	
0	778.70	42	62	2.64	1556.30	1552	9	1.45E-03	75.2	1.97E+00	
0	800.25	20	36	0.61	1599.40	1598	6	6.81E-04	****	1.92E+00	
0	807.72	62	182	6.54	1614.34	1603	25	2.16E-03	****	1.90E+00	T
0	843.52	66	205	5.90	1685.93	1672	23	2.30E-03	****	1.83E+00	
0	872.04	32	97	4.89	1742.98	1734	15	1.12E-03	****	1.77E+00	
0	1121.39	90	104	4.31	2241.75	2232	19	3.12E-03	58.4	1.41E+00	T
0	1199.66	51	116	11.17	2398.35	2383	29	1.77E-03	****	1.32E+00	
0	1434.85	9	29	3.65	2869.05	2863	13	3.22E-04	****	1.14E+00	
0	1443.09	10	25	1.00	2885.55	2880	10	3.47E-04	****	1.14E+00	
0	1447.60	9	28	0.92	2894.57	2889	12	3.02E-04	****	1.13E+00	
3	1647.54	13	3	2.12	3294.85	3293	32	4.66E-04	54.2	1.04E+00	
3	1651.85	37	19	3.21	3303.48	3293	32	1.27E-03	64.6	1.04E+00	
2	1765.47	22	36	2.99	3531.00	3520	26	7.79E-04	****	1.00E+00	T
2	1767.50	74	44	3.62	3535.08	3520	26	2.58E-03	51.5	1.00E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G198324023            *
* Acquisition date :  1-DEC-2007 05:36:03 Detector SN#    :                 *
* Detector ID      : GAM03                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 08:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 08:00:03.07     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324023           Analyst initials: MJH1            *
* Batch Number     : 706246               Sample Quantity : 1.0462E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 28-MAR-2007 19:01:41 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	2.672E+00	4.071E-01	1.331E-01	4.071E-01
RH-101	9.272E-03	1.633E-02	1.138E-02	1.633E-02
CS-137	3.930E-02	3.674E-02	1.469E-02	3.674E-02
TL-208	1.423E-01	3.319E-02	1.300E-02	3.319E-02
BI-212	4.383E-01	1.768E-01	1.011E-01	1.768E-01
PB-212	4.059E-01	5.248E-02	2.046E-02	5.248E-02
PB-214	2.865E-01	7.106E-02	2.518E-02	7.106E-02
RA-223	1.194E-01	1.206E-01	6.667E-02	1.206E-01
AC-228	4.039E-01	1.449E-01	5.305E-02	1.449E-01
TH-234	4.265E-02	3.574E-01	1.560E-01	3.574E-01
U-235	4.765E-02	1.295E-01	6.946E-02	1.295E-01
NP-237	1.880E-01	1.129E-01	7.579E-02	1.129E-01
AM-243	1.160E-01	3.495E-02	1.616E-02	3.495E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	1.064E-02	1.772E-02	1.551E-02	1.772E-02	NOT IDENT.
SB-125	-2.148E-02	3.849E-02	3.196E-02	3.849E-02	NOT IDENT.
EU-155	2.700E-02	4.243E-02	3.650E-02	4.243E-02	NOT IDENT.
PO-209	2.309E+00	3.204E+00	2.788E+00	3.204E+00	NOT IDENT.
BI-211	-3.534E-01	5.253E-01	3.672E-01	5.253E-01	NOT IDENT.
BI-214	3.064E-01	7.225E-02	4.358E-02	7.225E-02	FAIL ABUN
PA-233	7.641E-03	2.754E-02	2.322E-02	2.754E-02	NOT IDENT.
PA-234M	1.934E+00	2.022E+00	1.767E+00	2.022E+00	NOT IDENT.
NP-236	4.083E-02	2.690E-02	2.114E-02	2.690E-02	NOT IDENT.
NP-239	-9.140E-03	9.080E-02	7.714E-02	9.080E-02	NOT IDENT.
AM-241	-1.612E-02	6.216E-02	4.723E-02	6.216E-02	NOT IDENT.
CM-243	-7.308E-03	3.930E-02	3.308E-02	3.930E-02	NOT IDENT.
AM-246	-2.359E-02	5.751E-02	4.729E-02	5.751E-02	NOT IDENT.
CF-249	-1.138E-02	1.762E-02	1.401E-02	1.762E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
59.54	493.3097
63.29	531.2935
74.66	619.5151
74.81	619.7419
74.81	619.7419
77.11	623.2075
77.11	623.2075
86.48	678.7554
87.30	612.1782
87.30	612.1782
92.58	619.1911
98.44	497.4844
103.76	582.0235
105.31	533.2305
129.07	557.4938
143.76	573.9977
198.00	471.5372
209.25	491.1977
228.18	425.3275
238.63	450.2385
242.00	451.8484
269.46	404.3995
270.25	379.0453
277.36	339.3280
295.22	340.1805
300.09	334.9105
312.17	301.5653
338.32	313.5084
351.93	294.6929
387.59	272.2992
409.46	258.1649
427.87	226.9152
463.00	201.4966
510.77	223.3619
583.19	179.1510
609.31	188.7238
661.66	185.4449
727.33	144.0512
763.13	179.9836
768.36	134.1699
785.37	127.6222
794.95	133.9683
806.17	114.1400
831.80	140.7552
860.56	107.9191
896.60	97.8035
911.20	125.9574
934.06	86.8869
964.77	59.6776
968.97	103.4895
1001.03	96.2660
1078.86	95.8087
1120.29	92.3022
1155.19	77.9002
1173.23	82.1881
1238.11	94.5879
1280.96	71.7935
1332.51	68.7574
1377.67	54.2292
1401.50	73.0931
1407.98	82.4951
1460.80	59.5588
1509.23	61.3188
1588.20	67.0093
1620.50	57.2811
1729.60	43.4545
1764.49	45.7654

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198324023

Total Uranium Activity	2.2048E-02	ug/g
Total Uranium Counting Unc.	5.9933E-02	ug/g
Total Uranium Tpu	5.9933E-08	ug/g
Total Uranium Mda	3.2139E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:42:16.62

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324024.CNF;1
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 1-DEC-2007 05:36:43.
Sample ID        : G198324024           Sample quantity  : 1.10340E+02 GRAM
Detector name    : GAM06                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.26  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706246               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	62.87*	35	220	0.98	125.78	123	6	2.42E-03	78.5	
2	0	70.90	29	261	1.02	141.82	140	6	1.99E-03	90.4	
3	3	74.35	168	310	1.19	148.72	145	13	1.17E-02	18.7	1.43E+00
4	3	76.77*	202	247	0.92	153.56	145	13	1.40E-02	15.1	
5	0	87.68	80	528	2.89	175.36	170	11	5.53E-03	57.0	
6	0	92.61*	118	392	1.42	185.21	181	10	8.20E-03	36.9	
7	0	104.66	88	222	1.88	209.27	206	8	6.13E-03	31.1	
8	4	130.76	37	59	0.70	261.43	260	11	2.56E-03	28.1	2.93E+00
9	4	131.98	87	204	1.57	263.86	260	11	6.03E-03	29.7	
10	0	143.41*	28	180	0.86	286.71	284	6	1.96E-03	94.6	
11	0	185.27*	143	313	1.10	370.34	365	10	9.92E-03	26.3	
12	0	208.92	64	225	1.06	417.61	414	8	4.47E-03	42.3	
13	0	220.77	45	225	1.15	441.29	437	9	3.10E-03	62.5	
14	3	238.31*	529	164	1.23	476.33	471	17	3.67E-02	6.4	1.73E+00
15	3	240.81	97	175	1.31	481.34	471	17	6.73E-03	31.6	
16	3	241.95	67	193	1.43	483.61	471	17	4.65E-03	42.4	
17	0	270.04	50	207	0.90	539.73	534	10	3.45E-03	56.1	
18	0	276.78	19	110	0.85	553.21	550	6	1.32E-03	90.3	
19	0	294.77*	141	225	1.19	589.16	583	12	9.77E-03	24.3	
20	0	313.60	48	130	1.40	626.79	623	10	3.36E-03	46.0	
21	0	338.11*	93	140	1.25	675.78	671	10	6.49E-03	28.9	
22	0	351.74*	258	195	1.21	703.00	697	12	1.79E-02	13.5	
23	0	388.36	40	69	1.41	776.19	773	7	2.78E-03	38.6	
24	0	428.51	23	96	1.99	856.42	853	9	1.62E-03	78.7	
25	0	462.38	93	100	2.50	924.13	916	16	6.47E-03	26.1	
26	0	510.51*	21	164	1.91	1020.32	1013	16	1.48E-03	174.0	
27	0	583.10*	179	80	1.28	1165.41	1158	12	1.24E-02	13.6	
28	0	609.20*	236	72	1.64	1217.57	1212	15	1.64E-02	11.0	
29	0	670.13*	5	34	2.55	1339.37	1335	9	3.29E-04	280.2	
30	0	729.40	27	74	3.02	1457.83	1447	13	1.84E-03	69.9	
31	0	769.56	24	90	1.42	1538.13	1531	15	1.67E-03	88.5	
32	0	798.46	34	70	5.63	1595.90	1580	20	2.35E-03	64.7	
33	0	803.40*	21	20	4.12	1605.78	1600	13	1.46E-03	59.9	
34	0	910.96*	114	47	1.67	1820.82	1814	13	7.92E-03	16.1	
35	0	934.55	26	43	0.83	1867.98	1860	15	1.81E-03	59.1	
36	1	964.39	33	29	1.98	1927.64	1920	29	2.27E-03	37.9	9.39E-01
37	1	968.76*	76	26	1.99	1936.36	1920	29	5.26E-03	19.9	
38	0	1077.56	49	43	10.77	2153.91	2141	28	3.42E-03	39.9	

Sample ID : G198324024 Acquisition date : 1-DEC-2007 05:36:43

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1119.61	61	24	2.00	2237.99	2231	12	4.21E-03	20.7	
40	0	1225.28	27	24	5.28	2449.29	2441	14	1.85E-03	43.9	
41	0	1322.69	25	9	3.02	2644.09	2637	12	1.74E-03	31.2	
42	0	1357.65	7	18	3.14	2714.02	2706	11	4.97E-04	123.3	
43	0	1377.42	20	22	0.55	2753.55	2745	15	1.39E-03	56.3	
44	0	1460.38*	241	16	2.27	2919.47	2911	16	1.67E-02	8.0	
45	0	1592.97*	3	7	1.36	3184.69	3180	8	1.79E-04	330.8	
46	0	1600.99	13	8	0.60	3200.74	3194	15	9.13E-04	53.3	
47	0	1764.49*	32	0	2.10	3527.79	3520	14	2.24E-03	25.1	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324024       *
* Acquisition date :  1-DEC-2007 05:36:43 Detector SN#    :                 *
* Detector ID      : GAM06                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:01.26     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324024           Analyst initials: MJH1            *
* Batch Number     : 706246               Sample Quantity : 1.1034E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 20-FEB-2007 10:58:43 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	4.005E+00	6.799E-01	3.071E-01	0.000E+00
SB-125	4.899E-02	7.567E-02	9.972E-02	0.000E+00
EU-155	1.220E-01	7.486E-02	9.571E-02	0.000E+00
TL-208	1.639E-01	4.495E-02	3.261E-02	0.000E+00
PB-212	4.727E-01	6.597E-02	5.638E-02	0.000E+00
BI-214	4.112E-01	9.237E-02	6.274E-02	0.000E+00
PB-214	3.553E-01	9.661E-02	6.640E-02	0.000E+00
RA-223	1.535E-01	1.691E-01	1.802E-01	0.000E+00
AC-228	5.090E-01	1.685E-01	1.350E-01	0.000E+00
PA-233	5.943E-02	5.374E-02	6.708E-02	0.000E+00
TH-234	6.730E-01	4.899E-01	4.022E-01	0.000E+00
U-235	7.415E-02	1.376E-01	1.839E-01	0.000E+00
NP-237	2.082E-01	2.334E-01	2.255E-01	0.000E+00
AM-243	1.019E-01	3.820E-02	4.340E-02	0.000E+00
CM-243	1.104E-01	6.776E-02	9.154E-02	0.000E+00
AM-246	2.391E-01	1.878E-01	1.306E-01	0.000E+00
CF-249	3.380E-02	2.562E-02	3.671E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
CO-60	3.957E-04	2.274E-02	3.847E-02	0.000E+00	NOT IDENT.
RH-101	2.138E-02	1.943E-02	3.543E-02	0.000E+00	NOT IDENT.
CS-137	4.852E-03	2.328E-02	4.010E-02	0.000E+00	NOT IDENT.
PO-209	3.872E+00	4.450E+00	7.997E+00	0.000E+00	NOT IDENT.
BI-211	-3.906E-01	6.321E-01	9.817E-01	0.000E+00	NOT IDENT.
BI-212	2.364E-01	1.911E-01	3.501E-01	0.000E+00	NOT IDENT.
PA-234M	3.571E+00	3.271E+00	5.248E+00	0.000E+00	NOT IDENT.
NP-236	-1.005E-02	3.258E-02	5.447E-02	0.000E+00	NOT IDENT.
NP-239	-3.577E-02	1.363E-01	2.335E-01	0.000E+00	NOT IDENT.
AM-241	7.111E-02	8.974E-02	1.466E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:42:17.60

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324024.CNF;1
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 1-DEC-2007 05:36:43.
Sample ID        : G198324024           Sample quantity  : 1.10340E+02 GRAM
Detector name    : GAM06                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.26  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706246               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	241	10.66*	9.604E-01	4.005E+00	4.005E+00	17.32
SB-125	427.87	23	29.80*	2.825E+00	4.708E-02	4.899E-02	157.61
EU-155	105.31	88	21.20*	5.934E+00	1.194E-01	1.220E-01	62.61
TL-208	277.36	19	6.31	3.943E+00	1.297E-01	1.297E-01	180.70
	510.77	21	22.60	2.457E+00	6.541E-02	6.541E-02	348.03
	583.19	179	84.50*	2.202E+00	1.639E-01	1.639E-01	27.99
	763.13	------	1.81	1.741E+00	------	Line Not Found	------
	860.56	------	12.42	1.559E+00	------	Line Not Found	------
PB-212	74.81	168	10.40	4.113E+00	6.685E-01	6.685E-01	38.23
	77.11	202	17.50	4.362E+00	4.490E-01	4.490E-01	31.32
	87.30	80	7.81	5.243E+00	3.305E-01	3.305E-01	114.43
	238.63	529	43.30*	4.397E+00	4.727E-01	4.727E-01	14.24
	300.09	------	3.28	3.712E+00	------	Line Not Found	------
BI-214	609.31	236	46.10*	2.122E+00	4.112E-01	4.112E-01	22.92
	768.36	24	4.94	1.727E+00	4.784E-01	4.784E-01	177.26
	806.17	------	1.22	1.656E+00	------	Line Not Found	------
	934.06	26	3.03	1.443E+00	1.016E+00	1.016E+00	118.56
	1120.29	61	15.10	1.216E+00	5.619E-01	5.619E-01	41.97
	1155.19	------	1.63	1.181E+00	------	Line Not Found	------
	1238.11	------	5.79	1.108E+00	------	Line Not Found	------
	1280.96	------	1.43	1.075E+00	------	Line Not Found	------
	1377.67	20	4.00	1.008E+00	8.415E-01	8.415E-01	112.87
	1401.50	------	1.27	9.936E-01	------	Line Not Found	------
	1407.98	------	2.15	9.898E-01	------	Line Not Found	------
	1509.23	------	2.11	9.357E-01	------	Line Not Found	------
	1729.60	------	2.92	8.509E-01	------	Line Not Found	------
	1764.49	32	15.40	8.410E-01	4.239E-01	4.239E-01	50.58
PB-214	74.81	168	6.44	4.113E+00	1.080E+00	1.080E+00	38.23
	77.11	202	10.80	4.362E+00	7.276E-01	7.277E-01	31.32
	87.30	80	4.84	5.243E+00	5.333E-01	5.333E-01	114.43
	242.00	67	7.43	4.350E+00	3.522E-01	3.522E-01	85.12
	295.22	141	19.30	3.762E+00	3.297E-01	3.297E-01	49.07

Sample ID : G198324024 Acquisition date : 1-DEC-2007 05:36:43

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	351.93	258	37.60*	3.291E+00	3.553E-01	3.553E-01	27.75
RA-223	269.46	50	13.70*	4.015E+00	1.535E-01	1.535E-01	112.40
AC-228	129.07	37	2.42	6.038E+00	4.286E-01	4.286E-01	56.51
	209.25	64	3.89	4.818E+00	5.837E-01	5.837E-01	84.87
	270.25	50	3.46	4.015E+00	6.078E-01	6.078E-01	112.40
	338.32	93	11.27	3.392E+00	4.156E-01	4.156E-01	58.19
	409.46	------	1.92	2.927E+00	------	Line Not Found	------
	463.00	93	4.40	2.661E+00	1.354E+00	1.354E+00	52.64
	794.95	------	4.25	1.677E+00	------	Line Not Found	------
	911.20	114	25.80*	1.478E+00	5.090E-01	5.090E-01	33.77
	964.77	33	4.99	1.401E+00	7.944E-01	7.944E-01	76.40
	968.97	76	15.80	1.395E+00	5.845E-01	5.845E-01	40.98
	1588.20	------	3.22	9.005E-01	------	Line Not Found	------
PA-233	312.17	48	38.60*	3.591E+00	5.943E-02	5.943E-02	92.27
TH-234	63.29	35	4.80	2.709E+00	4.554E-01	4.554E-01	157.24
	92.58	118	5.41*	5.520E+00	6.730E-01	6.730E-01	74.28
U-235	143.76	28	10.96*	5.895E+00	7.415E-02	7.415E-02	189.34
NP-237	86.48	80	12.40*	5.243E+00	2.082E-01	2.082E-01	114.43
AM-243	74.66	168	68.20*	4.113E+00	1.019E-01	1.019E-01	38.23
CM-243	103.76	88	23.00*	5.934E+00	1.100E-01	1.104E-01	62.61
AM-246	1078.86	49	27.80*	1.261E+00	2.391E-01	2.391E-01	80.14
CF-249	387.59	40	66.00*	3.050E+00	3.379E-02	3.380E-02	77.34

Flag: "*" = Keyline

Sample ID : G198324024 Acquisition date : 1-DEC-2007 05:36:43

Total number of lines in spectrum	47	
Number of unidentified lines	14	
Number of lines tentatively identified by NID	33	70.21%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	4.005E+00	4.005E+00	0.694E+00	17.32	
SB-125	8.62E+07S	1.04	4.708E-02	4.899E-02	7.721E-02	157.61	
EU-155	1.57E+08S	1.02	1.194E-01	1.220E-01	0.764E-01	62.61	
TL-208	4.43E+17S	1.00	1.639E-01	1.639E-01	0.459E-01	27.99	
PB-212	4.43E+17S	1.00	4.727E-01	4.727E-01	0.673E-01	14.24	
BI-214	5.05E+10S	1.00	4.112E-01	4.112E-01	0.943E-01	22.92	
PB-214	5.05E+10S	1.00	3.553E-01	3.553E-01	0.986E-01	27.75	
RA-223	1.04E+12S	1.00	1.535E-01	1.535E-01	1.725E-01	112.40	
AC-228	4.43E+17S	1.00	5.090E-01	5.090E-01	1.719E-01	33.77	
PA-233	6.75E+13S	1.00	5.943E-02	5.943E-02	5.484E-02	92.27	
TH-234	1.41E+17S	1.00	6.730E-01	6.730E-01	4.999E-01	74.28	
U-235	2.22E+16S	1.00	7.415E-02	7.415E-02	14.04E-02	189.34	
NP-237	6.75E+13S	1.00	2.082E-01	2.082E-01	2.382E-01	114.43	
AM-243	2.33E+11S	1.00	1.019E-01	1.019E-01	0.390E-01	38.23	
CM-243	8.99E+08S	1.00	1.100E-01	1.104E-01	0.691E-01	62.61	
AM-246	2.18E+11S	1.00	2.391E-01	2.391E-01	1.917E-01	80.14	
CF-249	1.11E+10S	1.00	3.379E-02	3.380E-02	2.614E-02	77.34	
		Total Activity :	7.737E+00	7.742E+00			

Grand Total Activity : 7.737E+00 7.742E+00

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G198324024 Acquisition date : 1-DEC-2007 05:36:43

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	70.90	29	261	1.02	141.82	140	6	1.99E-03	****	3.73E+00	
4	131.98	87	204	1.57	263.86	260	11	6.03E-03	59.3	6.03E+00	
0	185.27	143	313	1.10	370.34	365	10	9.92E-03	52.7	5.20E+00	
0	220.77	45	225	1.15	441.29	437	9	3.10E-03	****	4.64E+00	
3	240.81	97	175	1.31	481.34	471	17	6.73E-03	63.1	4.36E+00	
0	670.13	5	34	2.55	1339.37	1335	9	3.29E-04	****	1.95E+00	
0	729.40	27	74	3.02	1457.83	1447	13	1.84E-03	****	1.81E+00	
0	798.46	34	70	5.63	1595.90	1580	20	2.35E-03	****	1.67E+00	
0	803.40	21	20	4.12	1605.78	1600	13	1.46E-03	****	1.66E+00	
0	1225.28	27	24	5.28	2449.29	2441	14	1.85E-03	87.9	1.12E+00	
0	1322.69	25	9	3.02	2644.09	2637	12	1.74E-03	62.5	1.04E+00	
0	1357.65	7	18	3.14	2714.02	2706	11	4.97E-04	****	1.02E+00	
0	1592.97	3	7	1.36	3184.69	3180	8	1.79E-04	****	8.99E-01	
0	1600.99	13	8	0.60	3200.74	3194	15	9.13E-04	****	8.95E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G198324024            *
* Acquisition date :  1-DEC-2007 05:36:43 Detector SN#    :                 *
* Detector ID      : GAM06                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:01.26     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324024           Analyst initials: MJH1            *
* Batch Number     : 706246               Sample Quantity : 1.1034E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 20-FEB-2007 10:58:43 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	4.005E+00	6.799E-01	1.536E-01	6.799E-01
SB-125	4.899E-02	7.567E-02	4.989E-02	7.567E-02
EU-155	1.220E-01	7.486E-02	4.788E-02	7.486E-02
TL-208	1.639E-01	4.495E-02	1.632E-02	4.495E-02
PB-212	4.727E-01	6.597E-02	2.821E-02	6.597E-02
BI-214	4.112E-01	9.237E-02	3.139E-02	9.237E-02
PB-214	3.553E-01	9.661E-02	3.322E-02	9.661E-02
RA-223	1.535E-01	1.691E-01	9.014E-02	1.691E-01
AC-228	5.090E-01	1.685E-01	6.752E-02	1.685E-01
PA-233	5.943E-02	5.374E-02	3.356E-02	5.374E-02
TH-234	6.730E-01	4.899E-01	2.012E-01	4.899E-01
U-235	7.415E-02	1.376E-01	9.201E-02	1.376E-01
NP-237	2.082E-01	2.334E-01	1.128E-01	2.334E-01
AM-243	1.019E-01	3.820E-02	2.171E-02	3.820E-02
CM-243	1.104E-01	6.776E-02	4.580E-02	6.776E-02
AM-246	2.391E-01	1.878E-01	6.534E-02	1.878E-01
CF-249	3.380E-02	2.562E-02	1.837E-02	2.562E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	3.957E-04	2.274E-02	1.925E-02	2.274E-02	NOT IDENT.
RH-101	2.138E-02	1.943E-02	1.773E-02	1.943E-02	NOT IDENT.
CS-137	4.852E-03	2.328E-02	2.006E-02	2.328E-02	NOT IDENT.
PO-209	3.872E+00	4.450E+00	4.001E+00	4.450E+00	NOT IDENT.
BI-211	-3.906E-01	6.321E-01	4.911E-01	6.321E-01	NOT IDENT.
BI-212	2.364E-01	1.911E-01	1.752E-01	1.911E-01	NOT IDENT.
PA-234M	3.571E+00	3.271E+00	2.626E+00	3.271E+00	NOT IDENT.
NP-236	-1.005E-02	3.258E-02	2.725E-02	3.258E-02	NOT IDENT.
NP-239	-3.577E-02	1.363E-01	1.168E-01	1.363E-01	NOT IDENT.
AM-241	7.111E-02	8.974E-02	7.332E-02	8.974E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
59.54	184.0575
63.29	251.9946
74.66	232.8378
74.81	232.9164
74.81	232.9164
77.11	234.1079
77.11	234.1079
86.48	323.3243
87.30	323.8615
87.30	323.8615
92.58	223.6808
98.44	233.7764
103.76	239.1261
105.31	216.7324
129.07	223.8198
143.76	220.0437
198.00	200.4519
209.25	211.3155
228.18	214.3274
238.63	180.9557
242.00	181.5599
269.46	155.2716
270.25	152.1830
277.36	156.1873
295.22	150.1562
300.09	160.8242
312.17	137.4441
338.32	132.5353
351.93	106.7181
387.59	86.7532
409.46	112.1495
427.87	103.5287
463.00	79.1375
510.77	83.5819
583.19	58.6653
609.31	60.0500
661.66	67.3101
727.33	60.3611
763.13	60.2534
768.36	51.3237
785.37	51.7849
794.95	45.7657
806.17	51.0730
831.80	55.7007
860.56	31.2773
896.60	34.8554
911.20	42.4668
934.06	33.1729
964.77	35.6821
968.97	35.7320
1001.03	29.5444
1078.86	33.6401
1120.29	29.1935
1155.19	30.5846
1173.23	30.7435
1238.11	25.4329
1280.96	33.6417
1332.51	29.0802
1377.67	20.8644
1401.50	27.5460
1407.98	23.5026
1460.80	15.9666
1509.23	17.7927
1588.20	12.7842
1620.50	15.0208
1729.60	20.7017
1764.49	3.3169

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198324024

Total Uranium Activity	3.4309E-02	ug/g
Total Uranium Counting Unc.	6.3661E-02	ug/g
Total Uranium Tpu	6.3661E-08	ug/g
Total Uranium Mda	4.2571E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:42:53.00

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324025.CNF;1
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 1-DEC-2007 05:37:58.
Sample ID        : G198324025           Sample quantity  : 1.03020E+02 GRAM
Detector name    : GAM11                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.48  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706246               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.16*	64	336	0.97	91.78	87	11	4.42E-03	60.8	
2	0	63.65*	23	309	0.76	126.79	122	9	1.57E-03	156.9	
3	0	66.90	48	207	1.66	133.30	131	6	3.35E-03	49.1	
4	2	74.88*	172	240	0.83	149.28	145	12	1.20E-02	16.5	1.34E+00
5	2	77.16	289	207	0.75	153.83	145	12	2.01E-02	9.6	
6	1	84.32*	35	262	0.95	168.17	165	13	2.46E-03	81.2	6.19E-01
7	1	87.32*	97	252	0.95	174.17	165	13	6.72E-03	29.7	
8	0	92.70*	132	256	1.32	184.94	182	8	9.18E-03	27.4	
9	0	105.34	88	208	2.32	210.24	207	8	6.10E-03	30.3	
10	0	114.92	49	207	2.30	229.42	226	8	3.41E-03	52.8	
11	0	143.80*	36	213	1.07	287.22	284	8	2.48E-03	78.5	
12	0	163.51	39	134	0.64	326.68	324	6	2.70E-03	49.7	
13	0	185.91*	77	305	1.04	371.52	367	10	5.36E-03	48.7	
14	0	209.44	60	210	0.98	418.61	414	9	4.19E-03	45.2	
15	3	235.90	41	183	1.42	471.58	466	22	2.85E-03	60.0	2.64E+00
16	3	238.67*	577	117	0.97	477.13	466	22	4.01E-02	5.6	
17	3	241.12	82	150	1.40	482.03	466	22	5.68E-03	34.2	
18	0	269.97	71	135	2.00	539.78	536	8	4.94E-03	30.6	
19	0	277.97	38	150	1.53	555.80	550	9	2.63E-03	60.9	
20	0	295.37*	157	133	1.06	590.61	588	8	1.09E-02	16.2	
21	0	299.82	16	168	1.08	599.53	597	9	1.11E-03	148.0	
22	0	327.91	32	77	0.99	655.75	652	7	2.19E-03	49.4	
23	0	338.53*	118	142	1.16	677.01	673	11	8.20E-03	23.3	
24	0	351.90*	253	122	1.28	703.78	699	11	1.76E-02	11.7	
25	0	360.68	24	88	1.09	721.34	717	8	1.70E-03	69.9	
26	0	369.44	22	54	1.27	738.87	736	6	1.50E-03	58.2	
27	0	409.20	30	86	0.98	818.46	814	9	2.09E-03	58.4	
28	0	464.53	59	111	4.59	929.20	923	14	4.07E-03	41.4	
29	0	511.05*	70	190	2.03	1022.31	1015	18	4.87E-03	58.5	
30	0	558.57	24	34	1.47	1117.41	1114	7	1.66E-03	46.3	
31	0	583.40*	155	62	1.09	1167.10	1163	10	1.08E-02	13.6	
32	0	609.43*	205	91	1.16	1219.20	1212	12	1.42E-02	12.6	
33	0	661.84	239	76	1.30	1324.10	1319	11	1.66E-02	9.6	
34	0	699.46	15	37	2.11	1399.39	1396	7	1.01E-03	74.1	
35	0	726.99	62	51	2.34	1454.47	1449	13	4.31E-03	26.6	
36	0	768.65*	62	108	6.49	1537.85	1522	27	4.31E-03	49.7	
37	7	795.27	40	32	1.92	1591.13	1587	15	2.78E-03	29.0	1.51E+00
38	7	799.20	14	19	1.97	1598.99	1587	15	9.86E-04	57.5	

Sample ID : G198324025 Acquisition date : 1-DEC-2007 05:37:58

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	807.07	21	24	1.32	1614.74	1611	9	1.43E-03	48.7	
40	0	911.32*	101	30	1.41	1823.37	1819	11	7.03E-03	15.6	
41	0	941.21	14	22	1.56	1883.17	1877	9	9.49E-04	68.1	
42	0	969.50	59	42	1.01	1939.78	1935	10	4.12E-03	23.9	
43	0	1085.33	9	22	1.65	2171.57	2166	9	6.36E-04	98.6	
44	0	1098.91	10	33	4.28	2198.74	2189	14	6.61E-04	135.3	
45	0	1121.17	64	32	1.49	2243.29	2236	13	4.44E-03	22.2	
46	0	1155.49	11	25	3.61	2311.95	2304	11	7.93E-04	89.4	
47	3	1193.97	24	18	2.27	2388.97	2385	16	1.69E-03	31.5	1.76E+00
48	3	1198.18	13	13	1.98	2397.37	2385	16	9.32E-04	54.8	
49	0	1258.16	5	18	1.74	2517.40	2511	9	3.47E-04	159.4	
50	0	1268.47	18	19	2.60	2538.03	2530	14	1.27E-03	57.5	
51	0	1273.90	13	4	1.36	2548.88	2545	7	8.68E-04	37.6	
52	0	1385.17	18	6	4.71	2771.51	2765	12	1.28E-03	35.3	
53	0	1402.32	5	8	0.62	2805.84	2802	7	3.29E-04	112.5	
54	0	1409.61	26	3	3.61	2820.43	2816	11	1.79E-03	23.5	
55	0	1428.18	12	8	1.38	2857.59	2851	10	7.99E-04	53.4	
56	0	1451.36	18	3	1.30	2903.95	2898	10	1.27E-03	28.6	
57	0	1461.19*	248	11	1.49	2923.63	2917	15	1.72E-02	7.6	
58	0	1494.83	6	10	0.62	2990.93	2983	10	4.34E-04	102.4	
59	0	1539.17	11	11	1.00	3079.64	3073	11	7.64E-04	65.7	
60	0	1616.68	6	12	0.82	3234.71	3226	11	3.94E-04	131.8	
61	0	1693.55	13	4	1.04	3388.50	3383	13	9.29E-04	39.2	
62	0	1755.29	10	0	1.00	3512.00	3509	7	6.94E-04	31.6	
63	0	1765.47*	25	12	1.03	3532.38	3525	16	1.70E-03	46.3	
64	0	1791.84	12	3	1.34	3585.14	3579	11	7.99E-04	40.4	
65	0	1882.93	7	1	1.32	3767.35	3764	6	4.56E-04	48.8	
66	0	1957.41	14	3	2.32	3916.35	3910	12	9.72E-04	36.4	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324025       *
* Acquisition date :  1-DEC-2007 05:37:58 Detector SN#    :                 *
* Detector ID      : GAM11                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:01.48     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324025           Analyst initials: MJH1            *
* Batch Number     : 706246               Sample Quantity : 1.0302E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  2-OCT-2007 15:05:44 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.346E+00	5.471E-01	3.058E-01	0.000E+00
CS-137	2.025E-01	4.106E-02	3.130E-02	0.000E+00
EU-155	1.002E-01	5.982E-02	6.725E-02	0.000E+00
TL-208	1.186E-01	3.269E-02	2.578E-02	0.000E+00
BI-212	4.104E-01	2.162E-01	2.122E-01	0.000E+00
PB-212	4.340E-01	5.363E-02	3.841E-02	0.000E+00
BI-214	2.974E-01	7.647E-02	5.559E-02	0.000E+00
PB-214	2.902E-01	6.837E-02	5.280E-02	0.000E+00
RA-223	1.843E-01	1.111E-01	1.416E-01	0.000E+00
AC-228	3.752E-01	1.195E-01	1.112E-01	0.000E+00
TH-234	6.042E-01	3.270E-01	3.365E-01	0.000E+00
U-235	8.010E-02	1.233E-01	1.313E-01	0.000E+00
NP-237	2.000E-01	1.174E-01	1.604E-01	0.000E+00
AM-243	7.543E-02	2.481E-02	3.054E-02	0.000E+00
CM-243	9.068E-02	5.415E-02	5.597E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
CO-60	1.107E-03	1.833E-02	3.065E-02	0.000E+00	NOT IDENT.
RH-101	-9.958E-03	1.571E-02	2.345E-02	0.000E+00	NOT IDENT.
SB-125	3.093E-03	4.328E-02	7.403E-02	0.000E+00	NOT IDENT.
PO-209	-8.103E-02	3.110E+00	5.263E+00	0.000E+00	NOT IDENT.
BI-211	5.576E-02	4.734E-01	8.177E-01	0.000E+00	NOT IDENT.
PA-233	-1.720E-02	3.124E-02	4.848E-02	0.000E+00	NOT IDENT.
PA-234M	-1.192E-01	2.377E+00	3.613E+00	0.000E+00	NOT IDENT.
NP-236	-3.556E-05	2.220E-02	3.846E-02	0.000E+00	NOT IDENT.
NP-239	7.638E-02	9.461E-02	1.640E-01	0.000E+00	NOT IDENT.
AM-241	8.624E-03	5.440E-02	8.097E-02	0.000E+00	NOT IDENT.
AM-246	1.858E-02	7.348E-02	1.110E-01	0.000E+00	NOT IDENT.
CF-249	7.519E-03	1.745E-02	3.078E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:42:54.12

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324025.CNF;1
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 1-DEC-2007 05:37:58.
Sample ID        : G198324025           Sample quantity  : 1.03020E+02 GRAM
Detector name    : GAM11                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.48  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706246               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	248	10.66*	1.266E+00	3.346E+00	3.346E+00	16.68
CS-137	661.66	239	85.10*	2.532E+00	2.018E-01	2.025E-01	20.69
EU-155	105.31	88	21.20*	7.699E+00	9.800E-02	1.002E-01	60.94
TL-208	277.36	38	6.31	5.028E+00	2.174E-01	2.174E-01	122.00
	510.77	70	22.60	3.147E+00	1.795E-01	1.795E-01	117.22
	583.19	155	84.50*	2.820E+00	1.186E-01	1.186E-01	28.12
	763.13	------	1.81	2.235E+00	------	Line Not Found	------
	860.56	------	12.42	2.007E+00	------	Line Not Found	------
BI-212	727.33	62	11.80*	2.333E+00	4.104E-01	4.104E-01	53.74
	785.37	------	1.10	2.178E+00	------	Line Not Found	------
	1620.50	------	1.49	1.176E+00	------	Line Not Found	------
PB-212	74.81	172	10.40	6.107E+00	4.947E-01	4.947E-01	33.56
	77.11	289	17.50	6.335E+00	4.750E-01	4.750E-01	20.36
	87.30	97	7.81	7.106E+00	3.175E-01	3.175E-01	59.89
	238.63	577	43.30*	5.598E+00	4.340E-01	4.340E-01	12.61
	300.09	16	3.28	4.759E+00	1.864E-01	1.864E-01	296.10
BI-214	609.31	205	46.10*	2.717E+00	2.974E-01	2.974E-01	26.23
	768.36	62	4.94	2.220E+00	1.031E+00	1.031E+00	99.83
	806.17	21	1.22	2.126E+00	1.447E+00	1.447E+00	97.79
	934.06	------	3.03	1.863E+00	------	Line Not Found	------
	1120.29	64	15.10	1.581E+00	4.881E-01	4.881E-01	44.83
	1155.19	11	1.63	1.540E+00	8.289E-01	8.289E-01	178.79
	1238.11	------	5.79	1.450E+00	------	Line Not Found	------
	1280.96	------	1.43	1.408E+00	------	Line Not Found	------
	1377.67	------	4.00	1.326E+00	------	Line Not Found	------
	1401.50	5	1.27	1.308E+00	5.190E-01	5.191E-01	225.06
	1407.98	26	2.15	1.302E+00	1.676E+00	1.676E+00	47.48
	1509.23	------	2.11	1.236E+00	------	Line Not Found	------
	1729.60	------	2.92	1.128E+00	------	Line Not Found	------
	1764.49	25	15.40	1.115E+00	2.600E-01	2.600E-01	92.87
PB-214	74.81	172	6.44	6.107E+00	7.988E-01	7.989E-01	33.56
	77.11	289	10.80	6.335E+00	7.697E-01	7.698E-01	20.36

Sample ID : G198324025 Acquisition date : 1-DEC-2007 05:37:58

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	97	4.84	7.106E+00	5.123E-01	5.124E-01	59.89
	242.00	82	7.43	5.559E+00	3.606E-01	3.607E-01	68.70
	295.22	157	19.30	4.811E+00	3.082E-01	3.082E-01	32.95
	351.93	253	37.60*	4.222E+00	2.902E-01	2.902E-01	24.04
RA-223	269.46	71	13.70*	5.135E+00	1.843E-01	1.843E-01	61.48
AC-228	129.07	------	2.42	7.654E+00	------	Line Not Found	------
	209.25	60	3.89	6.105E+00	4.632E-01	4.632E-01	90.64
	270.25	71	3.46	5.135E+00	7.298E-01	7.298E-01	61.48
	338.32	118	11.27	4.347E+00	4.393E-01	4.393E-01	46.90
	409.46	30	1.92	3.759E+00	7.589E-01	7.589E-01	116.95
	463.00	59	4.40	3.400E+00	7.131E-01	7.131E-01	82.91
	794.95	40	4.25	2.154E+00	7.979E-01	7.979E-01	58.57
	911.20	101	25.80*	1.905E+00	3.752E-01	3.752E-01	32.50
	964.77	------	4.99	1.810E+00	------	Line Not Found	------
	968.97	59	15.80	1.802E+00	3.801E-01	3.801E-01	48.44
	1588.20	------	3.22	1.192E+00	------	Line Not Found	------
TH-234	63.29	23	4.80	4.650E+00	1.847E-01	1.847E-01	313.95
	92.58	132	5.41*	7.370E+00	6.042E-01	6.042E-01	55.22
U-235	143.76	36	10.96*	7.422E+00	8.010E-02	8.010E-02	157.09
NP-237	86.48	97	12.40*	7.106E+00	2.000E-01	2.000E-01	59.89
AM-243	74.66	172	68.20*	6.107E+00	7.543E-02	7.543E-02	33.56
CM-243	103.76	88	23.00*	7.699E+00	9.033E-02	9.068E-02	60.94

Flag: "*" = Keyline

Sample ID : G198324025 Acquisition date : 1-DEC-2007 05:37:58

Total number of lines in spectrum 66
Number of unidentified lines 32
Number of lines tentatively identified by NID 34 51.52%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	3.346E+00	3.346E+00	0.558E+00	16.68	
CS-137	9.47E+08S	1.00	2.018E-01	2.025E-01	0.419E-01	20.69	
EU-155	1.57E+08S	1.02	9.800E-02	1.002E-01	0.610E-01	60.94	
TL-208	4.43E+17S	1.00	1.186E-01	1.186E-01	0.334E-01	28.12	
BI-212	4.43E+17S	1.00	4.104E-01	4.104E-01	2.206E-01	53.74	
PB-212	4.43E+17S	1.00	4.340E-01	4.340E-01	0.547E-01	12.61	
BI-214	5.05E+10S	1.00	2.974E-01	2.974E-01	0.780E-01	26.23	
PB-214	5.05E+10S	1.00	2.902E-01	2.902E-01	0.698E-01	24.04	
RA-223	1.04E+12S	1.00	1.843E-01	1.843E-01	1.133E-01	61.48	
AC-228	4.43E+17S	1.00	3.752E-01	3.752E-01	1.220E-01	32.50	
TH-234	1.41E+17S	1.00	6.042E-01	6.042E-01	3.336E-01	55.22	
U-235	2.22E+16S	1.00	8.010E-02	8.010E-02	12.58E-02	157.09	
NP-237	6.75E+13S	1.00	2.000E-01	2.000E-01	1.198E-01	59.89	
AM-243	2.33E+11S	1.00	7.543E-02	7.543E-02	2.531E-02	33.56	
CM-243	8.99E+08S	1.00	9.033E-02	9.068E-02	5.526E-02	60.94	
			---	---			
		Total Activity :	6.806E+00	6.809E+00			

Grand Total Activity : 6.806E+00 6.809E+00

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G198324025 Acquisition date : 1-DEC-2007 05:37:58

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.16	64	336	0.97	91.78	87	11	4.42E-03	****	1.69E+00	
0	66.90	48	207	1.66	133.30	131	6	3.35E-03	98.2	5.13E+00	
1	84.32	35	262	0.95	168.17	165	13	2.46E-03	****	6.92E+00	
0	114.92	49	207	2.30	229.42	226	8	3.41E-03	****	7.75E+00	
0	163.51	39	134	0.64	326.68	324	6	2.70E-03	99.5	7.03E+00	
0	185.91	77	305	1.04	371.52	367	10	5.36E-03	97.3	6.56E+00	
3	235.90	41	183	1.42	471.58	466	22	2.85E-03	****	5.64E+00	
0	327.91	32	77	0.99	655.75	652	7	2.19E-03	98.9	4.45E+00	
0	360.68	24	88	1.09	721.34	717	8	1.70E-03	****	4.14E+00	
0	369.44	22	54	1.27	738.87	736	6	1.50E-03	****	4.07E+00	
0	558.57	24	34	1.47	1117.41	1114	7	1.66E-03	92.5	2.92E+00	
0	699.46	15	37	2.11	1399.39	1396	7	1.01E-03	****	2.41E+00	
7	799.20	14	19	1.97	1598.99	1587	15	9.86E-04	****	2.14E+00	
0	941.21	14	22	1.56	1883.17	1877	9	9.49E-04	****	1.85E+00	
0	1085.33	9	22	1.65	2171.57	2166	9	6.36E-04	****	1.63E+00	
0	1098.91	10	33	4.28	2198.74	2189	14	6.61E-04	****	1.61E+00	
3	1193.97	24	18	2.27	2388.97	2385	16	1.69E-03	63.0	1.50E+00	
3	1198.18	13	13	1.98	2397.37	2385	16	9.32E-04	****	1.49E+00	
0	1258.16	5	18	1.74	2517.40	2511	9	3.47E-04	****	1.43E+00	
0	1268.47	18	19	2.60	2538.03	2530	14	1.27E-03	****	1.42E+00	
0	1273.90	13	4	1.36	2548.88	2545	7	8.68E-04	75.3	1.41E+00	
0	1385.17	18	6	4.71	2771.51	2765	12	1.28E-03	70.5	1.32E+00	
0	1428.18	12	8	1.38	2857.59	2851	10	7.99E-04	****	1.29E+00	
0	1451.36	18	3	1.30	2903.95	2898	10	1.27E-03	57.2	1.27E+00	
0	1494.83	6	10	0.62	2990.93	2983	10	4.34E-04	****	1.24E+00	
0	1539.17	11	11	1.00	3079.64	3073	11	7.64E-04	****	1.22E+00	
0	1616.68	6	12	0.82	3234.71	3226	11	3.94E-04	****	1.18E+00	
0	1693.55	13	4	1.04	3388.50	3383	13	9.29E-04	78.5	1.14E+00	
0	1755.29	10	0	1.00	3512.00	3509	7	6.94E-04	63.2	1.12E+00	
0	1791.84	12	3	1.34	3585.14	3579	11	7.99E-04	80.8	1.11E+00	
0	1882.93	7	1	1.32	3767.35	3764	6	4.56E-04	97.6	1.08E+00	
0	1957.41	14	3	2.32	3916.35	3910	12	9.72E-04	72.8	1.06E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G198324025            *
* Acquisition date :  1-DEC-2007 05:37:58 Detector SN#    :                 *
* Detector ID      : GAM11                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:01.48     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324025           Analyst initials: MJH1            *
* Batch Number     : 706246               Sample Quantity : 1.0302E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME :  2-OCT-2007 15:05:44 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	3.346E+00	5.471E-01	1.530E-01	5.471E-01
CS-137	2.025E-01	4.106E-02	1.566E-02	4.106E-02
EU-155	1.002E-01	5.982E-02	3.364E-02	5.982E-02
TL-208	1.186E-01	3.269E-02	1.290E-02	3.269E-02
BI-212	4.104E-01	2.162E-01	1.061E-01	2.162E-01
PB-212	4.340E-01	5.363E-02	1.921E-02	5.363E-02
BI-214	2.974E-01	7.647E-02	2.781E-02	7.647E-02
PB-214	2.902E-01	6.837E-02	2.641E-02	6.837E-02
RA-223	1.843E-01	1.111E-01	7.083E-02	1.111E-01
AC-228	3.752E-01	1.195E-01	5.562E-02	1.195E-01
TH-234	6.042E-01	3.270E-01	1.684E-01	3.270E-01
U-235	8.010E-02	1.233E-01	6.570E-02	1.233E-01
NP-237	2.000E-01	1.174E-01	8.027E-02	1.174E-01
AM-243	7.543E-02	2.481E-02	1.528E-02	2.481E-02
CM-243	9.068E-02	5.415E-02	2.800E-02	5.415E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	1.107E-03	1.833E-02	1.533E-02	1.833E-02	NOT IDENT.
RH-101	-9.958E-03	1.571E-02	1.173E-02	1.571E-02	NOT IDENT.
SB-125	3.093E-03	4.328E-02	3.704E-02	4.328E-02	NOT IDENT.
PO-209	-8.103E-02	3.110E+00	2.633E+00	3.110E+00	NOT IDENT.
BI-211	5.576E-02	4.734E-01	4.091E-01	4.734E-01	NOT IDENT.
PA-233	-1.720E-02	3.124E-02	2.425E-02	3.124E-02	NOT IDENT.
PA-234M	-1.192E-01	2.377E+00	1.807E+00	2.377E+00	NOT IDENT.
NP-236	-3.556E-05	2.220E-02	1.924E-02	2.220E-02	NOT IDENT.
NP-239	7.638E-02	9.461E-02	8.205E-02	9.461E-02	NOT IDENT.
AM-241	8.624E-03	5.440E-02	4.051E-02	5.440E-02	NOT IDENT.
AM-246	1.858E-02	7.348E-02	5.551E-02	7.348E-02	NOT IDENT.
CF-249	7.519E-03	1.745E-02	1.540E-02	1.745E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
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ENERGY	MDA COUNTS
59.54	178.8454
63.29	187.1629
74.66	221.8848
74.81	221.9597
74.81	221.9597
77.11	223.1142
77.11	223.1142
86.48	272.6562
87.30	273.1160
87.30	273.1160
92.58	248.8669
98.44	169.2758
103.76	134.2583
105.31	159.7689
129.07	170.9426
143.76	158.5345
198.00	167.9722
209.25	141.0773
228.18	118.5648
238.63	120.9085
242.00	121.3166
269.46	138.8712
270.25	135.6649
277.36	113.2310
295.22	96.4136
300.09	107.0066
312.17	121.2448
338.32	113.8730
351.93	98.2446
387.59	78.1055
409.46	72.2750
427.87	81.1788
463.00	85.4643
510.77	78.4680
583.19	53.0125
609.31	68.1652
661.66	63.5229
727.33	47.9504
763.13	49.7763
768.36	49.8820
785.37	50.2240
794.95	50.1922
806.17	48.0130
831.80	41.8223
860.56	37.6808
896.60	32.5903
911.20	42.1205
934.06	22.9137
964.77	30.1923
968.97	65.2453
1001.03	24.1248
1078.86	31.3203
1120.29	29.0439
1155.19	28.6695
1173.23	28.4799
1238.11	32.1080
1280.96	30.3863
1332.51	16.9922
1377.67	19.9507
1401.50	15.1293
1407.98	10.8237
1460.80	24.1184
1509.23	17.5566
1588.20	16.9321
1620.50	11.3687
1729.60	9.6956
1764.49	12.6943

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198324025

Total Uranium Activity	3.7061E-02	ug/g
Total Uranium Counting Unc.	5.7056E-02	ug/g
Total Uranium Tpu	5.7056E-08	ug/g
Total Uranium Mda	3.0400E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:43:29.45

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324026.CNF;1
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 1-DEC-2007 05:38:37.
Sample ID        : G198324026           Sample quantity  : 1.04430E+02 GRAM
Detector name    : GAM12                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.47  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706246               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.83*	12	314	0.89	126.90	123	8	8.11E-04	300.5	
2	0	69.41	34	267	1.56	138.04	134	7	2.38E-03	80.9	
3	4	74.77*	174	278	1.21	148.78	142	19	1.21E-02	19.8	1.29E+00
4	4	77.20*	304	299	1.35	153.63	142	19	2.11E-02	12.9	
5	4	84.34*	82	196	1.21	167.93	165	26	5.68E-03	31.0	1.54E+00
6	4	87.30	151	346	1.43	173.84	165	26	1.05E-02	24.1	
7	4	89.78	127	304	1.37	178.81	165	26	8.81E-03	25.9	
8	4	92.71*	154	261	1.17	184.67	165	26	1.07E-02	23.9	
9	0	98.62	35	273	1.25	196.49	194	8	2.41E-03	84.4	
10	0	144.03*	39	266	2.34	287.35	283	9	2.71E-03	84.7	
11	0	185.84*	143	275	1.18	371.00	366	10	9.91E-03	26.8	
12	0	209.17	73	283	0.96	417.69	413	10	5.09E-03	44.6	
13	0	217.34	75	390	4.96	434.03	425	16	5.19E-03	60.3	
14	3	238.63*	634	168	1.20	476.62	469	20	4.41E-02	5.6	8.77E-01
15	3	241.53	138	226	1.53	482.42	469	20	9.59E-03	22.5	
16	0	270.77	36	178	1.12	540.91	537	8	2.47E-03	67.4	
17	0	277.10	45	181	1.59	553.58	550	10	3.10E-03	58.6	
18	0	295.19*	180	173	1.46	589.78	584	10	1.25E-02	16.5	
19	0	300.26	71	159	0.74	599.91	596	10	4.90E-03	35.4	
20	0	327.68	56	141	0.70	654.78	651	9	3.88E-03	40.5	
21	0	338.41*	152	165	1.21	676.24	671	12	1.06E-02	19.6	
22	0	352.17*	259	137	1.37	703.76	699	10	1.80E-02	11.5	
23	0	361.34	17	144	4.32	722.12	717	12	1.18E-03	143.2	
24	0	463.38	61	73	2.06	926.23	921	9	4.25E-03	28.6	
25	0	511.10*	79	169	2.19	1021.70	1013	21	5.52E-03	51.5	
26	0	560.05*	57	100	6.92	1119.61	1112	17	3.93E-03	44.6	
27	0	583.43*	191	89	1.47	1166.37	1160	12	1.33E-02	13.4	
28	0	609.46*	196	127	1.42	1218.44	1210	14	1.36E-02	15.5	
29	0	661.91*	14	58	1.05	1323.34	1320	8	9.46E-04	118.6	
30	0	703.00	29	42	1.56	1405.53	1400	10	2.02E-03	45.9	
31	0	727.86	55	86	1.58	1455.25	1448	14	3.81E-03	39.0	
32	0	763.00	34	42	1.62	1525.53	1519	11	2.35E-03	41.5	
33	0	773.20	13	42	0.87	1545.94	1540	8	8.68E-04	89.8	
34	0	795.13	43	46	2.41	1589.79	1584	13	2.95E-03	36.2	
35	0	860.70	45	33	2.79	1720.93	1715	13	3.12E-03	30.2	
36	0	875.91	6	64	1.29	1751.33	1742	16	4.17E-04	300.9	
37	0	911.70*	175	54	2.05	1822.91	1814	20	1.21E-02	14.0	
38	0	934.97	11	30	2.20	1869.45	1864	10	7.64E-04	97.9	

Sample ID : G198324026 Acquisition date : 1-DEC-2007 05:38:37

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	942.73	23	51	4.97	1884.96	1874	17	1.60E-03	74.1	
40	1	964.80	22	75	1.96	1929.09	1922	29	1.50E-03	77.6	2.84E+00
41	1	969.33	67	52	1.88	1938.17	1922	29	4.67E-03	24.9	
42	0	1001.59*	18	25	3.22	2002.67	1994	14	1.23E-03	75.6	
43	0	1120.79*	34	45	1.05	2241.02	2234	14	2.35E-03	48.4	
44	0	1167.02	8	16	0.85	2333.46	2329	6	5.64E-04	85.9	
45	0	1177.29	27	12	2.19	2353.99	2348	11	1.85E-03	32.8	
46	0	1238.47	49	17	2.47	2476.32	2472	11	3.37E-03	21.7	
47	0	1325.01	17	13	1.84	2649.33	2643	10	1.21E-03	44.8	
48	0	1358.99	26	15	3.66	2717.28	2710	17	1.79E-03	41.3	
49	0	1378.37	25	18	2.17	2756.02	2750	14	1.74E-03	40.7	
50	0	1401.89	8	14	0.91	2803.04	2799	8	5.37E-04	91.5	
51	0	1408.40*	10	10	1.47	2816.04	2812	8	6.61E-04	83.8	
52	0	1432.11	13	2	3.34	2863.46	2859	9	8.80E-04	35.4	
53	0	1460.95*	249	16	2.36	2921.11	2912	17	1.73E-02	8.1	
54	0	1518.94	13	16	1.66	3037.03	3032	12	9.26E-04	64.5	
55	0	1589.34	27	23	3.45	3177.76	3169	16	1.86E-03	45.2	
56	0	1764.92*	48	13	1.81	3528.70	3519	17	3.36E-03	25.5	
57	0	1788.75	9	12	0.97	3576.34	3567	13	6.00E-04	92.0	
58	0	1847.01*	0	7	1.43	3692.78	3687	9	2.33E-05	*****	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324026       *
* Acquisition date :  1-DEC-2007 05:38:37 Detector SN#    :                 *
* Detector ID      : GAM12                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:01.47     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324026           Analyst initials: MJH1            *
* Batch Number     : 706246               Sample Quantity : 1.0443E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  1-FEB-2007 15:01:06 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.705E+00	6.315E-01	3.499E-01	0.000E+00
CS-137	1.286E-02	2.992E-02	3.813E-02	0.000E+00
TL-208	1.628E-01	4.442E-02	3.304E-02	0.000E+00
BI-212	4.038E-01	3.113E-01	2.846E-01	0.000E+00
PB-212	5.320E-01	6.680E-02	5.344E-02	0.000E+00
BI-214	3.179E-01	1.001E-01	6.806E-02	0.000E+00
PB-214	3.320E-01	7.728E-02	7.137E-02	0.000E+00
RA-223	1.029E-01	1.361E-01	1.841E-01	0.000E+00
AC-228	7.169E-01	2.104E-01	1.153E-01	0.000E+00
PA-234M	2.424E+00	3.598E+00	3.422E+00	0.000E+00
TH-234	8.489E-01	4.020E-01	4.498E-01	0.000E+00
U-235	9.903E-02	1.645E-01	1.841E-01	0.000E+00
NP-236	2.626E-02	4.348E-02	5.644E-02	0.000E+00
NP-237	3.836E-01	1.836E-01	2.077E-01	0.000E+00
AM-243	9.882E-02	3.903E-02	4.786E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	-1.429E-02		2.690E-02	3.356E-02	0.000E+00	NOT IDENT.
RH-101	-1.968E-03		1.928E-02	3.259E-02	0.000E+00	NOT IDENT.
SB-125	5.513E-02		5.284E-02	9.288E-02	0.000E+00	NOT IDENT.
EU-155	4.804E-03		5.662E-02	9.890E-02	0.000E+00	NOT IDENT.
PO-209	-3.165E+00		4.126E+00	6.184E+00	0.000E+00	NOT IDENT.
BI-211	-3.510E-02		6.358E-01	1.048E+00	0.000E+00	NOT IDENT.
PA-233	7.792E-03		3.870E-02	6.502E-02	0.000E+00	NOT IDENT.
NP-239	3.690E-02		1.514E-01	2.261E-01	0.000E+00	NOT IDENT.
AM-241	1.694E-03		9.142E-02	1.347E-01	0.000E+00	NOT IDENT.
CM-243	-5.310E-02		6.384E-02	8.660E-02	0.000E+00	NOT IDENT.
AM-246	-1.699E-02		7.082E-02	1.173E-01	0.000E+00	NOT IDENT.
CF-249	1.058E-02		2.464E-02	4.156E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:43:30.52

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324026.CNF;1
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 1-DEC-2007 05:38:37.
Sample ID        : G198324026           Sample quantity  : 1.04430E+02 GRAM
Detector name    : GAM12                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.47  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706246               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	249	10.66*	1.133E+00	3.705E+00	3.705E+00	17.39
CS-137	661.66	14	85.10*	2.247E+00	1.281E-02	1.286E-02	237.45
TL-208	277.36	45	6.31	4.457E+00	2.851E-01	2.851E-01	117.27
	510.77	79	22.60	2.785E+00	2.269E-01	2.269E-01	103.18
	583.19	191	84.50*	2.499E+00	1.628E-01	1.628E-01	27.84
	763.13	34	1.81	1.987E+00	1.688E+00	1.688E+00	83.63
	860.56	45	12.42	1.787E+00	3.632E-01	3.632E-01	61.29
BI-212	727.33	55	11.80*	2.071E+00	4.038E-01	4.038E-01	78.66
	785.37	------	1.10	1.938E+00	------	Line Not Found	------
	1620.50	------	1.49	1.052E+00	------	Line Not Found	------
PB-212	74.81	174	10.40	4.653E+00	6.480E-01	6.480E-01	40.30
	77.11	304	17.50	4.896E+00	6.369E-01	6.369E-01	26.74
	87.30	151	7.81	5.704E+00	6.091E-01	6.091E-01	48.84
	238.63	634	43.30*	4.949E+00	5.320E-01	5.320E-01	12.81
	300.09	71	3.28	4.203E+00	9.205E-01	9.205E-01	71.00
BI-214	609.31	196	46.10*	2.409E+00	3.178E-01	3.179E-01	32.14
	768.36	------	4.94	1.975E+00	------	Line Not Found	------
	806.17	------	1.22	1.894E+00	------	Line Not Found	------
	934.06	11	3.03	1.660E+00	3.930E-01	3.930E-01	196.09
	1120.29	34	15.10	1.413E+00	2.844E-01	2.844E-01	97.09
	1155.19	------	1.63	1.377E+00	------	Line Not Found	------
	1238.11	49	5.79	1.296E+00	1.162E+00	1.162E+00	43.92
	1280.96	------	1.43	1.260E+00	------	Line Not Found	------
	1377.67	25	4.00	1.186E+00	9.508E-01	9.509E-01	81.57
	1401.50	8	1.27	1.170E+00	9.343E-01	9.343E-01	183.12
	1407.98	10	2.15	1.166E+00	6.819E-01	6.819E-01	167.65
	1509.23	------	2.11	1.106E+00	------	Line Not Found	------
	1729.60	------	2.92	1.009E+00	------	Line Not Found	------
	1764.49	48	15.40	9.972E-01	5.662E-01	5.663E-01	51.33
PB-214	74.81	174	6.44	4.653E+00	1.046E+00	1.047E+00	40.30
	77.11	304	10.80	4.896E+00	1.032E+00	1.032E+00	26.74
	87.30	151	4.84	5.704E+00	9.828E-01	9.829E-01	48.84

Sample ID : G198324026 Acquisition date : 1-DEC-2007 05:38:37

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	242.00	138	7.43	4.909E+00	6.803E-01	6.803E-01	45.45
	295.22	180	19.30	4.256E+00	3.930E-01	3.931E-01	33.63
	351.93	259	37.60*	3.730E+00	3.320E-01	3.320E-01	23.75
RA-223	269.46	36	13.70*	4.531E+00	1.029E-01	1.029E-01	135.01
AC-228	129.07	------	2.42	6.594E+00	------	Line Not Found	------
	209.25	73	3.89	5.394E+00	6.273E-01	6.273E-01	89.47
	270.25	36	3.46	4.531E+00	4.073E-01	4.073E-01	135.01
	338.32	152	11.27	3.845E+00	6.304E-01	6.304E-01	39.67
	409.46	------	1.92	3.322E+00	------	Line Not Found	------
	463.00	61	4.40	3.013E+00	8.290E-01	8.290E-01	57.57
	794.95	43	4.25	1.917E+00	9.387E-01	9.387E-01	73.02
	911.20	175	25.80*	1.698E+00	7.169E-01	7.169E-01	29.95
	964.77	22	4.99	1.614E+00	4.820E-01	4.820E-01	155.49
	968.97	67	15.80	1.608E+00	4.759E-01	4.759E-01	50.76
	1588.20	27	3.22	1.066E+00	1.400E+00	1.400E+00	90.57
PA-234M	1001.03	18	0.84*	1.561E+00	2.424E+00	2.424E+00	151.47
TH-234	63.29	12	4.80	3.330E+00	1.312E-01	1.312E-01	601.00
	92.58	154	5.41*	6.010E+00	8.489E-01	8.489E-01	48.32
U-235	143.76	39	10.96*	6.453E+00	9.903E-02	9.903E-02	169.54
NP-236	98.44	35	38.00*	6.258E+00	2.626E-02	2.626E-02	168.99
NP-237	86.48	151	12.40*	5.704E+00	3.836E-01	3.836E-01	48.84
AM-243	74.66	174	68.20*	4.653E+00	9.882E-02	9.882E-02	40.30

Flag: "*" = Keyline

Sample ID : G198324026 Acquisition date : 1-DEC-2007 05:38:37

Total number of lines in spectrum	58	
Number of unidentified lines	20	
Number of lines tentatively identified by NID	38	65.52%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	3.705E+00	3.705E+00	0.644E+00	17.39	
CS-137	9.47E+08S	1.00	1.281E-02	1.286E-02	3.053E-02	237.45	
TL-208	4.43E+17S	1.00	1.628E-01	1.628E-01	0.453E-01	27.84	
BI-212	4.43E+17S	1.00	4.038E-01	4.038E-01	3.176E-01	78.66	
PB-212	4.43E+17S	1.00	5.320E-01	5.320E-01	0.682E-01	12.81	
BI-214	5.05E+10S	1.00	3.178E-01	3.179E-01	1.022E-01	32.14	
PB-214	5.05E+10S	1.00	3.320E-01	3.320E-01	0.789E-01	23.75	
RA-223	1.04E+12S	1.00	1.029E-01	1.029E-01	1.389E-01	135.01	
AC-228	4.43E+17S	1.00	7.169E-01	7.169E-01	2.147E-01	29.95	
PA-234M	1.41E+17S	1.00	2.424E+00	2.424E+00	3.672E+00	151.47	
TH-234	1.41E+17S	1.00	8.489E-01	8.489E-01	4.102E-01	48.32	
U-235	2.22E+16S	1.00	9.903E-02	9.903E-02	16.79E-02	169.54	
NP-236	4.89E+12S	1.00	2.626E-02	2.626E-02	4.437E-02	168.99	
NP-237	6.75E+13S	1.00	3.836E-01	3.836E-01	1.873E-01	48.84	
AM-243	2.33E+11S	1.00	9.882E-02	9.882E-02	3.983E-02	40.30	
			---	---			
	Total Activity :		1.017E+01	1.017E+01			

Grand Total Activity : 1.017E+01 1.017E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G198324026 Acquisition date : 1-DEC-2007 05:38:37

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	69.41	34	267	1.56	138.04	134	7	2.38E-03	****	4.05E+00	
4	84.34	82	196	1.21	167.93	165	26	5.68E-03	61.9	5.50E+00	
4	89.78	127	304	1.37	178.81	165	26	8.81E-03	51.8	5.85E+00	
0	185.84	143	275	1.18	371.00	366	10	9.91E-03	53.6	5.78E+00	
0	217.34	75	390	4.96	434.03	425	16	5.19E-03	****	5.26E+00	
0	327.68	56	141	0.70	654.78	651	9	3.88E-03	80.9	3.94E+00	
0	361.34	17	144	4.32	722.12	717	12	1.18E-03	****	3.66E+00	
0	560.05	57	100	6.92	1119.61	1112	17	3.93E-03	89.2	2.58E+00	
0	703.00	29	42	1.56	1405.53	1400	10	2.02E-03	91.7	2.13E+00	
0	773.20	13	42	0.87	1545.94	1540	8	8.68E-04	****	1.96E+00	
0	875.91	6	64	1.29	1751.33	1742	16	4.17E-04	****	1.76E+00	
0	942.73	23	51	4.97	1884.96	1874	17	1.60E-03	****	1.65E+00	
0	1167.02	8	16	0.85	2333.46	2329	6	5.64E-04	****	1.36E+00	
0	1177.29	27	12	2.19	2353.99	2348	11	1.85E-03	65.7	1.35E+00	
0	1325.01	17	13	1.84	2649.33	2643	10	1.21E-03	89.7	1.23E+00	
0	1358.99	26	15	3.66	2717.28	2710	17	1.79E-03	82.5	1.20E+00	
0	1432.11	13	2	3.34	2863.46	2859	9	8.80E-04	70.7	1.15E+00	
0	1518.94	13	16	1.66	3037.03	3032	12	9.26E-04	****	1.10E+00	
0	1788.75	9	12	0.97	3576.34	3567	13	6.00E-04	****	9.90E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G198324026            *
* Acquisition date :  1-DEC-2007 05:38:37 Detector SN#    :                 *
* Detector ID      : GAM12                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:01.47     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324026           Analyst initials: MJH1            *
* Batch Number     : 706246               Sample Quantity : 1.0443E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME :  1-FEB-2007 15:01:06 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	3.705E+00	6.315E-01	1.750E-01	6.315E-01
CS-137	1.286E-02	2.992E-02	1.908E-02	2.992E-02
TL-208	1.628E-01	4.442E-02	1.653E-02	4.442E-02
BI-212	4.038E-01	3.113E-01	1.424E-01	3.113E-01
PB-212	5.320E-01	6.680E-02	2.674E-02	6.680E-02
BI-214	3.179E-01	1.001E-01	3.405E-02	1.001E-01
PB-214	3.320E-01	7.728E-02	3.571E-02	7.728E-02
RA-223	1.029E-01	1.361E-01	9.209E-02	1.361E-01
AC-228	7.169E-01	2.104E-01	5.769E-02	2.104E-01
PA-234M	2.424E+00	3.598E+00	1.712E+00	3.598E+00
TH-234	8.489E-01	4.020E-01	2.250E-01	4.020E-01
U-235	9.903E-02	1.645E-01	9.213E-02	1.645E-01
NP-236	2.626E-02	4.348E-02	2.824E-02	4.348E-02
NP-237	3.836E-01	1.836E-01	1.039E-01	1.836E-01
AM-243	9.882E-02	3.903E-02	2.394E-02	3.903E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	-1.429E-02	2.690E-02	1.679E-02	2.690E-02	NOT IDENT.
RH-101	-1.968E-03	1.928E-02	1.630E-02	1.928E-02	NOT IDENT.
SB-125	5.513E-02	5.284E-02	4.647E-02	5.284E-02	NOT IDENT.
EU-155	4.804E-03	5.662E-02	4.948E-02	5.662E-02	NOT IDENT.
PO-209	-3.165E+00	4.126E+00	3.094E+00	4.126E+00	NOT IDENT.
BI-211	-3.510E-02	6.358E-01	5.243E-01	6.358E-01	NOT IDENT.
PA-233	7.792E-03	3.870E-02	3.253E-02	3.870E-02	NOT IDENT.
NP-239	3.690E-02	1.514E-01	1.131E-01	1.514E-01	NOT IDENT.
AM-241	1.694E-03	9.142E-02	6.739E-02	9.142E-02	NOT IDENT.
CM-243	-5.310E-02	6.384E-02	4.333E-02	6.384E-02	NOT IDENT.
AM-246	-1.699E-02	7.082E-02	5.869E-02	7.082E-02	NOT IDENT.
CF-249	1.058E-02	2.464E-02	2.079E-02	2.464E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
59.54	245.7750
63.29	270.4611
74.66	324.1723
74.81	324.2474
74.81	324.2474
77.11	325.3812
77.11	325.3812
86.48	299.6419
87.30	299.9844
87.30	299.9844
92.58	302.1581
98.44	254.7141
103.76	272.7602
105.31	244.3815
129.07	267.4120
143.76	241.3971
198.00	239.2164
209.25	233.9684
228.18	192.8119
238.63	187.3648
242.00	187.8219
269.46	187.9902
270.25	180.3901
277.36	173.0946
295.22	127.7142
300.09	128.1039
312.17	143.6265
338.32	126.8298
351.93	143.7856
387.59	116.1725
409.46	95.5187
427.87	76.4469
463.00	103.6348
510.77	86.5226
583.19	70.1537
609.31	82.3509
661.66	76.1319
727.33	69.8770
763.13	69.0107
768.36	20.2319
785.37	49.8350
794.95	56.1038
806.17	49.1332
831.80	59.8323
860.56	46.8171
896.60	50.4586
911.20	36.9440
934.06	44.2596
964.77	47.1292
968.97	47.1818
1001.03	29.1977
1078.86	36.7627
1120.29	37.1338
1155.19	35.5693
1173.23	39.4775
1238.11	45.7832
1280.96	35.6224
1332.51	30.7932
1377.67	23.5791
1401.50	25.0097
1407.98	25.2064
1460.80	25.9693
1509.23	19.1554
1588.20	33.7614
1620.50	19.5520
1729.60	17.8301
1764.49	10.5501

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198324026

Total Uranium Activity	4.5823E-02	ug/g
Total Uranium Counting Unc.	7.6134E-02	ug/g
Total Uranium Tpu	7.6134E-08	ug/g
Total Uranium Mda	4.2628E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:44:06.21

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324027.CNF;1
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 1-DEC-2007 05:39:20.
Sample ID        : G198324027           Sample quantity  : 9.94800E+01 GRAM
Detector name    : GAM13                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:03.65  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706246               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.62*	109	446	0.84	92.70	89	8	7.56E-03	41.9	
2	0	63.35*	24	680	0.91	126.17	122	9	1.65E-03	243.9	
3	3	74.87	354	468	0.97	149.24	143	14	2.46E-02	11.0	1.52E+00
4	3	77.13*	446	458	0.93	153.77	143	14	3.10E-02	9.7	
5	0	84.29*	25	401	1.02	168.10	166	6	1.76E-03	148.7	
6	0	87.15	178	390	1.02	173.82	172	6	1.23E-02	19.1	
7	0	92.77*	112	711	1.07	185.06	181	10	7.78E-03	59.0	
8	0	98.23*	25	508	1.82	196.01	194	9	1.74E-03	175.2	
9	0	109.12*	27	425	0.98	217.80	216	7	1.91E-03	135.8	
10	0	129.77	43	521	1.24	259.14	253	10	2.95E-03	101.7	
11	0	139.47*	45	249	1.70	278.54	276	6	3.12E-03	64.1	
12	0	143.81*	21	304	1.06	287.23	284	7	1.47E-03	159.3	
13	0	163.05*	35	296	0.89	325.75	323	7	2.43E-03	94.2	
14	0	185.88*	5	516	0.97	371.45	366	10	3.49E-04	*****	
15	0	209.48	152	411	1.21	418.69	413	12	1.05E-02	28.2	
16	5	238.59*	678	210	1.06	476.95	471	17	4.71E-02	5.8	1.17E+00
17	5	241.62	140	325	1.52	483.01	471	17	9.72E-03	26.3	
18	0	276.94	54	300	1.66	553.72	549	10	3.78E-03	61.0	
19	0	294.97*	227	273	1.36	589.80	585	11	1.58E-02	16.3	
20	0	299.97	57	184	0.97	599.81	596	7	3.93E-03	42.0	
21	0	308.90	50	177	1.80	617.68	615	8	3.48E-03	48.2	
22	0	328.03	23	232	1.37	655.98	652	8	1.59E-03	117.6	
23	0	338.03*	151	223	1.10	675.98	671	10	1.05E-02	22.0	
24	0	351.93*	322	185	1.22	703.81	699	10	2.23E-02	10.4	
25	0	355.75*	17	177	1.18	711.46	709	8	1.17E-03	161.9	
26	0	409.34	37	133	0.51	818.70	815	7	2.57E-03	54.2	
27	0	459.54	16	97	1.17	919.17	917	6	1.10E-03	98.9	
28	0	462.14	47	135	1.43	924.39	923	9	3.24E-03	46.8	
29	0	510.73*	0	293	1.70	1021.64	1013	18	1.86E-05	*****	
30	0	583.41*	149	164	1.43	1167.08	1161	14	1.03E-02	22.0	
31	0	609.07*	252	155	1.19	1218.42	1212	12	1.75E-02	12.5	
32	0	641.32	29	70	1.30	1282.96	1279	7	2.05E-03	51.2	
33	0	661.16	70	150	0.96	1322.66	1318	11	4.87E-03	35.7	
34	0	679.05	20	69	1.02	1358.46	1355	8	1.38E-03	75.7	
35	0	727.27*	29	76	2.06	1454.95	1451	9	2.03E-03	73.5	
36	0	734.98	28	90	3.02	1470.38	1465	9	1.92E-03	65.8	
37	0	769.41	24	61	1.47	1539.27	1536	6	1.70E-03	54.5	
38	0	796.24	29	88	2.44	1592.97	1587	10	2.03E-03	62.5	

Sample ID : G198324027 Acquisition date : 1-DEC-2007 05:39:20

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	860.21	42	70	0.77	1720.97	1716	10	2.91E-03	40.9	
40	0	866.70	16	72	1.30	1733.95	1727	11	1.08E-03	108.1	
41	0	872.19	12	62	1.50	1744.93	1738	9	8.07E-04	126.4	
42	0	911.13*	107	93	1.19	1822.84	1816	12	7.42E-03	23.8	
43	0	920.00	36	108	2.30	1840.58	1828	18	2.50E-03	69.7	
44	0	952.74	26	99	7.83	1906.09	1895	19	1.78E-03	95.3	
45	0	969.45	77	114	1.07	1939.53	1934	13	5.38E-03	30.9	
46	0	1002.90*	57	138	8.76	2006.45	1998	22	3.94E-03	57.8	
47	0	1016.62	42	60	3.34	2033.89	2027	14	2.93E-03	41.7	
48	0	1032.14	27	42	1.20	2064.94	2058	12	1.84E-03	53.8	
49	0	1049.02	22	45	1.51	2098.72	2093	9	1.50E-03	60.8	
50	0	1119.64	64	68	1.09	2239.99	2233	13	4.48E-03	29.2	
51	0	1229.33	24	33	3.69	2459.43	2452	11	1.68E-03	50.2	
52	0	1351.51	15	23	0.97	2703.83	2698	10	1.04E-03	67.1	
53	0	1460.53	218	63	2.36	2921.89	2914	20	1.51E-02	11.1	
54	0	1561.78	25	14	4.38	3124.38	3117	13	1.70E-03	39.1	
55	0	1587.56	22	17	1.64	3175.95	3170	11	1.49E-03	42.5	
56	0	1687.20	23	10	2.79	3375.21	3367	17	1.57E-03	41.2	
57	0	1756.77	27	13	1.71	3514.33	3506	17	1.89E-03	35.6	
58	0	1763.99*	13	26	1.89	3528.78	3523	16	9.03E-04	104.7	
59	0	1794.31	8	9	0.61	3589.41	3583	12	5.80E-04	79.4	
60	0	1822.07	8	12	6.61	3644.93	3630	16	5.66E-04	101.2	
61	0	1930.41	9	0	0.58	3861.56	3858	8	6.25E-04	33.3	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324027       *
* Acquisition date :  1-DEC-2007 05:39:20 Detector SN#    :                 *
* Detector ID      : GAM13                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:03.65     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324027           Analyst initials: MJH1            *
* Batch Number     : 706246               Sample Quantity : 9.9480E+01 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  2-JUL-2007 15:48:48 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.634E+00	8.129E-01	5.255E-01	0.000E+00
CS-137	7.560E-02	5.329E-02	5.273E-02	0.000E+00
TL-208	1.441E-01	6.289E-02	4.842E-02	0.000E+00
BI-212	2.462E-01	3.552E-01	4.605E-01	0.000E+00
PB-212	6.121E-01	7.992E-02	6.695E-02	0.000E+00
BI-214	4.644E-01	1.184E-01	1.091E-01	0.000E+00
PB-214	4.525E-01	9.507E-02	8.421E-02	0.000E+00
AC-228	4.994E-01	2.348E-01	1.756E-01	0.000E+00
PA-234M	8.833E+00	1.002E+01	6.224E+00	0.000E+00
TH-234	5.195E-01	6.022E-01	4.413E-01	0.000E+00
U-235	5.579E-02	1.743E-01	2.022E-01	0.000E+00
NP-236	1.671E-02	5.741E-02	5.486E-02	0.000E+00
NP-237	3.562E-01	1.361E-01	1.662E-01	0.000E+00
AM-243	1.274E-01	2.921E-02	3.288E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	3.076E-02		3.548E-02	6.284E-02	0.000E+00	NOT IDENT.
RH-101	-4.046E-02		2.674E-02	3.622E-02	0.000E+00	NOT IDENT.
SB-125	-5.396E-02		8.092E-02	1.287E-01	0.000E+00	NOT IDENT.
EU-155	3.033E-02		7.399E-02	1.045E-01	0.000E+00	NOT IDENT.
PO-209	2.028E+00		7.475E+00	1.239E+01	0.000E+00	NOT IDENT.
BI-211	1.638E-01		9.488E-01	1.574E+00	0.000E+00	NOT IDENT.
RA-223	3.658E-02		1.294E-01	2.251E-01	0.000E+00	NOT IDENT.
PA-233	-4.229E-02		5.325E-02	7.525E-02	0.000E+00	NOT IDENT.
NP-239	-7.395E-02		1.566E-01	2.482E-01	0.000E+00	NOT IDENT.
AM-241	8.474E-03		3.801E-02	5.728E-02	0.000E+00	NOT IDENT.
CM-243	-2.982E-02		6.967E-02	9.060E-02	0.000E+00	NOT IDENT.
AM-246	1.757E-02		1.223E-01	2.066E-01	0.000E+00	NOT IDENT.
CF-249	-6.458E-04		3.351E-02	5.580E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:44:07.23

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324027.CNF;1
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 1-DEC-2007 05:39:20.
Sample ID        : G198324027           Sample quantity  : 9.94800E+01 GRAM
Detector name    : GAM13                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:03.65  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706246               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	218	10.66*	1.061E+00	3.634E+00	3.634E+00	22.83
CS-137	661.66	70	85.10*	2.065E+00	7.533E-02	7.560E-02	71.92
TL-208	277.36	54	6.31	4.320E+00	3.772E-01	3.772E-01	122.07
	510.77	0	22.60	2.591E+00	8.642E-04	8.642E-04	35818.76
	583.19	149	84.50*	2.305E+00	1.441E-01	1.441E-01	44.53
	763.13	------	1.81	1.821E+00	------	Line Not Found	------
	860.56	42	12.42	1.642E+00	3.873E-01	3.873E-01	82.06
BI-212	727.33	29	11.80*	1.899E+00	2.462E-01	2.462E-01	147.24
	785.37	------	1.10	1.777E+00	------	Line Not Found	------
	1620.50	------	1.49	9.772E-01	------	Line Not Found	------
PB-212	74.81	354	10.40	7.694E+00	8.355E-01	8.355E-01	23.40
	77.11	446	17.50	7.684E+00	6.259E-01	6.259E-01	20.95
	87.30	178	7.81	7.594E+00	5.655E-01	5.655E-01	38.98
	238.63	678	43.30*	4.824E+00	6.121E-01	6.121E-01	13.32
	300.09	57	3.28	4.060E+00	8.018E-01	8.018E-01	84.23
BI-214	609.31	252	46.10*	2.219E+00	4.644E-01	4.644E-01	26.00
	768.36	24	4.94	1.808E+00	5.162E-01	5.162E-01	109.20
	806.17	------	1.22	1.737E+00	------	Line Not Found	------
	934.06	------	3.03	1.531E+00	------	Line Not Found	------
	1120.29	64	15.10	1.315E+00	6.125E-01	6.125E-01	58.63
	1155.19	------	1.63	1.282E+00	------	Line Not Found	------
	1238.11	------	5.79	1.211E+00	------	Line Not Found	------
	1280.96	------	1.43	1.178E+00	------	Line Not Found	------
	1377.67	------	4.00	1.111E+00	------	Line Not Found	------
	1401.50	------	1.27	1.096E+00	------	Line Not Found	------
	1407.98	------	2.15	1.092E+00	------	Line Not Found	------
	1509.23	------	2.11	1.033E+00	------	Line Not Found	------
	1729.60	------	2.92	9.286E-01	------	Line Not Found	------
	1764.49	13	15.40	9.145E-01	1.741E-01	1.741E-01	209.39
PB-214	74.81	354	6.44	7.694E+00	1.349E+00	1.349E+00	23.40
	77.11	446	10.80	7.684E+00	1.014E+00	1.014E+00	20.95
	87.30	178	4.84	7.594E+00	9.125E-01	9.125E-01	38.98

Sample ID : G198324027 Acquisition date : 1-DEC-2007 05:39:20

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	242.00	140	7.43	4.780E+00	7.434E-01	7.434E-01	53.06
	295.22	227	19.30	4.114E+00	5.402E-01	5.402E-01	33.08
	351.93	322	37.60*	3.567E+00	4.524E-01	4.525E-01	21.44
AC-228	129.07	43	2.42	6.816E+00	4.865E-01	4.865E-01	203.57
	209.25	152	3.89	5.274E+00	1.395E+00	1.395E+00	56.78
	270.25	------	3.46	4.401E+00	------	Line Not Found	------
	338.32	151	11.27	3.687E+00	6.853E-01	6.853E-01	44.41
	409.46	37	1.92	3.140E+00	1.158E+00	1.158E+00	108.60
	463.00	47	4.40	2.827E+00	7.068E-01	7.068E-01	93.76
	794.95	29	4.25	1.756E+00	7.408E-01	7.408E-01	125.31
	911.20	107	25.80*	1.564E+00	4.994E-01	4.994E-01	47.98
	964.77	------	4.99	1.490E+00	------	Line Not Found	------
	968.97	77	15.80	1.483E+00	6.234E-01	6.234E-01	62.02
	1588.20	22	3.22	9.930E-01	1.269E+00	1.269E+00	85.13
PA-234M	1001.03	57	0.84*	1.442E+00	8.833E+00	8.833E+00	115.77
TH-234	63.29	24	4.80	7.666E+00	1.220E-01	1.220E-01	487.79
	92.58	112	5.41*	7.519E+00	5.195E-01	5.195E-01	118.28
U-235	143.76	21	10.96*	6.521E+00	5.579E-02	5.579E-02	318.70
NP-236	98.44	25	38.00*	7.433E+00	1.671E-02	1.671E-02	350.56
NP-237	86.48	178	12.40*	7.594E+00	3.562E-01	3.562E-01	38.98
AM-243	74.66	354	68.20*	7.694E+00	1.274E-01	1.274E-01	23.40

Flag: "*" = Keyline

Sample ID : G198324027 Acquisition date : 1-DEC-2007 05:39:20

Total number of lines in spectrum 61
Number of unidentified lines 28
Number of lines tentatively identified by NID 33 54.10%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	3.634E+00	3.634E+00	0.829E+00	22.83	
CS-137	9.47E+08S	1.00	7.533E-02	7.560E-02	5.437E-02	71.92	
TL-208	4.43E+17S	1.00	1.441E-01	1.441E-01	0.642E-01	44.53	
BI-212	4.43E+17S	1.00	2.462E-01	2.462E-01	3.624E-01	147.24	
PB-212	4.43E+17S	1.00	6.121E-01	6.121E-01	0.816E-01	13.32	
BI-214	5.05E+10S	1.00	4.644E-01	4.644E-01	1.208E-01	26.00	
PB-214	5.05E+10S	1.00	4.524E-01	4.525E-01	0.970E-01	21.44	
AC-228	4.43E+17S	1.00	4.994E-01	4.994E-01	2.396E-01	47.98	
PA-234M	1.41E+17S	1.00	8.833E+00	8.833E+00	10.23E+00	115.77	
TH-234	1.41E+17S	1.00	5.195E-01	5.195E-01	6.145E-01	118.28	
U-235	2.22E+16S	1.00	5.579E-02	5.579E-02	17.78E-02	318.70	
NP-236	4.89E+12S	1.00	1.671E-02	1.671E-02	5.858E-02	350.56	
NP-237	6.75E+13S	1.00	3.562E-01	3.562E-01	1.388E-01	38.98	
AM-243	2.33E+11S	1.00	1.274E-01	1.274E-01	0.298E-01	23.40	
			---	---			
	Total Activity :		1.604E+01	1.604E+01			

Grand Total Activity : 1.604E+01 1.604E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G198324027 Acquisition date : 1-DEC-2007 05:39:20

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.62	109	446	0.84	92.70	89	8	7.56E-03	83.9	7.27E+00	
0	84.29	25	401	1.02	168.10	166	6	1.76E-03	****	7.63E+00	
0	109.12	27	425	0.98	217.80	216	7	1.91E-03	****	7.24E+00	
0	139.47	45	249	1.70	278.54	276	6	3.12E-03	****	6.61E+00	
0	163.05	35	296	0.89	325.75	323	7	2.43E-03	****	6.13E+00	
0	185.88	5	516	0.97	371.45	366	10	3.49E-04	****	5.69E+00	
0	308.90	50	177	1.80	617.68	615	8	3.48E-03	96.4	3.97E+00	
0	328.03	23	232	1.37	655.98	652	8	1.59E-03	****	3.78E+00	
0	355.75	17	177	1.18	711.46	709	8	1.17E-03	****	3.53E+00	
0	459.54	16	97	1.17	919.17	917	6	1.10E-03	****	2.84E+00	
0	641.32	29	70	1.30	1282.96	1279	7	2.05E-03	****	2.12E+00	
0	679.05	20	69	1.02	1358.46	1355	8	1.38E-03	****	2.02E+00	
0	734.98	28	90	3.02	1470.38	1465	9	1.92E-03	****	1.88E+00	
0	866.70	16	72	1.30	1733.95	1727	11	1.08E-03	****	1.63E+00	
0	872.19	12	62	1.50	1744.93	1738	9	8.07E-04	****	1.62E+00	
0	920.00	36	108	2.30	1840.58	1828	18	2.50E-03	****	1.55E+00	
0	952.74	26	99	7.83	1906.09	1895	19	1.78E-03	****	1.51E+00	
0	1016.62	42	60	3.34	2033.89	2027	14	2.93E-03	83.4	1.43E+00	
0	1032.14	27	42	1.20	2064.94	2058	12	1.84E-03	****	1.41E+00	
0	1049.02	22	45	1.51	2098.72	2093	9	1.50E-03	****	1.39E+00	
0	1229.33	24	33	3.69	2459.43	2452	11	1.68E-03	****	1.22E+00	
0	1351.51	15	23	0.97	2703.83	2698	10	1.04E-03	****	1.13E+00	
0	1561.78	25	14	4.38	3124.38	3117	13	1.70E-03	78.2	1.01E+00	
0	1687.20	23	10	2.79	3375.21	3367	17	1.57E-03	82.5	9.47E-01	
0	1756.77	27	13	1.71	3514.33	3506	17	1.89E-03	71.3	9.17E-01	
0	1794.31	8	9	0.61	3589.41	3583	12	5.80E-04	****	9.02E-01	
0	1822.07	8	12	6.61	3644.93	3630	16	5.66E-04	****	8.92E-01	
0	1930.41	9	0	0.58	3861.56	3858	8	6.25E-04	66.7	8.53E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G198324027            *
* Acquisition date :  1-DEC-2007 05:39:20 Detector SN#    :                 *
* Detector ID      : GAM13                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:03.65     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324027           Analyst initials: MJH1            *
* Batch Number     : 706246               Sample Quantity : 9.9480E+01 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME :  2-JUL-2007 15:48:48 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	3.634E+00	8.129E-01	2.629E-01	8.129E-01
CS-137	7.560E-02	5.329E-02	2.638E-02	5.329E-02
TL-208	1.441E-01	6.289E-02	2.422E-02	6.289E-02
BI-212	2.462E-01	3.552E-01	2.304E-01	3.552E-01
PB-212	6.121E-01	7.992E-02	3.349E-02	7.992E-02
BI-214	4.644E-01	1.184E-01	5.457E-02	1.184E-01
PB-214	4.525E-01	9.507E-02	4.213E-02	9.507E-02
AC-228	4.994E-01	2.348E-01	8.784E-02	2.348E-01
PA-234M	8.833E+00	1.002E+01	3.114E+00	1.002E+01
TH-234	5.195E-01	6.022E-01	2.208E-01	6.022E-01
U-235	5.579E-02	1.743E-01	1.011E-01	1.743E-01
NP-236	1.671E-02	5.741E-02	2.744E-02	5.741E-02
NP-237	3.562E-01	1.361E-01	8.313E-02	1.361E-01
AM-243	1.274E-01	2.921E-02	1.645E-02	2.921E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	3.076E-02	3.548E-02	3.144E-02	3.548E-02	NOT IDENT.
RH-101	-4.046E-02	2.674E-02	1.812E-02	2.674E-02	NOT IDENT.
SB-125	-5.396E-02	8.092E-02	6.439E-02	8.092E-02	NOT IDENT.
EU-155	3.033E-02	7.399E-02	5.231E-02	7.399E-02	NOT IDENT.
PO-209	2.028E+00	7.475E+00	6.197E+00	7.475E+00	NOT IDENT.
BI-211	1.638E-01	9.488E-01	7.875E-01	9.488E-01	NOT IDENT.
RA-223	3.658E-02	1.294E-01	1.126E-01	1.294E-01	NOT IDENT.
PA-233	-4.229E-02	5.325E-02	3.765E-02	5.325E-02	NOT IDENT.
NP-239	-7.395E-02	1.566E-01	1.242E-01	1.566E-01	NOT IDENT.
AM-241	8.474E-03	3.801E-02	2.866E-02	3.801E-02	NOT IDENT.
CM-243	-2.982E-02	6.967E-02	4.533E-02	6.967E-02	NOT IDENT.
AM-246	1.757E-02	1.223E-01	1.034E-01	1.223E-01	NOT IDENT.
CF-249	-6.458E-04	3.351E-02	2.792E-02	3.351E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
59.54	307.3754
63.29	373.6683
74.66	388.2227
74.81	388.4204
74.81	388.4204
77.11	391.4478
77.11	391.4478
86.48	320.1491
87.30	449.8346
87.30	449.8346
92.58	421.0007
98.44	313.2092
103.76	309.8172
105.31	283.9678
129.07	280.7049
143.76	273.2248
198.00	302.3428
209.25	260.9277
228.18	252.6200
238.63	256.3145
242.00	257.4893
269.46	231.0592
270.25	217.9939
277.36	210.0535
295.22	188.3948
300.09	227.6222
312.17	205.3896
338.32	200.8035
351.93	167.5002
387.59	193.4977
409.46	178.8879
427.87	187.9405
463.00	132.4539
510.77	135.0533
583.19	117.1837
609.31	163.8626
661.66	112.1418
727.33	140.4012
763.13	104.2559
768.36	112.5313
785.37	111.4017
794.95	88.9138
806.17	106.2226
831.80	96.8752
860.56	95.2883
896.60	104.1359
911.20	66.1890
934.06	80.7607
964.77	96.7048
968.97	146.9197
1001.03	75.2297
1078.86	76.6606
1120.29	71.8389
1155.19	72.7295
1173.23	59.9699
1238.11	52.9777
1280.96	51.6079
1332.51	61.0055
1377.67	39.0571
1401.50	46.8244
1407.98	49.7263
1460.80	46.6741
1509.23	33.7891
1588.20	35.4940
1620.50	28.8321
1729.60	35.7532
1764.49	19.8287

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198324027

Total Uranium Activity	2.5815E-02	ug/g
Total Uranium Counting Unc.	8.0627E-02	ug/g
Total Uranium Tpu	8.0627E-08	ug/g
Total Uranium Mda	4.6800E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:44:47.40

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324028.CNF;1
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 1-DEC-2007 05:40:03.
Sample ID        : G198324028           Sample quantity  : 1.02220E+02 GRAM
Detector name    : GAM21                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:24.22  0.2%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706246               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.61	64	215	0.87	92.33	89	8	4.46E-03	41.4	
2	0	63.47	131	539	1.86	125.98	120	14	9.11E-03	38.5	
3	3	75.15*	432	425	1.86	149.33	141	17	3.00E-02	11.7	2.72E+00
4	3	77.30*	572	289	1.31	153.60	141	17	3.98E-02	7.3	
5	1	87.15	165	338	1.56	173.28	161	30	1.15E-02	21.4	2.26E+00
6	1	89.87	161	326	1.56	178.72	161	30	1.12E-02	22.1	
7	1	93.16*	160	308	1.57	185.28	161	30	1.11E-02	23.2	
8	0	116.90	38	143	1.44	232.70	230	6	2.64E-03	52.5	
9	0	129.30	25	329	1.13	257.47	252	10	1.73E-03	137.6	
10	0	135.68	22	233	0.76	270.22	269	8	1.51E-03	122.4	
11	0	143.61	25	336	1.36	286.05	280	11	1.75E-03	142.4	
12	0	173.63	40	145	1.78	346.02	343	7	2.76E-03	53.2	
13	0	208.82	35	219	0.60	416.31	414	9	2.43E-03	77.6	
14	3	238.59*	639	163	1.32	475.77	468	20	4.44E-02	5.7	1.38E+00
15	3	241.68	127	195	2.10	481.96	468	20	8.84E-03	26.3	
16	0	270.46	76	174	1.61	539.45	535	12	5.27E-03	36.4	
17	2	295.31*	174	122	1.57	589.10	584	18	1.21E-02	14.6	2.12E+00
18	2	299.61	49	82	1.96	597.69	584	18	3.38E-03	37.2	
19	0	338.91	135	201	1.76	676.20	670	16	9.37E-03	25.3	
20	0	351.85*	291	121	1.65	702.07	696	14	2.02E-02	10.4	
21	0	393.93	16	110	1.34	786.15	781	12	1.13E-03	130.5	
22	0	403.50	24	92	2.92	805.27	801	9	1.69E-03	74.4	
23	0	410.97	49	106	0.88	820.20	811	16	3.39E-03	49.6	
24	0	510.93*	61	113	2.41	1019.97	1012	19	4.22E-03	54.6	
25	0	567.26	113	68	2.45	1132.57	1124	18	7.84E-03	19.5	
26	0	583.12*	136	82	1.76	1164.27	1157	12	9.45E-03	16.6	
27	0	609.08*	188	63	1.50	1216.17	1209	14	1.31E-02	12.3	
28	3	671.22*	27	51	2.46	1340.39	1333	32	1.86E-03	62.6	4.32E+00
29	3	678.94	29	37	2.46	1355.82	1333	32	1.99E-03	53.2	
30	0	686.96	22	28	1.36	1371.86	1366	11	1.49E-03	51.9	
31	0	727.53	45	37	2.55	1452.97	1447	10	3.09E-03	29.8	
32	0	762.76	20	22	1.53	1523.42	1519	9	1.42E-03	48.4	
33	0	819.90	8	19	0.79	1637.67	1634	8	5.48E-04	100.6	
34	0	842.75	27	41	3.65	1683.37	1676	14	1.86E-03	54.7	
35	0	911.27	101	62	2.04	1820.41	1814	13	7.02E-03	18.9	
36	0	969.14	56	47	1.50	1936.16	1930	13	3.86E-03	29.1	
37	0	1055.54	34	56	10.60	2109.00	2093	28	2.36E-03	64.6	
38	0	1119.97	57	18	1.99	2237.92	2231	14	3.98E-03	20.4	

Sample ID : G198324028 Acquisition date : 1-DEC-2007 05:40:03

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1229.73	45	23	5.01	2457.56	2446	23	3.12E-03	31.4	
40	0	1292.68	19	24	4.01	2583.53	2573	20	1.29E-03	69.8	
41	0	1386.83	8	21	0.64	2772.00	2763	11	5.84E-04	112.4	
42	0	1460.61	224	22	2.16	2919.70	2912	17	1.55E-02	8.2	
43	0	1480.17	22	14	3.81	2958.85	2950	18	1.55E-03	44.1	
44	0	1588.26	17	10	2.98	3175.29	3170	10	1.18E-03	42.4	
45	0	1611.09	14	2	1.60	3221.01	3217	9	9.81E-04	32.5	
46	0	1661.36	11	6	1.37	3321.68	3314	12	7.64E-04	53.8	
47	0	1680.09	7	12	4.25	3359.20	3350	15	5.01E-04	108.5	
48	0	1703.66	8	5	1.06	3406.40	3401	9	5.21E-04	62.7	
49	0	1729.88	13	10	2.31	3458.93	3453	11	8.98E-04	56.4	
50	0	1764.04*	27	6	1.89	3527.35	3520	13	1.87E-03	33.3	
51	0	2023.50	9	6	4.56	4047.22	4039	12	6.25E-04	63.8	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324028       *
* Acquisition date :  1-DEC-2007 05:40:03 Detector SN#    :                 *
* Detector ID      : GAM21                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:24.22     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324028           Analyst initials: MJH1            *
* Batch Number     : 706246               Sample Quantity : 1.0222E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  2-JUL-2007 16:42:48 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	5.185E+00	8.788E-01	5.332E-01	0.000E+00
TL-208	1.577E-01	5.242E-02	4.771E-02	0.000E+00
BI-212	4.661E-01	2.745E-01	3.176E-01	0.000E+00
PB-212	5.755E-01	7.260E-02	5.873E-02	0.000E+00
PB-214	4.440E-01	9.336E-02	7.657E-02	0.000E+00
RA-223	2.432E-01	1.740E-01	1.883E-01	0.000E+00
AC-228	6.092E-01	2.289E-01	1.763E-01	0.000E+00
TH-234	6.459E-01	2.976E-01	3.243E-01	0.000E+00
U-235	6.036E-02	1.685E-01	1.837E-01	0.000E+00
NP-237	2.865E-01	1.218E-01	1.393E-01	0.000E+00
AM-243	1.344E-01	3.225E-02	2.747E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	-1.251E-02		3.223E-02	5.060E-02	0.000E+00	NOT IDENT.
RH-101	1.260E-02		1.889E-02	3.321E-02	0.000E+00	NOT IDENT.
SB-125	-3.313E-02		6.308E-02	1.004E-01	0.000E+00	NOT IDENT.
CS-137	2.958E-03		3.282E-02	5.511E-02	0.000E+00	NOT IDENT.
EU-155	2.385E-02		5.017E-02	8.439E-02	0.000E+00	NOT IDENT.
PO-209	-2.915E-03		6.449E+00	1.072E+01	0.000E+00	NOT IDENT.
BI-211	2.988E-01		7.552E-01	1.323E+00	0.000E+00	NOT IDENT.
BI-214	0.000E+00		1.055E-01	1.647E-01	0.000E+00	FAIL ABUN
PA-233	9.817E-03		4.045E-02	6.907E-02	0.000E+00	NOT IDENT.
PA-234M	4.311E-01		3.330E+00	5.637E+00	0.000E+00	NOT IDENT.
NP-236	2.595E-02		3.023E-02	4.583E-02	0.000E+00	NOT IDENT.
NP-239	-1.006E-01		1.363E-01	2.237E-01	0.000E+00	NOT IDENT.
AM-241	-8.019E-03		3.266E-02	4.710E-02	0.000E+00	NOT IDENT.
CM-243	-1.972E-02		4.588E-02	7.416E-02	0.000E+00	NOT IDENT.
AM-246	3.415E-02		1.056E-01	1.821E-01	0.000E+00	NOT IDENT.
CF-249	1.381E-02		3.053E-02	4.605E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:44:50.46

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324028.CNF;1
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 1-DEC-2007 05:40:03.
Sample ID        : G198324028           Sample quantity  : 1.02220E+02 GRAM
Detector name    : GAM21                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:24.22  0.2%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706246               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	224	10.66*	7.435E-01	5.185E+00	5.185E+00	17.30
TL-208	277.36	------	6.31	4.080E+00	------	Line Not Found	------
	510.77	61	22.60	2.159E+00	2.287E-01	2.287E-01	109.32
	583.19	136	84.50*	1.875E+00	1.577E-01	1.577E-01	33.93
	763.13	20	1.81	1.416E+00	1.463E+00	1.463E+00	97.14
	860.56	------	12.42	1.251E+00	------	Line Not Found	------
BI-212	727.33	45	11.80*	1.486E+00	4.661E-01	4.661E-01	60.08
	785.37	------	1.10	1.374E+00	------	Line Not Found	------
	1620.50	------	1.49	6.722E-01	------	Line Not Found	------
PB-212	74.81	432	10.40	8.644E+00	8.815E-01	8.815E-01	24.48
	77.11	572	17.50	8.639E+00	6.953E-01	6.953E-01	16.11
	87.30	165	7.81	8.539E+00	4.549E-01	4.549E-01	43.38
	238.63	639	43.30*	4.709E+00	5.755E-01	5.755E-01	12.87
	300.09	49	3.28	3.779E+00	7.220E-01	7.220E-01	74.62
PB-214	74.81	432	6.44	8.644E+00	1.424E+00	1.424E+00	24.48
	77.11	572	10.80	8.639E+00	1.127E+00	1.127E+00	16.11
	87.30	165	4.84	8.539E+00	7.340E-01	7.340E-01	43.38
	242.00	127	7.43	4.653E+00	6.759E-01	6.760E-01	52.99
	295.22	174	19.30	3.834E+00	4.309E-01	4.309E-01	29.68
	351.93	291	37.60*	3.206E+00	4.440E-01	4.440E-01	21.45
RA-223	269.46	76	13.70*	4.181E+00	2.432E-01	2.432E-01	73.01
AC-228	129.07	25	2.42	7.438E+00	2.546E-01	2.546E-01	275.27
	209.25	35	3.89	5.303E+00	3.120E-01	3.120E-01	155.37
	270.25	76	3.46	4.181E+00	9.631E-01	9.631E-01	73.01
	338.32	135	11.27	3.333E+00	6.592E-01	6.592E-01	50.95
	409.46	49	1.92	2.723E+00	1.714E+00	1.714E+00	99.42
	463.00	------	4.40	2.398E+00	------	Line Not Found	------
	794.95	------	4.25	1.357E+00	------	Line Not Found	------
	911.20	101	25.80*	1.181E+00	6.092E-01	6.092E-01	38.34
	964.77	------	4.99	1.115E+00	------	Line Not Found	------
	968.97	56	15.80	1.110E+00	5.820E-01	5.820E-01	58.54
	1588.20	17	3.22	6.855E-01	1.414E+00	1.414E+00	85.02

Sample ID : G198324028 Acquisition date : 1-DEC-2007 05:40:03

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
TH-234	63.29	131	4.80	8.519E+00	5.890E-01	5.890E-01	77.20
	92.58	160	5.41*	8.430E+00	6.459E-01	6.459E-01	47.01
U-235	143.76	25	10.96*	7.004E+00	6.036E-02	6.036E-02	284.88
NP-237	86.48	165	12.40*	8.539E+00	2.865E-01	2.865E-01	43.38
AM-243	74.66	432	68.20*	8.644E+00	1.344E-01	1.344E-01	24.48

Flag: "*" = Keyline

Sample ID : G198324028 Acquisition date : 1-DEC-2007 05:40:03

Total number of lines in spectrum	51	
Number of unidentified lines	23	
Number of lines tentatively identified by NID	28	54.90%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	5.185E+00	5.185E+00	0.897E+00	17.30	
TL-208	4.43E+17S	1.00	1.577E-01	1.577E-01	0.535E-01	33.93	
BI-212	4.43E+17S	1.00	4.661E-01	4.661E-01	2.801E-01	60.08	
PB-212	4.43E+17S	1.00	5.755E-01	5.755E-01	0.741E-01	12.87	
PB-214	5.05E+10S	1.00	4.440E-01	4.440E-01	0.953E-01	21.45	
RA-223	1.04E+12S	1.00	2.432E-01	2.432E-01	1.776E-01	73.01	
AC-228	4.43E+17S	1.00	6.092E-01	6.092E-01	2.335E-01	38.34	
TH-234	1.41E+17S	1.00	6.459E-01	6.459E-01	3.036E-01	47.01	
U-235	2.22E+16S	1.00	6.036E-02	6.036E-02	17.20E-02	284.88	
NP-237	6.75E+13S	1.00	2.865E-01	2.865E-01	1.243E-01	43.38	
AM-243	2.33E+11S	1.00	1.344E-01	1.344E-01	0.329E-01	24.48	
			---	---			
	Total Activity :		8.807E+00	8.807E+00			
	Grand Total Activity :		8.807E+00	8.807E+00			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G198324028 Acquisition date : 1-DEC-2007 05:40:03

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.61	64	215	0.87	92.33	89	8	4.46E-03	82.8	7.66E+00	
1	89.87	161	326	1.56	178.72	161	30	1.12E-02	44.3	8.49E+00	
0	116.90	38	143	1.44	232.70	230	6	2.64E-03	****	7.81E+00	
0	135.68	22	233	0.76	270.22	269	8	1.51E-03	****	7.24E+00	
0	173.63	40	145	1.78	346.02	343	7	2.76E-03	****	6.15E+00	
0	393.93	16	110	1.34	786.15	781	12	1.13E-03	****	2.85E+00	
0	403.50	24	92	2.92	805.27	801	9	1.69E-03	****	2.78E+00	
0	567.26	113	68	2.45	1132.57	1124	18	7.84E-03	39.0	1.93E+00	
0	609.08	188	63	1.50	1216.17	1209	14	1.31E-02	24.6	1.79E+00	T
3	671.22	27	51	2.46	1340.39	1333	32	1.86E-03	****	1.62E+00	
3	678.94	29	37	2.46	1355.82	1333	32	1.99E-03	****	1.60E+00	
0	686.96	22	28	1.36	1371.86	1366	11	1.49E-03	****	1.58E+00	
0	819.90	8	19	0.79	1637.67	1634	8	5.48E-04	****	1.31E+00	
0	842.75	27	41	3.65	1683.37	1676	14	1.86E-03	****	1.28E+00	
0	1055.54	34	56	10.60	2109.00	2093	28	2.36E-03	****	1.02E+00	
0	1119.97	57	18	1.99	2237.92	2231	14	3.98E-03	40.7	9.62E-01	T
0	1229.73	45	23	5.01	2457.56	2446	23	3.12E-03	62.9	8.78E-01	
0	1292.68	19	24	4.01	2583.53	2573	20	1.29E-03	****	8.37E-01	
0	1386.83	8	21	0.64	2772.00	2763	11	5.84E-04	****	7.82E-01	
0	1480.17	22	14	3.81	2958.85	2950	18	1.55E-03	88.2	7.34E-01	
0	1611.09	14	2	1.60	3221.01	3217	9	9.81E-04	65.0	6.76E-01	
0	1661.36	11	6	1.37	3321.68	3314	12	7.64E-04	****	6.56E-01	
0	1680.09	7	12	4.25	3359.20	3350	15	5.01E-04	****	6.49E-01	
0	1703.66	8	5	1.06	3406.40	3401	9	5.21E-04	****	6.40E-01	
0	1729.88	13	10	2.31	3458.93	3453	11	8.98E-04	****	6.31E-01	T
0	1764.04	27	6	1.89	3527.35	3520	13	1.87E-03	66.7	6.19E-01	T
0	2023.50	9	6	4.56	4047.22	4039	12	6.25E-04	****	5.39E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G198324028            *
* Acquisition date :  1-DEC-2007 05:40:03 Detector SN#    :                 *
* Detector ID      : GAM21                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:24.22     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324028           Analyst initials: MJH1            *
* Batch Number     : 706246               Sample Quantity : 1.0222E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME :  2-JUL-2007 16:42:48 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	5.185E+00	8.788E-01	2.668E-01	8.788E-01
TL-208	1.577E-01	5.242E-02	2.387E-02	5.242E-02
BI-212	4.661E-01	2.745E-01	1.589E-01	2.745E-01
PB-212	5.755E-01	7.260E-02	2.938E-02	7.260E-02
PB-214	4.440E-01	9.336E-02	3.831E-02	9.336E-02
RA-223	2.432E-01	1.740E-01	9.422E-02	1.740E-01
AC-228	6.092E-01	2.289E-01	8.821E-02	2.289E-01
TH-234	6.459E-01	2.976E-01	1.622E-01	2.976E-01
U-235	6.036E-02	1.685E-01	9.191E-02	1.685E-01
NP-237	2.865E-01	1.218E-01	6.970E-02	1.218E-01
AM-243	1.344E-01	3.225E-02	1.374E-02	3.225E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	-1.251E-02	3.223E-02	2.531E-02	3.223E-02	NOT IDENT.
RH-101	1.260E-02	1.889E-02	1.662E-02	1.889E-02	NOT IDENT.
SB-125	-3.313E-02	6.308E-02	5.025E-02	6.308E-02	NOT IDENT.
CS-137	2.958E-03	3.282E-02	2.757E-02	3.282E-02	NOT IDENT.
EU-155	2.385E-02	5.017E-02	4.222E-02	5.017E-02	NOT IDENT.
PO-209	-2.915E-03	6.449E+00	5.364E+00	6.449E+00	NOT IDENT.
BI-211	2.988E-01	7.552E-01	6.621E-01	7.552E-01	NOT IDENT.
BI-214	4.188E-01	1.055E-01	8.238E-02	1.055E-01	FAIL ABUN
PA-233	9.817E-03	4.045E-02	3.456E-02	4.045E-02	NOT IDENT.
PA-234M	4.311E-01	3.330E+00	2.820E+00	3.330E+00	NOT IDENT.
NP-236	2.595E-02	3.023E-02	2.293E-02	3.023E-02	NOT IDENT.
NP-239	-1.006E-01	1.363E-01	1.119E-01	1.363E-01	NOT IDENT.
AM-241	-8.019E-03	3.266E-02	2.357E-02	3.266E-02	NOT IDENT.
CM-243	-1.972E-02	4.588E-02	3.710E-02	4.588E-02	NOT IDENT.
AM-246	3.415E-02	1.056E-01	9.112E-02	1.056E-01	NOT IDENT.
CF-249	1.381E-02	3.053E-02	2.304E-02	3.053E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
59.54	288.0653
63.29	316.2410
74.66	357.7139
74.81	357.7713
74.81	357.7713
77.11	358.6498
77.11	358.6498
86.48	297.9164
87.30	298.1577
87.30	298.1577
92.58	299.6827
98.44	241.7956
103.76	284.3138
105.31	255.5862
129.07	267.2607
143.76	272.2418
198.00	205.6353
209.25	251.5632
228.18	220.4904
238.63	197.2106
242.00	197.5639
269.46	161.3777
270.25	158.2425
277.36	144.3604
295.22	144.6239
300.09	152.4096
312.17	121.2981
338.32	138.5320
351.93	117.4368
387.59	92.5551
409.46	91.6414
427.87	91.2467
463.00	79.9439
510.77	78.0780
583.19	79.1467
609.31	67.4311
661.66	79.2718
727.33	43.0567
763.13	72.7295
768.36	48.6401
785.37	53.1847
794.95	44.7414
806.17	44.8629
831.80	37.4536
860.56	29.9701
896.60	47.7589
911.20	40.0908
934.06	31.4466
964.77	37.3069
968.97	57.4242
1001.03	33.8879
1078.86	30.3711
1120.29	27.9911
1155.19	38.0072
1173.23	35.0417
1238.11	21.4520
1280.96	19.9625
1332.51	30.7370
1377.67	20.8235
1401.50	22.5125
1407.98	25.7559
1460.80	24.8905
1509.23	17.7575
1588.20	17.9702
1620.50	23.7566
1729.60	15.4420
1764.49	13.5767

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198324028

Total Uranium Activity	2.7929E-02	ug/g
Total Uranium Counting Unc.	7.7972E-02	ug/g
Total Uranium Tpu	7.7972E-08	ug/g
Total Uranium Mda	4.2525E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:45:40.82

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324029.CNF;1
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 1-DEC-2007 05:43:24.
Sample ID        : G198324029           Sample quantity  : 1.08970E+02 GRAM
Detector name    : GAM16                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.24  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706246               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.05*	21	388	1.08	92.31	88	10	1.49E-03	185.7	
2	0	63.30*	20	384	0.91	126.81	123	8	1.42E-03	187.0	
3	3	74.79*	287	467	1.68	149.79	142	18	2.00E-02	16.9	5.10E+00
4	3	77.14*	450	322	1.14	154.49	142	18	3.13E-02	9.0	
5	2	84.12*	79	315	1.46	168.44	165	13	5.45E-03	42.6	1.38E+00
6	2	87.13*	200	360	1.41	174.46	165	13	1.39E-02	18.7	
7	0	92.85*	168	393	1.47	185.90	182	9	1.17E-02	25.9	
8	0	112.94	35	238	1.46	226.09	222	7	2.46E-03	73.9	
9	0	129.02	53	251	1.04	258.25	255	8	3.70E-03	53.3	
10	0	134.85	52	338	0.95	269.92	265	11	3.63E-03	69.4	
11	0	143.81*	29	274	1.04	287.84	284	8	1.98E-03	109.7	
12	0	153.48	50	337	1.51	307.17	302	11	3.49E-03	71.9	
13	0	163.04*	49	227	1.27	326.29	323	8	3.39E-03	60.1	
14	0	174.49	30	315	1.12	349.19	342	11	2.06E-03	117.9	
15	0	185.85*	106	410	1.27	371.91	365	14	7.34E-03	45.2	
16	0	197.41*	41	344	3.68	395.04	389	13	2.85E-03	99.5	
17	0	209.79*	88	347	1.56	419.78	415	13	6.08E-03	46.8	
18	2	238.68*	815	163	1.30	477.56	469	28	5.66E-02	5.0	1.60E+00
19	2	241.60	228	228	1.77	483.42	469	28	1.59E-02	17.4	
20	0	270.45	51	188	2.15	541.13	536	9	3.52E-03	50.9	
21	0	295.16*	237	219	1.36	590.55	584	12	1.65E-02	14.7	
22	0	300.00	59	169	1.60	600.23	596	10	4.09E-03	43.6	
23	0	328.16	31	171	1.29	656.55	652	9	2.15E-03	78.1	
24	0	338.74	142	251	1.14	677.72	671	13	9.84E-03	24.6	
25	2	348.50	37	139	1.89	697.23	692	22	2.56E-03	65.5	3.13E+00
26	2	352.00*	462	117	1.47	704.23	692	22	3.21E-02	6.6	
27	0	457.01	10	99	0.50	914.28	909	9	7.13E-04	178.7	
28	0	463.23	79	116	1.18	926.73	922	11	5.48E-03	28.9	
29	0	510.98*	82	197	1.97	1022.24	1014	19	5.67E-03	52.3	
30	0	543.71	18	104	4.52	1087.72	1076	15	1.26E-03	125.4	
31	0	550.77	23	51	0.84	1101.83	1098	9	1.57E-03	60.3	
32	0	583.29*	244	79	1.22	1166.91	1160	14	1.69E-02	10.9	
33	0	609.40*	351	109	1.31	1219.13	1211	15	2.44E-02	8.8	
34	0	662.21	124	149	2.01	1324.79	1318	18	8.59E-03	24.8	
35	0	671.55	31	59	3.39	1343.46	1338	12	2.15E-03	53.1	
36	0	708.74	25	119	6.13	1417.86	1404	18	1.73E-03	105.5	
37	0	727.85*	47	57	1.57	1456.11	1451	10	3.29E-03	36.9	
38	0	771.28	55	112	6.21	1542.98	1534	21	3.83E-03	50.4	

Sample ID : G198324029 Acquisition date : 1-DEC-2007 05:43:24

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	785.55	16	49	1.41	1571.55	1567	9	1.14E-03	79.4	
40	0	796.44	13	77	1.21	1593.33	1587	13	9.31E-04	136.2	
41	0	822.83	25	35	1.90	1646.12	1639	11	1.74E-03	50.3	
42	0	860.73	49	38	1.17	1721.95	1716	11	3.38E-03	28.5	
43	0	904.80	14	47	0.92	1810.13	1802	11	1.01E-03	95.1	
44	0	911.41*	157	47	1.56	1823.37	1818	12	1.09E-02	13.0	
45	0	934.09	44	61	1.38	1868.74	1861	16	3.02E-03	43.6	
46	1	964.68	43	71	2.12	1929.95	1924	24	2.97E-03	41.2	3.75E+00
47	1	968.90	120	57	2.13	1938.39	1924	24	8.36E-03	16.0	
48	0	1052.25	15	16	1.29	2105.18	2101	8	1.01E-03	54.3	
49	0	1120.52	89	62	1.78	2241.79	2232	20	6.15E-03	24.6	
50	0	1175.48	21	22	1.45	2351.78	2347	12	1.43E-03	52.0	
51	0	1194.90	20	30	1.14	2390.63	2383	11	1.40E-03	57.1	
52	0	1218.21	10	29	2.81	2437.28	2427	12	7.21E-04	109.4	
53	0	1238.65	27	47	2.51	2478.18	2470	13	1.85E-03	57.1	
54	0	1245.60	19	26	4.39	2492.10	2483	13	1.35E-03	58.4	
55	0	1377.22	43	21	2.83	2755.51	2746	21	2.95E-03	31.0	
56	5	1460.70*	307	17	2.09	2922.60	2915	20	2.13E-02	6.6	1.58E+00
57	5	1464.67	16	4	2.31	2930.54	2915	20	1.10E-03	40.9	
58	0	1583.00	7	15	1.31	3167.38	3161	12	4.70E-04	120.9	
59	0	1612.06	23	7	6.55	3225.56	3217	17	1.57E-03	35.9	
60	0	1662.71	10	4	0.90	3326.94	3322	10	6.94E-04	51.5	
61	0	1667.19	9	2	0.99	3335.91	3331	9	6.19E-04	45.0	
62	0	1713.79	11	6	3.81	3429.18	3423	12	7.64E-04	53.8	
63	0	1730.05	14	7	1.41	3461.73	3456	10	9.87E-04	44.4	
64	0	1764.51*	53	22	1.16	3530.72	3523	16	3.67E-03	27.0	
65	0	1848.67	18	16	2.62	3699.19	3690	12	1.28E-03	48.2	
66	0	1959.64	11	2	1.45	3921.37	3917	8	7.67E-04	37.4	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324029       *
* Acquisition date :  1-DEC-2007 05:43:24 Detector SN#    :                 *
* Detector ID      : GAM16                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:01.24     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324029           Analyst initials: MJH1            *
* Batch Number     : 706246               Sample Quantity : 1.0897E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  1-OCT-2007 14:23:01 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.784E+00	5.413E-01	2.047E-01	0.000E+00
RH-101	1.535E-02	2.994E-02	2.777E-02	0.000E+00
CS-137	9.605E-02	4.738E-02	2.812E-02	0.000E+00
TL-208	1.705E-01	3.830E-02	2.689E-02	0.000E+00
BI-212	2.871E-01	2.088E-01	2.398E-01	0.000E+00
PB-212	5.610E-01	6.315E-02	4.578E-02	0.000E+00
BI-214	4.672E-01	8.816E-02	6.000E-02	0.000E+00
PB-214	4.850E-01	6.713E-02	5.699E-02	0.000E+00
RA-223	1.202E-01	1.201E-01	1.458E-01	0.000E+00
AC-228	5.310E-01	1.424E-01	1.198E-01	0.000E+00
TH-234	7.172E-01	3.675E-01	4.023E-01	0.000E+00
U-235	5.891E-02	1.267E-01	1.654E-01	0.000E+00
NP-237	3.876E-01	1.449E-01	1.914E-01	0.000E+00
AM-243	1.186E-01	4.001E-02	3.833E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	1.471E-02		2.230E-02	3.516E-02	0.000E+00	NOT IDENT.
SB-125	-2.037E-03		4.637E-02	7.831E-02	0.000E+00	NOT IDENT.
EU-155	3.953E-02		4.839E-02	8.516E-02	0.000E+00	NOT IDENT.
PO-209	-3.659E-01		4.198E+00	6.381E+00	0.000E+00	NOT IDENT.
BI-211	-2.988E-01		5.714E-01	9.326E-01	0.000E+00	NOT IDENT.
PA-233	3.364E-02		3.208E-02	5.803E-02	0.000E+00	NOT IDENT.
PA-234M	1.604E+00		2.481E+00	4.017E+00	0.000E+00	NOT IDENT.
NP-236	3.182E-02		3.151E-02	5.054E-02	0.000E+00	NOT IDENT.
NP-239	1.630E-02		1.126E-01	1.874E-01	0.000E+00	NOT IDENT.
AM-241	8.460E-02		6.674E-02	1.083E-01	0.000E+00	NOT IDENT.
CM-243	-1.230E-02		4.441E-02	7.491E-02	0.000E+00	NOT IDENT.
AM-246	-7.344E-03		7.123E-02	1.181E-01	0.000E+00	NOT IDENT.
CF-249	5.828E-03		2.245E-02	3.562E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:45:43.50

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324029.CNF;1
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 1-DEC-2007 05:43:24.
Sample ID        : G198324029           Sample quantity  : 1.08970E+02 GRAM
Detector name    : GAM16                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.24  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706246               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	307	10.66*	1.310E+00	3.784E+00	3.784E+00	14.60
RH-101	198.00	41	73.00*	6.527E+00	1.485E-02	1.535E-02	199.08
CS-137	661.66	124	85.10*	2.615E+00	9.571E-02	9.605E-02	50.33
TL-208	277.36	------	6.31	5.201E+00	------	Line Not Found	------
	510.77	82	22.60	3.250E+00	1.915E-01	1.915E-01	104.84
	583.19	244	84.50*	2.913E+00	1.705E-01	1.705E-01	22.93
	763.13	------	1.81	2.311E+00	------	Line Not Found	------
	860.56	49	12.42	2.076E+00	3.254E-01	3.254E-01	57.64
BI-212	727.33	47	11.80*	2.409E+00	2.871E-01	2.871E-01	74.21
	785.37	16	1.10	2.253E+00	1.146E+00	1.146E+00	159.03
	1620.50	------	1.49	1.212E+00	------	Line Not Found	------
PB-212	74.81	287	10.40	6.121E+00	7.776E-01	7.776E-01	34.43
	77.11	450	17.50	6.365E+00	6.963E-01	6.963E-01	19.29
	87.30	200	7.81	7.158E+00	6.153E-01	6.153E-01	38.14
	238.63	815	43.30*	5.778E+00	5.610E-01	5.610E-01	11.49
	300.09	59	3.28	4.913E+00	6.291E-01	6.291E-01	87.42
BI-214	609.31	351	46.10*	2.807E+00	4.671E-01	4.672E-01	19.26
	768.36	------	4.94	2.297E+00	------	Line Not Found	------
	806.17	------	1.22	2.201E+00	------	Line Not Found	------
	934.06	44	3.03	1.929E+00	1.283E+00	1.283E+00	87.67
	1120.29	89	15.10	1.639E+00	6.168E-01	6.168E-01	49.62
	1155.19	------	1.63	1.595E+00	------	Line Not Found	------
	1238.11	27	5.79	1.501E+00	5.292E-01	5.292E-01	114.33
	1280.96	------	1.43	1.458E+00	------	Line Not Found	------
	1377.67	43	4.00	1.373E+00	1.334E+00	1.334E+00	62.39
	1401.50	------	1.27	1.353E+00	------	Line Not Found	------
	1407.98	------	2.15	1.348E+00	------	Line Not Found	------
	1509.23	------	2.11	1.277E+00	------	Line Not Found	------
	1729.60	14	2.92	1.160E+00	7.225E-01	7.226E-01	88.90
	1764.49	53	15.40	1.146E+00	5.162E-01	5.163E-01	54.33
PB-214	74.81	287	6.44	6.121E+00	1.256E+00	1.256E+00	34.43
	77.11	450	10.80	6.365E+00	1.128E+00	1.128E+00	19.29

Sample ID : G198324029 Acquisition date : 1-DEC-2007 05:43:24

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	200	4.84	7.158E+00	9.929E-01	9.930E-01	38.14
	242.00	228	7.43	5.730E+00	9.237E-01	9.238E-01	35.16
	295.22	237	19.30	4.972E+00	4.254E-01	4.255E-01	29.95
	351.93	462	37.60*	4.359E+00	4.850E-01	4.850E-01	14.12
RA-223	269.46	51	13.70*	5.296E+00	1.202E-01	1.202E-01	101.92
AC-228	129.07	53	2.42	7.821E+00	4.844E-01	4.844E-01	106.75
	209.25	88	3.89	6.288E+00	6.165E-01	6.165E-01	93.78
	270.25	51	3.46	5.296E+00	4.761E-01	4.761E-01	101.92
	338.32	142	11.27	4.488E+00	4.827E-01	4.827E-01	49.50
	409.46	------	1.92	3.879E+00	------ Line Not Found		------
	463.00	79	4.40	3.518E+00	8.778E-01	8.778E-01	58.10
	794.95	13	4.25	2.225E+00	2.441E-01	2.440E-01	272.47
	911.20	157	25.80*	1.972E+00	5.310E-01	5.310E-01	27.36
	964.77	43	4.99	1.874E+00	7.887E-01	7.887E-01	82.83
	968.97	120	15.80	1.867E+00	7.031E-01	7.031E-01	32.89
	1588.20	------	3.22	1.230E+00	------ Line Not Found		------
TH-234	63.29	20	4.80	4.595E+00	1.593E-01	1.593E-01	374.14
	92.58	168	5.41*	7.458E+00	7.172E-01	7.172E-01	52.29
U-235	143.76	29	10.96*	7.605E+00	5.891E-02	5.891E-02	219.51
NP-237	86.48	200	12.40*	7.158E+00	3.876E-01	3.876E-01	38.14
AM-243	74.66	287	68.20*	6.121E+00	1.186E-01	1.186E-01	34.43

Flag: "*" = Keyline

Sample ID : G198324029 Acquisition date : 1-DEC-2007 05:43:24

Total number of lines in spectrum 66
Number of unidentified lines 31
Number of lines tentatively identified by NID 35 53.03%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	3.784E+00	3.784E+00	0.552E+00	14.60	
RH-101	1.04E+08S	1.03	1.485E-02	1.535E-02	3.055E-02	199.08	
CS-137	9.47E+08S	1.00	9.571E-02	9.605E-02	4.835E-02	50.33	
TL-208	4.43E+17S	1.00	1.705E-01	1.705E-01	0.391E-01	22.93	
BI-212	4.43E+17S	1.00	2.871E-01	2.871E-01	2.130E-01	74.21	
PB-212	4.43E+17S	1.00	5.610E-01	5.610E-01	0.644E-01	11.49	
BI-214	5.05E+10S	1.00	4.671E-01	4.672E-01	0.900E-01	19.26	
PB-214	5.05E+10S	1.00	4.850E-01	4.850E-01	0.685E-01	14.12	
RA-223	1.04E+12S	1.00	1.202E-01	1.202E-01	1.225E-01	101.92	
AC-228	4.43E+17S	1.00	5.310E-01	5.310E-01	1.453E-01	27.36	
TH-234	1.41E+17S	1.00	7.172E-01	7.172E-01	3.750E-01	52.29	
U-235	2.22E+16S	1.00	5.891E-02	5.891E-02	12.93E-02	219.51	
NP-237	6.75E+13S	1.00	3.876E-01	3.876E-01	1.478E-01	38.14	
AM-243	2.33E+11S	1.00	1.186E-01	1.186E-01	0.408E-01	34.43	
			---	---			
	Total Activity :		7.799E+00	7.800E+00			

Grand Total Activity : 7.799E+00 7.800E+00

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G198324029 Acquisition date : 1-DEC-2007 05:43:24

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.05	21	388	1.08	92.31	88	10	1.49E-03	****	1.67E+00	
2	84.12	79	315	1.46	168.44	165	13	5.45E-03	85.2	6.96E+00	
0	112.94	35	238	1.46	226.09	222	7	2.46E-03	****	7.89E+00	
0	134.85	52	338	0.95	269.92	265	11	3.63E-03	****	7.75E+00	
0	153.48	50	337	1.51	307.17	302	11	3.49E-03	****	7.42E+00	
0	163.04	49	227	1.27	326.29	323	8	3.39E-03	****	7.23E+00	
0	174.49	30	315	1.12	349.19	342	11	2.06E-03	****	6.99E+00	
0	185.85	106	410	1.27	371.91	365	14	7.34E-03	90.4	6.76E+00	
0	328.16	31	171	1.29	656.55	652	9	2.15E-03	****	4.60E+00	
2	348.50	37	139	1.89	697.23	692	22	2.56E-03	****	4.39E+00	
0	457.01	10	99	0.50	914.28	909	9	7.13E-04	****	3.56E+00	
0	543.71	18	104	4.52	1087.72	1076	15	1.26E-03	****	3.09E+00	
0	550.77	23	51	0.84	1101.83	1098	9	1.57E-03	****	3.06E+00	
0	671.55	31	59	3.39	1343.46	1338	12	2.15E-03	****	2.58E+00	
0	708.74	25	119	6.13	1417.86	1404	18	1.73E-03	****	2.47E+00	
0	771.28	55	112	6.21	1542.98	1534	21	3.83E-03	****	2.29E+00	
0	822.83	25	35	1.90	1646.12	1639	11	1.74E-03	****	2.16E+00	
0	904.80	14	47	0.92	1810.13	1802	11	1.01E-03	****	1.99E+00	
0	1052.25	15	16	1.29	2105.18	2101	8	1.01E-03	****	1.73E+00	
0	1175.48	21	22	1.45	2351.78	2347	12	1.43E-03	****	1.57E+00	
0	1194.90	20	30	1.14	2390.63	2383	11	1.40E-03	****	1.55E+00	
0	1218.21	10	29	2.81	2437.28	2427	12	7.21E-04	****	1.52E+00	
0	1245.60	19	26	4.39	2492.10	2483	13	1.35E-03	****	1.49E+00	
5	1464.67	16	4	2.31	2930.54	2915	20	1.10E-03	81.7	1.31E+00	
0	1583.00	7	15	1.31	3167.38	3161	12	4.70E-04	****	1.23E+00	
0	1612.06	23	7	6.55	3225.56	3217	17	1.57E-03	71.9	1.22E+00	
0	1662.71	10	4	0.90	3326.94	3322	10	6.94E-04	****	1.19E+00	
0	1667.19	9	2	0.99	3335.91	3331	9	6.19E-04	90.0	1.19E+00	
0	1713.79	11	6	3.81	3429.18	3423	12	7.64E-04	****	1.17E+00	
0	1848.67	18	16	2.62	3699.19	3690	12	1.28E-03	96.5	1.12E+00	
0	1959.64	11	2	1.45	3921.37	3917	8	7.67E-04	74.7	1.08E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G198324029            *
* Acquisition date :  1-DEC-2007 05:43:24 Detector SN#    :                 *
* Detector ID      : GAM16                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:01.24     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324029           Analyst initials: MJH1            *
* Batch Number     : 706246               Sample Quantity : 1.0897E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME :  1-OCT-2007 14:23:01 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	3.784E+00	5.413E-01	1.024E-01	5.413E-01
RH-101	1.535E-02	2.994E-02	1.389E-02	2.994E-02
CS-137	9.605E-02	4.738E-02	1.407E-02	4.738E-02
TL-208	1.705E-01	3.830E-02	1.346E-02	3.830E-02
BI-212	2.871E-01	2.088E-01	1.200E-01	2.088E-01
PB-212	5.610E-01	6.315E-02	2.290E-02	6.315E-02
BI-214	4.672E-01	8.816E-02	3.002E-02	8.816E-02
PB-214	4.850E-01	6.713E-02	2.851E-02	6.713E-02
RA-223	1.202E-01	1.201E-01	7.296E-02	1.201E-01
AC-228	5.310E-01	1.424E-01	5.995E-02	1.424E-01
TH-234	7.172E-01	3.675E-01	2.013E-01	3.675E-01
U-235	5.891E-02	1.267E-01	8.276E-02	1.267E-01
NP-237	3.876E-01	1.449E-01	9.578E-02	1.449E-01
AM-243	1.186E-01	4.001E-02	1.918E-02	4.001E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	1.471E-02	2.230E-02	1.759E-02	2.230E-02	NOT IDENT.
SB-125	-2.037E-03	4.637E-02	3.918E-02	4.637E-02	NOT IDENT.
EU-155	3.953E-02	4.839E-02	4.261E-02	4.839E-02	NOT IDENT.
PO-209	-3.659E-01	4.198E+00	3.192E+00	4.198E+00	NOT IDENT.
BI-211	-2.988E-01	5.714E-01	4.666E-01	5.714E-01	NOT IDENT.
PA-233	3.364E-02	3.208E-02	2.903E-02	3.208E-02	NOT IDENT.
PA-234M	1.604E+00	2.481E+00	2.010E+00	2.481E+00	NOT IDENT.
NP-236	3.182E-02	3.151E-02	2.528E-02	3.151E-02	NOT IDENT.
NP-239	1.630E-02	1.126E-01	9.377E-02	1.126E-01	NOT IDENT.
AM-241	8.460E-02	6.674E-02	5.418E-02	6.674E-02	NOT IDENT.
CM-243	-1.230E-02	4.441E-02	3.748E-02	4.441E-02	NOT IDENT.
AM-246	-7.344E-03	7.123E-02	5.906E-02	7.123E-02	NOT IDENT.
CF-249	5.828E-03	2.245E-02	1.782E-02	2.245E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
59.54	292.5769
63.29	356.7063
74.66	386.2334
74.81	386.3130
74.81	386.3130
77.11	387.5268
77.11	387.5268
86.48	433.5403
87.30	489.0353
87.30	489.0353
92.58	399.1280
98.44	262.1034
103.76	284.9212
105.31	253.0505
129.07	268.1437
143.76	290.6121
198.00	250.6306
209.25	256.3720
228.18	215.7785
238.63	201.9365
242.00	202.3871
269.46	173.4834
270.25	173.5685
277.36	159.6958
295.22	172.7488
300.09	150.4376
312.17	140.4474
338.32	165.7190
351.93	135.0141
387.59	123.1043
409.46	124.3751
427.87	110.8369
463.00	91.3189
510.77	97.6518
583.19	68.2832
609.31	93.9814
661.66	60.7380
727.33	72.7186
763.13	84.1162
768.36	62.2683
785.37	55.2173
794.95	56.9531
806.17	59.2526
831.80	80.1981
860.56	42.2983
896.60	48.4029
911.20	58.3063
934.06	45.0426
964.77	53.1212
968.97	53.1761
1001.03	38.0058
1078.86	50.6223
1120.29	37.0738
1155.19	41.3987
1173.23	33.0181
1238.11	12.3325
1280.96	19.6989
1332.51	36.6620
1377.67	36.9838
1401.50	41.3962
1407.98	17.0039
1460.80	12.8784
1509.23	29.2313
1588.20	21.4051
1620.50	23.5469
1729.60	9.6320
1764.49	16.4658

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198324029

Total Uranium Activity	2.7258E-02	ug/g
Total Uranium Counting Unc.	5.8637E-02	ug/g
Total Uranium Tpu	5.8637E-08	ug/g
Total Uranium Mda	3.8291E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:46:43.94

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324030.CNF;2
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 1-DEC-2007 05:44:04.
Sample ID        : G198324030           Sample quantity  : 1.08140E+02 GRAM
Detector name    : GAM23                Detector geometry: CAN
Elapsed live time: 0 08:00:00.00        Elapsed real time: 0 08:00:16.68  0.1%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706246               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.34*	68	480	0.85	92.63	89	8	2.35E-03	68.7	
2	2	63.19*	63	340	0.89	126.33	123	13	2.19E-03	57.4	2.56E+00
3	2	66.42*	59	397	0.95	132.79	123	13	2.04E-03	63.1	
4	1	73.10	50	353	0.88	146.16	144	17	1.75E-03	57.3	1.91E+00
5	1	74.95	209	347	0.89	149.84	144	17	7.24E-03	15.3	
6	1	77.11	356	337	0.90	154.16	144	17	1.24E-02	9.5	
7	1	78.94	48	327	0.90	157.84	144	17	1.68E-03	63.0	
8	0	86.51	101	802	0.88	172.98	168	10	3.49E-03	53.7	
9	0	92.84*	106	633	0.96	185.63	182	9	3.68E-03	54.8	
10	0	139.21	62	423	2.24	278.40	276	7	2.15E-03	56.5	
11	0	144.14*	43	385	0.85	288.26	286	6	1.49E-03	87.4	
12	0	174.50	40	384	1.05	348.98	346	7	1.39E-03	82.7	
13	0	185.85*	67	430	1.11	371.68	368	8	2.33E-03	75.3	
14	0	189.01	68	317	1.53	378.01	376	6	2.35E-03	43.3	
15	0	202.50	100	441	2.57	404.99	401	9	3.48E-03	39.0	
16	0	209.05	56	456	1.01	418.10	415	8	1.95E-03	67.4	
17	4	238.65*	630	265	0.95	477.30	470	19	2.19E-02	7.2	9.87E-01
18	4	241.84	206	403	1.63	483.69	470	19	7.15E-03	20.2	
19	0	248.39	25	232	0.94	496.78	495	6	8.52E-04	100.8	
20	0	277.48	59	306	1.19	554.97	552	8	2.06E-03	52.5	
21	0	295.28*	248	315	1.07	590.59	587	9	8.60E-03	16.4	
22	0	300.24	74	270	1.85	600.51	597	8	2.56E-03	40.5	
23	0	327.84	89	308	0.61	655.71	652	9	3.08E-03	37.2	
24	0	338.35	198	361	1.09	676.75	672	11	6.89E-03	19.8	
25	0	351.95*	314	347	0.94	703.94	700	10	1.09E-02	13.6	
26	0	376.01	59	194	2.34	752.07	749	8	2.06E-03	42.5	
27	0	433.54*	71	311	2.45	867.16	861	14	2.45E-03	60.1	
28	0	439.39*	49	183	1.16	878.87	875	10	1.72E-03	68.2	
29	0	463.56	48	331	0.78	927.23	920	14	1.66E-03	82.2	
30	0	483.86	36	109	1.40	967.84	965	7	1.26E-03	50.7	
31	0	487.06	26	209	0.72	974.23	971	11	9.08E-04	108.3	
32	0	511.01*	111	331	1.84	1022.15	1014	18	3.85E-03	53.8	
33	0	583.18*	145	149	1.32	1166.53	1162	10	5.03E-03	23.3	
34	0	609.42*	295	147	1.35	1219.02	1214	12	1.02E-02	11.4	
35	3	661.65	688	99	1.53	1323.52	1315	20	2.39E-02	4.6	1.38E+00
36	3	665.37	31	74	2.09	1330.96	1315	20	1.06E-03	50.4	
37	0	705.43	23	109	1.39	1411.12	1409	8	7.88E-04	82.2	
38	0	727.90	74	123	0.83	1456.08	1450	12	2.58E-03	32.5	

Sample ID : G198324030 Acquisition date : 1-DEC-2007 05:44:04

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	806.31	102	203	9.24	1612.96	1601	25	3.55E-03	39.1	
40	0	898.02	56	123	5.67	1796.45	1785	19	1.96E-03	49.0	
41	0	910.93*	154	79	1.99	1822.29	1815	15	5.34E-03	17.3	
42	0	964.05*	32	88	0.76	1928.58	1921	13	1.12E-03	68.5	
43	0	968.64	88	67	2.10	1937.76	1933	11	3.07E-03	20.7	
44	0	1000.51*	22	36	3.03	2001.52	1997	10	7.76E-04	76.5	
45	0	1096.43	36	42	3.42	2193.46	2186	16	1.24E-03	46.2	
46	0	1101.98	20	24	0.64	2204.56	2201	9	6.85E-04	49.3	
47	0	1120.64	36	67	2.08	2241.91	2237	10	1.24E-03	46.0	
48	0	1230.07	44	11	4.40	2460.89	2455	12	1.51E-03	21.9	
49	0	1260.79	12	33	0.84	2522.36	2515	12	4.16E-04	100.3	
50	0	1270.84	15	41	5.68	2542.49	2532	15	5.19E-04	97.2	
51	0	1329.79	18	18	1.78	2660.46	2657	8	6.39E-04	46.1	
52	0	1378.45	37	39	0.81	2757.84	2749	18	1.30E-03	43.0	
53	0	1460.93*	187	66	2.05	2922.90	2913	19	6.50E-03	15.5	
54	0	1586.68	30	45	10.86	3174.57	3156	26	1.03E-03	64.6	
55	4	1635.04	11	3	1.89	3271.36	3269	16	3.86E-04	35.7	2.69E+00
56	4	1637.76	23	12	2.96	3276.82	3269	16	8.12E-04	39.6	
57	0	1705.28	9	15	0.59	3411.94	3404	12	3.23E-04	89.4	
58	2	1764.25*	47	35	2.78	3529.99	3524	25	1.62E-03	32.6	4.62E+00
59	0	1821.78	18	6	3.66	3645.13	3638	14	6.26E-04	38.6	
60	0	1848.79	14	3	1.12	3699.19	3695	10	4.91E-04	34.1	
61	0	1862.78	8	29	1.07	3727.20	3715	15	2.85E-04	149.1	
62	0	1881.47	18	12	0.67	3764.62	3755	16	6.37E-04	48.2	
63	0	1909.42	9	7	3.78	3820.56	3811	14	3.12E-04	70.7	
64	0	1990.06	12	21	4.13	3981.98	3969	17	4.26E-04	90.5	
65	0	2002.96	11	9	1.43	4007.80	3999	12	3.78E-04	63.0	
66	0	2030.25	10	11	5.21	4062.43	4054	14	3.49E-04	75.6	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324030       *
* Acquisition date :  1-DEC-2007 05:44:04 Detector SN#    :                 *
* Detector ID      : GAM23                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 08:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 08:00:16.68     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324030           Analyst initials: MJH1            *
* Batch Number     : 706246               Sample Quantity : 1.0814E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 18-MAY-2007 16:30:26 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	1.470E+00	4.594E-01	2.424E-01	0.000E+00
CS-137	3.347E-01	3.606E-02	2.559E-02	0.000E+00
TL-208	6.353E-02	2.921E-02	2.466E-02	0.000E+00
PO-209	6.518E+00	6.285E+00	4.972E+00	0.000E+00
BI-212	2.824E-01	1.810E-01	2.134E-01	0.000E+00
PB-212	2.647E-01	3.992E-02	3.596E-02	0.000E+00
BI-214	2.464E-01	5.660E-02	4.905E-02	0.000E+00
PB-214	2.051E-01	5.565E-02	4.898E-02	0.000E+00
AC-228	3.276E-01	1.143E-01	8.387E-02	0.000E+00
PA-234M	1.594E+00	2.392E+00	2.729E+00	0.000E+00
TH-234	2.953E-01	3.179E-01	2.692E-01	0.000E+00
U-235	5.313E-02	9.111E-02	1.126E-01	0.000E+00
NP-237	1.324E-01	1.398E-01	1.277E-01	0.000E+00
AM-243	6.373E-02	1.957E-02	2.772E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	1.383E-02		1.494E-02	2.706E-02	0.000E+00	NOT IDENT.
RH-101	4.570E-05		1.400E-02	2.084E-02	0.000E+00	NOT IDENT.
SB-125	2.052E-02		4.406E-02	6.685E-02	0.000E+00	NOT IDENT.
EU-155	1.765E-02		3.338E-02	5.935E-02	0.000E+00	NOT IDENT.
BI-211	-2.060E-01		4.831E-01	7.813E-01	0.000E+00	NOT IDENT.
RA-223	9.416E-02		7.349E-02	1.256E-01	0.000E+00	NOT IDENT.
PA-233	-2.199E-03		2.618E-02	4.500E-02	0.000E+00	NOT IDENT.
NP-236	3.713E-04		1.945E-02	3.418E-02	0.000E+00	NOT IDENT.
NP-239	4.320E-02		8.394E-02	1.412E-01	0.000E+00	NOT IDENT.
AM-241	3.774E-02		6.202E-02	9.673E-02	0.000E+00	NOT IDENT.
CM-243	-1.854E-02		3.041E-02	5.208E-02	0.000E+00	NOT IDENT.
AM-246	2.953E-02		5.019E-02	8.907E-02	0.000E+00	NOT IDENT.
CF-249	-5.486E-03		1.692E-02	2.822E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:46:44.92

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324030.CNF;2
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 1-DEC-2007 05:44:04.
Sample ID        : G198324030           Sample quantity  : 1.08140E+02 GRAM
Detector name    : GAM23                Detector geometry: CAN
Elapsed live time: 0 08:00:00.00        Elapsed real time: 0 08:00:16.68  0.1%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706246               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	187	10.66*	1.037E+00	1.470E+00	1.470E+00	31.89
CS-137	661.66	688	85.10*	2.102E+00	3.335E-01	3.347E-01	10.99
TL-208	277.36	59	6.31	4.252E+00	1.921E-01	1.921E-01	105.23
	510.77	111	22.60	2.613E+00	1.631E-01	1.631E-01	107.65
	583.19	145	84.50*	2.341E+00	6.353E-02	6.353E-02	46.91
	763.13	------	1.81	1.854E+00	------	Line Not Found	------
	860.56	------	12.42	1.664E+00	------	Line Not Found	------
PO-209	896.60	56	0.47*	1.600E+00	6.511E+00	6.518E+00	98.39
BI-212	727.33	74	11.80*	1.934E+00	2.824E-01	2.824E-01	65.42
	785.37	------	1.10	1.807E+00	------	Line Not Found	------
	1620.50	------	1.49	9.597E-01	------	Line Not Found	------
PB-212	74.81	209	10.40	4.164E+00	4.179E-01	4.179E-01	31.33
	77.11	356	17.50	4.412E+00	4.003E-01	4.003E-01	20.35
	87.30	101	7.81	5.315E+00	2.102E-01	2.102E-01	107.75
	238.63	630	43.30*	4.766E+00	2.647E-01	2.647E-01	15.39
	300.09	74	3.28	3.999E+00	4.872E-01	4.872E-01	81.15
BI-214	609.31	295	46.10*	2.256E+00	2.463E-01	2.464E-01	23.44
	768.36	------	4.94	1.843E+00	------	Line Not Found	------
	806.17	102	1.22	1.765E+00	4.115E+00	4.116E+00	78.53
	934.06	------	3.03	1.544E+00	------	Line Not Found	------
	1120.29	36	15.10	1.306E+00	1.577E-01	1.577E-01	92.24
	1155.19	------	1.63	1.270E+00	------	Line Not Found	------
	1238.11	------	5.79	1.193E+00	------	Line Not Found	------
	1280.96	------	1.43	1.158E+00	------	Line Not Found	------
	1377.67	37	4.00	1.087E+00	7.460E-01	7.461E-01	86.25
	1401.50	------	1.27	1.073E+00	------	Line Not Found	------
	1407.98	------	2.15	1.069E+00	------	Line Not Found	------
	1509.23	------	2.11	1.011E+00	------	Line Not Found	------
	1729.60	------	2.92	9.196E-01	------	Line Not Found	------
	1764.49	47	15.40	9.088E-01	2.901E-01	2.901E-01	65.45
PB-214	74.81	209	6.44	4.164E+00	6.749E-01	6.750E-01	31.33
	77.11	356	10.80	4.412E+00	6.486E-01	6.486E-01	20.35

Sample ID : G198324030 Acquisition date : 1-DEC-2007 05:44:04

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	101	4.84	5.315E+00	3.393E-01	3.393E-01	107.75
	242.00	206	7.43	4.720E+00	5.097E-01	5.097E-01	40.81
	295.22	248	19.30	4.052E+00	2.748E-01	2.748E-01	33.40
	351.93	314	37.60*	3.529E+00	2.051E-01	2.051E-01	27.68
AC-228	129.07	------	2.42	6.529E+00	------	Line Not Found	------
	209.25	56	3.89	5.240E+00	2.386E-01	2.386E-01	134.98
	270.25	------	3.46	4.339E+00	------	Line Not Found	------
	338.32	198	11.27	3.641E+00	4.197E-01	4.197E-01	40.06
	409.46	------	1.92	3.128E+00	------	Line Not Found	------
	463.00	48	4.40	2.830E+00	3.332E-01	3.332E-01	164.40
	794.95	------	4.25	1.788E+00	------	Line Not Found	------
	911.20	154	25.80*	1.580E+00	3.276E-01	3.276E-01	35.61
	964.77	32	4.99	1.499E+00	3.755E-01	3.755E-01	137.13
	968.97	88	15.80	1.493E+00	3.253E-01	3.253E-01	42.19
	1588.20	30	3.22	9.741E-01	8.241E-01	8.241E-01	129.47
PA-234M	1001.03	22	0.84*	1.449E+00	1.594E+00	1.594E+00	153.15
TH-234	63.29	63	4.80	2.613E+00	4.363E-01	4.363E-01	115.01
	92.58	106	5.41*	5.759E+00	2.953E-01	2.953E-01	109.84
U-235	143.76	43	10.96*	6.384E+00	5.313E-02	5.313E-02	174.99
NP-237	86.48	101	12.40*	5.315E+00	1.324E-01	1.324E-01	107.75
AM-243	74.66	209	68.20*	4.164E+00	6.373E-02	6.373E-02	31.33

Flag: "*" = Keyline

Sample ID : G198324030 Acquisition date : 1-DEC-2007 05:44:04

Total number of lines in spectrum 66
Number of unidentified lines 35
Number of lines tentatively identified by NID 31 46.97%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	1.470E+00	1.470E+00	0.469E+00	31.89	
CS-137	9.47E+08S	1.00	3.335E-01	3.347E-01	0.368E-01	10.99	
TL-208	4.43E+17S	1.00	6.353E-02	6.353E-02	2.980E-02	46.91	
PO-209	3.22E+09S	1.00	6.511E+00	6.518E+00	6.413E+00	98.39	
BI-212	4.43E+17S	1.00	2.824E-01	2.824E-01	1.847E-01	65.42	
PB-212	4.43E+17S	1.00	2.647E-01	2.647E-01	0.407E-01	15.39	
BI-214	5.05E+10S	1.00	2.463E-01	2.464E-01	0.578E-01	23.44	
PB-214	5.05E+10S	1.00	2.051E-01	2.051E-01	0.568E-01	27.68	
AC-228	4.43E+17S	1.00	3.276E-01	3.276E-01	1.167E-01	35.61	
PA-234M	1.41E+17S	1.00	1.594E+00	1.594E+00	2.441E+00	153.15	
TH-234	1.41E+17S	1.00	2.953E-01	2.953E-01	3.244E-01	109.84	
U-235	2.22E+16S	1.00	5.313E-02	5.313E-02	9.297E-02	174.99	
NP-237	6.75E+13S	1.00	1.324E-01	1.324E-01	1.427E-01	107.75	
AM-243	2.33E+11S	1.00	6.373E-02	6.373E-02	1.997E-02	31.33	
			---	---			
	Total Activity :		1.184E+01	1.185E+01			

Grand Total Activity : 1.184E+01 1.185E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G198324030 Acquisition date : 1-DEC-2007 05:44:04

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.34	68	480	0.85	92.63	89	8	2.35E-03	****	5.69E-01	
2	66.42	59	397	0.95	132.79	123	13	2.04E-03	****	3.06E+00	
1	73.10	50	353	0.88	146.16	144	17	1.75E-03	****	3.94E+00	
1	78.94	48	327	0.90	157.84	144	17	1.68E-03	****	4.61E+00	
0	139.21	62	423	2.24	278.40	276	7	2.15E-03	****	6.45E+00	
0	174.50	40	384	1.05	348.98	346	7	1.39E-03	****	5.87E+00	
0	185.85	67	430	1.11	371.68	368	8	2.33E-03	****	5.66E+00	
0	189.01	68	317	1.53	378.01	376	6	2.35E-03	86.6	5.60E+00	
0	202.50	100	441	2.57	404.99	401	9	3.48E-03	78.0	5.35E+00	
0	248.39	25	232	0.94	496.78	495	6	8.52E-04	****	4.63E+00	
0	327.84	89	308	0.61	655.71	652	9	3.08E-03	74.4	3.73E+00	
0	376.01	59	194	2.34	752.07	749	8	2.06E-03	85.0	3.35E+00	
0	433.54	71	311	2.45	867.16	861	14	2.45E-03	****	2.99E+00	
0	439.39	49	183	1.16	878.87	875	10	1.72E-03	****	2.96E+00	
0	483.86	36	109	1.40	967.84	965	7	1.26E-03	****	2.73E+00	
0	487.06	26	209	0.72	974.23	971	11	9.08E-04	****	2.72E+00	
3	665.37	31	74	2.09	1330.96	1315	20	1.06E-03	****	2.09E+00	
0	705.43	23	109	1.39	1411.12	1409	8	7.88E-04	****	1.99E+00	
0	1096.43	36	42	3.42	2193.46	2186	16	1.24E-03	92.4	1.33E+00	
0	1101.98	20	24	0.64	2204.56	2201	9	6.85E-04	98.6	1.33E+00	
0	1230.07	44	11	4.40	2460.89	2455	12	1.51E-03	43.8	1.20E+00	
0	1260.79	12	33	0.84	2522.36	2515	12	4.16E-04	****	1.17E+00	
0	1270.84	15	41	5.68	2542.49	2532	15	5.19E-04	****	1.17E+00	
0	1329.79	18	18	1.78	2660.46	2657	8	6.39E-04	92.3	1.12E+00	
4	1635.04	11	3	1.89	3271.36	3269	16	3.86E-04	71.3	9.54E-01	
4	1637.76	23	12	2.96	3276.82	3269	16	8.12E-04	79.3	9.53E-01	
0	1705.28	9	15	0.59	3411.94	3404	12	3.23E-04	****	9.28E-01	
0	1821.78	18	6	3.66	3645.13	3638	14	6.26E-04	77.2	8.93E-01	
0	1848.79	14	3	1.12	3699.19	3695	10	4.91E-04	68.2	8.86E-01	
0	1862.78	8	29	1.07	3727.20	3715	15	2.85E-04	****	8.83E-01	
0	1881.47	18	12	0.67	3764.62	3755	16	6.37E-04	96.3	8.78E-01	
0	1909.42	9	7	3.78	3820.56	3811	14	3.12E-04	****	8.72E-01	
0	1990.06	12	21	4.13	3981.98	3969	17	4.26E-04	****	8.58E-01	
0	2002.96	11	9	1.43	4007.80	3999	12	3.78E-04	****	8.56E-01	
0	2030.25	10	11	5.21	4062.43	4054	14	3.49E-04	****	8.52E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G198324030            *
* Acquisition date :  1-DEC-2007 05:44:04 Detector SN#    :                 *
* Detector ID      : GAM23                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 08:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 08:00:16.68     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324030           Analyst initials: MJH1            *
* Batch Number     : 706246               Sample Quantity : 1.0814E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 18-MAY-2007 16:30:26 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	1.470E+00	4.594E-01	1.213E-01	4.594E-01
CS-137	3.347E-01	3.606E-02	1.280E-02	3.606E-02
TL-208	6.353E-02	2.921E-02	1.234E-02	2.921E-02
PO-209	6.518E+00	6.285E+00	2.487E+00	6.285E+00
BI-212	2.824E-01	1.810E-01	1.067E-01	1.810E-01
PB-212	2.647E-01	3.992E-02	1.799E-02	3.992E-02
BI-214	2.464E-01	5.660E-02	2.454E-02	5.660E-02
PB-214	2.051E-01	5.565E-02	2.450E-02	5.565E-02
AC-228	3.276E-01	1.143E-01	4.196E-02	1.143E-01
PA-234M	1.594E+00	2.392E+00	1.365E+00	2.392E+00
TH-234	2.953E-01	3.179E-01	1.347E-01	3.179E-01
U-235	5.313E-02	9.111E-02	5.633E-02	9.111E-02
NP-237	1.324E-01	1.398E-01	6.390E-02	1.398E-01
AM-243	6.373E-02	1.957E-02	1.387E-02	1.957E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	1.383E-02	1.494E-02	1.354E-02	1.494E-02	NOT IDENT.
RH-101	4.570E-05	1.400E-02	1.043E-02	1.400E-02	NOT IDENT.
SB-125	2.052E-02	4.406E-02	3.344E-02	4.406E-02	NOT IDENT.
EU-155	1.765E-02	3.338E-02	2.969E-02	3.338E-02	NOT IDENT.
BI-211	-2.060E-01	4.831E-01	3.909E-01	4.831E-01	NOT IDENT.
RA-223	9.416E-02	7.349E-02	6.283E-02	7.349E-02	NOT IDENT.
PA-233	-2.199E-03	2.618E-02	2.251E-02	2.618E-02	NOT IDENT.
NP-236	3.713E-04	1.945E-02	1.710E-02	1.945E-02	NOT IDENT.
NP-239	4.320E-02	8.394E-02	7.063E-02	8.394E-02	NOT IDENT.
AM-241	3.774E-02	6.202E-02	4.839E-02	6.202E-02	NOT IDENT.
CM-243	-1.854E-02	3.041E-02	2.606E-02	3.041E-02	NOT IDENT.
AM-246	2.953E-02	5.019E-02	4.456E-02	5.019E-02	NOT IDENT.
CF-249	-5.486E-03	1.692E-02	1.412E-02	1.692E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
59.54	285.3035
63.29	295.1009
74.66	364.8711
74.81	365.0456
74.81	365.0456
77.11	367.7003
77.11	367.7003
86.48	424.6068
87.30	425.5996
87.30	425.5996
92.58	419.9632
98.44	370.3094
103.76	365.7086
105.31	335.4233
129.07	397.7571
143.76	375.2878
198.00	387.4868
209.25	364.0746
228.18	313.5107
238.63	334.5404
242.00	335.9979
269.46	275.9353
270.25	279.6599
277.36	298.8690
295.22	253.9064
300.09	299.7027
312.17	280.5027
338.32	271.2140
351.93	257.7808
387.59	239.9116
409.46	205.6639
427.87	183.9669
463.00	194.8446
510.77	169.4698
583.19	146.1667
609.31	159.9139
661.66	128.0512
727.33	146.2280
763.13	136.9522
768.36	118.3957
785.37	122.3753
794.95	115.8788
806.17	115.4751
831.80	134.2622
860.56	106.9279
896.60	86.4584
911.20	72.1388
934.06	74.9646
964.77	43.3701
968.97	85.0747
1001.03	68.1818
1078.86	56.5991
1120.29	77.5360
1155.19	62.0000
1173.23	48.7325
1238.11	43.0031
1280.96	50.4456
1332.51	33.3786
1377.67	38.4227
1401.50	34.5039
1407.98	55.5189
1460.80	44.6472
1509.23	44.1581
1588.20	46.1750
1620.50	19.9512
1729.60	30.2399
1764.49	26.5536

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198324030

Total Uranium Activity	2.4581E-02	ug/g
Total Uranium Counting Unc.	4.2155E-02	ug/g
Total Uranium Tpu	4.2155E-08	ug/g
Total Uranium Mda	2.6066E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:47:18.84

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324031.CNF;2
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 1-DEC-2007 05:51:29.
Sample ID        : G198324031           Sample quantity  : 1.10850E+02 GRAM
Detector name    : GAM17                Detector geometry: CAN
Elapsed live time: 0 08:00:00.00        Elapsed real time: 0 08:00:08.75  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706246               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
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Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.51*	8	517	0.96	93.52	90	7	2.62E-04	712.5	
2	2	59.80	79	421	0.98	120.06	116	22	2.74E-03	43.1	8.17E-01
3	2	63.32*	142	361	0.83	127.10	116	22	4.92E-03	35.5	
4	2	66.77*	26	443	1.06	133.99	116	22	8.94E-04	155.3	
5	2	74.88*	322	476	0.82	150.19	146	13	1.12E-02	13.6	9.09E-01
6	2	77.10*	501	499	0.95	154.63	146	13	1.74E-02	9.7	
7	0	84.19*	82	572	0.91	168.80	165	8	2.85E-03	60.3	
8	0	87.39	237	488	0.97	175.20	172	7	8.22E-03	16.8	
9	0	92.79*	88	805	1.12	185.99	182	10	3.06E-03	81.7	
10	0	98.93*	42	481	2.06	198.27	195	8	1.45E-03	106.7	
11	0	105.61	118	520	1.72	211.60	207	9	4.11E-03	36.0	
12	0	112.55*	10	447	1.35	225.48	222	7	3.42E-04	421.3	
13	0	129.07	104	462	1.15	258.48	254	9	3.61E-03	38.6	
14	0	144.19*	43	411	0.74	288.70	285	8	1.48E-03	102.1	
15	0	179.80	51	260	0.86	359.85	357	6	1.78E-03	51.6	
16	0	185.75*	146	517	1.15	371.75	366	11	5.06E-03	38.6	
17	0	202.40	43	245	0.99	405.01	403	6	1.48E-03	60.2	
18	0	209.15	74	298	0.90	418.50	417	7	2.55E-03	40.6	
19	0	215.74	48	294	1.60	431.67	427	8	1.68E-03	63.8	
20	7	238.68*	478	228	0.98	477.51	470	20	1.66E-02	8.4	1.36E+00
21	7	241.67	253	401	2.19	483.49	470	20	8.79E-03	21.0	
22	0	266.63	17	226	0.62	533.36	531	6	5.78E-04	145.3	
23	0	269.97	41	267	1.14	540.03	537	7	1.41E-03	68.4	
24	0	295.27*	69	379	1.01	590.60	587	9	2.40E-03	62.8	
25	0	299.74	54	306	0.74	599.54	595	9	1.88E-03	60.2	
26	0	338.60*	108	302	1.23	677.19	672	12	3.76E-03	37.4	
27	0	351.88*	334	263	1.34	703.74	699	10	1.16E-02	11.8	
28	0	462.64	94	200	2.20	925.07	920	12	3.28E-03	31.5	
29	0	494.54	46	96	1.60	988.84	986	6	1.58E-03	37.4	
30	0	523.22	61	172	0.74	1046.16	1041	13	2.12E-03	46.1	
31	0	583.05*	113	172	1.11	1165.73	1161	11	3.92E-03	29.8	
32	0	609.16*	270	155	1.38	1217.91	1211	11	9.38E-03	12.4	
33	0	620.57	19	144	1.40	1240.72	1236	11	6.59E-04	124.3	
34	0	661.60*	721	159	1.55	1322.72	1316	13	2.50E-02	5.7	
35	0	665.19	10	90	1.34	1329.90	1328	7	3.31E-04	168.0	
36	0	727.85*	97	120	1.51	1455.15	1450	13	3.36E-03	28.8	
37	0	747.91	35	110	0.84	1495.24	1489	11	1.22E-03	60.5	
38	0	757.46	16	102	3.22	1514.33	1506	11	5.68E-04	123.2	

Sample ID : G198324031 Acquisition date : 1-DEC-2007 05:51:29

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	911.32*	51	116	1.92	1821.87	1815	13	1.78E-03	55.4	
40	0	952.47	15	52	1.41	1904.13	1898	9	5.21E-04	91.6	
41	0	969.00*	44	75	1.32	1937.18	1932	10	1.53E-03	45.8	
42	0	1000.98*	6	75	1.60	2001.10	1996	12	1.98E-04	401.3	
43	0	1121.18*	70	117	2.15	2241.40	2232	21	2.42E-03	45.5	
44	0	1231.73	16	74	3.02	2462.40	2452	16	5.54E-04	124.3	
45	0	1238.64	32	66	0.87	2476.21	2471	13	1.12E-03	56.1	
46	0	1280.77	37	55	0.51	2560.44	2552	18	1.30E-03	48.8	
47	0	1322.13	16	29	1.13	2643.13	2638	10	5.52E-04	68.9	
48	0	1453.58	10	26	0.59	2905.96	2900	9	3.33E-04	102.6	
49	0	1460.68*	226	38	2.03	2920.14	2909	22	7.84E-03	10.6	
50	0	1476.07	14	37	0.96	2950.92	2945	11	4.93E-04	88.2	
51	0	1488.12	15	17	1.86	2975.01	2972	8	5.25E-04	52.9	
52	0	1587.71	26	12	1.85	3174.14	3170	8	8.94E-04	30.6	
53	1	1665.65	20	1	1.98	3330.00	3326	21	7.03E-04	26.6	1.57E+00
54	1	1668.65	23	6	1.98	3336.00	3326	21	7.85E-04	35.7	
55	0	1687.19	15	4	1.69	3373.07	3370	7	5.20E-04	35.5	
56	0	1765.57*	23	43	2.61	3529.80	3519	24	8.06E-04	81.2	
57	0	1983.76	6	5	0.99	3966.15	3962	9	1.96E-04	81.5	
58	0	2003.69	10	17	4.40	4006.02	3997	14	3.41E-04	95.5	
59	0	2032.44	7	2	1.34	4063.51	4059	8	2.47E-04	50.7	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324031       *
* Acquisition date :  1-DEC-2007 05:51:29 Detector SN#    :                 *
* Detector ID      : GAM17                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 08:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 08:00:08.75     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324031           Analyst initials: MJH1            *
* Batch Number     : 706246               Sample Quantity : 1.1085E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  5-FEB-2007 16:40:35 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.008E+00	4.293E-01	2.458E-01	0.000E+00
CS-137	4.023E-01	5.327E-02	2.668E-02	0.000E+00
EU-155	7.118E-02	5.057E-02	5.268E-02	0.000E+00
BI-212	4.235E-01	2.413E-01	1.995E-01	0.000E+00
PB-212	2.113E-01	3.855E-02	3.362E-02	0.000E+00
BI-214	2.564E-01	6.491E-02	5.154E-02	0.000E+00
PB-214	2.345E-01	5.646E-02	4.821E-02	0.000E+00
RA-223	6.248E-02	8.395E-02	1.143E-01	0.000E+00
AC-228	1.263E-01	1.373E-01	1.038E-01	0.000E+00
PA-234M	4.680E-01	3.681E+00	3.345E+00	0.000E+00
TH-234	1.975E-01	3.164E-01	2.240E-01	0.000E+00
U-235	5.444E-02	1.090E-01	1.131E-01	0.000E+00
NP-236	1.350E-02	2.824E-02	2.854E-02	0.000E+00
NP-237	2.300E-01	7.729E-02	7.876E-02	0.000E+00
AM-241	2.683E-02	2.274E-02	3.168E-02	0.000E+00
AM-243	5.647E-02	1.547E-02	1.834E-02	0.000E+00
CM-243	6.444E-02	4.578E-02	4.924E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
CO-60	2.035E-02	1.920E-02	3.436E-02	0.000E+00	NOT IDENT.
RH-101	-2.072E-04	1.546E-02	2.101E-02	0.000E+00	NOT IDENT.
SB-125	-2.164E-02	4.034E-02	6.650E-02	0.000E+00	NOT IDENT.
TL-208	0.000E+00	3.303E-02	4.273E-02	0.000E+00	FAIL ABUN
PO-209	2.375E-01	3.433E+00	5.828E+00	0.000E+00	NOT IDENT.
BI-211	-2.639E-01	4.749E-01	7.759E-01	0.000E+00	NOT IDENT.
PA-233	2.187E-03	2.492E-02	4.337E-02	0.000E+00	NOT IDENT.
NP-239	-2.837E-02	7.747E-02	1.255E-01	0.000E+00	NOT IDENT.
AM-246	1.925E-02	5.823E-02	9.960E-02	0.000E+00	NOT IDENT.
CF-249	6.344E-03	1.685E-02	2.928E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:47:20.06

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324031.CNF;2
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 1-DEC-2007 05:51:29.
Sample ID        : G198324031           Sample quantity  : 1.10850E+02 GRAM
Detector name    : GAM17                Detector geometry: CAN
Elapsed live time: 0 08:00:00.00        Elapsed real time: 0 08:00:08.75  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706246               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	226	10.66*	8.925E-01	2.008E+00	2.008E+00	21.82
CS-137	661.66	721	85.10*	1.790E+00	4.009E-01	4.023E-01	13.51
EU-155	105.31	118	21.20*	6.791E+00	6.964E-02	7.118E-02	72.49
BI-212	727.33	97	11.80*	1.638E+00	4.235E-01	4.235E-01	58.13
	785.37	------	1.10	1.527E+00	------	Line Not Found	------
	1620.50	------	1.49	8.223E-01	------	Line Not Found	------
PB-212	74.81	322	10.40	7.088E+00	3.703E-01	3.703E-01	27.96
	77.11	501	17.50	7.087E+00	3.418E-01	3.418E-01	20.49
	87.30	237	7.81	7.031E+00	3.652E-01	3.652E-01	34.29
	238.63	478	43.30*	4.424E+00	2.113E-01	2.113E-01	18.61
	300.09	54	3.28	3.688E+00	3.785E-01	3.785E-01	120.56
BI-214	609.31	270	46.10*	1.934E+00	2.564E-01	2.564E-01	25.83
	768.36	------	4.94	1.558E+00	------	Line Not Found	------
	806.17	------	1.22	1.490E+00	------	Line Not Found	------
	934.06	------	3.03	1.304E+00	------	Line Not Found	------
	1120.29	70	15.10	1.112E+00	3.520E-01	3.520E-01	91.24
	1155.19	------	1.63	1.083E+00	------	Line Not Found	------
	1238.11	32	5.79	1.022E+00	4.634E-01	4.635E-01	112.42
	1280.96	37	1.43	9.934E-01	2.234E+00	2.234E+00	97.80
	1377.67	------	4.00	9.356E-01	------	Line Not Found	------
	1401.50	------	1.27	9.227E-01	------	Line Not Found	------
	1407.98	------	2.15	9.193E-01	------	Line Not Found	------
	1509.23	------	2.11	8.695E-01	------	Line Not Found	------
	1729.60	------	2.92	7.820E-01	------	Line Not Found	------
	1764.49	23	15.40	7.698E-01	1.658E-01	1.658E-01	162.54
PB-214	74.81	322	6.44	7.088E+00	5.980E-01	5.980E-01	27.96
	77.11	501	10.80	7.087E+00	5.539E-01	5.540E-01	20.49
	87.30	237	4.84	7.031E+00	5.893E-01	5.893E-01	34.29
	242.00	253	7.43	4.382E+00	6.582E-01	6.583E-01	42.71
	295.22	69	19.30	3.734E+00	8.121E-02	8.122E-02	125.74
	351.93	334	37.60*	3.211E+00	2.345E-01	2.345E-01	24.57
RA-223	269.46	41	13.70*	4.019E+00	6.248E-02	6.248E-02	137.10

Sample ID : G198324031 Acquisition date : 1-DEC-2007 05:51:29

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
AC-228	129.07	104	2.42	6.357E+00	5.714E-01	5.714E-01	77.88
	209.25	74	3.89	4.867E+00	3.287E-01	3.287E-01	81.64
	270.25	41	3.46	4.019E+00	2.474E-01	2.474E-01	137.10
	338.32	108	11.27	3.322E+00	2.451E-01	2.451E-01	75.06
	409.46	------	1.92	2.802E+00	------	Line Not Found	------
	463.00	94	4.40	2.503E+00	7.263E-01	7.263E-01	63.37
	794.95	------	4.25	1.510E+00	------	Line Not Found	------
	911.20	51	25.80*	1.334E+00	1.263E-01	1.263E-01	110.92
	964.77	------	4.99	1.267E+00	------	Line Not Found	------
	968.97	44	15.80	1.262E+00	1.875E-01	1.875E-01	91.81
	1588.20	26	3.22	8.355E-01	8.099E-01	8.099E-01	61.44
PA-234M	1001.03	6	0.84*	1.227E+00	4.680E-01	4.680E-01	802.62
TH-234	63.29	142	4.80	7.001E+00	3.568E-01	3.568E-01	71.31
	92.58	88	5.41*	6.975E+00	1.975E-01	1.975E-01	163.49
U-235	143.76	43	10.96*	6.056E+00	5.444E-02	5.444E-02	204.32
NP-236	98.44	42	38.00*	6.894E+00	1.350E-02	1.350E-02	213.49
NP-237	86.48	237	12.40*	7.031E+00	2.300E-01	2.300E-01	34.29
AM-241	59.54	79	35.90*	6.937E+00	2.682E-02	2.683E-02	86.50
AM-243	74.66	322	68.20*	7.088E+00	5.646E-02	5.647E-02	27.96
CM-243	103.76	118	23.00*	6.791E+00	6.419E-02	6.444E-02	72.49

Flag: "*" = Keyline

Sample ID : G198324031 Acquisition date : 1-DEC-2007 05:51:29

Total number of lines in spectrum 59
Number of unidentified lines 27
Number of lines tentatively identified by NID 32 54.24%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	2.008E+00	2.008E+00	0.438E+00	21.82	
CS-137	9.47E+08S	1.00	4.009E-01	4.023E-01	0.544E-01	13.51	
EU-155	1.57E+08S	1.02	6.964E-02	7.118E-02	5.160E-02	72.49	
BI-212	4.43E+17S	1.00	4.235E-01	4.235E-01	2.462E-01	58.13	
PB-212	4.43E+17S	1.00	2.113E-01	2.113E-01	0.393E-01	18.61	
BI-214	5.05E+10S	1.00	2.564E-01	2.564E-01	0.662E-01	25.83	
PB-214	5.05E+10S	1.00	2.345E-01	2.345E-01	0.576E-01	24.57	
RA-223	1.04E+12S	1.00	6.248E-02	6.248E-02	8.567E-02	137.10	
AC-228	4.43E+17S	1.00	1.263E-01	1.263E-01	1.401E-01	110.92	
PA-234M	1.41E+17S	1.00	4.680E-01	4.680E-01	37.56E-01	802.62	
TH-234	1.41E+17S	1.00	1.975E-01	1.975E-01	3.229E-01	163.49	
U-235	2.22E+16S	1.00	5.444E-02	5.444E-02	11.12E-02	204.32	
NP-236	4.89E+12S	1.00	1.350E-02	1.350E-02	2.882E-02	213.49	
NP-237	6.75E+13S	1.00	2.300E-01	2.300E-01	0.789E-01	34.29	
AM-241	1.36E+10S	1.00	2.682E-02	2.683E-02	2.321E-02	86.50	
AM-243	2.33E+11S	1.00	5.646E-02	5.647E-02	1.579E-02	27.96	
CM-243	8.99E+08S	1.00	6.419E-02	6.444E-02	4.671E-02	72.49	
			---	---			
	Total Activity :		4.904E+00	4.907E+00			

Grand Total Activity : 4.904E+00 4.907E+00

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G198324031 Acquisition date : 1-DEC-2007 05:51:29

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.51	8	517	0.96	93.52	90	7	2.62E-04	****	6.48E+00	
2	66.77	26	443	1.06	133.99	116	22	8.94E-04	****	7.04E+00	
0	84.19	82	572	0.91	168.80	165	8	2.85E-03	****	7.06E+00	
0	112.55	10	447	1.35	225.48	222	7	3.42E-04	****	6.67E+00	
0	179.80	51	260	0.86	359.85	357	6	1.78E-03	****	5.37E+00	
0	185.75	146	517	1.15	371.75	366	11	5.06E-03	77.1	5.26E+00	
0	202.40	43	245	0.99	405.01	403	6	1.48E-03	****	4.98E+00	
0	215.74	48	294	1.60	431.67	427	8	1.68E-03	****	4.76E+00	
0	266.63	17	226	0.62	533.36	531	6	5.78E-04	****	4.06E+00	
0	494.54	46	96	1.60	988.84	986	6	1.58E-03	74.9	2.35E+00	
0	523.22	61	172	0.74	1046.16	1041	13	2.12E-03	92.1	2.23E+00	
0	583.05	113	172	1.11	1165.73	1161	11	3.92E-03	59.6	2.02E+00	T
0	620.57	19	144	1.40	1240.72	1236	11	6.59E-04	****	1.90E+00	
0	665.19	10	90	1.34	1329.90	1328	7	3.31E-04	****	1.78E+00	
0	747.91	35	110	0.84	1495.24	1489	11	1.22E-03	****	1.60E+00	
0	757.46	16	102	3.22	1514.33	1506	11	5.68E-04	****	1.58E+00	
0	952.47	15	52	1.41	1904.13	1898	9	5.21E-04	****	1.28E+00	
0	1231.73	16	74	3.02	2462.40	2452	16	5.54E-04	****	1.03E+00	
0	1322.13	16	29	1.13	2643.13	2638	10	5.52E-04	****	9.68E-01	
0	1453.58	10	26	0.59	2905.96	2900	9	3.33E-04	****	8.96E-01	
0	1476.07	14	37	0.96	2950.92	2945	11	4.93E-04	****	8.85E-01	
0	1488.12	15	17	1.86	2975.01	2972	8	5.25E-04	****	8.79E-01	
1	1665.65	20	1	1.98	3330.00	3326	21	7.03E-04	53.2	8.05E-01	
1	1668.65	23	6	1.98	3336.00	3326	21	7.85E-04	71.3	8.04E-01	
0	1687.19	15	4	1.69	3373.07	3370	7	5.20E-04	70.9	7.97E-01	
0	1983.76	6	5	0.99	3966.15	3962	9	1.96E-04	****	7.05E-01	
0	2003.69	10	17	4.40	4006.02	3997	14	3.41E-04	****	7.00E-01	
0	2032.44	7	2	1.34	4063.51	4059	8	2.47E-04	****	6.93E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G198324031            *
* Acquisition date :  1-DEC-2007 05:51:29 Detector SN#    :                 *
* Detector ID      : GAM17                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 08:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 08:00:08.75     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324031           Analyst initials: MJH1            *
* Batch Number     : 706246               Sample Quantity : 1.1085E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME :  5-FEB-2007 16:40:35 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	2.008E+00	4.293E-01	1.230E-01	4.293E-01
CS-137	4.023E-01	5.327E-02	1.335E-02	5.327E-02
EU-155	7.118E-02	5.057E-02	2.636E-02	5.057E-02
BI-212	4.235E-01	2.413E-01	9.980E-02	2.413E-01
PB-212	2.113E-01	3.855E-02	1.682E-02	3.855E-02
BI-214	2.564E-01	6.491E-02	2.578E-02	6.491E-02
PB-214	2.345E-01	5.646E-02	2.412E-02	5.646E-02
RA-223	6.248E-02	8.395E-02	5.717E-02	8.395E-02
AC-228	1.263E-01	1.373E-01	5.192E-02	1.373E-01
PA-234M	4.680E-01	3.681E+00	1.674E+00	3.681E+00
TH-234	1.975E-01	3.164E-01	1.121E-01	3.164E-01
U-235	5.444E-02	1.090E-01	5.659E-02	1.090E-01
NP-236	1.350E-02	2.824E-02	1.428E-02	2.824E-02
NP-237	2.300E-01	7.729E-02	3.940E-02	7.729E-02
AM-241	2.683E-02	2.274E-02	1.585E-02	2.274E-02
AM-243	5.647E-02	1.547E-02	9.175E-03	1.547E-02
CM-243	6.444E-02	4.578E-02	2.463E-02	4.578E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	2.035E-02	1.920E-02	1.719E-02	1.920E-02	NOT IDENT.
RH-101	-2.072E-04	1.546E-02	1.051E-02	1.546E-02	NOT IDENT.
SB-125	-2.164E-02	4.034E-02	3.327E-02	4.034E-02	NOT IDENT.
TL-208	5.617E-02	3.303E-02	2.138E-02	3.303E-02	FAIL ABUN
PO-209	2.375E-01	3.433E+00	2.916E+00	3.433E+00	NOT IDENT.
BI-211	-2.639E-01	4.749E-01	3.882E-01	4.749E-01	NOT IDENT.
PA-233	2.187E-03	2.492E-02	2.170E-02	2.492E-02	NOT IDENT.
NP-239	-2.837E-02	7.747E-02	6.276E-02	7.747E-02	NOT IDENT.
AM-246	1.925E-02	5.823E-02	4.983E-02	5.823E-02	NOT IDENT.
CF-249	6.344E-03	1.685E-02	1.465E-02	1.685E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
59.54	385.9051
63.29	389.5517
74.66	489.7689
74.81	489.9301
74.81	489.9301
77.11	492.3935
77.11	492.3935
86.48	295.2252
87.30	524.3341
87.30	524.3341
92.58	447.2204
98.44	350.5302
103.76	370.8419
105.31	345.4259
129.07	326.6748
143.76	355.8198
198.00	290.7274
209.25	329.1038
228.18	258.1241
238.63	263.0626
242.00	263.9280
269.46	252.3276
270.25	290.5547
277.36	274.9860
295.22	274.2713
300.09	232.7991
312.17	223.0954
338.32	206.6505
351.93	216.1436
387.59	192.2918
409.46	175.8934
427.87	187.7109
463.00	158.9990
510.77	204.2465
583.19	136.8145
609.31	135.7774
661.66	105.6533
727.33	96.0107
763.13	118.4607
768.36	107.7594
785.37	88.0861
794.95	93.0688
806.17	109.3619
831.80	103.8179
860.56	83.9395
896.60	86.9590
911.20	82.5471
934.06	78.3027
964.77	75.8169
968.97	82.1935
1001.03	77.0508
1078.86	58.4361
1120.29	70.5766
1155.19	71.2904
1173.23	59.0105
1238.11	92.9720
1280.96	50.9955
1332.51	57.1746
1377.67	50.0383
1401.50	45.6703
1407.98	55.0772
1460.80	35.6533
1509.23	38.2389
1588.20	41.8382
1620.50	38.2129
1729.60	26.0614
1764.49	30.2832

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198324031

Total Uranium Activity	2.5188E-02	ug/g
Total Uranium Counting Unc.	5.0434E-02	ug/g
Total Uranium Tpu	5.0434E-08	ug/g
Total Uranium Mda	2.6183E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:48:19.95

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324032.CNF;1
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 1-DEC-2007 08:09:21.
Sample ID        : G198324032           Sample quantity  : 1.09360E+02 GRAM
Detector name    : GAM07                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:27.28  0.2%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706246               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
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Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.49*	1	268	1.08	92.49	89	9	1.02E-04	*****	
2	0	63.61*	21	411	1.17	126.72	122	12	1.48E-03	206.6	
3	0	69.73	49	163	1.31	138.97	137	5	3.38E-03	41.8	
4	3	74.98*	157	245	0.98	149.45	145	14	1.09E-02	19.1	2.23E-01
5	3	77.21*	237	210	1.03	153.91	145	14	1.65E-02	13.3	
6	0	83.54*	31	338	0.99	166.57	162	9	2.14E-03	113.5	
7	3	87.09*	37	193	1.19	173.67	171	12	2.57E-03	66.0	1.65E+00
8	3	90.03	74	268	1.36	179.54	171	12	5.17E-03	40.8	
9	0	93.20*	122	286	1.22	185.89	182	9	8.50E-03	31.3	
10	0	129.59*	52	239	0.73	258.64	255	9	3.63E-03	57.8	
11	0	140.03*	33	195	1.65	279.51	276	8	2.32E-03	82.3	
12	0	186.11*	119	320	1.52	371.65	367	14	8.29E-03	35.7	
13	0	209.39	53	193	1.00	418.20	415	8	3.71E-03	47.3	
14	3	236.56	47	75	1.43	472.53	470	23	3.24E-03	31.6	1.72E+00
15	3	238.83*	394	109	1.20	477.06	470	23	2.73E-02	7.9	
16	3	241.43*	73	145	1.53	482.27	470	23	5.05E-03	39.5	
17	0	270.93	41	169	1.42	541.24	536	10	2.84E-03	61.6	
18	0	296.67*	151	387	5.53	592.72	582	25	1.05E-02	36.5	
19	0	328.81	70	171	3.98	656.98	649	14	4.85E-03	41.6	
20	0	339.31	87	161	1.29	677.96	671	12	6.06E-03	31.0	
21	0	352.15*	132	173	1.06	703.65	698	11	9.14E-03	22.5	
22	0	432.93	21	65	0.57	865.17	862	7	1.48E-03	66.7	
23	0	439.82	20	92	1.63	878.94	872	11	1.39E-03	95.7	
24	0	467.15	33	154	3.87	933.59	924	17	2.28E-03	88.9	
25	0	511.60*	30	167	2.54	1022.46	1016	19	2.05E-03	141.3	
26	0	560.00	16	54	4.19	1119.25	1111	10	1.09E-03	93.4	
27	0	583.51*	78	82	0.89	1166.24	1159	12	5.40E-03	30.3	
28	0	609.67*	136	77	1.71	1218.55	1212	13	9.48E-03	17.3	
29	0	661.98	593	74	1.41	1323.14	1317	13	4.12E-02	5.1	
30	0	707.91	75	87	10.00	1415.00	1402	25	5.23E-03	35.3	
31	0	722.35	15	27	2.78	1443.86	1438	9	1.06E-03	68.1	
32	0	786.56	21	41	1.06	1572.25	1566	11	1.46E-03	63.1	
33	0	825.60	11	15	0.76	1650.32	1647	7	7.51E-04	69.6	
34	0	837.11	10	42	1.44	1673.33	1667	11	7.11E-04	125.6	
35	0	861.39	22	43	0.97	1721.88	1717	10	1.52E-03	60.9	
36	0	895.02	18	35	2.36	1789.14	1784	12	1.28E-03	69.0	
37	0	911.74*	81	14	1.27	1822.56	1817	11	5.62E-03	16.2	
38	0	970.04*	26	51	1.43	1939.15	1934	12	1.80E-03	61.8	

Sample ID : G198324032 Acquisition date : 1-DEC-2007 08:09:21

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1007.87	56	49	15.12	2014.80	1996	39	3.92E-03	42.6	
40	0	1121.24*	25	13	1.00	2241.49	2237	13	1.70E-03	46.7	
41	0	1141.44	22	25	6.42	2281.88	2271	20	1.55E-03	58.6	
42	0	1158.28*	8	15	1.68	2315.56	2311	9	5.28E-04	108.3	
43	0	1250.41	13	9	1.22	2499.78	2495	8	8.71E-04	51.7	
44	0	1377.31	16	12	1.57	2753.56	2748	12	1.11E-03	50.0	
45	0	1453.60	21	4	3.46	2906.13	2899	14	1.49E-03	28.4	
46	0	1461.43*	101	8	1.45	2921.78	2914	15	7.04E-03	14.1	
47	0	1595.58	5	16	0.83	3190.04	3179	13	3.62E-04	164.8	
48	3	1618.77	14	8	2.32	3236.42	3231	14	9.82E-04	41.1	5.76E-01
49	3	1621.71	11	3	1.54	3242.31	3231	14	7.35E-04	36.2	
50	0	1700.22	7	5	1.09	3399.31	3395	8	5.03E-04	67.6	
51	0	1765.62*	25	11	1.44	3530.09	3523	15	1.70E-03	44.8	
52	0	1794.86	14	8	1.14	3588.56	3578	16	9.72E-04	52.5	
53	0	1803.09	7	2	2.68	3605.03	3600	9	4.82E-04	54.0	
54	0	1839.23	10	0	1.50	3677.30	3671	11	6.94E-04	31.6	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324032       *
* Acquisition date :  1-DEC-2007 08:09:21 Detector SN#    :                 *
* Detector ID      : GAM07                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:27.28     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324032           Analyst initials: MJH1            *
* Batch Number     : 706246               Sample Quantity : 1.0936E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 31-OCT-2007 13:07:28 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	1.401E+00	3.946E-01	2.669E-01	0.000E+00
CS-137	5.157E-01	6.328E-02	2.709E-02	0.000E+00
TL-208	6.083E-02	3.634E-02	2.928E-02	0.000E+00
PO-209	3.764E+00	5.100E+00	5.029E+00	0.000E+00
PB-212	3.005E-01	4.989E-02	4.354E-02	0.000E+00
BI-214	2.033E-01	7.021E-02	5.683E-02	0.000E+00
PB-214	1.540E-01	6.828E-02	5.889E-02	0.000E+00
RA-223	1.078E-01	1.304E-01	1.321E-01	0.000E+00
AC-228	3.067E-01	9.950E-02	1.096E-01	0.000E+00
TH-234	5.317E-01	3.285E-01	2.923E-01	0.000E+00
NP-237	7.177E-02	9.298E-02	1.460E-01	0.000E+00
AM-243	6.113E-02	2.322E-02	2.793E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	-1.636E-02		1.913E-02	2.885E-02	0.000E+00	NOT IDENT.
RH-101	8.121E-03		1.684E-02	2.714E-02	0.000E+00	NOT IDENT.
SB-125	1.546E-02		5.529E-02	8.667E-02	0.000E+00	NOT IDENT.
EU-155	2.984E-02		4.345E-02	7.541E-02	0.000E+00	NOT IDENT.
BI-211	7.363E-02		6.040E-01	8.369E-01	0.000E+00	NOT IDENT.
BI-212	3.649E-03		1.692E-01	2.516E-01	0.000E+00	FAIL ABUN
PA-233	2.080E-03		3.192E-02	5.428E-02	0.000E+00	NOT IDENT.
PA-234M	-1.581E+00		2.775E+00	3.206E+00	0.000E+00	NOT IDENT.
U-235	-3.470E-02		1.111E-01	1.532E-01	0.000E+00	NOT IDENT.
NP-236	-1.337E-02		2.841E-02	4.042E-02	0.000E+00	NOT IDENT.
NP-239	6.439E-02		1.023E-01	1.821E-01	0.000E+00	NOT IDENT.
AM-241	4.220E-02		4.284E-02	7.017E-02	0.000E+00	NOT IDENT.
CM-243	-5.064E-03		3.978E-02	6.640E-02	0.000E+00	NOT IDENT.
AM-246	1.109E-03		5.769E-02	9.855E-02	0.000E+00	NOT IDENT.
CF-249	-6.544E-03		1.948E-02	3.168E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:48:20.92

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324032.CNF;1
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 1-DEC-2007 08:09:21.
Sample ID        : G198324032           Sample quantity  : 1.09360E+02 GRAM
Detector name    : GAM07                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:27.28  0.2%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706246               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	101	10.66*	1.166E+00	1.401E+00	1.401E+00	28.75
CS-137	661.66	593	85.10*	2.329E+00	5.139E-01	5.157E-01	12.52
TL-208	277.36	------	6.31	4.669E+00	------	Line Not Found	------
	510.77	30	22.60	2.896E+00	7.749E-02	7.749E-02	282.76
	583.19	78	84.50*	2.595E+00	6.083E-02	6.083E-02	60.95
	763.13	------	1.81	2.057E+00	------	Line Not Found	------
	860.56	22	12.42	1.847E+00	1.637E-01	1.637E-01	122.00
PO-209	896.60	18	0.47*	1.785E+00	3.760E+00	3.764E+00	138.26
PB-212	74.81	157	10.40	6.455E+00	4.009E-01	4.009E-01	38.76
	77.11	237	17.50	6.616E+00	3.515E-01	3.515E-01	27.48
	87.30	37	7.81	7.123E+00	1.140E-01	1.140E-01	132.19
	238.63	394	43.30*	5.194E+00	3.005E-01	3.005E-01	16.94
	300.09	------	3.28	4.406E+00	------	Line Not Found	------
BI-214	609.31	136	46.10*	2.500E+00	2.033E-01	2.033E-01	35.25
	768.36	------	4.94	2.045E+00	------	Line Not Found	------
	806.17	------	1.22	1.959E+00	------	Line Not Found	------
	934.06	------	3.03	1.718E+00	------	Line Not Found	------
	1120.29	25	15.10	1.459E+00	1.910E-01	1.911E-01	93.61
	1155.19	------	1.63	1.422E+00	------	Line Not Found	------
	1238.11	------	5.79	1.338E+00	------	Line Not Found	------
	1280.96	------	1.43	1.300E+00	------	Line Not Found	------
	1377.67	16	4.00	1.223E+00	5.613E-01	5.614E-01	100.14
	1401.50	------	1.27	1.206E+00	------	Line Not Found	------
	1407.98	------	2.15	1.201E+00	------	Line Not Found	------
	1509.23	------	2.11	1.136E+00	------	Line Not Found	------
	1729.60	------	2.92	1.029E+00	------	Line Not Found	------
	1764.49	25	15.40	1.015E+00	2.692E-01	2.692E-01	89.78
PB-214	74.81	157	6.44	6.455E+00	6.473E-01	6.474E-01	38.76
	77.11	237	10.80	6.616E+00	5.696E-01	5.696E-01	27.48
	87.30	37	4.84	7.123E+00	1.839E-01	1.839E-01	132.19
	242.00	73	7.43	5.155E+00	3.257E-01	3.257E-01	79.26
	295.22	151	19.30	4.443E+00	3.031E-01	3.032E-01	73.29

Sample ID : G198324032 Acquisition date : 1-DEC-2007 08:09:21

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	351.93	132	37.60*	3.902E+00	1.539E-01	1.540E-01	45.25
RA-223	269.46	41	13.70*	4.749E+00	1.078E-01	1.078E-01	123.42
AC-228	129.07	52	2.42	7.218E+00	5.132E-01	5.132E-01	115.75
	209.25	53	3.89	5.674E+00	4.152E-01	4.152E-01	94.79
	270.25	41	3.46	4.749E+00	4.270E-01	4.270E-01	123.42
	338.32	87	11.27	4.015E+00	3.311E-01	3.311E-01	62.33
	409.46	------	1.92	3.468E+00	------	Line Not Found	------
	463.00	------	4.40	3.143E+00	------	Line Not Found	------
	794.95	------	4.25	1.984E+00	------	Line Not Found	------
	911.20	81	25.80*	1.756E+00	3.067E-01	3.067E-01	33.11
	964.77	------	4.99	1.669E+00	------	Line Not Found	------
	968.97	26	15.80	1.661E+00	1.700E-01	1.700E-01	123.83
	1588.20	------	3.22	1.093E+00	------	Line Not Found	------
TH-234	63.29	21	4.80	5.313E+00	1.433E-01	1.433E-01	413.34
	92.58	122	5.41*	7.300E+00	5.317E-01	5.317E-01	63.04
NP-237	86.48	37	12.40*	7.123E+00	7.177E-02	7.177E-02	132.19
AM-243	74.66	157	68.20*	6.455E+00	6.113E-02	6.113E-02	38.76

Flag: "*" = Keyline

Sample ID : G198324032 Acquisition date : 1-DEC-2007 08:09:21

Total number of lines in spectrum 54
Number of unidentified lines 27
Number of lines tentatively identified by NID 27 50.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	1.401E+00	1.401E+00	0.403E+00	28.75	
CS-137	9.47E+08S	1.00	5.139E-01	5.157E-01	0.646E-01	12.52	
TL-208	4.43E+17S	1.00	6.083E-02	6.083E-02	3.708E-02	60.95	
PO-209	3.22E+09S	1.00	3.760E+00	3.764E+00	5.204E+00	138.26	
PB-212	4.43E+17S	1.00	3.005E-01	3.005E-01	0.509E-01	16.94	
BI-214	5.05E+10S	1.00	2.033E-01	2.033E-01	0.716E-01	35.25	
PB-214	5.05E+10S	1.00	1.539E-01	1.540E-01	0.697E-01	45.25	
RA-223	1.04E+12S	1.00	1.078E-01	1.078E-01	1.331E-01	123.42	
AC-228	4.43E+17S	1.00	3.067E-01	3.067E-01	1.015E-01	33.11	
TH-234	1.41E+17S	1.00	5.317E-01	5.317E-01	3.352E-01	63.04	
NP-237	6.75E+13S	1.00	7.177E-02	7.177E-02	9.488E-02	132.19	
AM-243	2.33E+11S	1.00	6.113E-02	6.113E-02	2.369E-02	38.76	
			---	---			
		Total Activity :	7.472E+00	7.478E+00			

Grand Total Activity : 7.472E+00 7.478E+00

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G198324032 Acquisition date : 1-DEC-2007 08:09:21

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.49	1	268	1.08	92.49	89	9	1.02E-04	****	2.59E+00	
0	69.73	49	163	1.31	138.97	137	5	3.38E-03	83.6	6.00E+00	
0	83.54	31	338	0.99	166.57	162	9	2.14E-03	****	6.98E+00	
3	90.03	74	268	1.36	179.54	171	12	5.17E-03	81.5	7.22E+00	
0	140.03	33	195	1.65	279.51	276	8	2.32E-03	****	7.03E+00	
0	186.11	119	320	1.52	371.65	367	14	8.29E-03	71.4	6.11E+00	
3	236.56	47	75	1.43	472.53	470	23	3.24E-03	63.2	5.23E+00	
0	328.81	70	171	3.98	656.98	649	14	4.85E-03	83.1	4.11E+00	
0	432.93	21	65	0.57	865.17	862	7	1.48E-03	****	3.32E+00	
0	439.82	20	92	1.63	878.94	872	11	1.39E-03	****	3.28E+00	
0	467.15	33	154	3.87	933.59	924	17	2.28E-03	****	3.12E+00	
0	560.00	16	54	4.19	1119.25	1111	10	1.09E-03	****	2.69E+00	
0	707.91	75	87	10.00	1415.00	1402	25	5.23E-03	70.7	2.20E+00	
0	722.35	15	27	2.78	1443.86	1438	9	1.06E-03	****	2.16E+00	
0	786.56	21	41	1.06	1572.25	1566	11	1.46E-03	****	2.00E+00	T
0	825.60	11	15	0.76	1650.32	1647	7	7.51E-04	****	1.92E+00	
0	837.11	10	42	1.44	1673.33	1667	11	7.11E-04	****	1.89E+00	
0	1007.87	56	49	15.12	2014.80	1996	39	3.92E-03	85.3	1.60E+00	
0	1141.44	22	25	6.42	2281.88	2271	20	1.55E-03	****	1.44E+00	
0	1158.28	8	15	1.68	2315.56	2311	9	5.28E-04	****	1.42E+00	
0	1250.41	13	9	1.22	2499.78	2495	8	8.71E-04	****	1.33E+00	
0	1453.60	21	4	3.46	2906.13	2899	14	1.49E-03	56.9	1.17E+00	
0	1595.58	5	16	0.83	3190.04	3179	13	3.62E-04	****	1.09E+00	
3	1618.77	14	8	2.32	3236.42	3231	14	9.82E-04	82.2	1.08E+00	
3	1621.71	11	3	1.54	3242.31	3231	14	7.35E-04	72.5	1.08E+00	T
0	1700.22	7	5	1.09	3399.31	3395	8	5.03E-04	****	1.04E+00	
0	1794.86	14	8	1.14	3588.56	3578	16	9.72E-04	****	1.00E+00	
0	1803.09	7	2	2.68	3605.03	3600	9	4.82E-04	****	1.00E+00	
0	1839.23	10	0	1.50	3677.30	3671	11	6.94E-04	63.2	9.89E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G198324032            *
* Acquisition date :  1-DEC-2007 08:09:21 Detector SN#    :                 *
* Detector ID      : GAM07                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:27.28     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324032           Analyst initials: MJH1            *
* Batch Number     : 706246               Sample Quantity : 1.0936E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 31-OCT-2007 13:07:28 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	1.401E+00	3.946E-01	1.335E-01	3.946E-01
CS-137	5.157E-01	6.328E-02	1.355E-02	6.328E-02
TL-208	6.083E-02	3.634E-02	1.465E-02	3.634E-02
PO-209	3.764E+00	5.100E+00	2.516E+00	5.100E+00
PB-212	3.005E-01	4.989E-02	2.178E-02	4.989E-02
BI-214	2.033E-01	7.021E-02	2.843E-02	7.021E-02
PB-214	1.540E-01	6.828E-02	2.946E-02	6.828E-02
RA-223	1.078E-01	1.304E-01	6.607E-02	1.304E-01
AC-228	3.067E-01	9.950E-02	5.484E-02	9.950E-02
TH-234	5.317E-01	3.285E-01	1.462E-01	3.285E-01
NP-237	7.177E-02	9.298E-02	7.304E-02	9.298E-02
AM-243	6.113E-02	2.322E-02	1.397E-02	2.322E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	-1.636E-02	1.913E-02	1.443E-02	1.913E-02	NOT IDENT.
RH-101	8.121E-03	1.684E-02	1.358E-02	1.684E-02	NOT IDENT.
SB-125	1.546E-02	5.529E-02	4.336E-02	5.529E-02	NOT IDENT.
EU-155	2.984E-02	4.345E-02	3.773E-02	4.345E-02	NOT IDENT.
BI-211	7.363E-02	6.040E-01	4.187E-01	6.040E-01	NOT IDENT.
BI-212	3.649E-03	1.692E-01	1.259E-01	1.692E-01	FAIL ABUN
PA-233	2.080E-03	3.192E-02	2.715E-02	3.192E-02	NOT IDENT.
PA-234M	-1.581E+00	2.775E+00	1.604E+00	2.775E+00	NOT IDENT.
U-235	-3.470E-02	1.111E-01	7.666E-02	1.111E-01	NOT IDENT.
NP-236	-1.337E-02	2.841E-02	2.022E-02	2.841E-02	NOT IDENT.
NP-239	6.439E-02	1.023E-01	9.111E-02	1.023E-01	NOT IDENT.
AM-241	4.220E-02	4.284E-02	3.511E-02	4.284E-02	NOT IDENT.
CM-243	-5.064E-03	3.978E-02	3.322E-02	3.978E-02	NOT IDENT.
AM-246	1.109E-03	5.769E-02	4.930E-02	5.769E-02	NOT IDENT.
CF-249	-6.544E-03	1.948E-02	1.585E-02	1.948E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
59.54	176.6126
63.29	203.7701
74.66	228.6960
74.81	228.7676
74.81	228.7676
77.11	229.8486
77.11	229.8486
86.48	252.3334
87.30	234.4531
87.30	234.4531
92.58	202.9146
98.44	200.0492
103.76	200.6084
105.31	180.1736
129.07	192.3077
143.76	187.9391
198.00	155.2145
209.25	185.7665
228.18	149.0544
238.63	148.6909
242.00	149.1552
269.46	115.4324
270.25	121.5898
277.36	124.2316
295.22	124.1172
300.09	124.5977
312.17	122.8256
338.32	133.2496
351.93	116.3371
387.59	98.4471
409.46	85.1195
427.87	99.1966
463.00	72.9094
510.77	94.6685
583.19	64.6765
609.31	67.3436
661.66	44.9988
727.33	43.5754
763.13	46.9013
768.36	51.9949
785.37	38.5785
794.95	35.3512
806.17	49.6974
831.80	40.9512
860.56	49.9901
896.60	27.9258
911.20	38.9385
934.06	25.4496
964.77	21.4199
968.97	33.9605
1001.03	28.1658
1078.86	26.8005
1120.29	41.6842
1155.19	32.3786
1173.23	37.9639
1238.11	34.7637
1280.96	24.4090
1332.51	25.7133
1377.67	26.9967
1401.50	28.1549
1407.98	30.2124
1460.80	17.4763
1509.23	17.5195
1588.20	23.3639
1620.50	9.0472
1729.60	10.7914
1764.49	13.0386

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198324032

Total Uranium Activity	-1.6058E-02	ug/g
Total Uranium Counting Unc.	5.1423E-02	ug/g
Total Uranium Tpu	5.1423E-08	ug/g
Total Uranium Mda	3.5472E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:48:53.82

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324033.CNF;2
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 7-DEC-2007 14:46:17.
Sample ID        : G198324033           Sample quantity  : 1.12920E+02 GRAM
Detector name    : GAM13                Detector geometry: CAN
Elapsed live time: 0 12:00:00.00        Elapsed real time: 0 12:00:11.14  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706246               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.57*	128	1418	0.88	92.59	89	8	2.97E-03	70.1	
2	0	53.43*	1	1261	1.01	106.32	103	7	3.08E-05	*****	
3	0	59.42	125	1319	1.19	118.31	115	7	2.89E-03	49.0	
4	0	63.35*	145	1905	0.87	126.18	122	9	3.36E-03	77.0	
5	3	74.90*	534	1293	0.95	149.30	146	12	1.24E-02	13.5	8.75E-01
6	3	77.11*	844	1209	0.92	153.73	146	12	1.95E-02	9.2	
7	0	80.75*	15	1355	1.11	161.01	158	7	3.54E-04	526.8	
8	0	84.07*	100	1142	1.02	167.66	165	6	2.32E-03	73.1	
9	0	87.21	286	1088	1.15	173.95	172	6	6.61E-03	19.2	
10	0	92.68*	527	1522	1.13	184.90	182	9	1.22E-02	22.6	
11	0	98.93*	55	1036	0.95	197.41	194	7	1.27E-03	126.3	
12	0	105.74	94	1055	1.30	211.03	208	7	2.17E-03	58.4	
13	0	117.77	63	818	0.75	235.11	234	6	1.46E-03	72.2	0.00E+00
14	0	129.59	38	1068	0.56	258.78	255	7	8.81E-04	143.1	
15	0	143.56*	1	1268	1.13	286.74	283	9	3.39E-05	*****	
16	0	185.71*	214	1240	0.99	371.12	367	10	4.96E-03	43.4	
17	0	209.08	200	984	1.14	417.89	414	9	4.64E-03	29.1	
18	3	238.55*	1159	609	1.05	476.88	472	16	2.68E-02	6.1	1.73E+00
19	3	241.39	321	880	1.51	482.56	472	16	7.42E-03	18.7	
20	0	270.20	191	710	1.97	540.22	537	9	4.43E-03	26.1	
21	0	276.46	124	748	1.45	552.75	549	9	2.87E-03	40.7	
22	0	294.92*	363	784	1.09	589.70	585	10	8.40E-03	17.4	
23	0	299.83	45	683	0.85	599.54	596	8	1.05E-03	101.0	
24	0	338.15*	259	737	1.16	676.24	672	10	5.99E-03	23.9	
25	3	351.77*	585	567	1.26	703.48	699	17	1.35E-02	9.6	1.15E+00
26	0	455.80	29	392	1.03	911.70	908	8	6.83E-04	118.5	
27	0	462.64*	48	404	1.69	925.38	922	8	1.11E-03	95.1	
28	0	485.81	39	349	1.42	971.76	969	8	8.91E-04	85.4	
29	0	510.83*	232	748	2.43	1021.83	1014	19	5.37E-03	40.0	
30	0	568.17	75	604	3.06	1136.59	1128	15	1.75E-03	71.9	
31	0	582.90*	210	347	1.46	1166.06	1161	9	4.87E-03	26.6	
32	0	609.10*	370	444	1.39	1218.48	1214	11	8.57E-03	14.9	
33	0	661.36	896	481	1.34	1323.05	1318	13	2.07E-02	6.0	
34	0	678.82	22	357	3.16	1358.00	1354	12	5.03E-04	175.4	
35	0	726.88	97	306	1.11	1454.17	1449	10	2.25E-03	35.0	
36	0	785.19	10	183	1.18	1570.86	1569	7	2.21E-04	237.9	
37	0	794.32	78	218	2.32	1589.12	1585	9	1.81E-03	36.0	
38	0	859.34	57	300	1.61	1719.22	1713	13	1.32E-03	64.0	

Sample ID : G198324033 Acquisition date : 7-DEC-2007 14:46:17

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	910.81*	214	295	1.57	1822.19	1814	14	4.96E-03	22.7	
40	0	922.59	36	232	3.33	1845.76	1840	11	8.37E-04	83.8	
41	0	967.82*	155	371	1.36	1936.26	1928	15	3.58E-03	32.1	
42	0	1000.40*	37	178	1.96	2001.45	1996	12	8.61E-04	100.7	
43	0	1119.59*	123	216	1.81	2239.90	2234	12	2.85E-03	31.2	
44	0	1154.26	13	153	0.89	2309.24	2306	10	3.07E-04	177.4	
45	0	1182.06	52	414	11.66	2364.86	2344	28	1.21E-03	111.6	
46	0	1235.82	57	206	5.65	2472.40	2465	15	1.31E-03	56.9	
47	0	1279.45	57	128	0.63	2559.67	2554	13	1.32E-03	42.7	
48	0	1347.64	33	119	4.24	2696.08	2688	14	7.58E-04	72.8	
49	0	1356.66	26	163	7.05	2714.13	2706	17	6.03E-04	113.6	
50	0	1378.39	63	128	0.93	2757.59	2748	18	1.46E-03	44.1	
51	0	1460.11*	356	148	1.98	2921.04	2911	21	8.24E-03	11.2	
52	4	1531.89	36	60	3.11	3064.60	3060	16	8.34E-04	39.8	2.90E+00
53	4	1536.13	14	31	1.49	3073.08	3060	16	3.31E-04	63.2	
54	0	1589.24	82	161	8.56	3179.31	3166	23	1.90E-03	41.7	
55	0	1599.53	16	106	3.33	3199.89	3189	17	3.75E-04	147.9	
56	0	1665.79	20	55	3.23	3332.40	3323	13	4.70E-04	80.2	
57	0	1670.11	23	34	1.40	3341.03	3337	8	5.38E-04	48.1	
58	0	1763.58*	74	26	2.25	3527.95	3521	13	1.71E-03	33.3	
59	0	1846.86	36	65	3.33	3694.49	3680	20	8.28E-04	57.7	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324033       *
* Acquisition date :  7-DEC-2007 14:46:17 Detector SN#    :                 *
* Detector ID      : GAM13                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 12:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 12:00:11.14     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324033           Analyst initials: MJH1            *
* Batch Number     : 706246               Sample Quantity : 1.1292E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  2-JUL-2007 15:48:48 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	1.744E+00	3.962E-01	2.343E-01	0.000E+00
CS-137	2.839E-01	4.030E-02	2.853E-02	0.000E+00
EU-155	3.432E-02	3.940E-02	5.030E-02	0.000E+00
TL-208	5.981E-02	3.147E-02	2.575E-02	0.000E+00
BI-212	2.407E-01	1.663E-01	1.931E-01	0.000E+00
PB-212	3.074E-01	4.198E-02	3.363E-02	0.000E+00
BI-214	2.005E-01	6.028E-02	5.275E-02	0.000E+00
PB-214	2.416E-01	4.697E-02	4.653E-02	0.000E+00
RA-223	1.757E-01	9.049E-02	1.091E-01	0.000E+00
AC-228	2.942E-01	1.320E-01	1.029E-01	0.000E+00
PA-234M	1.699E+00	3.353E+00	3.081E+00	0.000E+00
TH-234	7.173E-01	3.223E-01	2.032E-01	0.000E+00
U-235	1.134E-03	1.257E-01	1.045E-01	0.000E+00
NP-236	1.082E-02	2.678E-02	2.598E-02	0.000E+00
NP-237	1.680E-01	6.470E-02	8.648E-02	0.000E+00
AM-241	2.527E-02	2.435E-02	2.749E-02	0.000E+00
AM-243	5.644E-02	1.552E-02	1.660E-02	0.000E+00
CM-243	3.100E-02	3.560E-02	4.396E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error	MDA (pCi/GRAM)		Ided
CO-60	9.225E-03	2.007E-02	2.964E-02	0.000E+00	NOT IDENT.
RH-101	2.334E-03	1.507E-02	2.025E-02	0.000E+00	NOT IDENT.
SB-125	-1.344E-03	3.937E-02	6.574E-02	0.000E+00	NOT IDENT.
PO-209	1.842E+00	3.259E+00	5.478E+00	0.000E+00	NOT IDENT.
BI-211	8.820E-05	4.982E-01	8.228E-01	0.000E+00	NOT IDENT.
PA-233	1.386E-02	2.333E-02	4.084E-02	0.000E+00	NOT IDENT.
NP-239	2.001E-02	7.944E-02	1.319E-01	0.000E+00	NOT IDENT.
AM-246	1.241E-02	5.677E-02	9.646E-02	0.000E+00	NOT IDENT.
CF-249	-1.390E-02	2.161E-02	2.841E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:48:54.84

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324033.CNF;2
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 7-DEC-2007 14:46:17.
Sample ID        : G198324033           Sample quantity  : 1.12920E+02 GRAM
Detector name    : GAM13                Detector geometry: CAN
Elapsed live time: 0 12:00:00.00        Elapsed real time: 0 12:00:11.14  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706246               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	356	10.66*	1.061E+00	1.744E+00	1.744E+00	23.17
CS-137	661.66	896	85.10*	2.064E+00	2.827E-01	2.839E-01	14.49
EU-155	105.31	94	21.20*	7.301E+00	3.349E-02	3.432E-02	117.17
TL-208	277.36	124	6.31	4.326E+00	2.520E-01	2.520E-01	81.66
	510.77	232	22.60	2.590E+00	2.197E-01	2.197E-01	80.26
	583.19	210	84.50*	2.307E+00	5.981E-02	5.981E-02	53.69
	763.13	------	1.81	1.821E+00	------	Line Not Found	------
	860.56	57	12.42	1.644E+00	1.546E-01	1.546E-01	128.10
BI-212	727.33	97	11.80*	1.900E+00	2.407E-01	2.407E-01	70.52
	785.37	10	1.10	1.777E+00	2.702E-01	2.702E-01	475.93
	1620.50	------	1.49	9.772E-01	------	Line Not Found	------
PB-212	74.81	534	10.40	7.694E+00	3.701E-01	3.701E-01	28.06
	77.11	844	17.50	7.684E+00	3.478E-01	3.478E-01	19.94
	87.30	286	7.81	7.593E+00	2.668E-01	2.668E-01	39.29
	238.63	1159	43.30*	4.824E+00	3.074E-01	3.074E-01	13.94
	300.09	45	3.28	4.061E+00	1.883E-01	1.883E-01	202.14
BI-214	609.31	370	46.10*	2.219E+00	2.005E-01	2.005E-01	30.68
	768.36	------	4.94	1.811E+00	------	Line Not Found	------
	806.17	------	1.22	1.737E+00	------	Line Not Found	------
	934.06	------	3.03	1.531E+00	------	Line Not Found	------
	1120.29	123	15.10	1.315E+00	3.438E-01	3.439E-01	62.71
	1155.19	13	1.63	1.283E+00	3.514E-01	3.514E-01	354.92
	1238.11	------	5.79	1.211E+00	------	Line Not Found	------
	1280.96	57	1.43	1.179E+00	1.878E+00	1.878E+00	85.66
	1377.67	63	4.00	1.111E+00	7.883E-01	7.884E-01	88.44
	1401.50	------	1.27	1.096E+00	------	Line Not Found	------
	1407.98	------	2.15	1.092E+00	------	Line Not Found	------
	1509.23	------	2.11	1.033E+00	------	Line Not Found	------
	1729.60	------	2.92	9.286E-01	------	Line Not Found	------
	1764.49	74	15.40	9.147E-01	2.900E-01	2.900E-01	66.86
PB-214	74.81	534	6.44	7.694E+00	5.977E-01	5.977E-01	28.06
	77.11	844	10.80	7.684E+00	5.636E-01	5.637E-01	19.94

Sample ID : G198324033 Acquisition date : 7-DEC-2007 14:46:17

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	286	4.84	7.593E+00	4.305E-01	4.305E-01	39.29
	242.00	321	7.43	4.784E+00	4.998E-01	4.998E-01	38.08
	295.22	363	19.30	4.114E+00	2.531E-01	2.531E-01	35.22
	351.93	585	37.60*	3.568E+00	2.416E-01	2.416E-01	19.84
RA-223	269.46	191	13.70*	4.402E+00	1.757E-01	1.757E-01	52.55
AC-228	129.07	38	2.42	6.820E+00	1.277E-01	1.277E-01	286.38
	209.25	200	3.89	5.280E+00	5.408E-01	5.408E-01	58.69
	270.25	191	3.46	4.402E+00	6.958E-01	6.958E-01	52.55
	338.32	259	11.27	3.686E+00	3.451E-01	3.451E-01	48.15
	409.46	------	1.92	3.139E+00	------ Line Not Found		------
	463.00	48	4.40	2.825E+00	2.134E-01	2.134E-01	190.34
	794.95	78	4.25	1.759E+00	5.779E-01	5.779E-01	72.31
	911.20	214	25.80*	1.564E+00	2.942E-01	2.942E-01	45.79
	964.77	------	4.99	1.490E+00	------ Line Not Found		------
	968.97	155	15.80	1.486E+00	3.650E-01	3.650E-01	64.49
	1588.20	82	3.22	9.922E-01	1.422E+00	1.422E+00	83.56
PA-234M	1001.03	37	0.84*	1.445E+00	1.699E+00	1.699E+00	201.39
TH-234	63.29	145	4.80	7.666E+00	2.185E-01	2.185E-01	154.27
	92.58	527	5.41*	7.520E+00	7.173E-01	7.173E-01	45.84
U-235	143.76	1	10.96*	6.526E+00	1.134E-03	1.134E-03	11304.43
NP-236	98.44	55	38.00*	7.421E+00	1.082E-02	1.082E-02	252.67
NP-237	86.48	286	12.40*	7.593E+00	1.680E-01	1.680E-01	39.29
AM-241	59.54	125	35.90*	7.618E+00	2.527E-02	2.527E-02	98.30
AM-243	74.66	534	68.20*	7.694E+00	5.644E-02	5.644E-02	28.06
CM-243	103.76	94	23.00*	7.301E+00	3.087E-02	3.100E-02	117.17

Flag: "*" = Keyline

Sample ID : G198324033 Acquisition date : 7-DEC-2007 14:46:17

Total number of lines in spectrum 59
Number of unidentified lines 21
Number of lines tentatively identified by NID 38 64.41%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	1.744E+00	1.744E+00	0.404E+00	23.17	
CS-137	9.47E+08S	1.00	2.827E-01	2.839E-01	0.411E-01	14.49	
EU-155	1.57E+08S	1.02	3.349E-02	3.432E-02	4.021E-02	117.17	
TL-208	4.43E+17S	1.00	5.981E-02	5.981E-02	3.211E-02	53.69	
BI-212	4.43E+17S	1.00	2.407E-01	2.407E-01	1.697E-01	70.52	
PB-212	4.43E+17S	1.00	3.074E-01	3.074E-01	0.428E-01	13.94	
BI-214	5.05E+10S	1.00	2.005E-01	2.005E-01	0.615E-01	30.68	
PB-214	5.05E+10S	1.00	2.416E-01	2.416E-01	0.479E-01	19.84	
RA-223	1.04E+12S	1.00	1.757E-01	1.757E-01	0.923E-01	52.55	
AC-228	4.43E+17S	1.00	2.942E-01	2.942E-01	1.347E-01	45.79	
PA-234M	1.41E+17S	1.00	1.699E+00	1.699E+00	3.421E+00	201.39	
TH-234	1.41E+17S	1.00	7.173E-01	7.173E-01	3.288E-01	45.84	
U-235	2.22E+16S	1.00	1.134E-03	1.134E-03	128.2E-03	11304.43	
NP-236	4.89E+12S	1.00	1.082E-02	1.082E-02	2.733E-02	252.67	
NP-237	6.75E+13S	1.00	1.680E-01	1.680E-01	0.660E-01	39.29	
AM-241	1.36E+10S	1.00	2.527E-02	2.527E-02	2.484E-02	98.30	
AM-243	2.33E+11S	1.00	5.644E-02	5.644E-02	1.584E-02	28.06	
CM-243	8.99E+08S	1.00	3.087E-02	3.100E-02	3.632E-02	117.17	
			---	---			
	Total Activity :		6.289E+00	6.291E+00			

Grand Total Activity : 6.289E+00 6.291E+00

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G198324033 Acquisition date : 7-DEC-2007 14:46:17

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.57	128	1418	0.88	92.59	89	8	2.97E-03	****	7.26E+00	
0	53.43	1	1261	1.01	106.32	103	7	3.08E-05	****	7.49E+00	
0	80.75	15	1355	1.11	161.01	158	7	3.54E-04	****	7.66E+00	
0	84.07	100	1142	1.02	167.66	165	6	2.32E-03	****	7.63E+00	
0	117.77	63	818	0.75	235.11	234	6	1.46E-03	****	7.07E+00	
0	185.71	214	1240	0.99	371.12	367	10	4.96E-03	86.8	5.69E+00	
0	455.80	29	392	1.03	911.70	908	8	6.83E-04	****	2.86E+00	
0	485.81	39	349	1.42	971.76	969	8	8.91E-04	****	2.71E+00	
0	568.17	75	604	3.06	1136.59	1128	15	1.75E-03	****	2.36E+00	
0	678.82	22	357	3.16	1358.00	1354	12	5.03E-04	****	2.02E+00	
0	922.59	36	232	3.33	1845.76	1840	11	8.37E-04	****	1.55E+00	
0	1182.06	52	414	11.66	2364.86	2344	28	1.21E-03	****	1.26E+00	
0	1235.82	57	206	5.65	2472.40	2465	15	1.31E-03	****	1.21E+00	
0	1347.64	33	119	4.24	2696.08	2688	14	7.58E-04	****	1.13E+00	
0	1356.66	26	163	7.05	2714.13	2706	17	6.03E-04	****	1.12E+00	
4	1531.89	36	60	3.11	3064.60	3060	16	8.34E-04	79.6	1.02E+00	
4	1536.13	14	31	1.49	3073.08	3060	16	3.31E-04	****	1.02E+00	
0	1599.53	16	106	3.33	3199.89	3189	17	3.75E-04	****	9.87E-01	
0	1665.79	20	55	3.23	3332.40	3323	13	4.70E-04	****	9.56E-01	
0	1670.11	23	34	1.40	3341.03	3337	8	5.38E-04	96.2	9.54E-01	
0	1846.86	36	65	3.33	3694.49	3680	20	8.28E-04	****	8.82E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G198324033            *
* Acquisition date :  7-DEC-2007 14:46:17 Detector SN#    :                 *
* Detector ID      : GAM13                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 12:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 12:00:11.14     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324033           Analyst initials: MJH1            *
* Batch Number     : 706246               Sample Quantity : 1.1292E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME :  2-JUL-2007 15:48:48 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	1.744E+00	3.962E-01	1.172E-01	3.962E-01
CS-137	2.839E-01	4.030E-02	1.428E-02	4.030E-02
EU-155	3.432E-02	3.940E-02	2.517E-02	3.940E-02
TL-208	5.981E-02	3.147E-02	1.288E-02	3.147E-02
BI-212	2.407E-01	1.663E-01	9.661E-02	1.663E-01
PB-212	3.074E-01	4.198E-02	1.682E-02	4.198E-02
BI-214	2.005E-01	6.028E-02	2.639E-02	6.028E-02
PB-214	2.416E-01	4.697E-02	2.328E-02	4.697E-02
RA-223	1.757E-01	9.049E-02	5.457E-02	9.049E-02
AC-228	2.942E-01	1.320E-01	5.150E-02	1.320E-01
PA-234M	1.699E+00	3.353E+00	1.541E+00	3.353E+00
TH-234	7.173E-01	3.223E-01	1.017E-01	3.223E-01
U-235	1.134E-03	1.257E-01	5.226E-02	1.257E-01
NP-236	1.082E-02	2.678E-02	1.300E-02	2.678E-02
NP-237	1.680E-01	6.470E-02	4.327E-02	6.470E-02
AM-241	2.527E-02	2.435E-02	1.375E-02	2.435E-02
AM-243	5.644E-02	1.552E-02	8.304E-03	1.552E-02
CM-243	3.100E-02	3.560E-02	2.199E-02	3.560E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	9.225E-03	2.007E-02	1.483E-02	2.007E-02	NOT IDENT.
RH-101	2.334E-03	1.507E-02	1.013E-02	1.507E-02	NOT IDENT.
SB-125	-1.344E-03	3.937E-02	3.289E-02	3.937E-02	NOT IDENT.
PO-209	1.842E+00	3.259E+00	2.741E+00	3.259E+00	NOT IDENT.
BI-211	8.820E-05	4.982E-01	4.116E-01	4.982E-01	NOT IDENT.
PA-233	1.386E-02	2.333E-02	2.043E-02	2.333E-02	NOT IDENT.
NP-239	2.001E-02	7.944E-02	6.598E-02	7.944E-02	NOT IDENT.
AM-246	1.241E-02	5.677E-02	4.826E-02	5.677E-02	NOT IDENT.
CF-249	-1.390E-02	2.161E-02	1.422E-02	2.161E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
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ENERGY	MDA COUNTS
59.54	813.5507
63.29	1005.7615
74.66	1096.7290
74.81	1097.2877
74.81	1097.2877
77.11	1105.8400
77.11	1105.8400
86.48	962.9681
87.30	1153.6488
87.30	1153.6488
92.58	991.7477
98.44	781.2830
103.76	793.0791
105.31	841.0906
129.07	830.8489
143.76	814.8300
198.00	790.5784
209.25	766.4752
228.18	715.3841
238.63	726.9805
242.00	730.3125
269.46	641.6541
270.25	650.1840
277.36	617.8254
295.22	595.8533
300.09	671.1183
312.17	531.1478
338.32	590.9361
351.93	577.7206
387.59	563.4493
409.46	490.6641
427.87	479.7155
463.00	442.2250
510.77	420.6580
583.19	376.6619
609.31	435.8116
661.66	373.4811
727.33	281.3640
763.13	370.6875
768.36	308.6868
785.37	273.8192
794.95	274.0638
806.17	304.9956
831.80	317.2398
860.56	273.2796
896.60	225.8104
911.20	260.0281
934.06	232.0709
964.77	243.3737
968.97	268.0073
1001.03	210.9702
1078.86	191.6516
1120.29	212.0957
1155.19	191.9250
1173.23	182.9590
1238.11	174.5146
1280.96	189.5801
1332.51	140.2056
1377.67	119.9612
1401.50	150.7747
1407.98	136.0437
1460.80	106.6836
1509.23	96.5402
1588.20	119.0528
1620.50	90.4731
1729.60	71.5063
1764.49	97.3411

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198324033

Total Uranium Activity	5.2484E-04	ug/g
Total Uranium Counting Unc.	5.8143E-02	ug/g
Total Uranium Tpu	5.8143E-08	ug/g
Total Uranium Mda	2.4181E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:49:31.42

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324034.CNF;2
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 1-DEC-2007 08:10:45.
Sample ID        : G198324034           Sample quantity  : 1.05050E+02 GRAM
Detector name    : GAM14                Detector geometry: CAN
Elapsed live time: 0 08:00:00.00        Elapsed real time: 0 08:00:02.56  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706246               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.94*	79	489	1.44	93.87	90	9	2.75E-03	63.2	
2	0	63.52*	80	782	1.54	127.00	122	11	2.79E-03	76.4	
3	6	74.91*	219	605	1.41	149.77	141	19	7.62E-03	24.3	8.21E-01
4	6	77.20*	378	593	1.27	154.35	141	19	1.31E-02	13.9	
5	2	84.16*	72	538	1.69	168.26	164	14	2.50E-03	65.0	1.73E+00
6	2	87.29	173	467	1.21	174.52	164	14	6.00E-03	22.1	
7	0	93.04*	94	775	1.48	186.02	181	11	3.27E-03	72.5	
8	0	99.50	86	442	2.82	198.93	194	9	2.97E-03	45.7	
9	0	185.64*	194	542	1.50	371.17	367	13	6.75E-03	31.1	
10	0	208.87	140	527	1.34	417.61	413	13	4.85E-03	34.9	
11	0	218.47	33	288	1.41	436.82	435	7	1.15E-03	84.1	
12	3	238.50*	795	283	1.41	476.85	471	17	2.76E-02	6.5	5.02E-01
13	3	241.43	243	367	1.90	482.72	471	17	8.43E-03	19.7	
14	0	263.23	58	308	3.38	526.30	521	10	2.02E-03	57.8	
15	0	271.00	67	332	2.17	541.84	537	10	2.32E-03	52.7	
16	0	276.87	72	309	2.38	553.58	548	10	2.49E-03	47.4	
17	0	295.24*	250	337	1.07	590.32	584	12	8.68E-03	17.4	
18	0	299.83*	64	255	2.16	599.50	596	9	2.21E-03	53.8	
19	0	338.34	217	353	1.50	676.51	669	15	7.54E-03	20.0	
20	0	351.69*	362	323	1.53	703.19	698	12	1.26E-02	12.4	
21	0	510.64*	76	235	2.50	1021.07	1011	17	2.65E-03	70.5	
22	0	568.35*	139	143	2.92	1136.48	1129	15	4.84E-03	26.0	
23	0	583.16*	240	211	1.87	1166.12	1159	17	8.34E-03	16.7	
24	0	609.45*	258	193	1.74	1218.70	1212	14	8.95E-03	14.8	
25	1	657.58	33	97	1.97	1314.97	1308	22	1.16E-03	63.9	1.10E+00
26	1	661.54	792	86	1.73	1322.88	1308	22	2.75E-02	4.2	
27	0	682.90	22	71	1.22	1365.61	1362	8	7.50E-04	71.2	
28	0	694.87	161	183	4.20	1389.54	1377	27	5.59E-03	24.7	
29	0	727.84	59	146	0.96	1455.49	1448	15	2.04E-03	47.1	
30	0	796.60	34	116	0.75	1593.05	1585	14	1.19E-03	70.5	
31	0	803.03	30	59	0.87	1605.91	1603	8	1.03E-03	48.4	
32	0	830.80	29	69	3.92	1661.47	1656	11	1.00E-03	58.7	
33	0	860.73	26	97	1.25	1721.34	1715	11	9.01E-04	75.9	
34	0	897.98*	17	102	3.31	1795.86	1787	14	5.86E-04	143.6	
35	0	911.30*	161	100	1.48	1822.49	1815	17	5.58E-03	18.2	
36	0	969.47*	71	95	1.68	1938.88	1932	13	2.47E-03	35.8	
37	0	991.49	22	17	1.54	1982.94	1980	6	7.59E-04	37.1	
38	0	1002.56	24	70	1.39	2005.09	1998	12	8.48E-04	71.1	

Sample ID : G198324034 Acquisition date : 1-DEC-2007 08:10:45

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1033.55	10	51	1.20	2067.10	2061	10	3.36E-04	143.2	
40	0	1112.04	51	67	3.29	2224.13	2216	16	1.77E-03	38.8	
41	0	1120.88*	33	106	1.12	2241.83	2234	14	1.15E-03	71.8	
42	0	1155.31	23	44	1.46	2310.72	2307	8	7.99E-04	54.1	
43	0	1201.35	31	80	6.55	2402.85	2392	19	1.06E-03	72.7	
44	0	1240.08	31	93	2.68	2480.34	2470	16	1.09E-03	70.4	
45	0	1257.26	11	62	3.08	2514.71	2506	15	3.81E-04	157.4	
46	0	1460.95*	444	23	2.20	2922.37	2915	19	1.54E-02	6.0	
47	0	1519.32	30	42	7.19	3039.19	3030	19	1.04E-03	55.5	
48	1	1662.82*	16	17	2.36	3326.43	3321	18	5.44E-04	69.4	1.27E+00
49	1	1665.60	17	16	2.15	3332.00	3321	18	5.90E-04	58.7	
50	0	1699.45	6	15	0.92	3399.75	3394	10	2.08E-04	127.5	
51	0	1712.21	14	14	4.54	3425.30	3417	14	4.82E-04	63.2	
52	0	1764.58	55	23	2.13	3530.14	3524	15	1.89E-03	23.3	
53	0	1874.18	20	22	0.78	3749.57	3738	18	6.82E-04	60.9	
54	0	1937.55	14	12	2.27	3876.44	3870	10	4.87E-04	54.0	
55	0	1971.91	18	20	3.55	3945.24	3937	16	6.17E-04	61.2	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324034       *
* Acquisition date :  1-DEC-2007 08:10:45 Detector SN#    :                 *
* Detector ID      : GAM14                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 08:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 08:00:02.56     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324034           Analyst initials: MJH1            *
* Batch Number     : 706246               Sample Quantity : 1.0505E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  7-MAR-2007 18:40:51 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.027E+00	3.936E-01	1.954E-01	0.000E+00
CS-137	3.335E-01	3.726E-02	2.187E-02	0.000E+00
TL-208	9.081E-02	3.032E-02	1.938E-02	0.000E+00
PO-209	1.696E+00	4.776E+00	4.184E+00	0.000E+00
BI-211	3.835E-01	4.428E-01	6.610E-01	0.000E+00
BI-212	1.940E-01	1.796E-01	1.610E-01	0.000E+00
PB-212	2.905E-01	4.101E-02	3.224E-02	0.000E+00
BI-214	1.857E-01	5.568E-02	4.181E-02	0.000E+00
PB-214	2.035E-01	5.081E-02	4.367E-02	0.000E+00
RA-223	8.454E-02	8.742E-02	1.164E-01	0.000E+00
AC-228	2.978E-01	1.092E-01	7.276E-02	0.000E+00
PA-234M	1.518E+00	2.118E+00	2.532E+00	0.000E+00
TH-234	2.030E-01	2.887E-01	2.618E-01	0.000E+00
NP-236	2.564E-02	2.304E-02	3.253E-02	0.000E+00
NP-237	1.683E-01	7.411E-02	1.202E-01	0.000E+00
AM-243	4.483E-02	2.158E-02	2.372E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
CO-60	8.767E-03	1.466E-02	2.561E-02	0.000E+00	NOT IDENT.
RH-101	-1.449E-02	1.839E-02	2.050E-02	0.000E+00	NOT IDENT.
SB-125	2.392E-02	3.454E-02	5.970E-02	0.000E+00	NOT IDENT.
EU-155	2.102E-02	3.382E-02	5.535E-02	0.000E+00	NOT IDENT.
PA-233	-1.292E-02	2.404E-02	3.990E-02	0.000E+00	NOT IDENT.
U-235	-4.462E-02	8.991E-02	1.128E-01	0.000E+00	NOT IDENT.
NP-239	3.408E-02	7.821E-02	1.359E-01	0.000E+00	NOT IDENT.
AM-241	1.827E-03	4.213E-02	6.220E-02	0.000E+00	NOT IDENT.
CM-243	-3.262E-02	3.483E-02	4.815E-02	0.000E+00	NOT IDENT.
AM-246	1.047E-02	4.897E-02	8.346E-02	0.000E+00	NOT IDENT.
CF-249	6.353E-03	1.506E-02	2.578E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:49:32.40

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324034.CNF;2
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 1-DEC-2007 08:10:45.
Sample ID        : G198324034           Sample quantity  : 1.05050E+02 GRAM
Detector name    : GAM14                Detector geometry: CAN
Elapsed live time: 0 08:00:00.00        Elapsed real time: 0 08:00:02.56  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706246               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	444	10.66*	1.230E+00	3.027E+00	3.027E+00	13.27
CS-137	661.66	792	85.10*	2.503E+00	3.323E-01	3.335E-01	11.40
TL-208	277.36	72	6.31	5.069E+00	2.002E-01	2.002E-01	95.06
	510.77	76	22.60	3.130E+00	9.640E-02	9.640E-02	141.22
	583.19	240	84.50*	2.795E+00	9.081E-02	9.081E-02	34.07
	763.13	------	1.81	2.201E+00	------	Line Not Found	------
	860.56	26	12.42	1.970E+00	9.474E-02	9.474E-02	152.00
PO-209	896.60	17	0.47*	1.894E+00	1.694E+00	1.696E+00	287.43
BI-211	831.80	29	3.30*	2.036E+00	3.835E-01	3.835E-01	117.81
BI-212	727.33	59	11.80*	2.298E+00	1.940E-01	1.940E-01	94.47
	785.37	------	1.10	2.144E+00	------	Line Not Found	------
	1620.50	------	1.49	1.140E+00	------	Line Not Found	------
PB-212	74.81	219	10.40	6.410E+00	2.940E-01	2.940E-01	49.12
	77.11	378	17.50	6.640E+00	2.903E-01	2.903E-01	28.87
	87.30	173	7.81	7.392E+00	2.672E-01	2.672E-01	44.94
	238.63	795	43.30*	5.646E+00	2.905E-01	2.905E-01	14.41
	300.09	64	3.28	4.777E+00	3.636E-01	3.636E-01	107.75
BI-214	609.31	258	46.10*	2.690E+00	1.857E-01	1.857E-01	30.59
	768.36	------	4.94	2.187E+00	------	Line Not Found	------
	806.17	------	1.22	2.093E+00	------	Line Not Found	------
	934.06	------	3.03	1.826E+00	------	Line Not Found	------
	1120.29	33	15.10	1.543E+00	1.266E-01	1.266E-01	143.76
	1155.19	23	1.63	1.502E+00	8.394E-01	8.395E-01	108.46
	1238.11	31	5.79	1.410E+00	3.447E-01	3.447E-01	141.00
	1280.96	------	1.43	1.371E+00	------	Line Not Found	------
	1377.67	------	4.00	1.289E+00	------	Line Not Found	------
	1401.50	------	1.27	1.271E+00	------	Line Not Found	------
	1407.98	------	2.15	1.266E+00	------	Line Not Found	------
	1509.23	------	2.11	1.199E+00	------	Line Not Found	------
	1729.60	------	2.92	1.093E+00	------	Line Not Found	------
	1764.49	55	15.40	1.081E+00	2.926E-01	2.926E-01	46.96
PB-214	74.81	219	6.44	6.410E+00	4.747E-01	4.747E-01	49.12

Sample ID : G198324034 Acquisition date : 1-DEC-2007 08:10:45

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	378	10.80	6.640E+00	4.704E-01	4.704E-01	28.87
	87.30	173	4.84	7.392E+00	4.311E-01	4.312E-01	44.94
	242.00	243	7.43	5.597E+00	5.218E-01	5.218E-01	39.88
	295.22	250	19.30	4.832E+00	2.393E-01	2.393E-01	35.40
	351.93	362	37.60*	4.228E+00	2.035E-01	2.035E-01	25.48
RA-223	269.46	67	13.70*	5.150E+00	8.454E-02	8.454E-02	105.52
AC-228	129.07	------	2.42	7.836E+00	------	Line Not Found	------
	209.25	140	3.89	6.181E+00	5.185E-01	5.185E-01	70.01
	270.25	67	3.46	5.150E+00	3.348E-01	3.348E-01	105.52
	338.32	217	11.27	4.356E+00	3.953E-01	3.953E-01	40.50
	409.46	------	1.92	3.750E+00	------	Line Not Found	------
	463.00	------	4.40	3.394E+00	------	Line Not Found	------
	794.95	34	4.25	2.116E+00	3.390E-01	3.390E-01	141.23
	911.20	161	25.80*	1.869E+00	2.978E-01	2.978E-01	37.41
	964.77	------	4.99	1.772E+00	------	Line Not Found	------
	968.97	71	15.80	1.764E+00	2.280E-01	2.280E-01	72.02
	1588.20	------	3.22	1.156E+00	------	Line Not Found	------
PA-234M	1001.03	24	0.84*	1.710E+00	1.518E+00	1.518E+00	142.39
TH-234	63.29	80	4.80	4.908E+00	3.051E-01	3.051E-01	153.05
	92.58	94	5.41*	7.660E+00	2.030E-01	2.030E-01	145.14
NP-236	98.44	86	38.00*	7.850E+00	2.564E-02	2.564E-02	91.71
NP-237	86.48	173	12.40*	7.392E+00	1.683E-01	1.683E-01	44.94
AM-243	74.66	219	68.20*	6.410E+00	4.483E-02	4.483E-02	49.12

Flag: "*" = Keyline

Sample ID : G198324034 Acquisition date : 1-DEC-2007 08:10:45

Total number of lines in spectrum 55
Number of unidentified lines 23
Number of lines tentatively identified by NID 32 58.18%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	3.027E+00	3.027E+00	0.402E+00	13.27	
CS-137	9.47E+08S	1.00	3.323E-01	3.335E-01	0.380E-01	11.40	
TL-208	4.43E+17S	1.00	9.081E-02	9.081E-02	3.094E-02	34.07	
PO-209	3.22E+09S	1.00	1.694E+00	1.696E+00	4.873E+00	287.43	
BI-211	2.22E+16S	1.00	3.835E-01	3.835E-01	4.518E-01	117.81	
BI-212	4.43E+17S	1.00	1.940E-01	1.940E-01	1.833E-01	94.47	
PB-212	4.43E+17S	1.00	2.905E-01	2.905E-01	0.418E-01	14.41	
BI-214	5.05E+10S	1.00	1.857E-01	1.857E-01	0.568E-01	30.59	
PB-214	5.05E+10S	1.00	2.035E-01	2.035E-01	0.519E-01	25.48	
RA-223	1.04E+12S	1.00	8.454E-02	8.454E-02	8.921E-02	105.52	
AC-228	4.43E+17S	1.00	2.978E-01	2.978E-01	1.114E-01	37.41	
PA-234M	1.41E+17S	1.00	1.518E+00	1.518E+00	2.161E+00	142.39	
TH-234	1.41E+17S	1.00	2.030E-01	2.030E-01	2.946E-01	145.14	
NP-236	4.89E+12S	1.00	2.564E-02	2.564E-02	2.351E-02	91.71	
NP-237	6.75E+13S	1.00	1.683E-01	1.683E-01	0.756E-01	44.94	
AM-243	2.33E+11S	1.00	4.483E-02	4.483E-02	2.202E-02	49.12	
			---	---			
	Total Activity :		8.742E+00	8.746E+00			

Grand Total Activity : 8.742E+00 8.746E+00

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G198324034 Acquisition date : 1-DEC-2007 08:10:45

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.94	79	489	1.44	93.87	90	9	2.75E-03	****	1.97E+00	
2	84.16	72	538	1.69	168.26	164	14	2.50E-03	****	7.20E+00	
0	185.64	194	542	1.50	371.17	367	13	6.75E-03	62.2	6.66E+00	
0	218.47	33	288	1.41	436.82	435	7	1.15E-03	****	6.00E+00	
0	263.23	58	308	3.38	526.30	521	10	2.02E-03	****	5.26E+00	
0	568.35	139	143	2.92	1136.48	1129	15	4.84E-03	52.0	2.86E+00	
1	657.58	33	97	1.97	1314.97	1308	22	1.16E-03	****	2.52E+00	
0	682.90	22	71	1.22	1365.61	1362	8	7.50E-04	****	2.43E+00	
0	694.87	161	183	4.20	1389.54	1377	27	5.59E-03	49.3	2.40E+00	
0	803.03	30	59	0.87	1605.91	1603	8	1.03E-03	96.8	2.10E+00	
0	991.49	22	17	1.54	1982.94	1980	6	7.59E-04	74.3	1.73E+00	
0	1033.55	10	51	1.20	2067.10	2061	10	3.36E-04	****	1.66E+00	
0	1112.04	51	67	3.29	2224.13	2216	16	1.77E-03	77.6	1.55E+00	
0	1201.35	31	80	6.55	2402.85	2392	19	1.06E-03	****	1.45E+00	
0	1257.26	11	62	3.08	2514.71	2506	15	3.81E-04	****	1.39E+00	
0	1519.32	30	42	7.19	3039.19	3030	19	1.04E-03	****	1.19E+00	
1	1662.82	16	17	2.36	3326.43	3321	18	5.44E-04	****	1.12E+00	
1	1665.60	17	16	2.15	3332.00	3321	18	5.90E-04	****	1.12E+00	
0	1699.45	6	15	0.92	3399.75	3394	10	2.08E-04	****	1.11E+00	
0	1712.21	14	14	4.54	3425.30	3417	14	4.82E-04	****	1.10E+00	
0	1874.18	20	22	0.78	3749.57	3738	18	6.82E-04	****	1.05E+00	
0	1937.55	14	12	2.27	3876.44	3870	10	4.87E-04	****	1.03E+00	
0	1971.91	18	20	3.55	3945.24	3937	16	6.17E-04	****	1.02E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G198324034            *
* Acquisition date :  1-DEC-2007 08:10:45 Detector SN#    :                 *
* Detector ID      : GAM14                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 08:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 08:00:02.56     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324034           Analyst initials: MJH1            *
* Batch Number     : 706246               Sample Quantity : 1.0505E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME :  7-MAR-2007 18:40:51 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	3.027E+00	3.936E-01	9.776E-02	3.936E-01
CS-137	3.335E-01	3.726E-02	1.094E-02	3.726E-02
TL-208	9.081E-02	3.032E-02	9.694E-03	3.032E-02
PO-209	1.696E+00	4.776E+00	2.093E+00	4.776E+00
BI-211	3.835E-01	4.428E-01	3.307E-01	4.428E-01
BI-212	1.940E-01	1.796E-01	8.054E-02	1.796E-01
PB-212	2.905E-01	4.101E-02	1.613E-02	4.101E-02
BI-214	1.857E-01	5.568E-02	2.092E-02	5.568E-02
PB-214	2.035E-01	5.081E-02	2.185E-02	5.081E-02
RA-223	8.454E-02	8.742E-02	5.825E-02	8.742E-02
AC-228	2.978E-01	1.092E-01	3.640E-02	1.092E-01
PA-234M	1.518E+00	2.118E+00	1.267E+00	2.118E+00
TH-234	2.030E-01	2.887E-01	1.310E-01	2.887E-01
NP-236	2.564E-02	2.304E-02	1.627E-02	2.304E-02
NP-237	1.683E-01	7.411E-02	6.013E-02	7.411E-02
AM-243	4.483E-02	2.158E-02	1.186E-02	2.158E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	8.767E-03	1.466E-02	1.281E-02	1.466E-02	NOT IDENT.
RH-101	-1.449E-02	1.839E-02	1.026E-02	1.839E-02	NOT IDENT.
SB-125	2.392E-02	3.454E-02	2.987E-02	3.454E-02	NOT IDENT.
EU-155	2.102E-02	3.382E-02	2.769E-02	3.382E-02	NOT IDENT.
PA-233	-1.292E-02	2.404E-02	1.996E-02	2.404E-02	NOT IDENT.
U-235	-4.462E-02	8.991E-02	5.643E-02	8.991E-02	NOT IDENT.
NP-239	3.408E-02	7.821E-02	6.799E-02	7.821E-02	NOT IDENT.
AM-241	1.827E-03	4.213E-02	3.112E-02	4.213E-02	NOT IDENT.
CM-243	-3.262E-02	3.483E-02	2.409E-02	3.483E-02	NOT IDENT.
AM-246	1.047E-02	4.897E-02	4.175E-02	4.897E-02	NOT IDENT.
CF-249	6.353E-03	1.506E-02	1.290E-02	1.506E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
59.54	509.3811
63.29	530.4026
74.66	608.4229
74.81	608.5121
74.81	608.5121
77.11	609.8779
77.11	609.8779
86.48	685.1078
87.30	757.7847
87.30	757.7847
92.58	669.9733
98.44	535.6077
103.76	503.8101
105.31	437.2661
129.07	478.8028
143.76	497.9917
198.00	437.1950
209.25	436.2203
228.18	394.3651
238.63	358.3693
242.00	340.9839
269.46	393.3327
270.25	367.5579
277.36	327.7718
295.22	314.4829
300.09	311.9563
312.17	320.5944
338.32	276.4869
351.93	278.9408
387.59	239.2054
409.46	237.0965
427.87	194.4997
463.00	193.7442
510.77	170.9302
583.19	121.9898
609.31	156.7622
661.66	125.6465
727.33	111.3384
763.13	122.0114
768.36	110.2173
785.37	107.8832
794.95	114.0594
806.17	96.8783
831.80	115.0011
860.56	96.5688
896.60	81.2461
911.20	72.0169
934.06	72.3540
964.77	93.6011
968.97	92.9958
1001.03	77.7306
1078.86	75.3802
1120.29	60.6617
1155.19	77.4128
1173.23	66.7028
1238.11	82.5405
1280.96	57.7816
1332.51	63.3724
1377.67	48.3808
1401.50	54.7576
1407.98	40.3330
1460.80	38.5688
1509.23	36.5332
1588.20	47.7740
1620.50	26.6602
1729.60	25.9717
1764.49	22.8286

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198324034

Total Uranium Activity	-2.0646E-02	ug/g
Total Uranium Counting Unc.	4.1602E-02	ug/g
Total Uranium Tpu	4.1602E-08	ug/g
Total Uranium Mda	2.6108E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:50:05.50

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324035.CNF;1
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 1-DEC-2007 08:11:30.
Sample ID        : G198324035           Sample quantity  : 1.00060E+02 GRAM
Detector name    : GAM19                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.53  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706246               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
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Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	2	63.16*	29	222	1.19	125.92	121	20	2.04E-03	98.2	1.26E+00
2	2	65.95*	26	231	1.23	131.49	121	20	1.77E-03	114.3	
3	2	68.63	43	304	1.51	136.87	121	20	2.96E-03	75.2	
4	4	74.97	234	380	1.84	149.53	141	21	1.63E-02	18.5	1.60E+00
5	4	77.37	281	276	1.31	154.33	141	21	1.95E-02	12.6	
6	1	87.34	108	314	1.31	174.25	168	27	7.49E-03	28.8	2.16E+00
7	1	90.18	104	277	1.41	179.92	168	27	7.24E-03	29.2	
8	1	92.74*	136	238	1.35	185.03	168	27	9.43E-03	26.4	
9	0	185.73*	126	266	1.51	370.86	365	13	8.76E-03	31.7	
10	0	209.16	46	159	1.32	417.69	414	7	3.21E-03	47.7	
11	0	226.33	71	206	4.36	452.00	446	12	4.91E-03	42.4	
12	2	238.41*	581	152	1.29	476.14	470	20	4.03E-02	6.0	8.99E-01
13	2	241.24	114	172	1.73	481.79	470	20	7.90E-03	27.8	
14	0	247.68	82	208	4.48	494.67	489	15	5.69E-03	39.8	
15	0	269.71	37	169	1.85	538.70	534	9	2.55E-03	65.8	
16	0	294.78*	153	170	0.96	588.80	584	11	1.06E-02	19.4	
17	0	299.44	40	156	1.44	598.10	595	11	2.80E-03	62.9	
18	0	338.21	122	106	1.37	675.60	671	10	8.45E-03	18.4	
19	0	351.76*	274	177	1.44	702.69	695	16	1.90E-02	13.0	
20	0	366.78	21	165	4.71	732.70	727	14	1.42E-03	134.6	
21	0	463.00	111	67	1.56	925.02	918	16	7.68E-03	19.2	
22	0	510.47*	27	150	2.57	1019.91	1013	13	1.85E-03	130.2	
23	0	565.54*	74	92	2.74	1129.98	1122	16	5.15E-03	34.5	
24	0	582.86*	203	61	1.51	1164.59	1158	15	1.41E-02	12.0	
25	0	608.96*	145	93	1.45	1216.78	1212	10	1.01E-02	16.0	
26	0	620.71	17	41	0.64	1240.25	1234	9	1.18E-03	74.1	
27	0	726.58	66	50	1.90	1451.90	1445	11	4.57E-03	24.1	
28	0	757.39	20	92	5.93	1513.50	1496	22	1.39E-03	124.7	
29	0	763.64	38	35	3.80	1526.00	1518	14	2.64E-03	36.8	
30	0	795.42	54	51	5.45	1589.53	1581	17	3.75E-03	34.2	
31	0	834.47	20	40	0.62	1667.60	1663	10	1.39E-03	63.2	
32	0	911.10*	119	92	2.06	1820.82	1814	18	8.28E-03	21.6	
33	0	944.52	14	20	1.06	1887.64	1880	10	9.52E-04	66.9	
34	0	957.69	17	42	5.63	1913.98	1905	13	1.19E-03	81.8	
35	0	968.76	58	52	1.40	1936.10	1930	12	4.04E-03	28.4	
36	0	1001.22	61	26	5.40	2001.02	1991	21	4.24E-03	24.5	
37	4	1074.39	9	7	1.82	2147.33	2145	11	6.35E-04	50.4	2.84E-01
38	4	1077.29	15	4	1.24	2153.13	2145	11	1.08E-03	36.1	

Sample ID : G198324035 Acquisition date : 1-DEC-2007 08:11:30

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1119.62	63	46	2.43	2237.78	2229	21	4.35E-03	30.2	
40	0	1240.28	11	38	1.73	2479.08	2471	14	7.65E-04	123.0	
41	0	1259.76	48	26	11.39	2518.03	2504	27	3.33E-03	33.4	
42	0	1320.79	25	8	3.86	2640.09	2634	12	1.74E-03	31.0	
43	0	1333.13	21	25	3.00	2664.76	2652	17	1.44E-03	59.8	
44	0	1351.48	7	7	0.88	2701.48	2696	7	4.86E-04	73.2	
45	0	1459.95*	216	23	1.86	2918.42	2910	18	1.50E-02	9.1	
46	0	1559.41	16	12	1.50	3117.39	3109	13	1.10E-03	52.9	
47	0	1612.93	5	5	0.72	3224.44	3219	9	3.12E-04	97.2	
48	0	1620.01	15	11	2.94	3238.61	3231	13	1.04E-03	55.1	
49	0	1624.33	12	0	1.50	3247.25	3244	8	8.33E-04	28.9	
50	0	1678.23	14	5	2.22	3355.07	3351	9	9.37E-04	39.3	
51	0	1707.21	17	0	0.88	3413.06	3407	12	1.18E-03	24.3	
52	0	1764.16	28	20	2.07	3526.98	3518	13	1.95E-03	37.6	
53	0	1846.38	25	4	4.36	3691.48	3683	18	1.74E-03	28.0	
54	0	1914.13	12	16	2.28	3827.05	3818	16	8.26E-04	80.7	
55	0	1940.36	8	10	1.35	3879.52	3872	11	5.27E-04	98.5	
56	0	2042.55	7	5	1.12	4084.00	4078	10	4.86E-04	70.7	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324035       *
* Acquisition date :  1-DEC-2007 08:11:30 Detector SN#    :                 *
* Detector ID      : GAM19                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:01.53     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324035           Analyst initials: MJH1            *
* Batch Number     : 706246               Sample Quantity : 1.0006E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  6-MAR-2007 21:45:12 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.189E+00	5.983E-01	3.737E-01	0.000E+00
TL-208	1.727E-01	4.257E-02	3.050E-02	0.000E+00
BI-212	4.821E-01	2.315E-01	2.468E-01	0.000E+00
PB-212	4.890E-01	6.508E-02	5.185E-02	0.000E+00
PB-214	3.531E-01	9.248E-02	6.319E-02	0.000E+00
RA-223	1.068E-01	1.379E-01	1.723E-01	0.000E+00
AC-228	4.862E-01	2.118E-01	1.340E-01	0.000E+00
PA-234M	8.322E+00	4.073E+00	3.009E+00	0.000E+00
TH-234	7.271E-01	3.797E-01	4.133E-01	0.000E+00
NP-237	2.646E-01	1.503E-01	1.904E-01	0.000E+00
NP-239	2.311E-01	1.926E-01	2.008E-01	0.000E+00
AM-243	1.269E-01	4.683E-02	4.264E-02	0.000E+00
AM-246	6.801E-02	4.841E-02	8.884E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	1.212E-02		2.177E-02	3.890E-02	0.000E+00	FAIL ABUN
RH-101	-6.595E-03		2.093E-02	3.117E-02	0.000E+00	NOT IDENT.
SB-125	-4.738E-02		5.429E-02	8.656E-02	0.000E+00	NOT IDENT.
CS-137	1.354E-02		2.157E-02	3.765E-02	0.000E+00	NOT IDENT.
EU-155	7.586E-02		5.465E-02	9.740E-02	0.000E+00	NOT IDENT.
PO-209	6.951E-01		4.163E+00	6.927E+00	0.000E+00	NOT IDENT.
BI-211	-6.386E-02		7.266E-01	1.017E+00	0.000E+00	NOT IDENT.
BI-214	0.000E+00		7.550E-02	1.212E-01	0.000E+00	FAIL ABUN
PA-233	5.684E-03		3.601E-02	5.912E-02	0.000E+00	NOT IDENT.
U-235	-1.675E-01		1.209E-01	1.796E-01	0.000E+00	NOT IDENT.
NP-236	3.256E-02		3.244E-02	5.122E-02	0.000E+00	NOT IDENT.
AM-241	-2.344E-02		8.087E-02	1.196E-01	0.000E+00	NOT IDENT.
CM-243	-6.623E-03		5.000E-02	8.384E-02	0.000E+00	NOT IDENT.
CF-249	2.070E-02		2.169E-02	3.910E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:50:06.48

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324035.CNF;1
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 1-DEC-2007 08:11:30.
Sample ID        : G198324035           Sample quantity  : 1.00060E+02 GRAM
Detector name    : GAM19                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.53  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706246               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	216	10.66*	1.189E+00	3.189E+00	3.189E+00	19.14
TL-208	277.36	------	6.31	4.619E+00	------	Line Not Found	------
	510.77	27	22.60	2.906E+00	7.620E-02	7.620E-02	260.54
	583.19	203	84.50*	2.612E+00	1.727E-01	1.727E-01	25.15
	763.13	38	1.81	2.081E+00	1.892E+00	1.892E+00	74.16
	860.56	------	12.42	1.875E+00	------	Line Not Found	------
BI-212	727.33	66	11.80*	2.172E+00	4.821E-01	4.821E-01	48.99
	785.37	------	1.10	2.031E+00	------	Line Not Found	------
	1620.50	15	1.49	1.103E+00	1.712E+00	1.712E+00	110.32
PB-212	74.81	234	10.40	5.079E+00	8.323E-01	8.323E-01	37.65
	77.11	281	17.50	5.334E+00	5.641E-01	5.641E-01	25.93
	87.30	108	7.81	6.164E+00	4.201E-01	4.201E-01	57.96
	238.63	581	43.30*	5.143E+00	4.890E-01	4.890E-01	13.58
	300.09	40	3.28	4.368E+00	5.275E-01	5.275E-01	125.96
PB-214	74.81	234	6.44	5.079E+00	1.344E+00	1.344E+00	37.65
	77.11	281	10.80	5.334E+00	9.140E-01	9.140E-01	25.93
	87.30	108	4.84	6.164E+00	6.779E-01	6.780E-01	57.96
	242.00	114	7.43	5.101E+00	5.628E-01	5.628E-01	55.99
	295.22	153	19.30	4.419E+00	3.354E-01	3.355E-01	39.27
	351.93	274	37.60*	3.874E+00	3.531E-01	3.531E-01	26.73
RA-223	269.46	37	13.70*	4.714E+00	1.068E-01	1.068E-01	131.79
AC-228	129.07	------	2.42	6.984E+00	------	Line Not Found	------
	209.25	46	3.89	5.614E+00	3.973E-01	3.973E-01	95.59
	270.25	37	3.46	4.714E+00	4.229E-01	4.229E-01	131.79
	338.32	122	11.27	3.990E+00	5.073E-01	5.073E-01	37.38
	409.46	------	1.92	3.452E+00	------	Line Not Found	------
	463.00	111	4.40	3.139E+00	1.502E+00	1.502E+00	38.89
	794.95	54	4.25	2.009E+00	1.186E+00	1.186E+00	68.97
	911.20	119	25.80*	1.783E+00	4.862E-01	4.862E-01	44.45
	964.77	------	4.99	1.695E+00	------	Line Not Found	------
	968.97	58	15.80	1.689E+00	4.089E-01	4.089E-01	57.55
	1588.20	------	3.22	1.118E+00	------	Line Not Found	------

Sample ID : G198324035 Acquisition date : 1-DEC-2007 08:11:30

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
PA-234M	1001.03	61	0.84*	1.640E+00	8.322E+00	8.322E+00	49.93
TH-234	63.29	29	4.80	3.533E+00	3.245E-01	3.245E-01	196.42
	92.58	136	5.41*	6.475E+00	7.271E-01	7.271E-01	53.29
NP-237	86.48	108	12.40*	6.164E+00	2.646E-01	2.646E-01	57.96
NP-239	228.18	71	10.76*	5.329E+00	2.311E-01	2.311E-01	85.05
AM-243	74.66	234	68.20*	5.079E+00	1.269E-01	1.269E-01	37.65
AM-246	1078.86	15	27.80*	1.537E+00	6.801E-02	6.801E-02	72.63

Flag: "*" = Keyline

Sample ID : G198324035 Acquisition date : 1-DEC-2007 08:11:30

Total number of lines in spectrum 56
Number of unidentified lines 26
Number of lines tentatively identified by NID 30 53.57%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	3.189E+00	3.189E+00	0.611E+00	19.14	
TL-208	4.43E+17S	1.00	1.727E-01	1.727E-01	0.434E-01	25.15	
BI-212	4.43E+17S	1.00	4.821E-01	4.821E-01	2.362E-01	48.99	
PB-212	4.43E+17S	1.00	4.890E-01	4.890E-01	0.664E-01	13.58	
PB-214	5.05E+10S	1.00	3.531E-01	3.531E-01	0.944E-01	26.73	
RA-223	1.04E+12S	1.00	1.068E-01	1.068E-01	1.408E-01	131.79	
AC-228	4.43E+17S	1.00	4.862E-01	4.862E-01	2.161E-01	44.45	
PA-234M	1.41E+17S	1.00	8.322E+00	8.322E+00	4.156E+00	49.93	
TH-234	1.41E+17S	1.00	7.271E-01	7.271E-01	3.875E-01	53.29	
NP-237	6.75E+13S	1.00	2.646E-01	2.646E-01	1.534E-01	57.96	
NP-239	2.33E+11S	1.00	2.311E-01	2.311E-01	1.966E-01	85.05	
AM-243	2.33E+11S	1.00	1.269E-01	1.269E-01	0.478E-01	37.65	
AM-246	2.18E+11S	1.00	6.801E-02	6.801E-02	4.939E-02	72.63	
			---	---			
	Total Activity :		1.502E+01	1.502E+01			

Grand Total Activity : 1.502E+01 1.502E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G198324035 Acquisition date : 1-DEC-2007 08:11:30

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
2	65.95	26	231	1.23	131.49	121	20	1.77E-03	****	3.94E+00	
2	68.63	43	304	1.51	136.87	121	20	2.96E-03	****	4.31E+00	
1	90.18	104	277	1.41	179.92	168	27	7.24E-03	58.5	6.34E+00	
0	185.73	126	266	1.51	370.86	365	13	8.76E-03	63.3	6.04E+00	
0	247.68	82	208	4.48	494.67	489	15	5.69E-03	79.6	5.01E+00	
0	366.78	21	165	4.71	732.70	727	14	1.42E-03	****	3.75E+00	
0	565.54	74	92	2.74	1129.98	1122	16	5.15E-03	69.1	2.68E+00	
0	608.96	145	93	1.45	1216.78	1212	10	1.01E-02	31.9	2.52E+00	T
0	620.71	17	41	0.64	1240.25	1234	9	1.18E-03	****	2.48E+00	
0	757.39	20	92	5.93	1513.50	1496	22	1.39E-03	****	2.10E+00	
0	834.47	20	40	0.62	1667.60	1663	10	1.39E-03	****	1.93E+00	
0	944.52	14	20	1.06	1887.64	1880	10	9.52E-04	****	1.73E+00	
0	957.69	17	42	5.63	1913.98	1905	13	1.19E-03	****	1.71E+00	
4	1074.39	9	7	1.82	2147.33	2145	11	6.35E-04	****	1.54E+00	
0	1119.62	63	46	2.43	2237.78	2229	21	4.35E-03	60.3	1.49E+00	T
0	1240.28	11	38	1.73	2479.08	2471	14	7.65E-04	****	1.36E+00	
0	1259.76	48	26	11.39	2518.03	2504	27	3.33E-03	66.8	1.34E+00	
0	1320.79	25	8	3.86	2640.09	2634	12	1.74E-03	62.0	1.29E+00	
0	1333.13	21	25	3.00	2664.76	2652	17	1.44E-03	****	1.28E+00	T
0	1351.48	7	7	0.88	2701.48	2696	7	4.86E-04	****	1.26E+00	
0	1559.41	16	12	1.50	3117.39	3109	13	1.10E-03	****	1.13E+00	
0	1612.93	5	5	0.72	3224.44	3219	9	3.12E-04	****	1.11E+00	
0	1624.33	12	0	1.50	3247.25	3244	8	8.33E-04	57.7	1.10E+00	
0	1678.23	14	5	2.22	3355.07	3351	9	9.37E-04	78.6	1.08E+00	
0	1707.21	17	0	0.88	3413.06	3407	12	1.18E-03	48.5	1.07E+00	
0	1764.16	28	20	2.07	3526.98	3518	13	1.95E-03	75.3	1.05E+00	T
0	1846.38	25	4	4.36	3691.48	3683	18	1.74E-03	55.9	1.02E+00	
0	1914.13	12	16	2.28	3827.05	3818	16	8.26E-04	****	1.00E+00	
0	1940.36	8	10	1.35	3879.52	3872	11	5.27E-04	****	9.96E-01	
0	2042.55	7	5	1.12	4084.00	4078	10	4.86E-04	****	9.76E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G198324035            *
* Acquisition date :  1-DEC-2007 08:11:30 Detector SN#    :                 *
* Detector ID      : GAM19                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:01.53     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324035           Analyst initials: MJH1            *
* Batch Number     : 706246               Sample Quantity : 1.0006E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME :  6-MAR-2007 21:45:12 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	3.189E+00	5.983E-01	1.870E-01	5.983E-01
TL-208	1.727E-01	4.257E-02	1.526E-02	4.257E-02
BI-212	4.821E-01	2.315E-01	1.235E-01	2.315E-01
PB-212	4.890E-01	6.508E-02	2.594E-02	6.508E-02
PB-214	3.531E-01	9.248E-02	3.161E-02	9.248E-02
RA-223	1.068E-01	1.379E-01	8.622E-02	1.379E-01
AC-228	4.862E-01	2.118E-01	6.705E-02	2.118E-01
PA-234M	8.322E+00	4.073E+00	1.505E+00	4.073E+00
TH-234	7.271E-01	3.797E-01	2.068E-01	3.797E-01
NP-237	2.646E-01	1.503E-01	9.526E-02	1.503E-01
NP-239	2.311E-01	1.926E-01	1.005E-01	1.926E-01
AM-243	1.269E-01	4.683E-02	2.133E-02	4.683E-02
AM-246	6.801E-02	4.841E-02	4.445E-02	4.841E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	1.212E-02	2.177E-02	1.946E-02	2.177E-02	FAIL ABUN
RH-101	-6.595E-03	2.093E-02	1.560E-02	2.093E-02	NOT IDENT.
SB-125	-4.738E-02	5.429E-02	4.331E-02	5.429E-02	NOT IDENT.
CS-137	1.354E-02	2.157E-02	1.884E-02	2.157E-02	NOT IDENT.
EU-155	7.586E-02	5.465E-02	4.873E-02	5.465E-02	NOT IDENT.
PO-209	6.951E-01	4.163E+00	3.466E+00	4.163E+00	NOT IDENT.
BI-211	-6.386E-02	7.266E-01	5.087E-01	7.266E-01	NOT IDENT.
BI-214	2.347E-01	7.550E-02	6.062E-02	7.550E-02	FAIL ABUN
PA-233	5.684E-03	3.601E-02	2.958E-02	3.601E-02	NOT IDENT.
U-235	-1.675E-01	1.209E-01	8.985E-02	1.209E-01	NOT IDENT.
NP-236	3.256E-02	3.244E-02	2.563E-02	3.244E-02	NOT IDENT.
AM-241	-2.344E-02	8.087E-02	5.983E-02	8.087E-02	NOT IDENT.
CM-243	-6.623E-03	5.000E-02	4.195E-02	5.000E-02	NOT IDENT.
CF-249	2.070E-02	2.169E-02	1.956E-02	2.169E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
59.54	229.3024
63.29	245.2882
74.66	283.3689
74.81	283.4182
74.81	283.4182
77.11	284.1675
77.11	284.1675
86.48	273.9377
87.30	274.1753
87.30	274.1753
92.58	275.6840
98.44	180.8780
103.76	235.0357
105.31	198.4211
129.07	244.3747
143.76	256.3424
198.00	193.2400
209.25	194.6175
228.18	173.6552
238.63	176.4214
242.00	176.7597
269.46	164.4051
270.25	174.2773
277.36	146.5012
295.22	151.8081
300.09	139.7872
312.17	119.0297
338.32	133.3319
351.93	112.3962
387.59	88.3617
409.46	106.8004
427.87	115.0663
463.00	88.1695
510.77	103.1913
583.19	60.2554
609.31	91.6204
661.66	60.6929
727.33	53.2358
763.13	62.4170
768.36	53.8211
785.37	50.2230
794.95	50.3461
806.17	53.6459
831.80	58.2253
860.56	43.7096
896.60	43.0107
911.20	50.7109
934.06	41.2155
964.77	49.1462
968.97	58.3021
1001.03	22.9350
1078.86	19.1844
1120.29	44.2002
1155.19	24.6204
1173.23	30.4089
1238.11	36.2825
1280.96	32.9679
1332.51	20.1311
1377.67	21.6992
1401.50	31.6914
1407.98	27.7596
1460.80	30.0061
1509.23	27.2186
1588.20	23.4773
1620.50	0.0000
1729.60	16.6816
1764.49	16.1669

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198324035

Total Uranium Activity	-7.7512E-02	ug/g
Total Uranium Counting Unc.	5.5957E-02	ug/g
Total Uranium Tpu	5.5957E-08	ug/g
Total Uranium Mda	4.1573E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:50:40.16

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324036.CNF;2
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 1-DEC-2007 08:12:11.
Sample ID        : G198324036           Sample quantity  : 1.06490E+02 GRAM
Detector name    : GAM20                Detector geometry: CAN
Elapsed live time: 0 08:00:00.00        Elapsed real time: 0 08:02:03.59  0.4%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706246               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.23*	7	591	1.05	126.40	122	9	2.28E-04	794.4	
2	1	74.93*	296	526	1.24	149.77	146	15	1.03E-02	15.7	2.38E+00
3	1	77.16*	429	418	1.02	154.23	146	15	1.49E-02	10.7	
4	3	83.91*	32	405	1.31	167.70	165	13	1.13E-03	171.3	1.70E+00
5	3	87.31*	68	375	1.00	174.50	165	13	2.36E-03	81.9	
6	2	89.81*	118	119	1.39	179.48	178	14	4.10E-03	17.0	2.28E+00
7	2	92.72*	140	469	1.34	185.30	178	14	4.85E-03	38.2	
8	0	128.93	51	372	1.27	257.64	256	7	1.77E-03	63.9	
9	0	154.08	59	361	0.70	307.87	304	7	2.03E-03	55.4	
10	0	158.66	22	373	1.30	317.03	314	7	7.48E-04	150.5	
11	0	163.77	43	489	1.83	327.23	321	9	1.49E-03	94.4	
12	0	185.71*	92	496	1.29	371.07	365	10	3.19E-03	62.9	
13	0	198.01*	43	374	2.65	395.63	392	8	1.49E-03	94.8	
14	0	208.93	112	342	1.84	417.45	414	8	3.88E-03	30.3	
15	5	238.48*	854	299	1.19	476.50	471	17	2.97E-02	5.8	4.64E-01
16	5	241.39	236	420	1.79	482.31	471	17	8.18E-03	20.9	
17	0	277.42	51	349	0.68	554.30	550	10	1.77E-03	69.9	
18	0	294.98	300	357	1.40	589.39	584	12	1.04E-02	13.8	
19	0	300.30	82	332	3.02	600.03	596	11	2.84E-03	44.8	
20	0	338.65	218	267	1.40	676.65	672	12	7.58E-03	16.4	
21	0	351.62*	363	429	1.57	702.57	696	15	1.26E-02	14.3	
22	0	462.93	55	154	1.54	925.05	921	9	1.92E-03	42.8	
23	0	510.81*	52	256	2.35	1020.75	1013	17	1.79E-03	111.5	
24	0	545.60	25	163	5.55	1090.28	1084	14	8.81E-04	108.9	
25	0	582.92*	227	165	1.40	1164.89	1159	14	7.88E-03	15.6	
26	0	609.03*	296	140	1.44	1217.10	1212	11	1.03E-02	10.9	
27	0	662.29	143	189	1.68	1323.57	1316	17	4.97E-03	23.6	
28	0	726.87	79	117	2.03	1452.71	1447	12	2.75E-03	29.5	
29	0	768.29	37	77	1.36	1535.53	1531	8	1.29E-03	44.5	
30	0	794.59	37	72	1.68	1588.14	1582	10	1.30E-03	45.4	
31	0	802.83*	12	98	3.62	1604.60	1597	13	4.10E-04	199.4	
32	0	853.06	47	156	9.53	1705.06	1691	24	1.63E-03	71.8	
33	0	860.77	43	106	0.77	1720.48	1714	14	1.50E-03	52.4	
34	0	910.98	186	73	1.83	1820.91	1815	12	6.47E-03	11.6	
35	0	970.92	59	182	1.84	1940.81	1927	20	2.04E-03	58.1	
36	0	1001.07*	6	67	2.47	2001.14	1993	14	1.94E-04	399.8	
37	0	1120.25	90	91	1.84	2239.58	2231	19	3.12E-03	27.5	
38	1	1211.59	36	12	1.99	2422.36	2420	25	1.27E-03	16.5	3.14E+00

Sample ID : G198324036 Acquisition date : 1-DEC-2007 08:12:11

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	1	1215.59	21	42	2.00	2430.36	2420	25	7.27E-04	65.9	
40	0	1238.18	31	48	1.31	2475.57	2471	11	1.06E-03	48.0	
41	0	1337.96	7	23	1.21	2675.30	2670	7	2.47E-04	120.2	
42	0	1377.14	50	28	1.63	2753.72	2746	14	1.74E-03	26.5	
43	0	1460.34*	243	28	1.64	2920.28	2911	15	8.45E-03	9.2	
44	0	1464.82	12	9	1.37	2929.24	2926	6	4.12E-04	49.5	
45	0	1518.33	11	28	0.56	3036.38	3029	11	3.65E-04	101.5	
46	0	1621.24	25	17	2.11	3242.47	3238	11	8.51E-04	37.9	
47	0	1729.50	35	34	2.02	3459.28	3452	18	1.21E-03	43.7	
48	0	1763.92*	59	17	1.57	3528.24	3521	16	2.04E-03	24.2	
49	0	1862.80	14	18	4.03	3726.30	3718	15	4.76E-04	73.7	
50	0	1884.11	17	0	1.98	3769.00	3763	11	5.90E-04	24.3	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324036       *
* Acquisition date :  1-DEC-2007 08:12:11 Detector SN#    :                 *
* Detector ID      : GAM20                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 08:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 08:02:03.59     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324036           Analyst initials: MJH1            *
* Batch Number     : 706246               Sample Quantity : 1.0649E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  7-SEP-2007 16:22:08 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	1.563E+00	3.111E-01	1.002E-01	0.000E+00
RH-101	8.498E-03	1.579E-02	1.855E-02	0.000E+00
CS-137	5.764E-02	2.699E-02	2.052E-02	0.000E+00
TL-208	8.231E-02	2.575E-02	1.710E-02	0.000E+00
BI-212	2.487E-01	1.450E-01	1.465E-01	0.000E+00
PB-212	3.109E-01	3.968E-02	3.095E-02	0.000E+00
BI-214	2.043E-01	4.546E-02	3.728E-02	0.000E+00
PB-214	1.998E-01	5.690E-02	3.913E-02	0.000E+00
AC-228	3.276E-01	8.027E-02	6.862E-02	0.000E+00
PA-234M	3.295E-01	2.583E+00	2.076E+00	0.000E+00
TH-234	3.054E-01	2.307E-01	2.021E-01	0.000E+00
NP-237	6.718E-02	1.082E-01	1.031E-01	0.000E+00
AM-243	6.131E-02	1.994E-02	2.297E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	2.640E-03		1.232E-02	2.059E-02	0.000E+00	NOT IDENT.
SB-125	-2.370E-02		3.158E-02	4.972E-02	0.000E+00	NOT IDENT.
EU-155	1.507E-03		2.996E-02	5.239E-02	0.000E+00	NOT IDENT.
PO-209	9.760E-01		2.228E+00	3.843E+00	0.000E+00	NOT IDENT.
BI-211	6.354E-02		3.246E-01	5.515E-01	0.000E+00	NOT IDENT.
RA-223	0.000E+00		6.352E-02	1.143E-01	0.000E+00	NOT IDENT.
PA-233	-4.596E-03		2.154E-02	3.567E-02	0.000E+00	NOT IDENT.
U-235	-6.087E-02		7.794E-02	1.080E-01	0.000E+00	NOT IDENT.
NP-236	4.523E-03		2.056E-02	3.003E-02	0.000E+00	NOT IDENT.
NP-239	-2.798E-02		7.272E-02	1.215E-01	0.000E+00	NOT IDENT.
AM-241	1.314E-02		3.678E-02	5.512E-02	0.000E+00	NOT IDENT.
CM-243	6.984E-03		2.733E-02	4.809E-02	0.000E+00	NOT IDENT.
AM-246	-2.131E-02		4.254E-02	6.675E-02	0.000E+00	NOT IDENT.
CF-249	-9.291E-03		1.412E-02	2.258E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:50:41.22

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324036.CNF;2
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 1-DEC-2007 08:12:11.
Sample ID        : G198324036           Sample quantity  : 1.06490E+02 GRAM
Detector name    : GAM20                Detector geometry: CAN
Elapsed live time: 0 08:00:00.00        Elapsed real time: 0 08:02:03.59  0.4%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706246               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	243	10.66*	1.287E+00	1.563E+00	1.563E+00	20.31
RH-101	198.00	43	73.00*	6.296E+00	8.221E-03	8.498E-03	189.58
CS-137	661.66	143	85.10*	2.580E+00	5.743E-02	5.764E-02	47.78
TL-208	277.36	51	6.31	5.044E+00	1.410E-01	1.410E-01	140.03
	510.77	52	22.60	3.201E+00	6.285E-02	6.285E-02	223.03
	583.19	227	84.50*	2.874E+00	8.231E-02	8.231E-02	31.92
	763.13	------	1.81	2.279E+00	------	Line Not Found	------
	860.56	43	12.42	2.045E+00	1.503E-01	1.503E-01	105.28
BI-212	727.33	79	11.80*	2.380E+00	2.487E-01	2.487E-01	59.50
	785.37	------	1.10	2.222E+00	------	Line Not Found	------
	1620.50	25	1.49	1.195E+00	1.213E+00	1.213E+00	76.25
PB-212	74.81	296	10.40	6.239E+00	4.020E-01	4.020E-01	33.18
	77.11	429	17.50	6.458E+00	3.346E-01	3.346E-01	24.13
	87.30	68	7.81	7.200E+00	1.067E-01	1.067E-01	164.32
	238.63	854	43.30*	5.592E+00	3.109E-01	3.109E-01	13.03
	300.09	82	3.28	4.771E+00	4.599E-01	4.599E-01	89.74
BI-214	609.31	296	46.10*	2.771E+00	2.043E-01	2.043E-01	22.70
	768.36	37	4.94	2.266E+00	2.930E-01	2.930E-01	89.33
	806.17	------	1.22	2.170E+00	------	Line Not Found	------
	934.06	------	3.03	1.899E+00	------	Line Not Found	------
	1120.29	90	15.10	1.609E+00	3.254E-01	3.254E-01	55.41
	1155.19	------	1.63	1.566E+00	------	Line Not Found	------
	1238.11	31	5.79	1.473E+00	3.160E-01	3.160E-01	96.15
	1280.96	------	1.43	1.431E+00	------	Line Not Found	------
	1377.67	50	4.00	1.347E+00	8.176E-01	8.176E-01	53.77
	1401.50	------	1.27	1.329E+00	------	Line Not Found	------
	1407.98	------	2.15	1.324E+00	------	Line Not Found	------
	1509.23	------	2.11	1.256E+00	------	Line Not Found	------
	1729.60	35	2.92	1.149E+00	9.133E-01	9.133E-01	87.70
	1764.49	59	15.40	1.137E+00	2.963E-01	2.964E-01	48.85
PB-214	74.81	296	6.44	6.239E+00	6.492E-01	6.493E-01	33.18
	77.11	429	10.80	6.458E+00	5.422E-01	5.423E-01	24.13

Sample ID : G198324036 Acquisition date : 1-DEC-2007 08:12:11

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	68	4.84	7.200E+00	1.721E-01	1.721E-01	164.32
	242.00	236	7.43	5.547E+00	5.039E-01	5.039E-01	42.25
	295.22	300	19.30	4.832E+00	2.840E-01	2.840E-01	28.27
	351.93	363	37.60*	4.258E+00	1.998E-01	1.998E-01	29.06
AC-228	129.07	51	2.42	7.646E+00	2.425E-01	2.425E-01	127.99
	209.25	112	3.89	6.092E+00	4.159E-01	4.159E-01	60.78
	270.25	------	3.46	5.137E+00	------	Line Not Found	------
	338.32	218	11.27	4.376E+00	3.903E-01	3.903E-01	33.33
	409.46	------	1.92	3.801E+00	------	Line Not Found	------
	463.00	55	4.40	3.459E+00	3.195E-01	3.195E-01	85.80
	794.95	37	4.25	2.199E+00	3.535E-01	3.535E-01	91.27
	911.20	186	25.80*	1.942E+00	3.276E-01	3.276E-01	25.00
	964.77	------	4.99	1.843E+00	------	Line Not Found	------
	968.97	59	15.80	1.833E+00	1.788E-01	1.788E-01	116.58
	1588.20	------	3.22	1.211E+00	------	Line Not Found	------
PA-234M	1001.03	6	0.84*	1.782E+00	3.295E-01	3.295E-01	799.73
TH-234	63.29	7	4.80	4.718E+00	2.558E-02	2.558E-02	1588.91
	92.58	140	5.41*	7.448E+00	3.054E-01	3.054E-01	77.08
NP-237	86.48	68	12.40*	7.200E+00	6.718E-02	6.718E-02	164.32
AM-243	74.66	296	68.20*	6.239E+00	6.131E-02	6.131E-02	33.18

Flag: "*" = Keyline

Sample ID : G198324036 Acquisition date : 1-DEC-2007 08:12:11

Total number of lines in spectrum	50	
Number of unidentified lines	16	
Number of lines tentatively identified by NID	34	68.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	1.563E+00	1.563E+00	0.317E+00	20.31	
RH-101	1.04E+08S	1.03	8.221E-03	8.498E-03	16.11E-03	189.58	
CS-137	9.47E+08S	1.00	5.743E-02	5.764E-02	2.754E-02	47.78	
TL-208	4.43E+17S	1.00	8.231E-02	8.231E-02	2.628E-02	31.92	
BI-212	4.43E+17S	1.00	2.487E-01	2.487E-01	1.480E-01	59.50	
PB-212	4.43E+17S	1.00	3.109E-01	3.109E-01	0.405E-01	13.03	
BI-214	5.05E+10S	1.00	2.043E-01	2.043E-01	0.464E-01	22.70	
PB-214	5.05E+10S	1.00	1.998E-01	1.998E-01	0.581E-01	29.06	
AC-228	4.43E+17S	1.00	3.276E-01	3.276E-01	0.819E-01	25.00	
PA-234M	1.41E+17S	1.00	3.295E-01	3.295E-01	26.35E-01	799.73	
TH-234	1.41E+17S	1.00	3.054E-01	3.054E-01	2.354E-01	77.08	
NP-237	6.75E+13S	1.00	6.718E-02	6.718E-02	11.04E-02	164.32	
AM-243	2.33E+11S	1.00	6.131E-02	6.131E-02	2.034E-02	33.18	
			---	---			
		Total Activity :	3.766E+00	3.766E+00			
		Grand Total Activity :	3.766E+00	3.766E+00			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G198324036 Acquisition date : 1-DEC-2007 08:12:11

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
3	83.91	32	405	1.31	167.70	165	13	1.13E-03	****	6.99E+00	
2	89.81	118	119	1.39	179.48	178	14	4.10E-03	33.9	7.33E+00	
0	154.08	59	361	0.70	307.87	304	7	2.03E-03	****	7.19E+00	
0	158.66	22	373	1.30	317.03	314	7	7.48E-04	****	7.10E+00	
0	163.77	43	489	1.83	327.23	321	9	1.49E-03	****	6.99E+00	
0	185.71	92	496	1.29	371.07	365	10	3.19E-03	****	6.54E+00	
0	545.60	25	163	5.55	1090.28	1084	14	8.81E-04	****	3.03E+00	
0	802.83	12	98	3.62	1604.60	1597	13	4.10E-04	****	2.18E+00	
0	853.06	47	156	9.53	1705.06	1691	24	1.63E-03	****	2.06E+00	
1	1211.59	36	12	1.99	2422.36	2420	25	1.27E-03	32.9	1.50E+00	
1	1215.59	21	42	2.00	2430.36	2420	25	7.27E-04	****	1.50E+00	
0	1337.96	7	23	1.21	2675.30	2670	7	2.47E-04	****	1.38E+00	
0	1464.82	12	9	1.37	2929.24	2926	6	4.12E-04	99.1	1.28E+00	
0	1518.33	11	28	0.56	3036.38	3029	11	3.65E-04	****	1.25E+00	
0	1862.80	14	18	4.03	3726.30	3718	15	4.76E-04	****	1.11E+00	
0	1884.11	17	0	1.98	3769.00	3763	11	5.90E-04	48.5	1.10E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G198324036            *
* Acquisition date :  1-DEC-2007 08:12:11 Detector SN#    :                 *
* Detector ID      : GAM20                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 08:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 08:02:03.59     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324036           Analyst initials: MJH1            *
* Batch Number     : 706246               Sample Quantity : 1.0649E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME :  7-SEP-2007 16:22:08 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	1.563E+00	3.111E-01	5.013E-02	3.111E-01
RH-101	8.498E-03	1.579E-02	9.283E-03	1.579E-02
CS-137	5.764E-02	2.699E-02	1.027E-02	2.699E-02
TL-208	8.231E-02	2.575E-02	8.555E-03	2.575E-02
BI-212	2.487E-01	1.450E-01	7.327E-02	1.450E-01
PB-212	3.109E-01	3.968E-02	1.548E-02	3.968E-02
BI-214	2.043E-01	4.546E-02	1.865E-02	4.546E-02
PB-214	1.998E-01	5.690E-02	1.958E-02	5.690E-02
AC-228	3.276E-01	8.027E-02	3.433E-02	8.027E-02
PA-234M	3.295E-01	2.583E+00	1.039E+00	2.583E+00
TH-234	3.054E-01	2.307E-01	1.011E-01	2.307E-01
NP-237	6.718E-02	1.082E-01	5.160E-02	1.082E-01
AM-243	6.131E-02	1.994E-02	1.149E-02	1.994E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	2.640E-03	1.232E-02	1.030E-02	1.232E-02	NOT IDENT.
SB-125	-2.370E-02	3.158E-02	2.488E-02	3.158E-02	NOT IDENT.
EU-155	1.507E-03	2.996E-02	2.621E-02	2.996E-02	NOT IDENT.
PO-209	9.760E-01	2.228E+00	1.923E+00	2.228E+00	NOT IDENT.
BI-211	6.354E-02	3.246E-01	2.759E-01	3.246E-01	NOT IDENT.
RA-223	1.325E-01	6.352E-02	5.716E-02	6.352E-02	NOT IDENT.
PA-233	-4.596E-03	2.154E-02	1.784E-02	2.154E-02	NOT IDENT.
U-235	-6.087E-02	7.794E-02	5.405E-02	7.794E-02	NOT IDENT.
NP-236	4.523E-03	2.056E-02	1.503E-02	2.056E-02	NOT IDENT.
NP-239	-2.798E-02	7.272E-02	6.081E-02	7.272E-02	NOT IDENT.
AM-241	1.314E-02	3.678E-02	2.757E-02	3.678E-02	NOT IDENT.
CM-243	6.984E-03	2.733E-02	2.406E-02	2.733E-02	NOT IDENT.
AM-246	-2.131E-02	4.254E-02	3.340E-02	4.254E-02	NOT IDENT.
CF-249	-9.291E-03	1.412E-02	1.130E-02	1.412E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
59.54	364.0477
63.29	450.4233
74.66	552.3727
74.81	552.4836
74.81	552.4836
77.11	554.1709
77.11	554.1709
86.48	489.2654
87.30	587.7081
87.30	587.7081
92.58	387.3721
98.44	428.3041
103.76	409.8339
105.31	411.4055
129.07	416.9954
143.76	441.8402
198.00	401.6296
209.25	393.3728
228.18	354.7689
238.63	331.7685
242.00	332.4875
269.46	278.3316
270.25	310.3973
277.36	295.6707
295.22	265.7072
300.09	248.5615
312.17	251.4391
338.32	234.2039
351.93	232.6943
387.59	234.6203
409.46	193.0215
427.87	191.3629
463.00	161.3218
510.77	157.7257
583.19	102.9437
609.31	135.4171
661.66	120.8031
727.33	101.1445
763.13	85.9978
768.36	97.5024
785.37	71.5261
794.95	85.1475
806.17	93.6293
831.80	83.3766
860.56	66.6878
896.60	65.6395
911.20	70.9553
934.06	77.4844
964.77	78.7630
968.97	78.1579
1001.03	58.0385
1078.86	68.5928
1120.29	60.7072
1155.19	53.6572
1173.23	53.8647
1238.11	49.1375
1280.96	55.0684
1332.51	41.3232
1377.67	36.8696
1401.50	46.9645
1407.98	34.7959
1460.80	11.3940
1509.23	36.7766
1588.20	47.5684
1620.50	18.4060
1729.60	26.8231
1764.49	26.9703

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198324036

Total Uranium Activity	-2.8163E-02	ug/g
Total Uranium Counting Unc.	3.6063E-02	ug/g
Total Uranium Tpu	3.6063E-08	ug/g
Total Uranium Mda	2.5010E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:51:41.14

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324037.CNF;2
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 1-DEC-2007 08:52:35.
Sample ID        : G198324037           Sample quantity  : 1.14440E+02 GRAM
Detector name    : GAM01                Detector geometry: CAN
Elapsed live time: 0 08:00:00.00        Elapsed real time: 0 08:00:02.40  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706246               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.35*	34	369	0.82	92.74	90	7	1.17E-03	116.4	
2	3	74.88	234	533	1.38	149.82	146	13	8.14E-03	18.3	1.59E+00
3	3	77.27*	358	559	1.45	154.59	146	13	1.24E-02	14.6	
4	0	86.62	215	784	1.43	173.31	167	12	7.45E-03	27.0	
5	0	92.90*	123	750	1.49	185.88	182	11	4.28E-03	51.9	
6	0	128.67	63	558	1.51	257.43	254	9	2.18E-03	68.9	
7	0	143.80*	31	423	1.35	287.70	285	8	1.09E-03	133.4	
8	0	185.84*	89	516	1.11	371.80	367	10	3.09E-03	64.9	
9	0	204.36*	40	540	0.63	408.84	403	12	1.39E-03	127.8	
10	0	209.25	80	424	1.83	418.64	415	9	2.79E-03	47.3	
11	4	238.63*	850	318	1.57	477.40	471	21	2.95E-02	6.0	2.79E+00
12	4	241.59	238	479	2.43	483.34	471	21	8.28E-03	25.0	
13	0	270.01	151	385	1.92	540.19	534	13	5.24E-03	28.0	
14	0	295.25*	205	274	1.53	590.67	586	10	7.11E-03	20.2	
15	0	300.74	19	262	1.27	601.67	598	8	6.47E-04	152.6	
16	0	338.15	196	281	1.90	676.50	671	11	6.81E-03	18.0	
17	0	351.83*	303	327	1.57	703.87	698	13	1.05E-02	16.6	
18	0	359.53	23	210	1.65	719.28	712	9	8.11E-04	115.1	
19	0	373.53	21	271	3.29	747.27	737	12	7.15E-04	161.9	
20	0	409.25	20	212	0.85	818.73	813	10	6.84E-04	140.2	
21	0	436.17	48	152	1.09	872.59	867	9	1.67E-03	49.1	
22	0	462.48	68	186	1.65	925.21	921	12	2.36E-03	41.7	
23	0	510.80*	33	232	2.36	1021.87	1012	19	1.13E-03	176.2	
24	0	546.13*	13	117	0.67	1092.55	1087	10	4.68E-04	184.8	
25	0	583.28*	165	240	1.38	1166.87	1159	16	5.72E-03	25.1	
26	0	609.48*	259	129	1.89	1219.26	1213	12	8.98E-03	12.9	
27	0	661.78	322	162	1.70	1323.88	1318	16	1.12E-02	10.4	
28	0	727.67	75	71	1.45	1455.68	1451	9	2.60E-03	23.5	
29	0	736.75	16	102	4.28	1473.84	1463	12	5.48E-04	130.4	
30	0	861.06	30	104	1.45	1722.50	1715	15	1.06E-03	74.4	
31	0	911.46*	156	89	1.73	1823.30	1814	18	5.43E-03	18.3	
32	2	964.87	33	99	2.49	1930.14	1921	26	1.14E-03	66.8	1.22E+00
33	2	969.24*	76	67	2.34	1938.86	1921	26	2.65E-03	37.5	
34	0	1019.54	28	69	5.21	2039.47	2028	17	9.87E-04	70.7	
35	0	1024.00	22	25	1.32	2048.39	2045	8	7.47E-04	45.1	
36	0	1111.17	19	100	7.75	2222.74	2201	25	6.60E-04	143.6	
37	0	1120.47*	64	37	1.75	2241.34	2236	12	2.21E-03	33.3	
38	0	1242.46	84	88	3.89	2485.33	2473	28	2.92E-03	33.8	

Sample ID : G198324037 Acquisition date : 1-DEC-2007 08:52:35

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1254.17	22	42	0.47	2508.76	2501	15	7.81E-04	65.7	
40	0	1281.71	28	7	1.63	2563.82	2561	7	9.72E-04	24.5	
41	1	1435.30	31	21	2.23	2871.00	2859	37	1.06E-03	34.7	2.12E+00
42	1	1438.30	22	18	2.23	2877.00	2859	37	7.59E-04	47.8	
43	0	1461.32*	231	38	2.48	2923.04	2915	21	8.01E-03	11.3	
44	0	1505.98	5	17	0.50	3012.35	3006	10	1.70E-04	172.8	
45	0	1512.16	16	30	4.73	3024.72	3015	16	5.67E-04	77.0	
46	0	1542.19	16	22	0.84	3084.76	3076	14	5.67E-04	68.1	
47	0	1590.21	50	37	5.31	3180.80	3169	24	1.75E-03	34.5	
48	0	1668.60	19	7	0.60	3337.57	3333	13	6.42E-04	36.7	
49	5	1686.21	33	14	3.72	3372.76	3365	28	1.15E-03	31.9	2.86E+00
50	5	1693.07	15	22	3.73	3386.50	3365	28	5.33E-04	63.9	
51	0	1765.55*	19	25	1.95	3531.43	3524	15	6.70E-04	83.4	
52	0	1770.83	11	6	0.90	3541.99	3538	8	3.93E-04	47.6	
53	0	1945.80	27	11	5.50	3891.87	3882	21	9.20E-04	36.2	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324037       *
* Acquisition date :  1-DEC-2007 08:52:35 Detector SN#    :                 *
* Detector ID      : GAM01                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 08:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 08:00:02.40     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324037           Analyst initials: MJH1            *
* Batch Number     : 706246               Sample Quantity : 1.1444E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  7-MAR-2007 03:44:30 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	1.696E+00	3.882E-01	2.055E-01	0.000E+00
CS-137	1.476E-01	3.203E-02	2.484E-02	0.000E+00
TL-208	6.773E-02	3.371E-02	2.211E-02	0.000E+00
BI-212	2.676E-01	1.250E-01	1.778E-01	0.000E+00
PB-212	3.307E-01	4.475E-02	3.528E-02	0.000E+00
PB-214	1.842E-01	6.115E-02	4.652E-02	0.000E+00
RA-223	2.039E-01	1.127E-01	1.194E-01	0.000E+00
AC-228	3.145E-01	1.165E-01	8.637E-02	0.000E+00
U-235	3.575E-02	9.347E-02	1.315E-01	0.000E+00
NP-237	2.447E-01	1.311E-01	1.357E-01	0.000E+00
AM-243	5.989E-02	2.197E-02	2.986E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	-7.134E-03		1.443E-02	2.259E-02	0.000E+00	NOT IDENT.
RH-101	1.712E-02		1.458E-02	2.272E-02	0.000E+00	NOT IDENT.
SB-125	-1.632E-02		3.891E-02	6.320E-02	0.000E+00	NOT IDENT.
EU-155	3.948E-02		3.847E-02	6.902E-02	0.000E+00	NOT IDENT.
PO-209	-3.278E+00		2.730E+00	4.085E+00	0.000E+00	NOT IDENT.
BI-211	-2.387E-01		3.943E-01	6.325E-01	0.000E+00	NOT IDENT.
BI-214	0.000E+00		5.334E-02	7.687E-02	0.000E+00	FAIL ABUN
PA-233	6.284E-03		2.597E-02	4.414E-02	0.000E+00	NOT IDENT.
PA-234M	-1.774E+00		1.857E+00	2.562E+00	0.000E+00	NOT IDENT.
TH-234	3.021E-01		3.084E-01	3.602E-01	0.000E+00	FAIL ABUN
NP-236	7.647E-03		2.485E-02	3.842E-02	0.000E+00	NOT IDENT.
NP-239	3.320E-02		8.565E-02	1.479E-01	0.000E+00	NOT IDENT.
AM-241	-4.151E-02		5.750E-02	9.429E-02	0.000E+00	NOT IDENT.
CM-243	1.085E-02		3.517E-02	6.208E-02	0.000E+00	NOT IDENT.
AM-246	3.305E-03		4.188E-02	6.986E-02	0.000E+00	NOT IDENT.
CF-249	-2.060E-03		1.644E-02	2.725E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:51:42.06

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324037.CNF;2
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 1-DEC-2007 08:52:35.
Sample ID        : G198324037           Sample quantity  : 1.14440E+02 GRAM
Detector name    : GAM01                Detector geometry: CAN
Elapsed live time: 0 08:00:00.00        Elapsed real time: 0 08:00:02.40  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706246               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	231	10.66*	1.047E+00	1.696E+00	1.696E+00	23.35
CS-137	661.66	322	85.10*	2.112E+00	1.471E-01	1.476E-01	22.14
TL-208	277.36	------	6.31	4.337E+00	------	Line Not Found	------
	510.77	33	22.60	2.641E+00	4.479E-02	4.479E-02	352.44
	583.19	165	84.50*	2.359E+00	6.773E-02	6.773E-02	50.79
	763.13	------	1.81	1.860E+00	------	Line Not Found	------
	860.56	30	12.42	1.666E+00	1.207E-01	1.207E-01	149.08
BI-212	727.33	75	11.80*	1.941E+00	2.676E-01	2.676E-01	47.67
	785.37	------	1.10	1.812E+00	------	Line Not Found	------
	1620.50	------	1.49	9.727E-01	------	Line Not Found	------
PB-212	74.81	234	10.40	4.707E+00	3.927E-01	3.927E-01	37.43
	77.11	358	17.50	4.969E+00	3.379E-01	3.379E-01	30.20
	87.30	215	7.81	5.798E+00	3.885E-01	3.885E-01	54.66
	238.63	850	43.30*	4.865E+00	3.307E-01	3.307E-01	13.81
	300.09	19	3.28	4.070E+00	1.145E-01	1.145E-01	305.19
PB-214	74.81	234	6.44	4.707E+00	6.342E-01	6.343E-01	37.43
	77.11	358	10.80	4.969E+00	5.476E-01	5.476E-01	30.20
	87.30	215	4.84	5.798E+00	6.269E-01	6.269E-01	54.66
	242.00	238	7.43	4.820E+00	5.458E-01	5.458E-01	50.43
	295.22	205	19.30	4.130E+00	2.107E-01	2.108E-01	41.06
	351.93	303	37.60*	3.591E+00	1.842E-01	1.842E-01	33.88
RA-223	269.46	151	13.70*	4.428E+00	2.039E-01	2.039E-01	56.40
AC-228	129.07	63	2.42	6.753E+00	3.148E-01	3.148E-01	137.85
	209.25	80	3.89	5.347E+00	3.170E-01	3.170E-01	94.80
	270.25	151	3.46	4.428E+00	8.073E-01	8.073E-01	56.40
	338.32	196	11.27	3.707E+00	3.851E-01	3.851E-01	36.59
	409.46	20	1.92	3.176E+00	2.650E-01	2.650E-01	280.44
	463.00	68	4.40	2.871E+00	4.410E-01	4.410E-01	83.67
	794.95	------	4.25	1.792E+00	------	Line Not Found	------
	911.20	156	25.80*	1.581E+00	3.145E-01	3.145E-01	37.80
	964.77	33	4.99	1.501E+00	3.584E-01	3.584E-01	133.96
	968.97	76	15.80	1.495E+00	2.646E-01	2.646E-01	75.53

Sample ID : G198324037 Acquisition date : 1-DEC-2007 08:52:35

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	1588.20	------	3.22	9.858E-01	------	Line Not Found	------
U-235	143.76	31	10.96*	6.569E+00	3.575E-02	3.575E-02	266.78
NP-237	86.48	215	12.40*	5.798E+00	2.447E-01	2.447E-01	54.66
AM-243	74.66	234	68.20*	4.707E+00	5.989E-02	5.989E-02	37.43

Flag: "*" = Keyline

Sample ID : G198324037 Acquisition date : 1-DEC-2007 08:52:35

Total number of lines in spectrum 53
Number of unidentified lines 24
Number of lines tentatively identified by NID 29 54.72%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	1.696E+00	1.696E+00	0.396E+00	23.35	
CS-137	9.47E+08S	1.00	1.471E-01	1.476E-01	0.327E-01	22.14	
TL-208	4.43E+17S	1.00	6.773E-02	6.773E-02	3.440E-02	50.79	
BI-212	4.43E+17S	1.00	2.676E-01	2.676E-01	1.276E-01	47.67	
PB-212	4.43E+17S	1.00	3.307E-01	3.307E-01	0.457E-01	13.81	
PB-214	5.05E+10S	1.00	1.842E-01	1.842E-01	0.624E-01	33.88	
RA-223	1.04E+12S	1.00	2.039E-01	2.039E-01	1.150E-01	56.40	
AC-228	4.43E+17S	1.00	3.145E-01	3.145E-01	1.189E-01	37.80	
U-235	2.22E+16S	1.00	3.575E-02	3.575E-02	9.537E-02	266.78	
NP-237	6.75E+13S	1.00	2.447E-01	2.447E-01	1.337E-01	54.66	
AM-243	2.33E+11S	1.00	5.989E-02	5.989E-02	2.242E-02	37.43	
			---	---			
	Total Activity :		3.552E+00	3.553E+00			

Grand Total Activity : 3.552E+00 3.553E+00

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G198324037 Acquisition date : 1-DEC-2007 08:52:35

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.35	34	369	0.82	92.74	90	7	1.17E-03	****	8.43E-01	
0	92.90	123	750	1.49	185.88	182	11	4.28E-03	****	6.19E+00	T
0	185.84	89	516	1.11	371.80	367	10	3.09E-03	****	5.78E+00	
0	204.36	40	540	0.63	408.84	403	12	1.39E-03	****	5.44E+00	
0	359.53	23	210	1.65	719.28	712	9	8.11E-04	****	3.53E+00	
0	373.53	21	271	3.29	747.27	737	12	7.15E-04	****	3.42E+00	
0	436.17	48	152	1.09	872.59	867	9	1.67E-03	98.2	3.01E+00	
0	546.13	13	117	0.67	1092.55	1087	10	4.68E-04	****	2.50E+00	
0	609.48	259	129	1.89	1219.26	1213	12	8.98E-03	25.9	2.27E+00	T
0	736.75	16	102	4.28	1473.84	1463	12	5.48E-04	****	1.92E+00	
0	1019.54	28	69	5.21	2039.47	2028	17	9.87E-04	****	1.43E+00	
0	1024.00	22	25	1.32	2048.39	2045	8	7.47E-04	90.2	1.42E+00	
0	1111.17	19	100	7.75	2222.74	2201	25	6.60E-04	****	1.32E+00	
0	1120.47	64	37	1.75	2241.34	2236	12	2.21E-03	66.6	1.31E+00	T
0	1242.46	84	88	3.89	2485.33	2473	28	2.92E-03	67.6	1.20E+00	
0	1254.17	22	42	0.47	2508.76	2501	15	7.81E-04	****	1.19E+00	
0	1281.71	28	7	1.63	2563.82	2561	7	9.72E-04	49.1	1.16E+00	T
1	1435.30	31	21	2.23	2871.00	2859	37	1.06E-03	69.3	1.06E+00	
1	1438.30	22	18	2.23	2877.00	2859	37	7.59E-04	95.7	1.06E+00	
0	1505.98	5	17	0.50	3012.35	3006	10	1.70E-04	****	1.02E+00	
0	1512.16	16	30	4.73	3024.72	3015	16	5.67E-04	****	1.02E+00	
0	1542.19	16	22	0.84	3084.76	3076	14	5.67E-04	****	1.01E+00	
0	1590.21	50	37	5.31	3180.80	3169	24	1.75E-03	68.9	9.85E-01	
0	1668.60	19	7	0.60	3337.57	3333	13	6.42E-04	73.4	9.55E-01	
5	1686.21	33	14	3.72	3372.76	3365	28	1.15E-03	63.9	9.49E-01	
5	1693.07	15	22	3.73	3386.50	3365	28	5.33E-04	****	9.47E-01	
0	1765.55	19	25	1.95	3531.43	3524	15	6.70E-04	****	9.24E-01	T
0	1770.83	11	6	0.90	3541.99	3538	8	3.93E-04	95.1	9.23E-01	
0	1945.80	27	11	5.50	3891.87	3882	21	9.20E-04	72.4	8.85E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G198324037            *
* Acquisition date :  1-DEC-2007 08:52:35 Detector SN#    :                 *
* Detector ID      : GAM01                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 08:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 08:00:02.40     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324037           Analyst initials: MJH1            *
* Batch Number     : 706246               Sample Quantity : 1.1444E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME :  7-MAR-2007 03:44:30 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	1.696E+00	3.882E-01	1.028E-01	3.882E-01
CS-137	1.476E-01	3.203E-02	1.243E-02	3.203E-02
TL-208	6.773E-02	3.371E-02	1.106E-02	3.371E-02
BI-212	2.676E-01	1.250E-01	8.898E-02	1.250E-01
PB-212	3.307E-01	4.475E-02	1.765E-02	4.475E-02
PB-214	1.842E-01	6.115E-02	2.327E-02	6.115E-02
RA-223	2.039E-01	1.127E-01	5.973E-02	1.127E-01
AC-228	3.145E-01	1.165E-01	4.321E-02	1.165E-01
U-235	3.575E-02	9.347E-02	6.579E-02	9.347E-02
NP-237	2.447E-01	1.311E-01	6.791E-02	1.311E-01
AM-243	5.989E-02	2.197E-02	1.494E-02	2.197E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	-7.134E-03	1.443E-02	1.130E-02	1.443E-02	NOT IDENT.
RH-101	1.712E-02	1.458E-02	1.137E-02	1.458E-02	NOT IDENT.
SB-125	-1.632E-02	3.891E-02	3.162E-02	3.891E-02	NOT IDENT.
EU-155	3.948E-02	3.847E-02	3.453E-02	3.847E-02	NOT IDENT.
PO-209	-3.278E+00	2.730E+00	2.044E+00	2.730E+00	NOT IDENT.
BI-211	-2.387E-01	3.943E-01	3.164E-01	3.943E-01	NOT IDENT.
BI-214	2.026E-01	5.334E-02	3.846E-02	5.334E-02	FAIL ABUN
PA-233	6.284E-03	2.597E-02	2.208E-02	2.597E-02	NOT IDENT.
PA-234M	-1.774E+00	1.857E+00	1.282E+00	1.857E+00	NOT IDENT.
TH-234	3.021E-01	3.084E-01	1.802E-01	3.084E-01	FAIL ABUN
NP-236	7.647E-03	2.485E-02	1.922E-02	2.485E-02	NOT IDENT.
NP-239	3.320E-02	8.565E-02	7.398E-02	8.565E-02	NOT IDENT.
AM-241	-4.151E-02	5.750E-02	4.717E-02	5.750E-02	NOT IDENT.
CM-243	1.085E-02	3.517E-02	3.106E-02	3.517E-02	NOT IDENT.
AM-246	3.305E-03	4.188E-02	3.495E-02	4.188E-02	NOT IDENT.
CF-249	-2.060E-03	1.644E-02	1.363E-02	1.644E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
59.54	562.3824
63.29	545.0190
74.66	596.6399
74.81	596.7302
74.81	596.7302
77.11	647.9396
77.11	647.9396
86.48	624.7628
87.30	706.9725
87.30	706.9725
92.58	710.3503
98.44	559.6935
103.76	562.5135
105.31	530.3717
129.07	575.5483
143.76	595.6442
198.00	448.5527
209.25	493.7250
228.18	406.8676
238.63	370.3204
242.00	370.9465
269.46	353.7165
270.25	353.8450
277.36	361.5804
295.22	302.4682
300.09	313.3301
312.17	293.7400
338.32	259.5581
351.93	266.1905
387.59	246.5585
409.46	250.6600
427.87	225.4501
463.00	200.9843
510.77	165.4651
583.19	132.4199
609.31	173.1225
661.66	135.2713
727.33	113.7017
763.13	121.0081
768.36	115.2480
785.37	98.8953
794.95	89.2017
806.17	108.3125
831.80	104.9423
860.56	81.4697
896.60	95.2794
911.20	85.4048
934.06	80.7037
964.77	66.8170
968.97	66.8739
1001.03	74.5488
1078.86	46.2397
1120.29	62.4762
1155.19	61.8044
1173.23	64.1382
1238.11	59.2991
1280.96	62.5251
1332.51	45.1708
1377.67	46.4434
1401.50	53.2754
1407.98	48.5667
1460.80	36.4785
1509.23	0.0000
1588.20	39.1169
1620.50	33.4012
1729.60	27.9180
1764.49	38.5645

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198324037

Total Uranium Activity	1.6542E-02	ug/g
Total Uranium Counting Unc.	4.3247E-02	ug/g
Total Uranium Tpu	4.3247E-08	ug/g
Total Uranium Mda	3.0442E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:52:18.95

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324038.CNF;1
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 1-DEC-2007 08:53:40.
Sample ID        : G198324038           Sample quantity  : 1.25810E+02 GRAM
Detector name    : GAM05                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:02.06  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706246               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.29*	54	328	1.04	93.36	88	11	3.75E-03	86.7	
2	0	63.25*	60	330	1.14	127.26	123	9	4.17E-03	65.0	
3	3	74.64*	182	267	1.01	150.02	146	13	1.27E-02	17.8	1.86E+00
4	3	76.91*	308	285	1.20	154.57	146	13	2.14E-02	11.7	
5	1	84.26*	53	349	1.38	169.25	164	34	3.68E-03	64.7	1.66E+00
6	1	87.12	128	290	1.16	174.97	164	34	8.92E-03	23.2	
7	1	90.03	54	311	1.39	180.78	164	34	3.77E-03	58.5	
8	1	92.52*	120	256	1.18	185.77	164	34	8.31E-03	30.0	
9	0	143.43*	42	229	1.08	287.52	284	9	2.94E-03	72.5	
10	0	163.23	16	252	0.53	327.10	323	9	1.10E-03	183.6	
11	0	185.52*	123	332	1.16	371.65	365	14	8.51E-03	35.9	
12	0	197.28*	7	301	0.79	395.16	390	12	4.61E-04	586.1	
13	0	209.02	99	186	2.29	418.61	415	11	6.84E-03	28.4	
14	3	238.70*	372	172	1.25	477.94	473	15	2.58E-02	8.8	7.65E-01
15	3	241.55	74	143	1.63	483.63	473	15	5.14E-03	32.2	
16	0	270.31	59	172	3.15	541.11	535	11	4.10E-03	45.0	
17	0	295.34	127	164	1.17	591.13	585	12	8.81E-03	22.1	
18	0	300.34	59	110	1.95	601.11	597	9	4.10E-03	34.6	
19	0	338.08*	86	161	1.55	676.54	671	13	5.95E-03	34.0	
20	0	351.99*	173	137	1.56	704.34	699	12	1.20E-02	16.5	
21	0	437.47	14	109	2.99	875.15	865	12	9.49E-04	154.8	
22	0	463.04	32	66	0.97	926.25	922	9	2.22E-03	49.4	
23	0	511.06*	47	134	2.55	1022.19	1012	20	3.25E-03	80.5	
24	0	583.57*	152	77	1.41	1167.08	1159	14	1.05E-02	16.2	
25	0	609.47*	140	72	1.55	1218.83	1212	13	9.71E-03	16.2	
26	0	662.47	82	110	1.60	1324.70	1316	18	5.71E-03	32.2	
27	0	727.64*	31	49	2.76	1454.91	1449	15	2.19E-03	55.6	
28	0	737.86	8	43	1.35	1475.32	1467	10	5.77E-04	150.8	
29	0	747.67	7	25	1.31	1494.91	1490	6	4.97E-04	117.1	
30	0	802.88*	5	36	2.80	1605.21	1598	12	3.57E-04	288.1	
31	0	811.70	10	54	3.46	1622.83	1613	12	7.06E-04	150.7	
32	0	847.54	23	58	5.89	1694.42	1683	18	1.60E-03	80.8	
33	0	911.44*	80	39	1.37	1822.06	1817	13	5.56E-03	21.9	
34	2	965.37	34	37	2.58	1929.76	1916	28	2.33E-03	45.6	1.35E+00
35	2	969.21*	51	24	2.56	1937.43	1916	28	3.55E-03	28.9	
36	0	1033.49	13	34	0.88	2065.81	2057	13	9.23E-04	96.1	
37	0	1121.61*	24	39	1.33	2241.80	2237	13	1.65E-03	63.5	
38	0	1241.76	13	2	1.75	2481.75	2479	7	8.75E-04	36.5	

Sample ID : G198324038 Acquisition date : 1-DEC-2007 08:53:40

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1271.92	16	30	4.26	2541.97	2531	20	1.11E-03	87.5	
40	0	1291.81	22	12	5.12	2581.68	2575	13	1.51E-03	40.2	
41	0	1461.59*	86	24	1.41	2920.66	2913	13	5.99E-03	17.7	
42	0	1505.34	9	6	3.12	3008.01	3000	12	6.44E-04	62.0	
43	0	1511.23*	17	3	2.18	3019.77	3013	12	1.15E-03	37.5	
44	0	1566.79	8	5	0.64	3130.69	3125	10	5.56E-04	63.1	
45	0	1595.41	11	33	7.71	3187.81	3170	19	7.80E-04	126.6	
46	0	1623.10	10	2	0.69	3243.08	3239	9	7.06E-04	40.6	
47	0	1633.16	12	9	4.64	3263.17	3253	18	8.33E-04	65.4	
48	0	1765.70	17	6	1.95	3527.73	3520	12	1.16E-03	38.5	
49	0	1775.03	17	0	5.42	3546.35	3540	14	1.18E-03	24.3	
50	0	1807.58	7	5	0.53	3611.33	3607	8	5.03E-04	67.6	
51	0	1879.11	7	4	0.72	3754.07	3750	8	4.86E-04	62.3	
52	0	1938.86	12	0	0.73	3873.33	3868	11	8.33E-04	28.9	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324038       *
* Acquisition date :  1-DEC-2007 08:53:40 Detector SN#    :                 *
* Detector ID      : GAM05                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:02.06     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324038           Analyst initials: MJH1            *
* Batch Number     : 706246               Sample Quantity : 1.2581E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 31-MAY-2007 12:09:24 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	1.236E+00	4.389E-01	3.102E-01	0.000E+00
RH-101	2.749E-03	3.158E-02	2.869E-02	0.000E+00
CS-137	7.666E-02	4.871E-02	3.662E-02	0.000E+00
TL-208	1.272E-01	4.137E-02	3.060E-02	0.000E+00
BI-212	2.289E-01	2.503E-01	2.902E-01	0.000E+00
PB-212	2.869E-01	5.508E-02	4.993E-02	0.000E+00
PB-214	2.099E-01	6.865E-02	6.446E-02	0.000E+00
RA-223	1.583E-01	1.401E-01	1.621E-01	0.000E+00
AC-228	3.222E-01	1.416E-01	1.069E-01	0.000E+00
TH-234	4.640E-01	2.755E-01	3.141E-01	0.000E+00
U-235	9.418E-02	1.341E-01	1.612E-01	0.000E+00
NP-237	2.150E-01	9.950E-02	1.347E-01	0.000E+00
AM-243	5.435E-02	1.944E-02	2.565E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	-7.303E-03		2.086E-02	3.392E-02	0.000E+00	NOT IDENT.
SB-125	7.118E-03		5.738E-02	9.253E-02	0.000E+00	NOT IDENT.
EU-155	-2.667E-02		4.599E-02	7.845E-02	0.000E+00	NOT IDENT.
PO-209	1.898E-01		4.057E+00	6.816E+00	0.000E+00	NOT IDENT.
BI-211	-4.272E-01		5.738E-01	8.888E-01	0.000E+00	NOT IDENT.
BI-214	0.000E+00		7.271E-02	1.113E-01	0.000E+00	FAIL ABUN
PA-233	-1.567E-02		3.401E-02	5.735E-02	0.000E+00	NOT IDENT.
PA-234M	2.238E+00		2.614E+00	4.692E+00	0.000E+00	NOT IDENT.
NP-236	1.018E-02		2.721E-02	4.298E-02	0.000E+00	NOT IDENT.
NP-239	-3.217E-02		1.163E-01	1.915E-01	0.000E+00	NOT IDENT.
AM-241	6.834E-05		2.675E-02	4.252E-02	0.000E+00	NOT IDENT.
CM-243	-5.310E-03		4.056E-02	7.071E-02	0.000E+00	NOT IDENT.
AM-246	8.280E-02		7.355E-02	1.395E-01	0.000E+00	NOT IDENT.
CF-249	-1.713E-02		2.115E-02	3.401E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:52:19.85

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324038.CNF;1
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 1-DEC-2007 08:53:40.
Sample ID        : G198324038           Sample quantity  : 1.25810E+02 GRAM
Detector name    : GAM05                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:02.06  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706246               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	86	10.66*	9.764E-01	1.236E+00	1.236E+00	36.24
RH-101	198.00	7	73.00*	5.099E+00	2.659E-03	2.749E-03	1172.31
CS-137	661.66	82	85.10*	1.886E+00	7.638E-02	7.666E-02	64.83
TL-208	277.36	------	6.31	3.981E+00	------	Line Not Found	------
	510.77	47	22.60	2.367E+00	1.307E-01	1.307E-01	161.19
	583.19	152	84.50*	2.107E+00	1.272E-01	1.272E-01	33.19
	763.13	------	1.81	1.670E+00	------	Line Not Found	------
	860.56	------	12.42	1.508E+00	------	Line Not Found	------
BI-212	727.33	31	11.80*	1.739E+00	2.289E-01	2.289E-01	111.58
	785.37	------	1.10	1.629E+00	------	Line Not Found	------
	1620.50	------	1.49	8.967E-01	------	Line Not Found	------
PB-212	74.81	182	10.40	7.333E+00	3.564E-01	3.564E-01	36.49
	77.11	308	17.50	7.312E+00	3.589E-01	3.589E-01	24.73
	87.30	128	7.81	7.190E+00	3.413E-01	3.413E-01	47.23
	238.63	372	43.30*	4.465E+00	2.869E-01	2.869E-01	19.59
	300.09	59	3.28	3.735E+00	7.183E-01	7.183E-01	69.52
PB-214	74.81	182	6.44	7.333E+00	5.756E-01	5.756E-01	36.49
	77.11	308	10.80	7.312E+00	5.816E-01	5.816E-01	24.73
	87.30	128	4.84	7.190E+00	5.508E-01	5.508E-01	47.23
	242.00	74	7.43	4.426E+00	3.357E-01	3.357E-01	64.88
	295.22	127	19.30	3.786E+00	2.590E-01	2.590E-01	44.64
	351.93	173	37.60*	3.274E+00	2.098E-01	2.099E-01	33.38
RA-223	269.46	59	13.70*	4.063E+00	1.583E-01	1.583E-01	90.31
AC-228	129.07	------	2.42	6.409E+00	------	Line Not Found	------
	209.25	99	3.89	4.907E+00	7.703E-01	7.703E-01	57.61
	270.25	59	3.46	4.063E+00	6.270E-01	6.270E-01	90.31
	338.32	86	11.27	3.387E+00	3.351E-01	3.351E-01	68.31
	409.46	------	1.92	2.874E+00	------	Line Not Found	------
	463.00	32	4.40	2.581E+00	4.199E-01	4.199E-01	99.05
	794.95	------	4.25	1.613E+00	------	Line Not Found	------
	911.20	80	25.80*	1.437E+00	3.222E-01	3.222E-01	44.85
	964.77	34	4.99	1.370E+00	7.335E-01	7.335E-01	91.52

Sample ID : G198324038 Acquisition date : 1-DEC-2007 08:53:40

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	968.97	51	15.80	1.366E+00	3.538E-01	3.538E-01	58.41
	1588.20	------	3.22	9.118E-01	------	Line Not Found	------
TH-234	63.29	60	4.80	7.386E+00	2.527E-01	2.527E-01	130.17
	92.58	120	5.41*	7.108E+00	4.640E-01	4.640E-01	60.60
U-235	143.76	42	10.96*	6.114E+00	9.418E-02	9.418E-02	145.27
NP-237	86.48	128	12.40*	7.190E+00	2.150E-01	2.150E-01	47.23
AM-243	74.66	182	68.20*	7.333E+00	5.435E-02	5.435E-02	36.49

Flag: "*" = Keyline

Sample ID : G198324038 Acquisition date : 1-DEC-2007 08:53:40

Total number of lines in spectrum	52	
Number of unidentified lines	25	
Number of lines tentatively identified by NID	27	51.92%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	1.236E+00	1.236E+00	0.448E+00	36.24	
RH-101	1.04E+08S	1.03	2.659E-03	2.749E-03	32.22E-03	1172.31	
CS-137	9.47E+08S	1.00	7.638E-02	7.666E-02	4.970E-02	64.83	
TL-208	4.43E+17S	1.00	1.272E-01	1.272E-01	0.422E-01	33.19	
BI-212	4.43E+17S	1.00	2.289E-01	2.289E-01	2.554E-01	111.58	
PB-212	4.43E+17S	1.00	2.869E-01	2.869E-01	0.562E-01	19.59	
PB-214	5.05E+10S	1.00	2.098E-01	2.099E-01	0.701E-01	33.38	
RA-223	1.04E+12S	1.00	1.583E-01	1.583E-01	1.430E-01	90.31	
AC-228	4.43E+17S	1.00	3.222E-01	3.222E-01	1.445E-01	44.85	
TH-234	1.41E+17S	1.00	4.640E-01	4.640E-01	2.812E-01	60.60	
U-235	2.22E+16S	1.00	9.418E-02	9.418E-02	13.68E-02	145.27	
NP-237	6.75E+13S	1.00	2.150E-01	2.150E-01	1.015E-01	47.23	
AM-243	2.33E+11S	1.00	5.435E-02	5.435E-02	1.983E-02	36.49	
			---	---			
	Total Activity :		3.476E+00	3.476E+00			

Grand Total Activity : 3.476E+00 3.476E+00

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G198324038 Acquisition date : 1-DEC-2007 08:53:40

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.29	54	328	1.04	93.36	88	11	3.75E-03	****	7.29E+00	
1	84.26	53	349	1.38	169.25	164	34	3.68E-03	****	7.23E+00	
1	90.03	54	311	1.39	180.78	164	34	3.77E-03	****	7.15E+00	
0	163.23	16	252	0.53	327.10	323	9	1.10E-03	****	5.72E+00	
0	185.52	123	332	1.16	371.65	365	14	8.51E-03	71.9	5.30E+00	
0	437.47	14	109	2.99	875.15	865	12	9.49E-04	****	2.71E+00	
0	609.47	140	72	1.55	1218.83	1212	13	9.71E-03	32.4	2.03E+00	T
0	737.86	8	43	1.35	1475.32	1467	10	5.77E-04	****	1.72E+00	
0	747.67	7	25	1.31	1494.91	1490	6	4.97E-04	****	1.70E+00	
0	802.88	5	36	2.80	1605.21	1598	12	3.57E-04	****	1.60E+00	
0	811.70	10	54	3.46	1622.83	1613	12	7.06E-04	****	1.58E+00	
0	847.54	23	58	5.89	1694.42	1683	18	1.60E-03	****	1.53E+00	
0	1033.49	13	34	0.88	2065.81	2057	13	9.23E-04	****	1.30E+00	
0	1121.61	24	39	1.33	2241.80	2237	13	1.65E-03	****	1.21E+00	T
0	1241.76	13	2	1.75	2481.75	2479	7	8.75E-04	73.0	1.12E+00	
0	1271.92	16	30	4.26	2541.97	2531	20	1.11E-03	****	1.09E+00	
0	1291.81	22	12	5.12	2581.68	2575	13	1.51E-03	80.5	1.08E+00	
0	1505.34	9	6	3.12	3008.01	3000	12	6.44E-04	****	9.53E-01	
0	1511.23	17	3	2.18	3019.77	3013	12	1.15E-03	74.9	9.50E-01	
0	1566.79	8	5	0.64	3130.69	3125	10	5.56E-04	****	9.22E-01	
0	1595.41	11	33	7.71	3187.81	3170	19	7.80E-04	****	9.08E-01	
0	1623.10	10	2	0.69	3243.08	3239	9	7.06E-04	81.3	8.96E-01	
0	1633.16	12	9	4.64	3263.17	3253	18	8.33E-04	****	8.91E-01	
0	1765.70	17	6	1.95	3527.73	3520	12	1.16E-03	76.9	8.34E-01	T
0	1775.03	17	0	5.42	3546.35	3540	14	1.18E-03	48.5	8.30E-01	
0	1807.58	7	5	0.53	3611.33	3607	8	5.03E-04	****	8.18E-01	
0	1879.11	7	4	0.72	3754.07	3750	8	4.86E-04	****	7.91E-01	
0	1938.86	12	0	0.73	3873.33	3868	11	8.33E-04	57.7	7.69E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G198324038            *
* Acquisition date :  1-DEC-2007 08:53:40 Detector SN#    :                 *
* Detector ID      : GAM05                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:02.06     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324038           Analyst initials: MJH1            *
* Batch Number     : 706246               Sample Quantity : 1.2581E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 31-MAY-2007 12:09:24 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	1.236E+00	4.389E-01	1.552E-01	4.389E-01
RH-101	2.749E-03	3.158E-02	1.435E-02	3.158E-02
CS-137	7.666E-02	4.871E-02	1.832E-02	4.871E-02
TL-208	1.272E-01	4.137E-02	1.531E-02	4.137E-02
BI-212	2.289E-01	2.503E-01	1.452E-01	2.503E-01
PB-212	2.869E-01	5.508E-02	2.498E-02	5.508E-02
PB-214	2.099E-01	6.865E-02	3.225E-02	6.865E-02
RA-223	1.583E-01	1.401E-01	8.108E-02	1.401E-01
AC-228	3.222E-01	1.416E-01	5.349E-02	1.416E-01
TH-234	4.640E-01	2.755E-01	1.571E-01	2.755E-01
U-235	9.418E-02	1.341E-01	8.063E-02	1.341E-01
NP-237	2.150E-01	9.950E-02	6.741E-02	9.950E-02
AM-243	5.435E-02	1.944E-02	1.283E-02	1.944E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	-7.303E-03	2.086E-02	1.697E-02	2.086E-02	NOT IDENT.
SB-125	7.118E-03	5.738E-02	4.629E-02	5.738E-02	NOT IDENT.
EU-155	-2.667E-02	4.599E-02	3.925E-02	4.599E-02	NOT IDENT.
PO-209	1.898E-01	4.057E+00	3.410E+00	4.057E+00	NOT IDENT.
BI-211	-4.272E-01	5.738E-01	4.447E-01	5.738E-01	NOT IDENT.
BI-214	2.232E-01	7.271E-02	5.566E-02	7.271E-02	FAIL ABUN
PA-233	-1.567E-02	3.401E-02	2.869E-02	3.401E-02	NOT IDENT.
PA-234M	2.238E+00	2.614E+00	2.348E+00	2.614E+00	NOT IDENT.
NP-236	1.018E-02	2.721E-02	2.150E-02	2.721E-02	NOT IDENT.
NP-239	-3.217E-02	1.163E-01	9.580E-02	1.163E-01	NOT IDENT.
AM-241	6.834E-05	2.675E-02	2.127E-02	2.675E-02	NOT IDENT.
CM-243	-5.310E-03	4.056E-02	3.537E-02	4.056E-02	NOT IDENT.
AM-246	8.280E-02	7.355E-02	6.979E-02	7.355E-02	NOT IDENT.
CF-249	-1.713E-02	2.115E-02	1.702E-02	2.115E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
59.54	241.2308
63.29	263.2345
74.66	314.5192
74.81	314.6074
74.81	314.6074
77.11	294.3896
77.11	294.3896
86.48	277.7548
87.30	278.1417
87.30	278.1417
92.58	280.5866
98.44	234.2835
103.76	247.6665
105.31	267.7144
129.07	270.7055
143.76	226.5557
198.00	208.7666
209.25	202.2355
228.18	188.9826
238.63	184.1640
242.00	146.3673
269.46	162.0309
270.25	152.8677
277.36	159.3043
295.22	152.6499
300.09	156.3532
312.17	142.4212
338.32	116.7817
351.93	125.6891
387.59	114.4690
409.46	106.8073
427.87	104.0816
463.00	105.8342
510.77	98.7849
583.19	60.1665
609.31	93.6300
661.66	69.8603
727.33	72.3735
763.13	63.6719
768.36	59.8059
785.37	48.1367
794.95	36.2249
806.17	72.7339
831.80	57.0698
860.56	57.6213
896.60	43.7252
911.20	32.2734
934.06	35.8158
964.77	48.9134
968.97	48.9751
1001.03	39.7694
1078.86	29.1987
1120.29	36.6738
1155.19	32.6873
1173.23	36.7051
1238.11	37.8018
1280.96	24.6944
1332.51	26.1133
1377.67	22.3261
1401.50	37.7510
1407.98	31.6747
1460.80	21.7075
1509.23	0.0000
1588.20	16.7190
1620.50	16.8278
1729.60	15.2764
1764.49	9.8849

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198324038

Total Uranium Activity	4.3576E-02	ug/g
Total Uranium Counting Unc.	6.2038E-02	ug/g
Total Uranium Tpu	6.2038E-08	ug/g
Total Uranium Mda	3.7306E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:52:53.31

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324039.CNF;2
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 1-DEC-2007 08:54:24.
Sample ID        : G198324039           Sample quantity  : 1.05610E+02 GRAM
Detector name    : GAM18                Detector geometry: CAN
Elapsed live time: 0 08:00:00.00        Elapsed real time: 0 08:00:03.53  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706246               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	2	74.65	251	598	0.99	148.27	144	12	8.72E-03	16.3	1.70E+00
2	2	76.94*	372	510	0.97	152.85	144	12	1.29E-02	12.8	
3	0	87.03	142	634	0.73	173.02	169	7	4.93E-03	30.9	
4	0	89.43	82	393	1.27	177.82	176	5	2.83E-03	38.0	
5	0	92.56*	127	684	1.23	184.08	180	8	4.41E-03	48.4	
6	0	185.50*	158	558	1.09	369.84	365	9	5.48E-03	35.2	
7	0	197.80*	70	584	1.87	394.42	390	10	2.44E-03	74.6	
8	0	205.15	88	372	1.10	409.13	406	7	3.06E-03	37.9	
9	0	208.70	46	459	0.88	416.21	413	8	1.61E-03	81.0	
10	3	238.44*	998	395	1.12	475.67	471	17	3.46E-02	5.7	1.46E+00
11	3	241.39	287	498	1.72	481.56	471	17	9.97E-03	18.6	
12	0	259.75	65	244	1.54	518.27	516	7	2.25E-03	42.1	
13	0	269.82*	95	435	2.34	538.40	533	11	3.30E-03	50.0	
14	0	277.05	45	385	1.20	552.85	549	9	1.55E-03	80.9	
15	0	295.12*	268	426	1.19	588.97	583	11	9.30E-03	18.3	
16	0	299.38*	5	341	1.47	597.48	595	8	1.72E-04	744.2	
17	0	328.73	95	506	4.08	656.16	650	14	3.31E-03	51.1	
18	0	337.99*	123	471	1.01	674.68	669	11	4.28E-03	41.9	
19	0	351.58*	611	325	1.38	701.84	695	12	2.12E-02	8.0	
20	0	409.29	45	275	3.28	817.22	811	11	1.56E-03	72.9	
21	0	462.86	84	194	1.33	924.31	920	8	2.93E-03	30.7	
22	0	486.24	39	171	1.77	971.08	967	9	1.35E-03	63.0	
23	0	510.84*	11	492	2.66	1020.26	1011	20	3.96E-04	672.6	
24	0	530.77	22	146	0.74	1060.09	1057	7	7.70E-04	93.7	
25	0	568.63*	47	211	4.47	1135.80	1129	13	1.64E-03	79.2	
26	0	582.72*	304	264	1.33	1163.97	1158	14	1.06E-02	15.4	
27	0	608.99*	409	265	1.90	1216.50	1211	11	1.42E-02	10.6	
28	0	661.11	59	198	2.14	1320.72	1317	10	2.05E-03	46.2	
29	0	685.62	26	125	1.64	1369.74	1362	11	8.97E-04	86.4	
30	0	726.78	138	149	1.93	1452.06	1445	13	4.78E-03	20.2	
31	0	767.87	86	144	2.72	1534.22	1529	12	2.99E-03	29.9	
32	0	794.13	30	226	1.58	1586.73	1579	17	1.05E-03	115.4	
33	0	803.15*	30	149	1.36	1604.77	1597	14	1.03E-03	103.2	
34	0	860.16	80	121	1.34	1718.78	1713	12	2.76E-03	29.8	
35	0	910.73*	239	146	1.83	1819.93	1813	16	8.30E-03	14.8	
36	0	968.64*	111	153	1.37	1935.76	1931	12	3.84E-03	28.6	
37	0	1000.90*	28	99	1.25	2000.29	1995	11	9.65E-04	94.2	
38	0	1120.18*	124	118	2.46	2238.88	2231	17	4.30E-03	24.5	

Sample ID : G198324039 Acquisition date : 1-DEC-2007 08:54:24

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1237.91*	30	87	0.85	2474.41	2467	13	1.04E-03	82.1	
40	0	1377.74	21	114	1.35	2754.18	2746	16	7.17E-04	118.6	
41	0	1460.27*	332	130	1.77	2919.31	2910	19	1.15E-02	10.1	
42	0	1568.13	31	67	7.28	3135.14	3118	24	1.07E-03	74.5	
43	0	1597.77	29	21	2.42	3194.45	3190	10	1.02E-03	34.0	
44	0	1659.20	33	21	2.10	3317.40	3310	14	1.15E-03	34.1	
45	0	1677.87	9	16	1.31	3354.75	3352	6	3.09E-04	79.3	
46	0	1693.77	13	33	1.74	3386.57	3379	12	4.45E-04	96.8	
47	0	1763.92*	111	59	2.58	3526.97	3518	23	3.85E-03	23.9	
48	0	1862.57	25	22	3.56	3724.42	3715	15	8.55E-04	46.5	
49	0	1913.44	13	25	4.13	3826.25	3818	14	4.66E-04	82.9	
50	0	1981.21	10	29	3.37	3961.91	3951	14	3.52E-04	115.6	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324039       *
* Acquisition date :  1-DEC-2007 08:54:24 Detector SN#    :                 *
* Detector ID      : GAM18                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 08:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 08:00:03.53     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324039           Analyst initials: MJH1            *
* Batch Number     : 706246               Sample Quantity : 1.0561E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  1-OCT-2007 17:37:50 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	1.478E+00	3.125E-01	1.680E-01	0.000E+00
RH-101	1.197E-02	1.752E-02	1.624E-02	0.000E+00
CS-137	1.740E-02	1.582E-02	1.876E-02	0.000E+00
TL-208	8.224E-02	2.543E-02	1.767E-02	0.000E+00
BI-212	3.132E-01	1.266E-01	1.320E-01	0.000E+00
PB-212	3.051E-01	3.748E-02	2.946E-02	0.000E+00
BI-214	2.092E-01	4.561E-02	3.817E-02	0.000E+00
PB-214	2.686E-01	4.415E-02	3.618E-02	0.000E+00
RA-223	9.821E-02	9.637E-02	9.030E-02	0.000E+00
AC-228	2.986E-01	9.179E-02	7.001E-02	0.000E+00
PA-234M	1.155E+00	2.134E+00	1.944E+00	0.000E+00
NP-237	1.579E-01	9.691E-02	1.263E-01	0.000E+00
AM-243	6.687E-02	2.235E-02	2.959E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	
CO-60	-2.851E-03		1.137E-02	1.834E-02	0.000E+00 NOT IDENT.
SB-125	6.006E-03		2.622E-02	4.543E-02	0.000E+00 NOT IDENT.
EU-155	3.713E-03		3.513E-02	5.874E-02	0.000E+00 NOT IDENT.
PO-209	7.165E-01		2.137E+00	3.671E+00	0.000E+00 NOT IDENT.
BI-211	-1.111E-01		3.018E-01	5.016E-01	0.000E+00 NOT IDENT.
PA-233	-1.215E-03		1.955E-02	3.246E-02	0.000E+00 NOT IDENT.
TH-234	2.995E-01		2.852E-01	3.525E-01	0.000E+00 FAIL ABUN
U-235	-6.844E-02		7.854E-02	1.063E-01	0.000E+00 NOT IDENT.
NP-236	1.260E-02		1.974E-02	3.365E-02	0.000E+00 NOT IDENT.
NP-239	-3.754E-02		6.749E-02	1.128E-01	0.000E+00 NOT IDENT.
AM-241	1.841E-02		6.333E-02	1.098E-01	0.000E+00 NOT IDENT.
CM-243	7.616E-03		3.094E-02	5.202E-02	0.000E+00 NOT IDENT.
AM-246	1.528E-02		3.780E-02	6.436E-02	0.000E+00 NOT IDENT.
CF-249	1.019E-02		1.234E-02	2.092E-02	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:52:54.25

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324039.CNF;2
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 1-DEC-2007 08:54:24.
Sample ID        : G198324039           Sample quantity  : 1.05610E+02 GRAM
Detector name    : GAM18                Detector geometry: CAN
Elapsed live time: 0 08:00:00.00        Elapsed real time: 0 08:00:03.53  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706246               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	332	10.66*	1.874E+00	1.478E+00	1.478E+00	21.58
RH-101	198.00	70	73.00*	7.375E+00	1.158E-02	1.197E-02	149.38
CS-137	661.66	59	85.10*	3.553E+00	1.734E-02	1.740E-02	92.78
TL-208	277.36	45	6.31	6.175E+00	1.015E-01	1.015E-01	161.81
	510.77	11	22.60	4.258E+00	1.052E-02	1.052E-02	1345.30
	583.19	304	84.50*	3.892E+00	8.224E-02	8.224E-02	31.55
	763.13	------	1.81	3.183E+00	------	Line Not Found	------
	860.56	80	12.42	2.890E+00	1.968E-01	1.968E-01	60.33
BI-212	727.33	138	11.80*	3.307E+00	3.132E-01	3.132E-01	41.24
	785.37	------	1.10	3.111E+00	------	Line Not Found	------
	1620.50	------	1.49	1.751E+00	------	Line Not Found	------
PB-212	74.81	251	10.40	4.893E+00	4.385E-01	4.385E-01	34.10
	77.11	372	17.50	5.223E+00	3.613E-01	3.613E-01	27.44
	87.30	142	7.81	6.447E+00	2.508E-01	2.508E-01	62.61
	238.63	998	43.30*	6.710E+00	3.051E-01	3.051E-01	12.53
	300.09	5	3.28	5.907E+00	2.269E-02	2.269E-02	1488.35
BI-214	609.31	409	46.10*	3.773E+00	2.092E-01	2.092E-01	22.24
	768.36	86	4.94	3.167E+00	4.884E-01	4.884E-01	60.46
	806.17	------	1.22	3.047E+00	------	Line Not Found	------
	934.06	------	3.03	2.698E+00	------	Line Not Found	------
	1120.29	124	15.10	2.313E+00	3.149E-01	3.149E-01	49.38
	1155.19	------	1.63	2.254E+00	------	Line Not Found	------
	1238.11	30	5.79	2.128E+00	2.168E-01	2.168E-01	164.40
	1280.96	------	1.43	2.070E+00	------	Line Not Found	------
	1377.67	21	4.00	1.956E+00	2.345E-01	2.345E-01	237.24
	1401.50	------	1.27	1.931E+00	------	Line Not Found	------
	1407.98	------	2.15	1.924E+00	------	Line Not Found	------
	1509.23	------	2.11	1.832E+00	------	Line Not Found	------
	1729.60	------	2.92	1.691E+00	------	Line Not Found	------
	1764.49	111	15.40	1.676E+00	3.815E-01	3.816E-01	48.28
PB-214	74.81	251	6.44	4.893E+00	7.082E-01	7.082E-01	34.10
	77.11	372	10.80	5.223E+00	5.855E-01	5.856E-01	27.44

Sample ID : G198324039 Acquisition date : 1-DEC-2007 08:54:24

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	142	4.84	6.447E+00	4.046E-01	4.047E-01	62.61
	242.00	287	7.43	6.666E+00	5.150E-01	5.150E-01	37.54
	295.22	268	19.30	5.956E+00	2.071E-01	2.071E-01	36.94
	351.93	611	37.60*	5.377E+00	2.686E-01	2.686E-01	16.77
RA-223	269.46	95	13.70*	6.268E+00	9.821E-02	9.821E-02	100.13
AC-228	129.07	------	2.42	8.242E+00	------	Line Not Found	------
	209.25	46	3.89	7.188E+00	1.475E-01	1.475E-01	162.04
	270.25	95	3.46	6.268E+00	3.889E-01	3.889E-01	100.13
	338.32	123	11.27	5.504E+00	1.767E-01	1.767E-01	83.95
	409.46	45	1.92	4.904E+00	4.247E-01	4.247E-01	145.89
	463.00	84	4.40	4.540E+00	3.749E-01	3.749E-01	61.66
	794.95	30	4.25	3.084E+00	2.046E-01	2.046E-01	230.99
	911.20	239	25.80*	2.756E+00	2.986E-01	2.986E-01	31.37
	964.77	------	4.99	2.625E+00	------	Line Not Found	------
	968.97	111	15.80	2.616E+00	2.377E-01	2.377E-01	58.04
	1588.20	------	3.22	1.772E+00	------	Line Not Found	------
PA-234M	1001.03	28	0.84*	2.545E+00	1.155E+00	1.155E+00	188.53
NP-237	86.48	142	12.40*	6.447E+00	1.579E-01	1.579E-01	62.61
AM-243	74.66	251	68.20*	4.893E+00	6.687E-02	6.687E-02	34.10

Flag: "*" = Keyline

Sample ID : G198324039 Acquisition date : 1-DEC-2007 08:54:24

Total number of lines in spectrum	50	
Number of unidentified lines	18	
Number of lines tentatively identified by NID	32	64.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	1.478E+00	1.478E+00	0.319E+00	21.58	
RH-101	1.04E+08S	1.03	1.158E-02	1.197E-02	1.788E-02	149.38	
CS-137	9.47E+08S	1.00	1.734E-02	1.740E-02	1.615E-02	92.78	
TL-208	4.43E+17S	1.00	8.224E-02	8.224E-02	2.595E-02	31.55	
BI-212	4.43E+17S	1.00	3.132E-01	3.132E-01	1.292E-01	41.24	
PB-212	4.43E+17S	1.00	3.051E-01	3.051E-01	0.382E-01	12.53	
BI-214	5.05E+10S	1.00	2.092E-01	2.092E-01	0.465E-01	22.24	
PB-214	5.05E+10S	1.00	2.686E-01	2.686E-01	0.451E-01	16.77	
RA-223	1.04E+12S	1.00	9.821E-02	9.821E-02	9.834E-02	100.13	
AC-228	4.43E+17S	1.00	2.986E-01	2.986E-01	0.937E-01	31.37	
PA-234M	1.41E+17S	1.00	1.155E+00	1.155E+00	2.178E+00	188.53	
NP-237	6.75E+13S	1.00	1.579E-01	1.579E-01	0.989E-01	62.61	
AM-243	2.33E+11S	1.00	6.687E-02	6.687E-02	2.280E-02	34.10	
			---	---			
		Total Activity :	4.462E+00	4.462E+00			
		Grand Total Activity :	4.462E+00	4.462E+00			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G198324039 Acquisition date : 1-DEC-2007 08:54:24

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	89.43	82	393	1.27	177.82	176	5	2.83E-03	76.0	6.68E+00	
0	92.56	127	684	1.23	184.08	180	8	4.41E-03	96.7	6.96E+00	T
0	185.50	158	558	1.09	369.84	365	9	5.48E-03	70.4	7.59E+00	
0	205.15	88	372	1.10	409.13	406	7	3.06E-03	75.8	7.25E+00	
0	259.75	65	244	1.54	518.27	516	7	2.25E-03	84.1	6.40E+00	
0	328.73	95	506	4.08	656.16	650	14	3.31E-03	****	5.59E+00	
0	486.24	39	171	1.77	971.08	967	9	1.35E-03	****	4.40E+00	
0	530.77	22	146	0.74	1060.09	1057	7	7.70E-04	****	4.15E+00	
0	568.63	47	211	4.47	1135.80	1129	13	1.64E-03	****	3.96E+00	
0	685.62	26	125	1.64	1369.74	1362	11	8.97E-04	****	3.46E+00	
0	803.15	30	149	1.36	1604.77	1597	14	1.03E-03	****	3.06E+00	
0	1568.13	31	67	7.28	3135.14	3118	24	1.07E-03	****	1.79E+00	
0	1597.77	29	21	2.42	3194.45	3190	10	1.02E-03	68.0	1.77E+00	
0	1659.20	33	21	2.10	3317.40	3310	14	1.15E-03	68.1	1.73E+00	
0	1677.87	9	16	1.31	3354.75	3352	6	3.09E-04	****	1.72E+00	
0	1693.77	13	33	1.74	3386.57	3379	12	4.45E-04	****	1.71E+00	
0	1862.57	25	22	3.56	3724.42	3715	15	8.55E-04	93.0	1.64E+00	
0	1913.44	13	25	4.13	3826.25	3818	14	4.66E-04	****	1.63E+00	
0	1981.21	10	29	3.37	3961.91	3951	14	3.52E-04	****	1.61E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G198324039            *
* Acquisition date :  1-DEC-2007 08:54:24 Detector SN#    :                 *
* Detector ID      : GAM18                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 08:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 08:00:03.53     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324039           Analyst initials: MJH1            *
* Batch Number     : 706246               Sample Quantity : 1.0561E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME :  1-OCT-2007 17:37:50 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	1.478E+00	3.125E-01	8.405E-02	3.125E-01
RH-101	1.197E-02	1.752E-02	8.124E-03	1.752E-02
CS-137	1.740E-02	1.582E-02	9.385E-03	1.582E-02
TL-208	8.224E-02	2.543E-02	8.840E-03	2.543E-02
BI-212	3.132E-01	1.266E-01	6.603E-02	1.266E-01
PB-212	3.051E-01	3.748E-02	1.474E-02	3.748E-02
BI-214	2.092E-01	4.561E-02	1.910E-02	4.561E-02
PB-214	2.686E-01	4.415E-02	1.810E-02	4.415E-02
RA-223	9.821E-02	9.637E-02	4.518E-02	9.637E-02
AC-228	2.986E-01	9.179E-02	3.503E-02	9.179E-02
PA-234M	1.155E+00	2.134E+00	9.725E-01	2.134E+00
NP-237	1.579E-01	9.691E-02	6.321E-02	9.691E-02
AM-243	6.687E-02	2.235E-02	1.480E-02	2.235E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	-2.851E-03	1.137E-02	9.177E-03	1.137E-02	NOT IDENT.
SB-125	6.006E-03	2.622E-02	2.273E-02	2.622E-02	NOT IDENT.
EU-155	3.713E-03	3.513E-02	2.939E-02	3.513E-02	NOT IDENT.
PO-209	7.165E-01	2.137E+00	1.836E+00	2.137E+00	NOT IDENT.
BI-211	-1.111E-01	3.018E-01	2.509E-01	3.018E-01	NOT IDENT.
PA-233	-1.215E-03	1.955E-02	1.624E-02	1.955E-02	NOT IDENT.
TH-234	2.995E-01	2.852E-01	1.763E-01	2.852E-01	FAIL ABUN
U-235	-6.844E-02	7.854E-02	5.320E-02	7.854E-02	NOT IDENT.
NP-236	1.260E-02	1.974E-02	1.684E-02	1.974E-02	NOT IDENT.
NP-239	-3.754E-02	6.749E-02	5.642E-02	6.749E-02	NOT IDENT.
AM-241	1.841E-02	6.333E-02	5.491E-02	6.333E-02	NOT IDENT.
CM-243	7.616E-03	3.094E-02	2.603E-02	3.094E-02	NOT IDENT.
AM-246	1.528E-02	3.780E-02	3.220E-02	3.780E-02	NOT IDENT.
CF-249	1.019E-02	1.234E-02	1.047E-02	1.234E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
59.54	509.2746
63.29	548.3342
74.66	561.9046
74.81	562.1228
74.81	562.1228
77.11	523.4565
77.11	523.4565
86.48	578.1100
87.30	443.9192
87.30	443.9192
92.58	573.9707
98.44	474.8957
103.76	468.6961
105.31	508.1486
129.07	486.4126
143.76	528.1208
198.00	415.5703
209.25	465.9887
228.18	435.9128
238.63	426.6755
242.00	428.2775
269.46	351.3518
270.25	351.6319
277.36	346.1318
295.22	325.0317
300.09	347.8591
312.17	307.9898
338.32	327.6759
351.93	312.5459
387.59	248.4352
409.46	240.6373
427.87	216.5475
463.00	244.1890
510.77	246.9311
583.19	198.4061
609.31	259.1525
661.66	187.9014
727.33	156.1759
763.13	142.2859
768.36	168.2100
785.37	159.6330
794.95	172.7912
806.17	141.7599
831.80	154.9460
860.56	135.1732
896.60	126.2186
911.20	146.2997
934.06	120.1998
964.77	132.1473
968.97	143.5161
1001.03	102.1121
1078.86	96.6200
1120.29	106.2542
1155.19	108.4777
1173.23	101.6680
1238.11	124.0173
1280.96	80.5800
1332.51	74.1424
1377.67	78.8998
1401.50	78.4292
1407.98	84.3814
1460.80	66.8545
1509.23	82.5947
1588.20	72.0054
1620.50	58.2445
1729.60	50.2634
1764.49	52.7553

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198324039

Total Uranium Activity	-3.1667E-02	ug/g
Total Uranium Counting Unc.	3.6342E-02	ug/g
Total Uranium Tpu	3.6342E-08	ug/g
Total Uranium Mda	2.4615E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:53:27.56

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324040.CNF;1
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 1-DEC-2007 09:54:32.
Sample ID        : G198324040           Sample quantity  : 1.19800E+02 GRAM
Detector name    : GAM13                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:03.62  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706246               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.47*	46	499	0.86	92.38	88	9	3.21E-03	103.7	
2	0	53.64*	38	436	0.75	106.73	103	8	2.62E-03	107.3	
3	0	63.37*	42	515	0.87	126.21	122	8	2.95E-03	122.9	
4	2	74.83	180	381	0.78	149.16	146	12	1.25E-02	17.5	2.57E+00
5	2	77.17*	247	367	0.76	153.84	146	12	1.72E-02	14.7	
6	0	87.30	47	385	0.66	174.12	172	6	3.24E-03	68.2	
7	0	92.77*	1	700	1.10	185.07	181	10	5.13E-05	*****	
8	0	105.28*	12	256	1.24	210.11	208	5	8.53E-04	243.5	
9	0	128.98	31	392	0.81	257.56	253	8	2.12E-03	113.9	
10	2	143.89*	18	295	1.17	287.41	281	11	1.25E-03	189.2	3.38E+00
11	0	185.88*	23	384	0.91	371.44	366	9	1.57E-03	199.4	
12	0	197.91*	4	269	1.85	395.54	393	7	2.74E-04	786.5	
13	0	205.13*	35	158	1.33	409.99	408	5	2.41E-03	69.2	
14	0	220.95	30	247	1.34	441.65	437	7	2.05E-03	90.6	
15	4	238.62*	389	253	1.13	477.01	470	18	2.70E-02	9.6	1.72E+00
16	4	241.63	104	311	1.42	483.04	470	18	7.21E-03	32.4	
17	0	277.07	27	233	1.53	553.98	550	8	1.86E-03	100.2	
18	0	295.12*	125	347	1.13	590.11	583	14	8.69E-03	34.2	
19	0	302.95*	13	153	1.08	605.78	603	7	9.29E-04	184.5	
20	0	337.90*	93	253	0.83	675.72	671	10	6.48E-03	36.5	
21	2	351.75*	214	130	1.56	703.46	696	21	1.49E-02	13.2	2.74E+00
22	2	355.93*	48	139	1.57	711.82	696	21	3.31E-03	56.2	
23	0	389.05	38	175	2.56	778.10	774	8	2.67E-03	61.9	
24	0	398.64	40	144	2.36	797.30	793	9	2.81E-03	55.9	
25	0	462.90	20	150	1.28	925.91	922	8	1.39E-03	105.8	
26	0	511.00*	7	297	2.48	1022.17	1015	19	4.94E-04	691.7	
27	0	583.26*	109	183	1.52	1166.78	1159	15	7.57E-03	31.1	
28	0	608.81*	168	152	1.21	1217.90	1211	13	1.17E-02	18.1	
29	0	648.99	34	77	4.03	1298.31	1291	11	2.35E-03	53.6	
30	0	661.47	223	102	1.33	1323.29	1318	10	1.55E-02	10.8	
31	0	696.40	27	75	1.26	1393.18	1388	8	1.84E-03	60.6	
32	0	708.50	11	86	0.77	1417.39	1414	7	7.83E-04	134.1	
33	0	727.87*	22	161	4.20	1456.16	1447	18	1.53E-03	149.7	
34	0	758.05	42	120	4.75	1516.55	1507	15	2.90E-03	59.9	
35	0	911.52*	27	121	1.97	1823.62	1814	13	1.91E-03	96.7	
36	0	969.67	55	106	1.46	1939.95	1930	13	3.83E-03	40.9	
37	0	1003.06*	74	147	3.61	2006.76	1994	32	5.16E-03	52.2	
38	0	1121.02	40	63	1.92	2242.75	2238	12	2.78E-03	43.4	

Sample ID : G198324040 Acquisition date : 1-DEC-2007 09:54:32

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1239.08	18	52	1.00	2478.94	2470	11	1.23E-03	82.3	
40	0	1246.31	22	36	1.92	2493.39	2488	10	1.50E-03	58.0	
41	0	1396.65	52	49	11.64	2794.12	2780	28	3.61E-03	40.6	
42	0	1460.56	190	37	2.25	2921.94	2913	16	1.32E-02	10.1	
43	4	1501.20	16	4	1.88	3003.22	3000	14	1.14E-03	33.4	8.86E-01
44	4	1504.82	20	5	1.59	3010.46	3000	14	1.42E-03	26.7	
45	0	1549.43	19	26	3.63	3099.68	3092	15	1.31E-03	63.5	
46	0	1717.17	7	13	3.95	3435.14	3425	13	4.86E-04	112.7	
47	0	1764.46*	6	19	1.58	3529.72	3521	15	4.09E-04	204.7	
48	0	1829.84	19	15	7.31	3660.47	3649	20	1.35E-03	53.7	
49	0	1838.93	19	10	0.97	3678.63	3671	14	1.30E-03	43.2	
50	0	1849.65	8	9	2.81	3700.07	3693	12	5.76E-04	80.0	
51	0	1941.55	23	0	0.64	3883.83	3877	14	1.60E-03	20.9	
52	0	1957.99	17	0	3.34	3916.71	3910	13	1.18E-03	24.3	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324040       *
* Acquisition date :  1-DEC-2007 09:54:32 Detector SN#    :                 *
* Detector ID      : GAM13                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:03.62     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324040           Analyst initials: MJH1            *
* Batch Number     : 706246               Sample Quantity : 1.1980E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  2-JUL-2007 15:48:48 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.637E+00	5.425E-01	3.803E-01	0.000E+00
RH-101	1.600E-03	2.466E-02	3.228E-02	0.000E+00
CS-137	1.992E-01	4.514E-02	4.691E-02	0.000E+00
EU-155	1.270E-02	6.062E-02	8.206E-02	0.000E+00
TL-208	8.761E-02	5.377E-02	4.272E-02	0.000E+00
BI-212	1.545E-01	4.532E-01	3.254E-01	0.000E+00
PB-212	2.921E-01	5.809E-02	5.576E-02	0.000E+00
BI-214	2.577E-01	9.323E-02	7.648E-02	0.000E+00
PB-214	2.500E-01	6.611E-02	7.360E-02	0.000E+00
TH-234	2.847E-03	4.882E-01	3.475E-01	0.000E+00
U-235	3.941E-02	1.462E-01	1.692E-01	0.000E+00
NP-237	7.770E-02	1.040E-01	1.673E-01	0.000E+00
AM-243	5.377E-02	1.886E-02	2.748E-02	0.000E+00
CM-243	1.149E-02	5.488E-02	7.486E-02	0.000E+00
CF-249	2.781E-02	3.377E-02	4.797E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
CO-60	8.186E-03	2.705E-02	4.642E-02	0.000E+00	NOT IDENT.
SB-125	3.285E-02	6.013E-02	1.043E-01	0.000E+00	NOT IDENT.
PO-209	3.634E+00	5.788E+00	9.956E+00	0.000E+00	NOT IDENT.
BI-211	2.194E-01	7.724E-01	1.307E+00	0.000E+00	NOT IDENT.
RA-223	1.268E-01	1.041E-01	1.918E-01	0.000E+00	NOT IDENT.
AC-228	1.068E-01	2.025E-01	2.287E-01	0.000E+00	FAIL ABUN
PA-233	2.966E-02	3.778E-02	6.795E-02	0.000E+00	NOT IDENT.
PA-234M	4.637E+00	3.921E+00	6.542E+00	0.000E+00	NOT IDENT.
NP-236	-2.846E-02	2.977E-02	4.391E-02	0.000E+00	NOT IDENT.
NP-239	-6.491E-02	1.278E-01	2.069E-01	0.000E+00	NOT IDENT.
AM-241	9.737E-03	3.104E-02	4.872E-02	0.000E+00	NOT IDENT.
AM-246	5.113E-02	9.871E-02	1.731E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:53:28.52

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198324040.CNF;1
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 1-DEC-2007 09:54:32.
Sample ID        : G198324040           Sample quantity  : 1.19800E+02 GRAM
Detector name    : GAM13                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:03.62  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706246               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	190	10.66*	1.061E+00	2.637E+00	2.637E+00	21.00
RH-101	198.00	4	73.00*	5.471E+00	1.548E-03	1.600E-03	1573.11
CS-137	661.66	223	85.10*	2.064E+00	1.985E-01	1.992E-01	23.12
EU-155	105.31	12	21.20*	7.309E+00	1.242E-02	1.270E-02	487.16
TL-208	277.36	27	6.31	4.318E+00	1.544E-01	1.544E-01	200.53
	510.77	7	22.60	2.590E+00	1.905E-02	1.905E-02	1383.49
	583.19	109	84.50*	2.305E+00	8.761E-02	8.761E-02	62.63
	763.13	------	1.81	1.821E+00	------	Line Not Found	------
	860.56	------	12.42	1.642E+00	------	Line Not Found	------
BI-212	727.33	22	11.80*	1.898E+00	1.545E-01	1.545E-01	299.40
	785.37	------	1.10	1.777E+00	------	Line Not Found	------
	1620.50	------	1.49	9.772E-01	------	Line Not Found	------
PB-212	74.81	180	10.40	7.694E+00	3.526E-01	3.526E-01	35.80
	77.11	247	17.50	7.684E+00	2.881E-01	2.881E-01	30.52
	87.30	47	7.81	7.592E+00	1.234E-01	1.234E-01	136.54
	238.63	389	43.30*	4.823E+00	2.921E-01	2.921E-01	20.29
	300.09	------	3.28	4.058E+00	------	Line Not Found	------
BI-214	609.31	168	46.10*	2.220E+00	2.577E-01	2.577E-01	36.91
	768.36	------	4.94	1.811E+00	------	Line Not Found	------
	806.17	------	1.22	1.737E+00	------	Line Not Found	------
	934.06	------	3.03	1.531E+00	------	Line Not Found	------
	1120.29	40	15.10	1.314E+00	3.156E-01	3.157E-01	87.00
	1155.19	------	1.63	1.282E+00	------	Line Not Found	------
	1238.11	18	5.79	1.210E+00	3.973E-01	3.973E-01	164.60
	1280.96	------	1.43	1.178E+00	------	Line Not Found	------
	1377.67	------	4.00	1.111E+00	------	Line Not Found	------
	1401.50	------	1.27	1.096E+00	------	Line Not Found	------
	1407.98	------	2.15	1.092E+00	------	Line Not Found	------
	1509.23	------	2.11	1.033E+00	------	Line Not Found	------
	1729.60	------	2.92	9.286E-01	------	Line Not Found	------
	1764.49	6	15.40	9.143E-01	6.553E-02	6.553E-02	409.42
PB-214	74.81	180	6.44	7.694E+00	5.694E-01	5.694E-01	35.80

Sample ID : G198324040 Acquisition date : 1-DEC-2007 09:54:32

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	247	10.80	7.684E+00	4.668E-01	4.668E-01	30.52
	87.30	47	4.84	7.592E+00	1.991E-01	1.991E-01	136.54
	242.00	104	7.43	4.780E+00	4.580E-01	4.580E-01	65.17
	295.22	125	19.30	4.112E+00	2.469E-01	2.469E-01	68.65
	351.93	214	37.60*	3.568E+00	2.500E-01	2.500E-01	26.99
TH-234	63.29	42	4.80	7.666E+00	1.808E-01	1.808E-01	246.02
	92.58	1	5.41*	7.519E+00	2.847E-03	2.847E-03	17497.18
U-235	143.76	18	10.96*	6.519E+00	3.941E-02	3.941E-02	378.41
NP-237	86.48	47	12.40*	7.592E+00	7.770E-02	7.770E-02	136.54
AM-243	74.66	180	68.20*	7.694E+00	5.377E-02	5.377E-02	35.80
CM-243	103.76	12	23.00*	7.309E+00	1.145E-02	1.149E-02	487.16
CF-249	387.59	38	66.00*	3.279E+00	2.781E-02	2.781E-02	123.88

Flag: "*" = Keyline

Sample ID : G198324040 Acquisition date : 1-DEC-2007 09:54:32

Total number of lines in spectrum 52
Number of unidentified lines 24
Number of lines tentatively identified by NID 28 53.85%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	2.637E+00	2.637E+00	0.554E+00	21.00	
RH-101	1.04E+08S	1.03	1.548E-03	1.600E-03	25.17E-03	1573.11	
CS-137	9.47E+08S	1.00	1.985E-01	1.992E-01	0.461E-01	23.12	
EU-155	1.57E+08S	1.02	1.242E-02	1.270E-02	6.186E-02	487.16	
TL-208	4.43E+17S	1.00	8.761E-02	8.761E-02	5.487E-02	62.63	
BI-212	4.43E+17S	1.00	1.545E-01	1.545E-01	4.625E-01	299.40	
PB-212	4.43E+17S	1.00	2.921E-01	2.921E-01	0.593E-01	20.29	
BI-214	5.05E+10S	1.00	2.577E-01	2.577E-01	0.951E-01	36.91	
PB-214	5.05E+10S	1.00	2.500E-01	2.500E-01	0.675E-01	26.99	
TH-234	1.41E+17S	1.00	2.847E-03	2.847E-03	498.1E-03	17497.18	
U-235	2.22E+16S	1.00	3.941E-02	3.941E-02	14.91E-02	378.41	
NP-237	6.75E+13S	1.00	7.770E-02	7.770E-02	10.61E-02	136.54	
AM-243	2.33E+11S	1.00	5.377E-02	5.377E-02	1.925E-02	35.80	
CM-243	8.99E+08S	1.00	1.145E-02	1.149E-02	5.600E-02	487.16	
CF-249	1.11E+10S	1.00	2.781E-02	2.781E-02	3.446E-02	123.88	
		Total Activity :	4.104E+00	4.105E+00			

Grand Total Activity : 4.104E+00 4.105E+00

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G198324040 Acquisition date : 1-DEC-2007 09:54:32

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.47	46	499	0.86	92.38	88	9	3.21E-03	****	7.26E+00	
0	53.64	38	436	0.75	106.73	103	8	2.62E-03	****	7.50E+00	
0	128.98	31	392	0.81	257.56	253	8	2.12E-03	****	6.83E+00	T
0	185.88	23	384	0.91	371.44	366	9	1.57E-03	****	5.69E+00	
0	205.13	35	158	1.33	409.99	408	5	2.41E-03	****	5.35E+00	
0	220.95	30	247	1.34	441.65	437	7	2.05E-03	****	5.09E+00	
0	302.95	13	153	1.08	605.78	603	7	9.29E-04	****	4.03E+00	
0	337.90	93	253	0.83	675.72	671	10	6.48E-03	73.0	3.69E+00	T
2	355.93	48	139	1.57	711.82	696	21	3.31E-03	****	3.53E+00	
0	398.64	40	144	2.36	797.30	793	9	2.81E-03	****	3.21E+00	
0	462.90	20	150	1.28	925.91	922	8	1.39E-03	****	2.82E+00	T
0	648.99	34	77	4.03	1298.31	1291	11	2.35E-03	****	2.10E+00	
0	696.40	27	75	1.26	1393.18	1388	8	1.84E-03	****	1.97E+00	
0	708.50	11	86	0.77	1417.39	1414	7	7.83E-04	****	1.94E+00	
0	758.05	42	120	4.75	1516.55	1507	15	2.90E-03	****	1.83E+00	
0	911.52	27	121	1.97	1823.62	1814	13	1.91E-03	****	1.56E+00	T
0	969.67	55	106	1.46	1939.95	1930	13	3.83E-03	81.8	1.48E+00	T
0	1003.06	74	147	3.61	2006.76	1994	32	5.16E-03	****	1.44E+00	
0	1246.31	22	36	1.92	2493.39	2488	10	1.50E-03	****	1.20E+00	
0	1396.65	52	49	11.64	2794.12	2780	28	3.61E-03	81.2	1.10E+00	
4	1501.20	16	4	1.88	3003.22	3000	14	1.14E-03	66.8	1.04E+00	
4	1504.82	20	5	1.59	3010.46	3000	14	1.42E-03	53.4	1.04E+00	
0	1549.43	19	26	3.63	3099.68	3092	15	1.31E-03	****	1.01E+00	
0	1717.17	7	13	3.95	3435.14	3425	13	4.86E-04	****	9.34E-01	
0	1829.84	19	15	7.31	3660.47	3649	20	1.35E-03	****	8.89E-01	
0	1838.93	19	10	0.97	3678.63	3671	14	1.30E-03	86.5	8.85E-01	
0	1849.65	8	9	2.81	3700.07	3693	12	5.76E-04	****	8.81E-01	
0	1941.55	23	0	0.64	3883.83	3877	14	1.60E-03	41.7	8.49E-01	
0	1957.99	17	0	3.34	3916.71	3910	13	1.18E-03	48.5	8.43E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G198324040            *
* Acquisition date :  1-DEC-2007 09:54:32 Detector SN#    :                 *
* Detector ID      : GAM13                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:03.62     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198324040           Analyst initials: MJH1            *
* Batch Number     : 706246               Sample Quantity : 1.1980E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME :  2-JUL-2007 15:48:48 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	2.637E+00	5.425E-01	1.903E-01	5.425E-01
RH-101	1.600E-03	2.466E-02	1.615E-02	2.466E-02
CS-137	1.992E-01	4.514E-02	2.347E-02	4.514E-02
EU-155	1.270E-02	6.062E-02	4.106E-02	6.062E-02
TL-208	8.761E-02	5.377E-02	2.137E-02	5.377E-02
BI-212	1.545E-01	4.532E-01	1.628E-01	4.532E-01
PB-212	2.921E-01	5.809E-02	2.790E-02	5.809E-02
BI-214	2.577E-01	9.323E-02	3.826E-02	9.323E-02
PB-214	2.500E-01	6.611E-02	3.682E-02	6.611E-02
TH-234	2.847E-03	4.882E-01	1.739E-01	4.882E-01
U-235	3.941E-02	1.462E-01	8.467E-02	1.462E-01
NP-237	7.770E-02	1.040E-01	8.371E-02	1.040E-01
AM-243	5.377E-02	1.886E-02	1.375E-02	1.886E-02
CM-243	1.149E-02	5.488E-02	3.745E-02	5.488E-02
CF-249	2.781E-02	3.377E-02	2.400E-02	3.377E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	8.186E-03	2.705E-02	2.323E-02	2.705E-02	NOT IDENT.
SB-125	3.285E-02	6.013E-02	5.220E-02	6.013E-02	NOT IDENT.
PO-209	3.634E+00	5.788E+00	4.981E+00	5.788E+00	NOT IDENT.
BI-211	2.194E-01	7.724E-01	6.540E-01	7.724E-01	NOT IDENT.
RA-223	1.268E-01	1.041E-01	9.597E-02	1.041E-01	NOT IDENT.
AC-228	1.068E-01	2.025E-01	1.144E-01	2.025E-01	FAIL ABUN
PA-233	2.966E-02	3.778E-02	3.399E-02	3.778E-02	NOT IDENT.
PA-234M	4.637E+00	3.921E+00	3.273E+00	3.921E+00	NOT IDENT.
NP-236	-2.846E-02	2.977E-02	2.197E-02	2.977E-02	NOT IDENT.
NP-239	-6.491E-02	1.278E-01	1.035E-01	1.278E-01	NOT IDENT.
AM-241	9.737E-03	3.104E-02	2.437E-02	3.104E-02	NOT IDENT.
AM-246	5.113E-02	9.871E-02	8.662E-02	9.871E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
59.54	295.1415
63.29	308.4801
74.66	367.5983
74.81	367.7856
74.81	367.7856
77.11	370.6521
77.11	370.6521
86.48	441.1503
87.30	381.6013
87.30	381.6013
92.58	355.1124
98.44	305.3790
103.76	282.0131
105.31	275.6367
129.07	311.2163
143.76	262.5671
198.00	280.9758
209.25	224.3979
228.18	244.7955
238.63	246.1073
242.00	247.2353
269.46	195.6479
270.25	194.9539
277.36	193.0704
295.22	205.3722
300.09	187.2376
312.17	165.5767
338.32	194.1101
351.93	178.3567
387.59	198.9116
409.46	160.4880
427.87	131.8699
463.00	164.4991
510.77	152.7653
583.19	128.3440
609.31	113.4434
661.66	125.1438
727.33	99.0671
763.13	126.9948
768.36	105.3045
785.37	91.6201
794.95	97.2822
806.17	102.0158
831.80	91.5524
860.56	92.7712
896.60	85.5010
911.20	91.4038
934.06	70.5496
964.77	82.1991
968.97	77.4961
1001.03	71.5500
1078.86	67.8152
1120.29	87.2329
1155.19	59.5978
1173.23	55.9041
1238.11	62.3267
1280.96	73.7256
1332.51	52.4433
1377.67	47.4265
1401.50	37.6937
1407.98	37.9463
1460.80	35.0056
1509.23	33.7891
1588.20	51.2691
1620.50	32.8089
1729.60	32.6886
1764.49	16.2235

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198324040

Total Uranium Activity	1.8236E-02	ug/g
Total Uranium Counting Unc.	6.7627E-02	ug/g
Total Uranium Tpu	6.7627E-08	ug/g
Total Uranium Mda	3.9178E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:53:59.74

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201469646.CNF;1
Sample date      : 29-NOV-2007 00:00:00 Acquisition date : 1-DEC-2007 09:55:49.
Sample ID        : G1201469646          Sample quantity  : 1.30000E+02 GRAM
Detector name    : GAM21                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:24.47  0.2%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706246               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	58.32	15	131	2.36	115.70	108	10	1.03E-03	147.2	
2	0	92.40*	21	90	1.99	183.76	180	8	1.44E-03	99.5	
3	0	177.24	52	138	0.88	353.23	348	11	3.58E-03	46.2	
4	0	201.47	73	194	0.52	401.62	393	17	5.09E-03	45.2	
5	0	238.40*	31	89	1.31	475.40	472	7	2.13E-03	69.2	
6	0	246.40	22	68	1.18	491.37	485	8	1.54E-03	67.9	
7	0	294.74*	51	105	0.78	587.95	581	16	3.56E-03	51.2	
8	0	314.07	11	78	1.37	626.58	626	8	7.37E-04	146.2	
9	0	351.73*	19	78	1.22	701.83	697	11	1.35E-03	102.7	
10	0	449.63	17	37	0.72	897.46	892	9	1.18E-03	70.6	
11	0	582.76*	14	44	2.72	1163.55	1155	15	9.94E-04	115.9	
12	0	610.87*	14	67	1.80	1219.73	1212	18	9.76E-04	150.6	
13	0	634.06	18	13	0.92	1266.09	1263	6	1.23E-03	42.2	
14	0	692.83	25	35	1.60	1383.58	1375	16	1.72E-03	57.6	
15	0	701.94	9	21	1.29	1401.80	1396	7	6.49E-04	89.4	
16	0	708.93	24	18	0.78	1415.78	1410	10	1.70E-03	37.9	
17	0	745.75*	8	10	1.46	1489.40	1486	7	5.50E-04	104.8	
18	0	787.52	13	34	3.68	1572.93	1563	14	8.69E-04	104.1	
19	0	900.51	27	8	5.47	1798.89	1791	15	1.84E-03	29.7	
20	0	975.15	13	6	0.52	1948.18	1941	12	9.32E-04	45.3	
21	0	1041.52	12	7	0.53	2080.96	2075	10	8.02E-04	53.2	
22	0	1466.15	20	3	1.01	2930.78	2924	12	1.38E-03	28.4	
23	0	1490.53	14	8	0.67	2979.61	2971	16	9.72E-04	52.5	
24	0	1620.28	11	2	1.83	3239.42	3235	9	7.43E-04	39.7	
25	0	1711.28	3	18	3.71	3421.67	3405	18	2.08E-04	336.7	
26	0	1764.70*	2	16	3.51	3528.67	3517	16	1.17E-04	620.7	
27	0	1846.05	7	8	0.42	3691.64	3680	16	4.81E-04	98.9	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201469646      *
* Acquisition date :  1-DEC-2007 09:55:49 Detector SN#    :                 *
* Detector ID      : GAM21                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:24.47     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 29-NOV-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G1201469646          Analyst initials: MJH1            *
* Batch Number     : 706246               Sample Quantity : 1.3000E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  2-JUL-2007 16:42:48 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
PA-233	1.102E-02	3.159E-02	4.619E-02	0.000E+00
AM-241	7.141E-03	2.061E-02	2.755E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
K-40	-8.469E-02		2.483E-01	3.161E-01	0.000E+00	NOT IDENT.
CO-60	1.643E-03		1.917E-02	3.249E-02	0.000E+00	NOT IDENT.
RH-101	1.369E-03		1.354E-02	2.101E-02	0.000E+00	NOT IDENT.
SB-125	-6.798E-03		3.798E-02	6.352E-02	0.000E+00	NOT IDENT.
CS-137	2.678E-03		1.626E-02	2.875E-02	0.000E+00	NOT IDENT.
EU-155	-1.465E-04		2.565E-02	4.404E-02	0.000E+00	NOT IDENT.
TL-208	1.303E-02		2.961E-02	3.353E-02	0.000E+00	FAIL ABUN
PO-209	-1.366E+00		4.176E+00	5.716E+00	0.000E+00	NOT IDENT.
BI-211	2.622E-01		5.310E-01	9.595E-01	0.000E+00	NOT IDENT.
BI-212	-3.728E-02		1.276E-01	2.125E-01	0.000E+00	FAIL ABUN
PB-212	2.170E-02		2.948E-02	4.729E-02	0.000E+00	FAIL ABUN
BI-214	2.466E-02		7.281E-02	6.792E-02	0.000E+00	FAIL ABUN
PB-214	2.334E-02		4.699E-02	6.160E-02	0.000E+00	FAIL ABUN
RA-223	-2.698E-03		7.184E-02	1.250E-01	0.000E+00	NOT IDENT.
AC-228	3.454E-02		6.932E-02	1.252E-01	0.000E+00	NOT IDENT.
PA-234M	2.313E-01		2.328E+00	3.987E+00	0.000E+00	NOT IDENT.
TH-234	6.546E-02		1.278E-01	1.880E-01	0.000E+00	FAIL ABUN
U-235	-2.328E-02		6.441E-02	1.067E-01	0.000E+00	NOT IDENT.
NP-236	-7.578E-03		1.379E-02	2.282E-02	0.000E+00	NOT IDENT.
NP-237	7.593E-03		4.645E-02	7.845E-02	0.000E+00	NOT IDENT.
NP-239	-1.044E-01		8.334E-02	1.347E-01	0.000E+00	NOT IDENT.
AM-243	-6.101E-03		9.069E-03	1.417E-02	0.000E+00	NOT IDENT.
CM-243	-4.918E-03		2.318E-02	3.925E-02	0.000E+00	NOT IDENT.
AM-246	-8.015E-03		6.385E-02	1.052E-01	0.000E+00	NOT IDENT.
CF-249	1.308E-02		1.587E-02	2.913E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:54:00.50

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201469646.CNF;1
Sample date      : 29-NOV-2007 00:00:00 Acquisition date : 1-DEC-2007 09:55:49.
Sample ID        : G1201469646          Sample quantity  : 1.30000E+02 GRAM
Detector name    : GAM21                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:24.47  0.2%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706246               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
PA-233	312.17	11	38.60*	3.603E+00	1.102E-02	1.102E-02	292.46
AM-241	59.54	15	35.90*	8.359E+00	7.141E-03	7.141E-03	294.45

Flag: "*" = Keyline

Sample ID : G1201469646 Acquisition date : 1-DEC-2007 09:55:49

Total number of lines in spectrum	27	
Number of unidentified lines	17	
Number of lines tentatively identified by NID	10	37.04%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
PA-233	6.75E+13S	1.00	1.102E-02	1.102E-02	3.223E-02	292.46	
AM-241	1.36E+10S	1.00	7.141E-03	7.141E-03	21.03E-03	294.45	
		Total Activity :	1.816E-02	1.816E-02			
		Grand Total Activity :	1.816E-02	1.816E-02			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1201469646 Acquisition date : 1-DEC-2007 09:55:49

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	92.40	21	90	1.99	183.76	180	8	1.44E-03	****	8.45E+00	T
0	177.24	52	138	0.88	353.23	348	11	3.58E-03	92.5	6.06E+00	
0	201.47	73	194	0.52	401.62	393	17	5.09E-03	90.3	5.47E+00	
0	238.40	31	89	1.31	475.40	472	7	2.13E-03	****	4.71E+00	T
0	246.40	22	68	1.18	491.37	485	8	1.54E-03	****	4.57E+00	
0	294.74	51	105	0.78	587.95	581	16	3.56E-03	****	3.84E+00	T
0	351.73	19	78	1.22	701.83	697	11	1.35E-03	****	3.21E+00	T
0	449.63	17	37	0.72	897.46	892	9	1.18E-03	****	2.47E+00	
0	582.76	14	44	2.72	1163.55	1155	15	9.94E-04	****	1.88E+00	T
0	610.87	14	67	1.80	1219.73	1212	18	9.76E-04	****	1.79E+00	T
0	634.06	18	13	0.92	1266.09	1263	6	1.23E-03	84.4	1.72E+00	
0	692.83	25	35	1.60	1383.58	1375	16	1.72E-03	****	1.56E+00	
0	701.94	9	21	1.29	1401.80	1396	7	6.49E-04	****	1.54E+00	
0	708.93	24	18	0.78	1415.78	1410	10	1.70E-03	75.7	1.53E+00	
0	745.75	8	10	1.46	1489.40	1486	7	5.50E-04	****	1.45E+00	
0	787.52	13	34	3.68	1572.93	1563	14	8.69E-04	****	1.37E+00	
0	900.51	27	8	5.47	1798.89	1791	15	1.84E-03	59.5	1.20E+00	
0	975.15	13	6	0.52	1948.18	1941	12	9.32E-04	90.6	1.10E+00	
0	1041.52	12	7	0.53	2080.96	2075	10	8.02E-04	****	1.03E+00	
0	1466.15	20	3	1.01	2930.78	2924	12	1.38E-03	56.9	7.41E-01	
0	1490.53	14	8	0.67	2979.61	2971	16	9.72E-04	****	7.29E-01	
0	1620.28	11	2	1.83	3239.42	3235	9	7.43E-04	79.5	6.72E-01	T
0	1711.28	3	18	3.71	3421.67	3405	18	2.08E-04	****	6.37E-01	
0	1764.70	2	16	3.51	3528.67	3517	16	1.17E-04	****	6.18E-01	T
0	1846.05	7	8	0.42	3691.64	3680	16	4.81E-04	****	5.91E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1201469646          *
* Acquisition date :  1-DEC-2007 09:55:49 Detector SN#    :                *
* Detector ID      : GAM21                Sensitivity     : 3.000          *
* Geometry         : CAN                  Energy tolerance: 2.000          *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 04:00:24.47     Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 29-NOV-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G1201469646          Analyst initials: MJH1            *
* Batch Number     : 706246               Sample Quantity : 1.3000E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME :  2-JUL-2007 16:42:48 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
PA-233	1.102E-02	3.159E-02	2.311E-02	3.159E-02
AM-241	7.141E-03	2.061E-02	1.378E-02	2.061E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
K-40	-8.469E-02	2.483E-01	1.581E-01	2.483E-01	NOT IDENT.
CO-60	1.643E-03	1.917E-02	1.626E-02	1.917E-02	NOT IDENT.
RH-101	1.369E-03	1.354E-02	1.051E-02	1.354E-02	NOT IDENT.
SB-125	-6.798E-03	3.798E-02	3.178E-02	3.798E-02	NOT IDENT.
CS-137	2.678E-03	1.626E-02	1.438E-02	1.626E-02	NOT IDENT.
EU-155	-1.465E-04	2.565E-02	2.203E-02	2.565E-02	NOT IDENT.
TL-208	1.303E-02	2.961E-02	1.677E-02	2.961E-02	FAIL ABUN
PO-209	-1.366E+00	4.176E+00	2.860E+00	4.176E+00	NOT IDENT.
BI-211	2.622E-01	5.310E-01	4.800E-01	5.310E-01	NOT IDENT.
BI-212	-3.728E-02	1.276E-01	1.063E-01	1.276E-01	FAIL ABUN
PB-212	2.170E-02	2.948E-02	2.366E-02	2.948E-02	FAIL ABUN
BI-214	2.466E-02	7.281E-02	3.398E-02	7.281E-02	FAIL ABUN
PB-214	2.334E-02	4.699E-02	3.082E-02	4.699E-02	FAIL ABUN
RA-223	-2.698E-03	7.184E-02	6.251E-02	7.184E-02	NOT IDENT.
AC-228	3.454E-02	6.932E-02	6.263E-02	6.932E-02	NOT IDENT.
PA-234M	2.313E-01	2.328E+00	1.995E+00	2.328E+00	NOT IDENT.
TH-234	6.546E-02	1.278E-01	9.404E-02	1.278E-01	FAIL ABUN
U-235	-2.328E-02	6.441E-02	5.338E-02	6.441E-02	NOT IDENT.
NP-236	-7.578E-03	1.379E-02	1.142E-02	1.379E-02	NOT IDENT.
NP-237	7.593E-03	4.645E-02	3.925E-02	4.645E-02	NOT IDENT.
NP-239	-1.044E-01	8.334E-02	6.739E-02	8.334E-02	NOT IDENT.
AM-243	-6.101E-03	9.069E-03	7.087E-03	9.069E-03	NOT IDENT.
CM-243	-4.918E-03	2.318E-02	1.964E-02	2.318E-02	NOT IDENT.
AM-246	-8.015E-03	6.385E-02	5.265E-02	6.385E-02	NOT IDENT.
CF-249	1.308E-02	1.587E-02	1.457E-02	1.587E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
59.54	138.2714
63.29	119.2917
74.66	152.8360
74.81	152.8605
74.81	152.8605
77.11	153.2358
77.11	153.2358
86.48	134.4257
87.30	123.8688
87.30	123.8688
92.58	122.5836
98.44	122.1839
103.76	117.3871
105.31	117.5481
129.07	146.2785
143.76	150.1333
198.00	146.0041
209.25	132.2796
228.18	143.5533
238.63	135.6413
242.00	132.3395
269.46	109.2894
270.25	113.1674
277.36	99.1274
295.22	90.2686
300.09	79.4476
312.17	88.0389
338.32	79.1611
351.93	84.5943
387.59	48.4652
409.46	57.0213
427.87	55.3632
463.00	56.0646
510.77	56.9759
583.19	39.5733
609.31	54.3799
661.66	32.1937
727.33	34.6325
763.13	33.0589
768.36	25.5361
785.37	22.7935
794.95	27.0006
806.17	27.6813
831.80	28.8104
860.56	28.0365
896.60	25.0630
911.20	24.4456
934.06	33.4120
964.77	24.7299
968.97	25.4590
1001.03	26.9110
1078.86	20.2474
1120.29	21.4307
1155.19	18.4900
1173.23	18.5515
1238.11	23.9845
1280.96	26.2665
1332.51	13.7786
1377.67	22.4253
1401.50	9.6482
1407.98	18.2437
1460.80	18.5519
1509.23	12.1499
1588.20	18.9160
1620.50	18.0550
1729.60	10.6164
1764.49	16.9708

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1201469646

Total Uranium Activity	-1.0771E-02	ug/g
Total Uranium Counting Unc.	2.9804E-02	ug/g
Total Uranium Tpu	2.9804E-08	ug/g
Total Uranium Mda	2.4697E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:54:30.95

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201469647.CNF;1
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 1-DEC-2007 09:56:37.
Sample ID        : G1201469647          Sample quantity  : 1.11730E+02 GRAM
Detector name    : GAM23                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:08.21  0.1%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706246               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
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Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.42*	30	218	1.06	92.79	91	6	2.11E-03	87.3	
2	0	63.45*	46	368	0.92	126.86	123	8	3.16E-03	81.2	
3	2	74.69	270	271	0.98	149.34	143	16	1.88E-02	11.7	2.71E+00
4	2	77.00	422	239	0.82	153.95	143	16	2.93E-02	7.4	
5	3	83.91*	53	345	1.11	167.78	163	15	3.66E-03	65.7	1.29E+00
6	3	87.13*	160	353	1.10	174.22	163	15	1.11E-02	22.0	
7	0	92.72*	108	358	1.16	185.39	183	7	7.49E-03	36.8	
8	0	129.00	85	272	0.90	257.96	255	7	5.93E-03	34.0	
9	0	162.83	23	278	0.92	325.63	323	7	1.63E-03	119.2	
10	0	186.00*	149	344	1.15	371.99	368	9	1.03E-02	26.1	
11	0	209.37	101	292	1.05	418.73	415	9	7.01E-03	32.0	
12	4	238.58*	924	190	1.08	477.16	470	17	6.42E-02	4.3	3.86E+00
13	4	241.51	161	259	1.37	483.01	470	17	1.12E-02	19.4	
14	0	261.76	6	213	0.43	523.52	517	8	3.90E-04	456.7	
15	0	270.35	39	209	0.70	540.71	537	8	2.73E-03	65.7	
16	0	277.12	51	195	1.65	554.26	551	8	3.53E-03	49.6	
17	0	295.29*	245	159	1.11	590.60	587	8	1.70E-02	12.4	
18	0	300.11	45	220	1.03	600.25	596	9	3.12E-03	61.3	
19	0	328.15	33	191	0.89	656.35	652	8	2.33E-03	73.4	
20	1	338.36*	183	124	1.37	676.75	673	21	1.27E-02	13.6	1.95E+00
21	1	345.35	46	88	1.38	690.75	673	21	3.18E-03	34.6	
22	0	351.87*	491	149	1.14	703.79	699	10	3.41E-02	6.7	
23	0	397.66	33	105	1.88	795.39	793	8	2.32E-03	55.4	
24	0	408.70	52	126	2.24	817.46	813	10	3.62E-03	42.8	
25	0	446.89	56	155	5.21	893.87	885	15	3.88E-03	50.6	
26	0	463.15	83	249	3.41	926.41	919	21	5.74E-03	48.8	
27	0	511.04*	87	167	1.93	1022.20	1015	15	6.07E-03	44.7	
28	0	541.68	50	97	1.49	1083.51	1077	12	3.44E-03	42.5	
29	0	569.69*	18	144	1.46	1139.55	1133	14	1.28E-03	201.2	
30	0	583.23*	271	92	1.22	1166.64	1162	12	1.88E-02	9.9	
31	0	601.90	12	111	3.11	1203.98	1202	11	8.16E-04	175.5	
32	0	609.35*	330	97	1.41	1218.89	1212	13	2.29E-02	9.0	
33	0	661.65	90	72	1.97	1323.53	1318	10	6.22E-03	20.7	
34	0	727.65	87	61	1.23	1455.57	1452	11	6.04E-03	20.6	
35	0	767.25*	24	61	2.99	1534.81	1529	12	1.67E-03	80.5	
36	0	786.35	6	78	1.44	1573.02	1568	10	4.32E-04	265.2	
37	0	794.72	33	55	1.40	1589.76	1586	9	2.30E-03	43.7	
38	2	838.95	36	66	2.07	1678.26	1671	16	2.51E-03	49.5	2.24E+00

Sample ID : G1201469647 Acquisition date : 1-DEC-2007 09:56:37

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	2	841.75*	23	21	1.39	1683.86	1671	16	1.60E-03	52.3	
40	0	860.41	49	90	3.08	1721.20	1714	16	3.42E-03	45.0	
41	0	911.32*	152	70	1.78	1823.06	1817	13	1.05E-02	14.8	
42	0	918.65	5	32	1.10	1837.73	1831	8	3.58E-04	198.8	
43	0	922.18	30	42	5.74	1844.80	1838	15	2.07E-03	50.5	
44	0	969.84	88	104	1.04	1940.16	1931	19	6.09E-03	30.4	
45	0	1087.21	19	19	1.42	2175.01	2170	11	1.34E-03	49.4	
46	0	1120.34	75	49	1.64	2241.31	2234	16	5.21E-03	23.7	
47	0	1158.82	19	27	0.65	2318.31	2313	10	1.29E-03	60.9	
48	0	1163.28	26	17	3.06	2327.24	2322	11	1.77E-03	36.7	
49	0	1176.70	18	23	0.75	2354.09	2350	8	1.23E-03	53.4	
50	0	1194.29	47	14	4.45	2389.29	2382	15	3.25E-03	23.2	
51	0	1238.35	42	43	1.03	2477.46	2471	17	2.88E-03	39.2	
52	0	1460.79*	357	37	2.16	2922.63	2915	16	2.48E-02	6.8	
53	0	1532.13	7	21	4.85	3065.40	3051	16	4.56E-04	169.5	
54	0	1551.59	6	15	0.51	3104.34	3098	11	4.46E-04	119.3	
55	0	1589.84	42	22	1.12	3180.90	3171	21	2.95E-03	31.1	
56	0	1657.77	6	11	1.41	3316.86	3311	9	3.84E-04	117.6	
57	0	1724.22	15	7	2.57	3449.86	3443	13	1.01E-03	44.8	
58	0	1729.54	21	6	3.06	3460.50	3455	11	1.49E-03	30.2	
59	0	1747.45*	1	3	1.53	3496.35	3488	11	1.01E-04	386.3	
60	0	1764.51*	47	6	2.02	3530.51	3524	12	3.25E-03	21.7	
61	0	1782.58	11	5	2.41	3566.66	3562	9	7.40E-04	52.4	
62	0	1956.09	6	10	0.69	3913.98	3907	11	4.25E-04	111.0	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201469647      *
* Acquisition date :  1-DEC-2007 09:56:37 Detector SN#    :                 *
* Detector ID      : GAM23                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:08.21     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G1201469647          Analyst initials: MJH1            *
* Batch Number     : 706246               Sample Quantity : 1.1173E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 18-MAY-2007 16:30:26 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	5.423E+00	8.129E-01	3.476E-01	0.000E+00
CS-137	8.443E-02	3.457E-02	3.888E-02	0.000E+00
TL-208	2.301E-01	4.628E-02	3.915E-02	0.000E+00
BI-212	6.406E-01	2.620E-01	3.545E-01	0.000E+00
PB-212	7.518E-01	7.579E-02	5.640E-02	0.000E+00
BI-214	5.330E-01	9.855E-02	8.151E-02	0.000E+00
PB-214	6.213E-01	8.799E-02	6.789E-02	0.000E+00
RA-223	1.111E-01	1.433E-01	1.858E-01	0.000E+00
AC-228	6.252E-01	1.881E-01	1.418E-01	0.000E+00
TH-234	5.819E-01	4.213E-01	4.339E-01	0.000E+00
NP-237	4.042E-01	1.765E-01	2.072E-01	0.000E+00
AM-243	1.609E-01	3.866E-02	4.389E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	1.607E-02		2.639E-02	4.186E-02	0.000E+00	NOT IDENT.
RH-101	2.357E-03		2.079E-02	3.288E-02	0.000E+00	NOT IDENT.
SB-125	1.401E-03		6.093E-02	1.027E-01	0.000E+00	NOT IDENT.
EU-155	8.469E-03		5.324E-02	9.421E-02	0.000E+00	NOT IDENT.
PO-209	7.319E-01		4.842E+00	8.117E+00	0.000E+00	NOT IDENT.
BI-211	2.764E-01		8.485E-01	1.267E+00	0.000E+00	NOT IDENT.
PA-233	-1.878E-02		3.994E-02	6.747E-02	0.000E+00	NOT IDENT.
PA-234M	2.550E+00		2.885E+00	5.109E+00	0.000E+00	NOT IDENT.
U-235	7.171E-02		1.150E-01	1.890E-01	0.000E+00	NOT IDENT.
NP-236	3.251E-04		3.310E-02	5.420E-02	0.000E+00	NOT IDENT.
NP-239	-1.289E-02		1.326E-01	2.184E-01	0.000E+00	NOT IDENT.
AM-241	-4.499E-02		1.046E-01	1.547E-01	0.000E+00	NOT IDENT.
CM-243	-1.170E-02		4.797E-02	8.356E-02	0.000E+00	NOT IDENT.
AM-246	1.896E-02		8.497E-02	1.444E-01	0.000E+00	NOT IDENT.
CF-249	1.366E-02		2.632E-02	4.593E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:54:31.72

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201469647.CNF;1
Sample date      : 5-OCT-2007 00:00:00. Acquisition date : 1-DEC-2007 09:56:37.
Sample ID        : G1201469647          Sample quantity  : 1.11730E+02 GRAM
Detector name    : GAM23                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:08.21  0.1%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706246               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	357	10.66*	1.037E+00	5.423E+00	5.423E+00	15.29
CS-137	661.66	90	85.10*	2.102E+00	8.412E-02	8.443E-02	41.79
TL-208	277.36	51	6.31	4.256E+00	3.176E-01	3.176E-01	99.37
	510.77	87	22.60	2.613E+00	2.487E-01	2.487E-01	89.50
	583.19	271	84.50*	2.341E+00	2.301E-01	2.301E-01	20.53
	763.13	------	1.81	1.854E+00	------	Line Not Found	------
	860.56	49	12.42	1.664E+00	4.003E-01	4.003E-01	90.31
BI-212	727.33	87	11.80*	1.934E+00	6.406E-01	6.406E-01	41.74
	785.37	6	1.10	1.805E+00	5.257E-01	5.257E-01	530.35
	1620.50	------	1.49	9.597E-01	------	Line Not Found	------
PB-212	74.81	270	10.40	4.134E+00	1.055E+00	1.055E+00	24.52
	77.11	422	17.50	4.400E+00	9.217E-01	9.217E-01	16.40
	87.30	160	7.81	5.365E+00	6.418E-01	6.418E-01	44.57
	238.63	924	43.30*	4.768E+00	7.518E-01	7.518E-01	10.29
	300.09	45	3.28	4.001E+00	5.759E-01	5.759E-01	122.80
BI-214	609.31	330	46.10*	2.256E+00	5.329E-01	5.330E-01	18.87
	768.36	24	4.94	1.845E+00	4.427E-01	4.428E-01	161.09
	806.17	------	1.22	1.765E+00	------	Line Not Found	------
	934.06	------	3.03	1.544E+00	------	Line Not Found	------
	1120.29	75	15.10	1.306E+00	6.392E-01	6.392E-01	47.80
	1155.19	------	1.63	1.270E+00	------	Line Not Found	------
	1238.11	42	5.79	1.193E+00	1.009E+00	1.009E+00	78.65
	1280.96	------	1.43	1.158E+00	------	Line Not Found	------
	1377.67	------	4.00	1.088E+00	------	Line Not Found	------
	1401.50	------	1.27	1.073E+00	------	Line Not Found	------
	1407.98	------	2.15	1.069E+00	------	Line Not Found	------
	1509.23	------	2.11	1.011E+00	------	Line Not Found	------
	1729.60	21	2.92	9.196E-01	1.344E+00	1.344E+00	60.76
	1764.49	47	15.40	9.087E-01	5.623E-01	5.624E-01	43.86
PB-214	74.81	270	6.44	4.134E+00	1.704E+00	1.704E+00	24.52
	77.11	422	10.80	4.400E+00	1.493E+00	1.494E+00	16.40
	87.30	160	4.84	5.365E+00	1.036E+00	1.036E+00	44.57

Sample ID : G1201469647 Acquisition date : 1-DEC-2007 09:56:37

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	242.00	161	7.43	4.725E+00	7.690E-01	7.691E-01	39.25
	295.22	245	19.30	4.052E+00	5.269E-01	5.270E-01	25.54
	351.93	491	37.60*	3.530E+00	6.213E-01	6.213E-01	14.45
RA-223	269.46	39	13.70*	4.338E+00	1.111E-01	1.111E-01	131.63
AC-228	129.07	85	2.42	6.530E+00	9.074E-01	9.074E-01	68.30
	209.25	101	3.89	5.235E+00	8.332E-01	8.332E-01	64.27
	270.25	39	3.46	4.338E+00	4.400E-01	4.400E-01	131.63
	338.32	183	11.27	3.641E+00	7.502E-01	7.502E-01	27.67
	409.46	52	1.92	3.133E+00	1.455E+00	1.455E+00	85.72
	463.00	83	4.40	2.832E+00	1.115E+00	1.115E+00	97.73
	794.95	33	4.25	1.788E+00	7.325E-01	7.325E-01	87.65
	911.20	152	25.80*	1.579E+00	6.252E-01	6.252E-01	30.70
	964.77	------	4.99	1.498E+00	------ Line Not Found		------
	968.97	88	15.80	1.491E+00	6.255E-01	6.255E-01	61.27
	1588.20	42	3.22	9.727E-01	2.279E+00	2.279E+00	62.52
TH-234	63.29	46	4.80	2.650E+00	6.017E-01	6.017E-01	162.66
	92.58	108	5.41*	5.752E+00	5.819E-01	5.819E-01	73.87
NP-237	86.48	160	12.40*	5.365E+00	4.042E-01	4.042E-01	44.57
AM-243	74.66	270	68.20*	4.134E+00	1.609E-01	1.609E-01	24.52

Flag: "*" = Keyline

Sample ID : G1201469647 Acquisition date : 1-DEC-2007 09:56:37

Total number of lines in spectrum	62	
Number of unidentified lines	28	
Number of lines tentatively identified by NID	34	54.84%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	5.423E+00	5.423E+00	0.829E+00	15.29	
CS-137	9.47E+08S	1.00	8.412E-02	8.443E-02	3.528E-02	41.79	
TL-208	4.43E+17S	1.00	2.301E-01	2.301E-01	0.472E-01	20.53	
BI-212	4.43E+17S	1.00	6.406E-01	6.406E-01	2.674E-01	41.74	
PB-212	4.43E+17S	1.00	7.518E-01	7.518E-01	0.773E-01	10.29	
BI-214	5.05E+10S	1.00	5.329E-01	5.330E-01	1.006E-01	18.87	
PB-214	5.05E+10S	1.00	6.213E-01	6.213E-01	0.898E-01	14.45	
RA-223	1.04E+12S	1.00	1.111E-01	1.111E-01	1.463E-01	131.63	
AC-228	4.43E+17S	1.00	6.252E-01	6.252E-01	1.919E-01	30.70	
TH-234	1.41E+17S	1.00	5.819E-01	5.819E-01	4.299E-01	73.87	
NP-237	6.75E+13S	1.00	4.042E-01	4.042E-01	1.801E-01	44.57	
AM-243	2.33E+11S	1.00	1.609E-01	1.609E-01	0.395E-01	24.52	
			---	---			
		Total Activity :	1.017E+01	1.017E+01			
		Grand Total Activity :	1.017E+01	1.017E+01			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1201469647 Acquisition date : 1-DEC-2007 09:56:37

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.42	30	218	1.06	92.79	91	6	2.11E-03	****	5.75E-01	
3	83.91	53	345	1.11	167.78	163	15	3.66E-03	****	5.10E+00	
0	162.83	23	278	0.92	325.63	323	7	1.63E-03	****	6.08E+00	
0	186.00	149	344	1.15	371.99	368	9	1.03E-02	52.3	5.65E+00	
0	261.76	6	213	0.43	523.52	517	8	3.90E-04	****	4.45E+00	
0	328.15	33	191	0.89	656.35	652	8	2.33E-03	****	3.73E+00	
1	345.35	46	88	1.38	690.75	673	21	3.18E-03	69.2	3.58E+00	
0	397.66	33	105	1.88	795.39	793	8	2.32E-03	****	3.20E+00	
0	446.89	56	155	5.21	893.87	885	15	3.88E-03	****	2.92E+00	
0	541.68	50	97	1.49	1083.51	1077	12	3.44E-03	85.1	2.49E+00	
0	569.69	18	144	1.46	1139.55	1133	14	1.28E-03	****	2.39E+00	
0	601.90	12	111	3.11	1203.98	1202	11	8.16E-04	****	2.28E+00	
2	838.95	36	66	2.07	1678.26	1671	16	2.51E-03	99.0	1.70E+00	
2	841.75	23	21	1.39	1683.86	1671	16	1.60E-03	****	1.70E+00	
0	918.65	5	32	1.10	1837.73	1831	8	3.58E-04	****	1.57E+00	
0	922.18	30	42	5.74	1844.80	1838	15	2.07E-03	****	1.56E+00	
0	1087.21	19	19	1.42	2175.01	2170	11	1.34E-03	98.8	1.34E+00	
0	1158.82	19	27	0.65	2318.31	2313	10	1.29E-03	****	1.27E+00	
0	1163.28	26	17	3.06	2327.24	2322	11	1.77E-03	73.3	1.26E+00	
0	1176.70	18	23	0.75	2354.09	2350	8	1.23E-03	****	1.25E+00	
0	1194.29	47	14	4.45	2389.29	2382	15	3.25E-03	46.3	1.23E+00	
0	1532.13	7	21	4.85	3065.40	3051	16	4.56E-04	****	1.00E+00	
0	1551.59	6	15	0.51	3104.34	3098	11	4.46E-04	****	9.90E-01	
0	1657.77	6	11	1.41	3316.86	3311	9	3.84E-04	****	9.45E-01	
0	1724.22	15	7	2.57	3449.86	3443	13	1.01E-03	89.5	9.21E-01	
0	1747.45	1	3	1.53	3496.35	3488	11	1.01E-04	****	9.14E-01	
0	1782.58	11	5	2.41	3566.66	3562	9	7.40E-04	****	9.03E-01	
0	1956.09	6	10	0.69	3913.98	3907	11	4.25E-04	****	8.64E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1201469647           *
* Acquisition date :  1-DEC-2007 09:56:37 Detector SN#    :                 *
* Detector ID      : GAM23                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:08.21     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G1201469647          Analyst initials: MJH1            *
* Batch Number     : 706246               Sample Quantity : 1.1173E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 18-MAY-2007 16:30:26 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	5.423E+00	8.129E-01	1.739E-01	8.129E-01
CS-137	8.443E-02	3.457E-02	1.945E-02	3.457E-02
TL-208	2.301E-01	4.628E-02	1.959E-02	4.628E-02
BI-212	6.406E-01	2.620E-01	1.773E-01	2.620E-01
PB-212	7.518E-01	7.579E-02	2.821E-02	7.579E-02
BI-214	5.330E-01	9.855E-02	4.078E-02	9.855E-02
PB-214	6.213E-01	8.799E-02	3.396E-02	8.799E-02
RA-223	1.111E-01	1.433E-01	9.296E-02	1.433E-01
AC-228	6.252E-01	1.881E-01	7.093E-02	1.881E-01
TH-234	5.819E-01	4.213E-01	2.171E-01	4.213E-01
NP-237	4.042E-01	1.765E-01	1.037E-01	1.765E-01
AM-243	1.609E-01	3.866E-02	2.196E-02	3.866E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	1.607E-02	2.639E-02	2.094E-02	2.639E-02	NOT IDENT.
RH-101	2.357E-03	2.079E-02	1.645E-02	2.079E-02	NOT IDENT.
SB-125	1.401E-03	6.093E-02	5.136E-02	6.093E-02	NOT IDENT.
EU-155	8.469E-03	5.324E-02	4.713E-02	5.324E-02	NOT IDENT.
PO-209	7.319E-01	4.842E+00	4.061E+00	4.842E+00	NOT IDENT.
BI-211	2.764E-01	8.485E-01	6.340E-01	8.485E-01	NOT IDENT.
PA-233	-1.878E-02	3.994E-02	3.376E-02	3.994E-02	NOT IDENT.
PA-234M	2.550E+00	2.885E+00	2.556E+00	2.885E+00	NOT IDENT.
U-235	7.171E-02	1.150E-01	9.457E-02	1.150E-01	NOT IDENT.
NP-236	3.251E-04	3.310E-02	2.712E-02	3.310E-02	NOT IDENT.
NP-239	-1.289E-02	1.326E-01	1.092E-01	1.326E-01	NOT IDENT.
AM-241	-4.499E-02	1.046E-01	7.740E-02	1.046E-01	NOT IDENT.
CM-243	-1.170E-02	4.797E-02	4.181E-02	4.797E-02	NOT IDENT.
AM-246	1.896E-02	8.497E-02	7.223E-02	8.497E-02	NOT IDENT.
CF-249	1.366E-02	2.632E-02	2.298E-02	2.632E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
59.54	234.6851
63.29	212.2860
74.66	241.2271
74.81	241.3425
74.81	241.3425
77.11	243.0976
77.11	243.0976
86.48	294.7961
87.30	295.4854
87.30	295.4854
92.58	287.9261
98.44	232.7412
103.76	237.6667
105.31	234.1801
129.07	242.5575
143.76	234.5549
198.00	218.4207
209.25	231.6839
228.18	219.2383
238.63	217.8403
242.00	229.3939
269.46	197.4265
270.25	176.8098
277.36	192.2549
295.22	165.4671
300.09	164.9082
312.17	181.5552
338.32	148.1891
351.93	131.2510
387.59	141.4113
409.46	117.6358
427.87	127.0824
463.00	112.9684
510.77	101.8964
583.19	97.8192
609.31	117.2702
661.66	78.4627
727.33	107.2339
763.13	71.1225
768.36	84.5684
785.37	61.8564
794.95	86.6572
806.17	72.9316
831.80	75.1595
860.56	63.3262
896.60	57.9904
911.20	54.8113
934.06	52.4752
964.77	65.0552
968.97	64.0775
1001.03	45.0880
1078.86	44.2502
1120.29	41.1611
1155.19	48.1607
1173.23	31.7457
1238.11	41.8086
1280.96	31.2762
1332.51	35.8673
1377.67	28.0382
1401.50	24.0482
1407.98	25.1406
1460.80	24.4497
1509.23	28.0027
1588.20	20.7317
1620.50	14.2508
1729.60	18.7780
1764.49	42.2891

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1201469647

Total Uranium Activity	3.3180E-02	ug/g
Total Uranium Counting Unc.	5.3193E-02	ug/g
Total Uranium Tpu	5.3193E-08	ug/g
Total Uranium Mda	4.3756E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:55:01.98

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201469648.CNF;1
Sample date      : 29-NOV-2007 00:00:00 Acquisition date : 1-DEC-2007 09:57:32.
Sample ID        : G1201469648          Sample quantity  : 1.55440E+02 GRAM
Detector name    : GAM02                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00        Elapsed real time: 0 01:00:02.64  0.1%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706246               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	3	59.46	2036	480	0.91	118.46	114	16	5.66E-01	2.7	9.64E-01
2	3	63.29*	7	368	0.91	126.11	114	16	1.82E-03	479.3	
3	0	76.94	167	551	1.07	153.40	151	6	4.64E-02	23.6	
4	0	87.94	4017	880	1.03	175.38	171	10	1.12E+00	2.1	
5	0	92.83*	3	492	1.46	185.15	181	8	8.96E-04	*****	
6	0	121.95	1737	523	1.06	243.33	238	10	4.82E-01	3.4	
7	0	129.38	25	343	0.53	258.18	254	8	6.94E-03	130.2	
8	0	136.51	190	397	1.22	272.43	267	9	5.29E-02	20.3	
9	0	165.83	843	407	1.14	331.02	325	12	2.34E-01	5.9	
10	0	185.53*	79	369	1.07	370.37	364	11	2.19E-02	50.0	
11	0	208.54	20	269	0.93	416.36	414	7	5.63E-03	135.5	
12	8	236.35	47	112	0.98	471.92	470	18	1.31E-02	34.5	3.07E+00
13	8	238.50*	420	200	1.21	476.23	470	18	1.17E-01	7.5	
14	8	241.30	169	350	2.31	481.83	470	18	4.70E-02	25.6	
15	0	254.54	63	214	1.03	508.27	504	8	1.75E-02	42.3	
16	0	266.17	30	172	0.59	531.50	530	6	8.25E-03	72.6	
17	0	269.76	64	199	2.07	538.69	535	8	1.78E-02	40.2	
18	0	278.45	71	233	1.27	556.06	552	9	1.96E-02	40.9	
19	0	295.33	117	204	0.94	589.79	585	9	3.24E-02	24.0	
20	0	328.12	34	165	1.28	655.31	652	7	9.44E-03	65.1	
21	0	337.82*	69	244	1.23	674.69	671	10	1.91E-02	44.3	
22	1	346.85	43	194	1.44	692.74	686	31	1.18E-02	59.4	1.42E+00
23	1	351.95*	201	185	1.44	702.93	686	31	5.59E-02	14.4	
24	0	371.41	90	230	3.86	741.82	734	15	2.51E-02	38.2	
25	0	391.62	416	283	1.29	782.19	775	14	1.16E-01	9.9	
26	0	457.47	50	173	3.35	913.80	909	9	1.38E-02	49.9	
27	0	487.28	60	203	5.49	973.37	966	16	1.66E-02	55.5	
28	0	511.10*	105	199	2.84	1020.96	1014	16	2.92E-02	33.1	
29	0	583.05*	158	143	1.43	1164.75	1159	14	4.40E-02	17.9	
30	0	609.13*	202	117	1.80	1216.87	1211	12	5.62E-02	12.9	
31	0	613.81	21	66	1.50	1226.21	1223	8	5.78E-03	71.7	
32	0	661.53	2102	219	1.56	1321.58	1314	17	5.84E-01	2.7	
33	0	678.91	27	118	1.39	1356.31	1352	11	7.52E-03	80.1	
34	0	712.53	49	154	6.19	1423.51	1413	20	1.35E-02	65.1	
35	0	728.32	71	162	1.45	1455.05	1447	16	1.98E-02	41.7	
36	0	873.87	19	113	1.16	1745.95	1741	10	5.36E-03	105.3	
37	0	897.92	396	230	1.69	1794.00	1788	15	1.10E-01	9.7	
38	0	911.13	88	144	0.72	1820.41	1816	10	2.45E-02	27.5	

Sample ID : G1201469648 Acquisition date : 1-DEC-2007 09:57:32

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	943.79	41	52	1.55	1885.68	1883	6	1.14E-02	31.7	
40	0	969.05	40	202	1.92	1936.18	1928	13	1.10E-02	75.8	
41	0	1120.11*	21	75	0.92	2238.08	2234	9	5.93E-03	77.1	
42	0	1146.37	76	99	10.74	2290.57	2277	25	2.12E-02	37.0	
43	0	1173.16	2203	70	1.80	2344.11	2335	19	6.12E-01	2.3	
44	0	1332.36	1983	30	2.04	2662.31	2653	20	5.51E-01	2.3	
45	0	1406.44	15	7	1.53	2810.38	2806	9	4.14E-03	43.6	
46	0	1461.82*	27	8	0.65	2921.07	2912	17	7.60E-03	32.1	
47	0	1627.38	6	9	1.37	3252.00	3246	9	1.67E-03	99.0	
48	0	1677.91	7	18	6.77	3353.02	3339	16	1.86E-03	153.4	
49	0	1756.73	9	3	0.70	3510.58	3504	11	2.57E-03	47.8	
50	0	1764.85	25	5	2.22	3526.80	3521	11	6.88E-03	27.1	
51	0	1791.56	6	3	1.02	3580.20	3572	12	1.77E-03	66.4	
52	0	1835.96	236	10	2.30	3668.96	3659	20	6.56E-02	7.3	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201469648      *
* Acquisition date :  1-DEC-2007 09:57:32 Detector SN#    :                 *
* Detector ID      : GAM02                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 01:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 01:00:02.64     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 29-NOV-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G1201469648          Analyst initials: MJH1            *
* Batch Number     : 706246               Sample Quantity : 1.5544E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 22-OCT-2007 15:13:16 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	1.165E+00	7.368E-01	7.906E-01	0.000E+00
CO-60	8.258E+00	5.808E-01	1.381E-01	0.000E+00
CS-137	5.469E+00	4.399E-01	1.432E-01	0.000E+00
TL-208	3.727E-01	1.322E-01	1.182E-01	0.000E+00
PO-209	2.455E+02	5.051E+01	3.689E+01	0.000E+00
BI-212	1.458E+00	1.197E+00	1.060E+00	0.000E+00
PB-212	9.628E-01	1.538E-01	1.693E-01	0.000E+00
PB-214	7.119E-01	2.056E-01	2.338E-01	0.000E+00
RA-223	5.076E-01	4.016E-01	5.702E-01	0.000E+00
AC-228	1.010E+00	5.502E-01	6.666E-01	0.000E+00
TH-234	4.970E-02	1.216E+00	1.455E+00	0.000E+00
NP-237	2.869E+01	2.710E+00	9.804E-01	0.000E+00
AM-241	1.330E+01	1.411E+00	7.684E-01	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
RH-101	3.692E-02	5.367E-02	9.594E-02	0.000E+00	NOT IDENT.
SB-125	8.799E-03	1.814E-01	3.150E-01	0.000E+00	NOT IDENT.
EU-155	-4.323E-02	1.845E-01	3.342E-01	0.000E+00	NOT IDENT.
BI-211	2.011E+00	2.514E+00	4.499E+00	0.000E+00	NOT IDENT.
BI-214	0.000E+00	2.347E-01	3.692E-01	0.000E+00	FAIL ABUN
PA-233	-9.859E-02	1.218E-01	2.087E-01	0.000E+00	NOT IDENT.
PA-234M	5.681E+00	1.258E+01	2.177E+01	0.000E+00	NOT IDENT.
U-235	9.325E-02	3.191E-01	5.779E-01	0.000E+00	NOT IDENT.
NP-236	-1.919E-03	1.007E-01	1.844E-01	0.000E+00	NOT IDENT.
NP-239	5.205E-02	4.321E-01	7.389E-01	0.000E+00	NOT IDENT.
AM-243	1.269E-01	1.176E-01	2.053E-01	0.000E+00	NOT IDENT.
CM-243	-9.551E-02	1.729E-01	3.097E-01	0.000E+00	NOT IDENT.
AM-246	-5.254E-02	3.636E-01	6.244E-01	0.000E+00	NOT IDENT.
CF-249	3.043E-02	9.283E-02	1.456E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 14:55:02.76

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201469648.CNF;1
Sample date      : 29-NOV-2007 00:00:00 Acquisition date : 1-DEC-2007 09:57:32.
Sample ID        : G1201469648          Sample quantity  : 1.55440E+02 GRAM
Detector name    : GAM02                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00        Elapsed real time: 0 01:00:02.64  0.1%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 706246               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	27	10.66*	1.064E+00	1.165E+00	1.165E+00	64.53
CO-60	1173.23	2203	100.00*	1.290E+00	8.251E+00	8.258E+00	7.18
	1332.51	1983	100.00	1.150E+00	8.327E+00	8.334E+00	8.10
CS-137	661.66	2102	85.10*	2.182E+00	5.468E+00	5.469E+00	8.21
TL-208	277.36	71	6.31	4.341E+00	1.243E+00	1.243E+00	82.03
	510.77	105	22.60	2.709E+00	8.305E-01	8.305E-01	66.50
	583.19	158	84.50*	2.430E+00	3.727E-01	3.727E-01	36.21
	763.13	------	1.81	1.923E+00	------	Line Not Found	------
	860.56	------	12.42	1.723E+00	------	Line Not Found	------
PO-209	896.60	396	0.47*	1.656E+00	2.455E+02	2.455E+02	20.99
BI-212	727.33	71	11.80*	2.005E+00	1.458E+00	1.458E+00	83.76
	785.37	------	1.10	1.873E+00	------	Line Not Found	------
	1620.50	------	1.49	9.857E-01	------	Line Not Found	------
PB-212	74.81	------	10.40	4.147E+00	------	Line Not Found	------
	77.11	167	17.50	4.398E+00	1.048E+00	1.048E+00	47.86
	87.30	4017	7.81	5.454E+00	4.555E+01	4.555E+01	9.64
	238.63	420	43.30*	4.864E+00	9.628E-01	9.628E-01	16.30
	300.09	------	3.28	4.104E+00	------	Line Not Found	------
PB-214	74.81	------	6.44	4.147E+00	------	Line Not Found	------
	77.11	167	10.80	4.398E+00	1.698E+00	1.698E+00	47.86
	87.30	4017	4.84	5.454E+00	7.349E+01	7.349E+01	9.64
	242.00	169	7.43	4.823E+00	2.281E+00	2.281E+00	51.53
	295.22	117	19.30	4.153E+00	7.028E-01	7.028E-01	48.56
	351.93	201	37.60*	3.633E+00	7.119E-01	7.119E-01	29.46
RA-223	269.46	64	13.70*	4.445E+00	5.076E-01	5.076E-01	80.75
AC-228	129.07	25	2.42	6.595E+00	7.556E-01	7.556E-01	260.38
	209.25	20	3.89	5.338E+00	4.714E-01	4.714E-01	271.08
	270.25	64	3.46	4.445E+00	2.010E+00	2.010E+00	80.75
	338.32	69	11.27	3.750E+00	7.852E-01	7.852E-01	88.80
	409.46	------	1.92	3.231E+00	------	Line Not Found	------
	463.00	------	4.40	2.933E+00	------	Line Not Found	------
	794.95	------	4.25	1.853E+00	------	Line Not Found	------

Sample ID : G1201469648 Acquisition date : 1-DEC-2007 09:57:32

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	911.20	88	25.80*	1.634E+00	1.010E+00	1.010E+00	55.59
	964.77	------	4.99	1.548E+00	------	Line Not Found	------
	968.97	40	15.80	1.542E+00	7.831E-01	7.831E-01	151.73
	1588.20	------	3.22	9.997E-01	------	Line Not Found	------
TH-234	63.29	7	4.80	2.600E+00	2.543E-01	2.543E-01	958.61
	92.58	3	5.41*	5.795E+00	4.970E-02	4.970E-02	2497.17
NP-237	86.48	4017	12.40*	5.454E+00	2.869E+01	2.869E+01	9.64
AM-241	59.54	2036	35.90*	2.059E+00	1.330E+01	1.330E+01	10.82

Flag: "*" = Keyline

Sample ID : G1201469648 Acquisition date : 1-DEC-2007 09:57:32

Total number of lines in spectrum	52	
Number of unidentified lines	24	
Number of lines tentatively identified by NID	28	53.85%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	1.165E+00	1.165E+00	0.752E+00	64.53	
CO-60	1.66E+08S	1.00	8.251E+00	8.258E+00	0.593E+00	7.18	
CS-137	9.47E+08S	1.00	5.468E+00	5.469E+00	0.449E+00	8.21	
TL-208	4.43E+17S	1.00	3.727E-01	3.727E-01	1.349E-01	36.21	
PO-209	3.22E+09S	1.00	2.455E+02	2.455E+02	0.515E+02	20.99	
BI-212	4.43E+17S	1.00	1.458E+00	1.458E+00	1.221E+00	83.76	
PB-212	4.43E+17S	1.00	9.628E-01	9.628E-01	1.570E-01	16.30	
PB-214	5.05E+10S	1.00	7.119E-01	7.119E-01	2.097E-01	29.46	
RA-223	1.04E+12S	1.00	5.076E-01	5.076E-01	4.098E-01	80.75	
AC-228	4.43E+17S	1.00	1.010E+00	1.010E+00	0.561E+00	55.59	
TH-234	1.41E+17S	1.00	4.970E-02	4.970E-02	124.1E-02	2497.17	
NP-237	6.75E+13S	1.00	2.869E+01	2.869E+01	0.277E+01	9.64	
AM-241	1.36E+10S	1.00	1.330E+01	1.330E+01	0.144E+01	10.82	
			---	---			
		Total Activity :	3.075E+02	3.075E+02			
		Grand Total Activity :	3.075E+02	3.075E+02			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1201469648 Acquisition date : 1-DEC-2007 09:57:32

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	121.95	1737	523	1.06	243.33	238	10	4.82E-01	6.9	6.60E+00	
0	136.51	190	397	1.22	272.43	267	9	5.29E-02	40.6	6.54E+00	
0	165.83	843	407	1.14	331.02	325	12	2.34E-01	11.8	6.11E+00	
0	185.53	79	369	1.07	370.37	364	11	2.19E-02	99.9	5.75E+00	
8	236.35	47	112	0.98	471.92	470	18	1.31E-02	69.0	4.90E+00	
0	254.54	63	214	1.03	508.27	504	8	1.75E-02	84.5	4.64E+00	
0	266.17	30	172	0.59	531.50	530	6	8.25E-03	****	4.49E+00	
0	328.12	34	165	1.28	655.31	652	7	9.44E-03	****	3.83E+00	
1	346.85	43	194	1.44	692.74	686	31	1.18E-02	****	3.67E+00	
0	371.41	90	230	3.86	741.82	734	15	2.51E-02	76.4	3.49E+00	
0	391.62	416	283	1.29	782.19	775	14	1.16E-01	19.8	3.35E+00	
0	457.47	50	173	3.35	913.80	909	9	1.38E-02	99.8	2.96E+00	
0	487.28	60	203	5.49	973.37	966	16	1.66E-02	****	2.82E+00	
0	609.13	202	117	1.80	1216.87	1211	12	5.62E-02	25.8	2.34E+00	T
0	613.81	21	66	1.50	1226.21	1223	8	5.78E-03	****	2.33E+00	
0	678.91	27	118	1.39	1356.31	1352	11	7.52E-03	****	2.13E+00	
0	712.53	49	154	6.19	1423.51	1413	20	1.35E-02	****	2.04E+00	
0	873.87	19	113	1.16	1745.95	1741	10	5.36E-03	****	1.70E+00	
0	943.79	41	52	1.55	1885.68	1883	6	1.14E-02	63.4	1.58E+00	
0	1120.11	21	75	0.92	2238.08	2234	9	5.93E-03	****	1.35E+00	T
0	1146.37	76	99	10.74	2290.57	2277	25	2.12E-02	74.0	1.32E+00	
0	1406.44	15	7	1.53	2810.38	2806	9	4.14E-03	87.2	1.10E+00	T
0	1627.38	6	9	1.37	3252.00	3246	9	1.67E-03	****	9.83E-01	
0	1677.91	7	18	6.77	3353.02	3339	16	1.86E-03	****	9.63E-01	
0	1756.73	9	3	0.70	3510.58	3504	11	2.57E-03	95.6	9.37E-01	
0	1764.85	25	5	2.22	3526.80	3521	11	6.88E-03	54.2	9.35E-01	T
0	1791.56	6	3	1.02	3580.20	3572	12	1.77E-03	****	9.27E-01	
0	1835.96	236	10	2.30	3668.96	3659	20	6.56E-02	14.6	9.16E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1201469648          *
* Acquisition date :  1-DEC-2007 09:57:32 Detector SN#    :                *
* Detector ID      : GAM02                Sensitivity     : 3.000          *
* Geometry         : CAN                  Energy tolerance: 2.000          *
* Elapsed live time:    0 01:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 01:00:02.64     Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 29-NOV-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G1201469648          Analyst initials: MJH1            *
* Batch Number     : 706246               Sample Quantity : 1.5544E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 22-OCT-2007 15:13:16 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	1.165E+00	7.368E-01	3.955E-01	7.368E-01
CO-60	8.258E+00	5.808E-01	6.909E-02	5.808E-01
CS-137	5.469E+00	4.399E-01	7.164E-02	4.399E-01
TL-208	3.727E-01	1.322E-01	5.915E-02	1.322E-01
PO-209	2.455E+02	5.051E+01	1.845E+01	5.051E+01
BI-212	1.458E+00	1.197E+00	5.303E-01	1.197E+00
PB-212	9.628E-01	1.538E-01	8.470E-02	1.538E-01
PB-214	7.119E-01	2.056E-01	1.170E-01	2.056E-01
RA-223	5.076E-01	4.016E-01	2.852E-01	4.016E-01
AC-228	1.010E+00	5.502E-01	3.335E-01	5.502E-01
TH-234	4.970E-02	1.216E+00	7.278E-01	1.216E+00
NP-237	2.869E+01	2.710E+00	4.905E-01	2.710E+00
AM-241	1.330E+01	1.411E+00	3.844E-01	1.411E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
RH-101	3.692E-02	5.367E-02	4.800E-02	5.367E-02	NOT IDENT.
SB-125	8.799E-03	1.814E-01	1.576E-01	1.814E-01	NOT IDENT.
EU-155	-4.323E-02	1.845E-01	1.672E-01	1.845E-01	NOT IDENT.
BI-211	2.011E+00	2.514E+00	2.251E+00	2.514E+00	NOT IDENT.
BI-214	9.046E-01	2.347E-01	1.847E-01	2.347E-01	FAIL ABUN
PA-233	-9.859E-02	1.218E-01	1.044E-01	1.218E-01	NOT IDENT.
PA-234M	5.681E+00	1.258E+01	1.089E+01	1.258E+01	NOT IDENT.
U-235	9.325E-02	3.191E-01	2.891E-01	3.191E-01	NOT IDENT.
NP-236	-1.919E-03	1.007E-01	9.224E-02	1.007E-01	NOT IDENT.
NP-239	5.205E-02	4.321E-01	3.697E-01	4.321E-01	NOT IDENT.
AM-243	1.269E-01	1.176E-01	1.027E-01	1.176E-01	NOT IDENT.
CM-243	-9.551E-02	1.729E-01	1.549E-01	1.729E-01	NOT IDENT.
AM-246	-5.254E-02	3.636E-01	3.124E-01	3.636E-01	NOT IDENT.
CF-249	3.043E-02	9.283E-02	7.286E-02	9.283E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
59.54	538.4651
63.29	544.4244
74.66	479.5254
74.81	479.7112
74.81	479.7112
77.11	559.5199
77.11	559.5199
86.48	707.4550
87.30	620.5454
87.30	620.5454
92.58	348.7171
98.44	302.4363
103.76	370.6319
105.31	355.2941
129.07	259.8119
143.76	260.0403
198.00	230.3706
209.25	262.1051
228.18	270.3504
238.63	224.6064
242.00	225.4397
269.46	214.8368
270.25	219.3970
277.36	240.0987
295.22	195.7334
300.09	169.3405
312.17	215.9160
338.32	194.6045
351.93	184.0182
387.59	176.4916
409.46	162.5035
427.87	154.2239
463.00	159.7659
510.77	134.1700
583.19	109.1395
609.31	94.5530
661.66	131.7974
727.33	118.2100
763.13	128.1156
768.36	110.3491
785.37	102.0628
794.95	119.7256
806.17	125.3873
831.80	107.1408
860.56	106.2957
896.60	156.7531
911.20	149.8297
934.06	142.5367
964.77	162.5537
968.97	126.6215
1001.03	120.7395
1078.86	116.4266
1120.29	93.2467
1155.19	46.1699
1173.23	60.9338
1238.11	30.5648
1280.96	29.9426
1332.51	38.4716
1377.67	22.5434
1401.50	17.6765
1407.98	24.7891
1460.80	15.7031
1509.23	20.1303
1588.20	22.6722
1620.50	14.6843
1729.60	12.4187
1764.49	4.8999

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1201469648

Total Uranium Activity	4.3146E-02	ug/g
Total Uranium Counting Unc.	1.4764E-01	ug/g
Total Uranium Tpu	1.4764E-07	ug/g
Total Uranium Mda	1.3378E-01	ug/g

CONTINUING CALIBRATION DATA

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM01_2LMB.QAF;1

Sample ID : Calib Check
Sample date : 1-APR-2002 12:00:00
Elapsed live time: 0 00:05:00.00

Sample quantity : 1.00 EACH
Acquisition date : 30-NOV-2007 04:42:58
Elapsed real time: 0 00:05:00.99

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.6676E+05+/-1.0074E+05]	7.6481E+05	-1.01	
*DECAY CORRECTED ACTIVITY CS-137 [2.8570E+04+/-644.2]	2.7918E+04	-1.01	
*DECAY CORRECTED ACTIVITY CO-60 [4.0735E+04+/-1358]	4.2150E+04	1.04	
*Decay Corrected Activity Am-241 [6.1548E+04+/-3185]	5.8074E+04	-1.09	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7665E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3241E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6664E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8291E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6188E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3330E+03	
*PEAK FWHM CD-109	9.2990E-01	1.7963E+00	1.3041E+00	
*PEAK FWHM CS-137	1.4326E+00	1.9580E+00	1.6723E+00	
*PEAK FWHM CO-60	1.8050E+00	2.2573E+00	2.0074E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: _____ Approval Date: 11 / 30 / 07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM04_CAN.QAF;1

Sample ID : Calib Check Sample quantity : 1.00 EACH
Sample date : 1-APR-2002 12:00:00 Acquisition date : 30-NOV-2007 04:43:19
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:01.87

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.5515E+05+/-4.7817E+04]	8.5305E+05	-0.04	
*DECAY CORRECTED ACTIVITY CS-137 [2.8765E+04+/-449.3]	2.8642E+04	-0.28	
*DECAY CORRECTED ACTIVITY CO-60 [4.1933E+04+/-722.8]	4.1898E+04	-0.05	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7694E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3245E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6668E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8020E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6205E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3334E+03	
*PEAK FWHM CD-109	8.5700E-01	1.3096E+00	1.0286E+00	
*PEAK FWHM CS-137	1.4461E+00	1.6731E+00	1.5635E+00	
*PEAK FWHM CO-60	1.8140E+00	2.2910E+00	1.8187E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LL Approval Date: 11 / 30 / 07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM05_CAN.QAF;1

Sample ID : Calib Check Sample quantity : 1.00 EACH
Sample date : 1-APR-2005 12:00:00 Acquisition date : 30-NOV-2007 04:43:27
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:04.27

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [9.4102E+05+/-1.5120E+04]	9.6080E+05	1.31	
*DECAY CORRECTED ACTIVITY CS-137 [2.7324E+04+/-449.6]	2.6976E+04	-0.77	
*DECAY CORRECTED ACTIVITY CO-60 [4.1154E+04+/-757.2]	4.1540E+04	0.51	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7653E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3234E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6639E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.7900E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6182E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3330E+03	
*PEAK FWHM CD-109	1.0354E+00	1.2686E+00	1.1603E+00	
*PEAK FWHM CS-137	1.4355E+00	1.7081E+00	1.5598E+00	
*PEAK FWHM CO-60	1.7629E+00	2.2581E+00	1.9797E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LL Approval Date: 11 / 30 / 07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM06_2LMB.QAF;1

Sample ID : Calib Check Sample quantity : 1.00 EACH
Sample date : 1-APR-2005 12:00:00 Acquisition date : 30-NOV-2007 04:43:35
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:01.24

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.1697E+05+/-3.2175E+04]	8.1989E+05	0.09	
*DECAY CORRECTED ACTIVITY CS-137 [2.4416E+04+/-658.7]	2.3983E+04	-0.66	
*DECAY CORRECTED ACTIVITY CO-60 [3.9594E+04+/-984.4]	3.9159E+04	-0.44	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7513E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3219E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6629E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.7569E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6137E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3321E+03	
*PEAK FWHM CD-109	8.8210E-01	1.1228E+00	1.0892E+00	
*PEAK FWHM CS-137	1.2904E+00	1.6432E+00	1.4390E+00	
*PEAK FWHM CO-60	1.6812E+00	2.2061E+00	1.9152E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: _____ Approval Date: 11 / 30 / 07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM07_2LMB.QAF;1

Sample ID : Calib Check Sample quantity : 1.00 EACH
Sample date : 1-APR-2003 12:00:00 Acquisition date : 30-NOV-2007 04:43:45
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:02.02

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [7.6229E+05+/-4.6983E+04]	7.8467E+05	0.48	
*DECAY CORRECTED ACTIVITY CS-137 [2.5347E+04+/-581.1]	2.5714E+04	0.63	
*DECAY CORRECTED ACTIVITY CO-60 [4.0193E+04+/-817.5]	3.9102E+04	-1.33	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7570E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3229E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6646E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8109E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6185E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3328E+03	
*PEAK FWHM CD-109	8.8960E-01	1.2630E+00	1.0294E+00	
*PEAK FWHM CS-137	1.3220E+00	1.6316E+00	1.5019E+00	
*PEAK FWHM CO-60	1.7106E+00	2.2639E+00	2.2184E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LL Approval Date: 11 / 30 / 07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM08_2LMB.QAF;1

Sample ID : Calib Check Sample quantity : 1.00 EACH
Sample date : 1-APR-2003 12:00:00 Acquisition date : 30-NOV-2007 04:56:52
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:00.80

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [7.7891E+05+/-6.5334E+04]	6.9714E+05	-1.25	
*DECAY CORRECTED ACTIVITY CS-137 [2.5268E+04+/-530.4]	2.5033E+04	-0.44	
*DECAY CORRECTED ACTIVITY CO-60 [4.0387E+04+/-902.2]	4.0065E+04	-0.36	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7631E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3230E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6647E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8129E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6155E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3323E+03	
*PEAK FWHM CD-109	8.7290E-01	1.3544E+00	9.5155E-01	
*PEAK FWHM CS-137	1.3821E+00	1.7061E+00	1.5717E+00	
*PEAK FWHM CO-60	1.7357E+00	2.3577E+00	1.9632E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LL Approval Date: 11 / 30 / 07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM11_2LMB.QAF;1

Sample ID : Calib Check Sample quantity : 1.00 EACH
Sample date : 1-APR-2003 12:00:00 Acquisition date : 30-NOV-2007 05:10:03
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:01.60

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [7.7161E+05+/-5.4538E+04]	8.7367E+05	1.87	
*DECAY CORRECTED ACTIVITY CS-137 [2.5461E+04+/-453.1]	2.5757E+04	0.65	
*DECAY CORRECTED ACTIVITY CO-60 [4.0000E+04+/-942.5]	3.9389E+04	-0.65	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7553E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3240E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6670E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.7997E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6182E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3329E+03	
*PEAK FWHM CD-109	8.6980E-01	1.0978E+00	9.2977E-01	
*PEAK FWHM CS-137	1.2287E+00	1.4696E+00	1.3507E+00	
*PEAK FWHM CO-60	1.5668E+00	1.9957E+00	1.7396E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: _____ Approval Date: 11 / 30 / 07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM13_CAN.QAF;1

Sample ID : Calib Check Sample quantity : 1.00 EACH
Sample date : 1-APR-2002 12:00:00 Acquisition date : 30-NOV-2007 04:57:07
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:03.90

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.6479E+05+/-3.5006E+04]	8.0393E+05	-1.74	
*DECAY CORRECTED ACTIVITY CS-137 [2.9304E+04+/-484.4]	2.9191E+04	-0.23	
*DECAY CORRECTED ACTIVITY CO-60 [4.1342E+04+/-965.4]	4.2583E+04	1.29	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7561E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3235E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6653E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8043E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6157E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3322E+03	
*PEAK FWHM CD-109	7.0540E-01	1.1577E+00	1.0056E+00	
*PEAK FWHM CS-137	1.3206E+00	1.6654E+00	1.4416E+00	
*PEAK FWHM CO-60	1.7476E+00	2.2429E+00	1.9316E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LL Approval Date: 11 / 30 / 07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM14_2LMB.QAF;1

Sample ID : Calib Check Sample quantity : 1.00 EACH
Sample date : 1-APR-2004 12:00:00 Acquisition date : 30-NOV-2007 04:43:59
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:01.35

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.1190E+05+/-3.9665E+04]	7.6594E+05	-1.16	
*DECAY CORRECTED ACTIVITY CS-137 [2.5426E+04+/-564.0]	2.5263E+04	-0.29	
*DECAY CORRECTED ACTIVITY CO-60 [4.0446E+04+/-915.4]	4.0113E+04	-0.36	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7619E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3230E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6655E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8119E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6162E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3326E+03	
*PEAK FWHM CD-109	1.0337E+00	1.5254E+00	1.2675E+00	
*PEAK FWHM CS-137	1.4334E+00	1.8319E+00	1.6239E+00	
*PEAK FWHM CO-60	1.6848E+00	2.2203E+00	2.0797E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LL Approval Date: 11 / 30 / 07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM16_CAN.QAF;1

Sample ID : Calib Check Sample quantity : 1.00 EACH
Sample date : 1-APR-2004 12:00:00 Acquisition date : 30-NOV-2007 04:57:22
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:02.26

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.2559E+05+/-2.2938E+04]	8.0442E+05	-0.92	
*DECAY CORRECTED ACTIVITY CS-137 [2.6207E+04+/-512.6]	2.5651E+04	-1.08	
*DECAY CORRECTED ACTIVITY CO-60 [4.0485E+04+/-767.5]	4.0793E+04	0.40	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7615E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3236E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6654E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.7967E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6162E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3322E+03	
*PEAK FWHM CD-109	8.8540E-01	1.2058E+00	1.0135E+00	
*PEAK FWHM CS-137	1.3237E+00	1.6479E+00	1.4959E+00	
*PEAK FWHM CO-60	1.7177E+00	2.1263E+00	1.9640E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LL Approval Date: 11 / 30 / 07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM17_CAN.QAF;1

Sample ID : Calib Check Sample quantity : 1.00 EACH
Sample date : 1-APR-2002 12:00:00 Acquisition date : 30-NOV-2007 05:10:15
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:05.64

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.6112E+05+/-3.2007E+04]	8.3976E+05	-0.67	
*DECAY CORRECTED ACTIVITY CS-137 [2.8529E+04+/-528.8]	2.8969E+04	0.83	
*DECAY CORRECTED ACTIVITY CO-60 [4.0368E+04+/-919.5]	4.1017E+04	0.71	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7646E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3228E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6636E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8020E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6162E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3324E+03	
*PEAK FWHM CD-109	7.4630E-01	1.0839E+00	9.8020E-01	
*PEAK FWHM CS-137	1.2763E+00	1.4672E+00	1.4146E+00	
*PEAK FWHM CO-60	1.6103E+00	2.0503E+00	1.8288E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LL Approval Date: 11 / 30 / 07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM18_CAN.QAF;1

Sample ID : Calib Check Sample quantity : 1.00 EACH
Sample date : 1-APR-2002 12:00:00 Acquisition date : 30-NOV-2007 05:22:10
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:02.46

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.5822E+05+/-4.0658E+04]	8.9436E+05	0.89	
*DECAY CORRECTED ACTIVITY CS-137 [2.9515E+04+/-560.4]	2.9942E+04	0.76	
*DECAY CORRECTED ACTIVITY CO-60 [4.2624E+04+/-1105]	4.2806E+04	0.16	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7448E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3205E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6614E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.7764E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6098E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3314E+03	
*PEAK FWHM CD-109	8.6960E-01	1.2382E+00	1.0979E+00	
*PEAK FWHM CS-137	1.5272E+00	1.7253E+00	1.6167E+00	
*PEAK FWHM CO-60	1.9510E+00	2.4159E+00	2.1774E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: K Approval Date: 11 / 30 / 07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM19_CAN.QAF;1

Sample ID : Calib Check Sample quantity : 1.00 EACH
Sample date : 1-APR-2004 12:00:00 Acquisition date : 30-NOV-2007 05:10:28
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:02.33

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.2558E+05+/-2.3590E+04]	8.2585E+05	0.01	
*DECAY CORRECTED ACTIVITY CS-137 [2.5787E+04+/-427.7]	2.5760E+04	-0.06	
*DECAY CORRECTED ACTIVITY CO-60 [3.9967E+04+/-792.7]	4.1465E+04	1.89	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7563E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3211E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6619E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8032E+01	
*PEAK ENERGY CS-137	6.5964E+02	6.6364E+02	6.6115E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3317E+03	
*PEAK FWHM CD-109	1.1583E+00	1.4038E+00	1.2735E+00	
*PEAK FWHM CS-137	1.5052E+00	1.7317E+00	1.6229E+00	
*PEAK FWHM CO-60	1.7723E+00	2.1545E+00	1.9978E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: _____ Approval Date: 11 / 30 / 07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM21_CAN.QAF;1

Sample ID : Calib Check Sample quantity : 1.00 EACH
Sample date : 1-APR-2004 12:00:00 Acquisition date : 30-NOV-2007 05:22:19
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:04.42

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.2199E+05+/-1.6962E+04]	8.1401E+05	-0.47	
*DECAY CORRECTED ACTIVITY CS-137 [2.6347E+04+/-617.7]	2.5874E+04	-0.77	
*DECAY CORRECTED ACTIVITY CO-60 [4.0298E+04+/-1103]	3.9888E+04	-0.37	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7519E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3211E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6632E+03	
*PEAK ENERGY CD-109	8.6000E+01	9.0000E+01	8.8102E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6159E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3325E+03	
*PEAK FWHM CD-109	1.2623E+00	1.5019E+00	1.3818E+00	
*PEAK FWHM CS-137	1.5605E+00	1.8906E+00	1.6563E+00	
*PEAK FWHM CO-60	1.8533E+00	2.3397E+00	2.0266E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LL Approval Date: 11 / 30 / 07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM23_CAN.QAF;1

Sample ID : Calib Check Sample quantity : 1.00 EACH
Sample date : 1-APR-2003 12:00:00 Acquisition date : 30-NOV-2007 07:42:49
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:03.13

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [7.7105E+05+/-2.4257E+04]	7.7320E+05	0.09	
*DECAY CORRECTED ACTIVITY CS-137 [2.5576E+04+/-422.4]	2.6510E+04	2.21	Investigate
*DECAY CORRECTED ACTIVITY CO-60 [4.0337E+04+/-833.8]	4.0602E+04	0.32	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7590E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3233E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6655E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.7971E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6155E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3323E+03	
*PEAK FWHM CD-109	6.9450E-01	9.5230E-01	7.8362E-01	
*PEAK FWHM CS-137	1.3260E+00	1.5802E+00	1.3836E+00	
*PEAK FWHM CO-60	1.7823E+00	2.2419E+00	1.9498E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LL Approval Date: 11 / 30 / 07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM01_2LMB.QAF;1

Sample ID : Calib Check Sample quantity : 1.00 EACH
Sample date : 1-APR-2002 12:00:00 Acquisition date : 1-DEC-2007 08:38:24
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:00.99

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.6676E+05+/-1.0074E+05]	8.5901E+05	-0.08	
*DECAY CORRECTED ACTIVITY CS-137 [2.8570E+04+/-644.2]	2.8288E+04	-0.44	
*DECAY CORRECTED ACTIVITY CO-60 [4.0735E+04+/-1358]	4.1091E+04	0.26	
*DECAY CORRECTED ACTIVITY AM-241 [6.2080E+04+/-2810]	6.3675E+04	0.57	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7627E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3239E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6661E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8100E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6180E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3328E+03	
*PEAK FWHM CD-109	9.2990E-01	1.7963E+00	1.3566E+00	
*PEAK FWHM CS-137	1.4326E+00	1.9580E+00	1.6826E+00	
*PEAK FWHM CO-60	1.8050E+00	2.2573E+00	1.8875E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1896E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9454E+01	
*PEAK FWHM AM-241	5.0000E-01	1.7500E+00	1.3383E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LL Approval Date: 12 / 1 / 07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM02_CAN.QAF;1

Sample ID : Calib Check Sample quantity : 1.00 EACH
Sample date : 1-APR-2004 12:00:00 Acquisition date : 1-DEC-2007 05:16:53
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:02.51

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [7.9829E+05+/-2.1783E+04]	7.6661E+05	-1.45	
*DECAY CORRECTED ACTIVITY CS-137 [2.5417E+04+/-441.8]	2.4827E+04	-1.33	
*DECAY CORRECTED ACTIVITY CO-60 [4.0155E+04+/-741.6]	3.8687E+04	-1.98	
*DECAY CORRECTED ACTIVITY AM-241 [6.6468E+04+/-0.0000E+00]	6.6468E+04	0.00	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7551E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3217E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6625E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8006E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6159E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3324E+03	
*PEAK FWHM CD-109	8.6870E-01	1.1641E+00	1.0723E+00	
*PEAK FWHM CS-137	1.3890E+00	1.5958E+00	1.4819E+00	
*PEAK FWHM CO-60	1.7960E+00	2.2545E+00	2.0114E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1841E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9432E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.0820E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: _____ Approval Date: 12 / 1 / 07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM03_2LMB.QAF;1

Sample ID : Calib Check Sample quantity : 1.00 EACH
Sample date : 1-APR-2002 12:00:00 Acquisition date : 1-DEC-2007 05:17:00
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:00.82

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.6960E+05+/-1.0766E+05]	9.4087E+05	0.66	
*DECAY CORRECTED ACTIVITY CS-137 [2.8269E+04+/-721.5]	2.8740E+04	0.65	
*DECAY CORRECTED ACTIVITY CO-60 [4.1409E+04+/-1231]	4.1087E+04	-0.26	
*DECAY CORRECTED ACTIVITY AM-241 [6.8958E+04+/-0.0000E+00]	6.8958E+04	0.00	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7562E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3222E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6647E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.7894E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6163E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3327E+03	
*PEAK FWHM CD-109	8.3610E-01	1.8524E+00	1.1411E+00	
*PEAK FWHM CS-137	1.5869E+00	2.1036E+00	1.9377E+00	
*PEAK FWHM CO-60	2.1075E+00	3.0714E+00	2.4411E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1900E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9553E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.4181E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LL Approval Date: 12 / 1 / 07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM05_CAN.QAF;1

Sample ID : Calib Check
Sample quantity : 1.00 EACH
Sample date : 1-APR-2005 12:00:00
Acquisition date : 1-DEC-2007 08:38:48
Elapsed live time: 0 00:05:00.00
Elapsed real time: 0 00:05:04.27

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [9.4102E+05+/-1.5120E+04]	9.4270E+05	0.11	
*DECAY CORRECTED ACTIVITY CS-137 [2.7324E+04+/-449.6]	2.7909E+04	1.30	
*DECAY CORRECTED ACTIVITY CO-60 [4.1154E+04+/-757.2]	4.1135E+04	-0.02	
*DECAY CORRECTED ACTIVITY AM-241 [6.9094E+04+/-0.0000E+00]	6.9094E+04	0.00	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7670E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3235E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6639E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.7986E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6187E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3330E+03	
*PEAK FWHM CD-109	1.0354E+00	1.2686E+00	1.1721E+00	
*PEAK FWHM CS-137	1.4355E+00	1.7081E+00	1.5437E+00	
*PEAK FWHM CO-60	1.7629E+00	2.2581E+00	2.1348E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1948E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9356E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.0837E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LL Approval Date: 12 / 1 / 07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM06_2LMB.QAF;1

Sample ID : Calib Check Sample quantity : 1.00 EACH
Sample date : 1-APR-2005 12:00:00 Acquisition date : 1-DEC-2007 05:17:20
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:01.23

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.1697E+05+/-3.2175E+04]	8.2095E+05	0.12	
*DECAY CORRECTED ACTIVITY CS-137 [2.4416E+04+/-658.7]	2.4353E+04	-0.09	
*DECAY CORRECTED ACTIVITY CO-60 [3.9594E+04+/-984.4]	3.9477E+04	-0.12	
*DECAY CORRECTED ACTIVITY AM-241 [6.5636E+04+/-0.0000E+00]	6.5636E+04	0.00	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7527E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3220E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6630E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.7637E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6142E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3321E+03	
*PEAK FWHM CD-109	8.8210E-01	1.1228E+00	1.0530E+00	
*PEAK FWHM CS-137	1.2904E+00	1.6432E+00	1.4749E+00	
*PEAK FWHM CO-60	1.6812E+00	2.2061E+00	1.9817E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	----------	~~Not Found~~
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9107E+01	Accumulating Data
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	9.2506E-01	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LL Approval Date: 12 / 1 / 07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM07_2LMB.QAF;1

Sample ID : Calib Check Sample quantity : 1.00 EACH
Sample date : 1-APR-2003 12:00:00 Acquisition date : 1-DEC-2007 07:33:05
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:01.99

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [7.6229E+05+/-4.6983E+04]	7.2707E+05	-0.75	
*DECAY CORRECTED ACTIVITY CS-137 [2.5347E+04+/-581.1]	2.5628E+04	0.48	
*DECAY CORRECTED ACTIVITY CO-60 [4.0193E+04+/-817.5]	4.0267E+04	0.09	
*DECAY CORRECTED ACTIVITY AM-241 [6.2263E+04+/-0.0000E+00]	6.2263E+04	0.00	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7570E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3230E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6647E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8106E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6191E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3329E+03	
*PEAK FWHM CD-109	8.8960E-01	1.2630E+00	1.0641E+00	
*PEAK FWHM CS-137	1.3220E+00	1.6316E+00	1.5273E+00	
*PEAK FWHM CO-60	1.7106E+00	2.2639E+00	1.9919E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1863E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9564E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.0461E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LL Approval Date: 12 / 1 / 07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM11_2LMB.QAF;1

Sample ID : Calib Check Sample quantity : 1.00 EACH
Sample date : 1-APR-2003 12:00:00 Acquisition date : 1-DEC-2007 05:17:31
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:01.59

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [7.7161E+05+/-5.4538E+04]	8.2536E+05	0.99	
*DECAY CORRECTED ACTIVITY CS-137 [2.5461E+04+/-453.1]	2.5100E+04	-0.80	
*DECAY CORRECTED ACTIVITY CO-60 [4.0000E+04+/-942.5]	4.2648E+04	2.81	Investigate
*DECAY CORRECTED ACTIVITY AM-241 [5.9836E+04+/-0.0000E+00]	5.9836E+04	0.00	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7579E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3240E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6666E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8126E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6177E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3327E+03	
*PEAK FWHM CD-109	8.6980E-01	1.0978E+00	9.9484E-01	
*PEAK FWHM CS-137	1.2287E+00	1.4696E+00	1.3076E+00	
*PEAK FWHM CO-60	1.5668E+00	1.9957E+00	1.7931E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1853E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9521E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	9.8542E-01	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LC Approval Date: 12 / 1 / 07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM12_CAN.QAF;1

Sample ID : Calib Check
Sample quantity : 1.00 EACH
Sample date : 1-APR-2005 12:00:00
Acquisition date : 1-DEC-2007 05:17:39
Elapsed live time: 0 00:05:00.00
Elapsed real time: 0 00:05:02.81

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.4539E+05+/-1.7760E+04]	8.2131E+05	-1.36	
*DECAY CORRECTED ACTIVITY CS-137 [2.5327E+04+/-358.0]	2.5100E+04	-0.63	
*DECAY CORRECTED ACTIVITY CO-60 [4.0022E+04+/-687.6]	4.0680E+04	0.96	
*DECAY CORRECTED ACTIVITY AM-241 [6.6171E+04+/-0.0000E+00]	6.6171E+04	0.00	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7536E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3233E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6653E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8058E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6191E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3330E+03	
*PEAK FWHM CD-109	9.8950E-01	1.3215E+00	1.1322E+00	
*PEAK FWHM CS-137	1.3969E+00	1.7625E+00	1.5962E+00	
*PEAK FWHM CO-60	1.8061E+00	2.2486E+00	2.0223E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1828E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9527E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.1506E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LL Approval Date: 12 / 1 / 07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM13_CAN.QAF;1

Sample ID : Calib Check Sample quantity : 1.00 EACH
Sample date : 1-APR-2002 12:00:00 Acquisition date : 1-DEC-2007 04:27:32
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:03.87

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.6479E+05+/-3.5006E+04]	8.4328E+05	-0.61	
*DECAY CORRECTED ACTIVITY CS-137 [2.9304E+04+/-484.4]	3.0126E+04	1.70	
*DECAY CORRECTED ACTIVITY CO-60 [4.1342E+04+/-965.4]	4.1950E+04	0.63	
*DECAY CORRECTED ACTIVITY AM-241 [5.9786E+04+/-0.0000E+00]	5.9786E+04	0.00	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7567E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3231E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6646E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8073E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6139E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3319E+03	
*PEAK FWHM CD-109	7.0540E-01	1.1577E+00	9.4233E-01	
*PEAK FWHM CS-137	1.3206E+00	1.6654E+00	1.5506E+00	
*PEAK FWHM CO-60	1.7476E+00	2.2429E+00	1.9710E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1871E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9620E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	9.1529E-01	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LC Approval Date: 12 / 1 / 07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM14_2LMB.QAF;1

Sample ID : Calib Check Sample quantity : 1.00 EACH
Sample date : 1-APR-2004 12:00:00 Acquisition date : 1-DEC-2007 07:52:56
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:01.33

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.1190E+05+/-3.9665E+04]	7.7448E+05	-0.94	
*DECAY CORRECTED ACTIVITY CS-137 [2.5426E+04+/-564.0]	2.4050E+04	-2.44	Investigate
*DECAY CORRECTED ACTIVITY CO-60 [4.0446E+04+/-915.4]	4.0062E+04	-0.42	
*DECAY CORRECTED ACTIVITY AM-241 [6.8944E+04+/-0.0000E+00]	6.8944E+04	0.00	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7626E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3228E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6654E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8156E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6148E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3325E+03	
*PEAK FWHM CD-109	1.0337E+00	1.5254E+00	1.1765E+00	
*PEAK FWHM CS-137	1.4334E+00	1.8319E+00	1.6284E+00	
*PEAK FWHM CO-60	1.6848E+00	2.2203E+00	1.9833E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1880E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9415E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.3336E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LC Approval Date: 12 / 1 / 07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM16_CAN.QAF;1

Sample ID : Calib Check Sample quantity : 1.00 EACH
Sample date : 1-APR-2004 12:00:00 Acquisition date : 1-DEC-2007 05:29:47
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:02.25

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.2559E+05+/-2.2938E+04]	7.9030E+05	-1.54	
*DECAY CORRECTED ACTIVITY CS-137 [2.6207E+04+/-512.6]	2.5722E+04	-0.95	
*DECAY CORRECTED ACTIVITY CO-60 [4.0485E+04+/-767.5]	3.9247E+04	-1.61	
*DECAY CORRECTED ACTIVITY AM-241 [6.3325E+04+/-0.0000E+00]	6.3325E+04	0.00	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7603E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3236E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6657E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.7912E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6163E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3323E+03	
*PEAK FWHM CD-109	8.8540E-01	1.2058E+00	1.0166E+00	
*PEAK FWHM CS-137	1.3237E+00	1.6479E+00	1.4786E+00	
*PEAK FWHM CO-60	1.7177E+00	2.1263E+00	1.9375E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1914E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9463E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	9.6479E-01	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LC Approval Date: 12 / 1 / 07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM17_CAN.QAF;1

Sample ID : Calib Check Sample quantity : 1.00 EACH
Sample date : 1-APR-2002 12:00:00 Acquisition date : 1-DEC-2007 04:36:52
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:05.61

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.6112E+05+/-3.2007E+04]	8.5189E+05	-0.29	
*DECAY CORRECTED ACTIVITY CS-137 [2.8529E+04+/-528.8]	2.8611E+04	0.15	
*DECAY CORRECTED ACTIVITY CO-60 [4.0368E+04+/-919.5]	4.1222E+04	0.93	
*DECAY CORRECTED ACTIVITY AM-241 [6.0553E+04+/-0.0000E+00]	6.0553E+04	0.00	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7671E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3232E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6643E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8145E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6181E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3327E+03	
*PEAK FWHM CD-109	7.4630E-01	1.0839E+00	9.6795E-01	
*PEAK FWHM CS-137	1.2763E+00	1.4672E+00	1.3391E+00	
*PEAK FWHM CO-60	1.6103E+00	2.0503E+00	1.8145E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1975E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9640E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	8.6664E-01	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LL Approval Date: 12 / 1 / 07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM18_CAN.QAF;1

Sample ID : Calib Check Sample quantity : 1.00 EACH
Sample date : 1-APR-2002 12:00:00 Acquisition date : 1-DEC-2007 08:39:17
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:02.43

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.5822E+05+/-4.0658E+04]	8.1498E+05	-1.06	
*DECAY CORRECTED ACTIVITY CS-137 [2.9515E+04+/-560.4]	2.9024E+04	-0.88	
*DECAY CORRECTED ACTIVITY CO-60 [4.2624E+04+/-1105]	4.1961E+04	-0.60	
*DECAY CORRECTED ACTIVITY AM-241 [6.8173E+04+/-0.0000E+00]	6.8173E+04	0.00	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7465E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3205E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6614E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.7845E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6102E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3314E+03	
*PEAK FWHM CD-109	8.6960E-01	1.2382E+00	1.0882E+00	
*PEAK FWHM CS-137	1.5272E+00	1.7253E+00	1.6548E+00	
*PEAK FWHM CO-60	1.9510E+00	2.4159E+00	2.2089E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1753E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9269E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.0707E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LL Approval Date: 12 / 1 / 07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM19_CAN.QAF;1

Sample ID : Calib Check
Sample date : 1-APR-2004 12:00:00
Elapsed live time: 0 00:05:00.00
Sample quantity : 1.00 EACH
Acquisition date : 1-DEC-2007 07:33:23
Elapsed real time: 0 00:05:02.30

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.2558E+05+/-2.3590E+04]	8.2442E+05	-0.05	
*DECAY CORRECTED ACTIVITY CS-137 [2.5787E+04+/-427.7]	2.5568E+04	-0.51	
*DECAY CORRECTED ACTIVITY CO-60 [3.9967E+04+/-792.7]	3.8935E+04	-1.30	
*DECAY CORRECTED ACTIVITY AM-241 [6.9351E+04+/-0.0000E+00]	6.9351E+04	0.00	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7574E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3212E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6620E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8088E+01	
*PEAK ENERGY CS-137	6.5964E+02	6.6364E+02	6.6118E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3318E+03	
*PEAK FWHM CD-109	1.1583E+00	1.4038E+00	1.2281E+00	
*PEAK FWHM CS-137	1.5052E+00	1.7317E+00	1.5803E+00	
*PEAK FWHM CO-60	1.7723E+00	2.1545E+00	1.9537E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1879E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9586E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.2751E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LC Approval Date: 12 / 1 / 07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM20_2LMB.QAF;1

Sample ID : Calib Check
Sample quantity : 1.00 EACH
Sample date : 1-APR-2002 12:00:00
Acquisition date : 1-DEC-2007 07:51:53
Elapsed live time: 0 00:05:00.00
Elapsed real time: 0 00:05:03.17

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.4629E+05+/-8.2185E+04]	6.3535E+05	-2.57	Investigate
*DECAY CORRECTED ACTIVITY CS-137 [2.8541E+04+/-525.1]	2.7789E+04	-1.43	
*DECAY CORRECTED ACTIVITY CO-60 [4.0826E+04+/-992.7]	4.2255E+04	1.44	
*DECAY CORRECTED ACTIVITY AM-241 [6.2576E+04+/-193.9]	6.2439E+04	-0.71	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7589E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3215E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6632E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8008E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6124E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3319E+03	
*PEAK FWHM CD-109	7.7050E-01	1.3272E+00	9.2270E-01	
*PEAK FWHM CS-137	1.2848E+00	1.6116E+00	1.4652E+00	
*PEAK FWHM CO-60	1.5484E+00	2.0686E+00	1.9391E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1922E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9641E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.0808E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: _____ Approval Date: 12 / 1 / 07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM21_CAN.QAF;1

Sample ID : Calib Check
Sample quantity : 1.00 EACH
Sample date : 1-APR-2004 12:00:00
Acquisition date : 1-DEC-2007 04:27:54
Elapsed live time: 0 00:05:00.00
Elapsed real time: 0 00:05:04.47

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.2199E+05+/-1.6962E+04]	8.3030E+05	0.49	
*DECAY CORRECTED ACTIVITY CS-137 [2.6347E+04+/-617.7]	2.6436E+04	0.14	
*DECAY CORRECTED ACTIVITY CO-60 [4.0298E+04+/-1103]	3.9144E+04	-1.05	
*DECAY CORRECTED ACTIVITY AM-241 [6.5914E+04+/-0.0000E+00]	6.5914E+04	0.00	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7500E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3208E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6626E+03	
*PEAK ENERGY CD-109	8.6000E+01	9.0000E+01	8.8007E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6140E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3322E+03	
*PEAK FWHM CD-109	1.2623E+00	1.5019E+00	1.4736E+00	
*PEAK FWHM CS-137	1.5605E+00	1.8906E+00	1.6313E+00	
*PEAK FWHM CO-60	1.8533E+00	2.3397E+00	2.1179E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1835E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9645E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.3746E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LL Approval Date: 12 / 1 / 07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM23_CAN.QAF;1

Sample ID : Calib Check Sample quantity : 1.00 EACH
Sample date : 1-APR-2003 12:00:00 Acquisition date : 1-DEC-2007 05:26:12
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:03.10

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [7.7105E+05+/-2.4257E+04]	7.8566E+05	0.60	
*DECAY CORRECTED ACTIVITY CS-137 [2.5576E+04+/-422.4]	2.5586E+04	0.02	
*DECAY CORRECTED ACTIVITY CO-60 [4.0337E+04+/-833.8]	3.9788E+04	-0.66	
*DECAY CORRECTED ACTIVITY AM-241 [6.4355E+04+/-0.0000E+00]	6.4355E+04	0.00	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7583E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3232E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6653E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.7936E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6147E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3322E+03	
*PEAK FWHM CD-109	6.9450E-01	9.5230E-01	9.2380E-01	
*PEAK FWHM CS-137	1.3260E+00	1.5802E+00	1.4103E+00	
*PEAK FWHM CO-60	1.7823E+00	2.2419E+00	1.9333E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1868E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9364E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	8.9427E-01	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LC Approval Date: 12 / 1 / 07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM07_2LMB.QAF;1

Sample ID : Calib Check
Sample quantity : 1.00 EACH
Sample date : 1-APR-2003 12:00:00
Acquisition date : 7-DEC-2007 04:45:51
Elapsed live time: 0 00:05:00.00
Elapsed real time: 0 00:05:02.00

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [7.6229E+05+/-4.6983E+04]	7.1251E+05	-1.06	
*DECAY CORRECTED ACTIVITY CS-137 [2.5347E+04+/-581.1]	2.5656E+04	0.53	
*DECAY CORRECTED ACTIVITY CO-60 [4.0193E+04+/-817.5]	3.8821E+04	-1.68	
*DECAY CORRECTED ACTIVITY AM-241 [5.9306E+04+/-1758]	6.0154E+04	0.48	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7567E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3229E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6645E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8092E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6187E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3328E+03	
*PEAK FWHM CD-109	8.8960E-01	1.2630E+00	1.1216E+00	
*PEAK FWHM CS-137	1.3220E+00	1.6316E+00	1.4772E+00	
*PEAK FWHM CO-60	1.7106E+00	2.2639E+00	1.6925E+00	Below
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1861E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9551E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.0567E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: K Approval Date: 12 / 7 / 07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM11_2LMB.QAF;1

Sample ID : Calib Check Sample quantity : 1.00 EACH
Sample date : 1-APR-2003 12:00:00 Acquisition date : 7-DEC-2007 04:57:26
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:01.58

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [7.7161E+05+/-5.4538E+04]	7.4575E+05	-0.47	
*DECAY CORRECTED ACTIVITY CS-137 [2.5461E+04+/-453.1]	2.5949E+04	1.08	
*DECAY CORRECTED ACTIVITY CO-60 [4.0000E+04+/-942.5]	4.1330E+04	1.41	
*DECAY CORRECTED ACTIVITY AM-241 [6.0240E+04+/-2241]	6.1674E+04	0.64	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7528E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3233E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6653E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.7871E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6142E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3321E+03	
*PEAK FWHM CD-109	8.6980E-01	1.0978E+00	9.8345E-01	
*PEAK FWHM CS-137	1.2287E+00	1.4696E+00	1.2785E+00	
*PEAK FWHM CO-60	1.5668E+00	1.9957E+00	1.8689E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1832E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9418E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	9.8886E-01	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: K Approval Date: 12 / 7 / 07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM13_CAN.QAF;1

Sample ID : Calib Check Sample quantity : 1.00 EACH
Sample date : 1-APR-2002 12:00:00 Acquisition date : 7-DEC-2007 04:46:07
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:03.87

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.6479E+05+/-3.5006E+04]	8.9703E+05	0.92	
*DECAY CORRECTED ACTIVITY CS-137 [2.9304E+04+/-484.4]	2.9096E+04	-0.43	
*DECAY CORRECTED ACTIVITY CO-60 [4.1342E+04+/-965.4]	4.2450E+04	1.15	
*DECAY CORRECTED ACTIVITY AM-241 [6.0236E+04+/-687.9]	6.0601E+04	0.53	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7565E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3229E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6641E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8064E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6127E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3317E+03	
*PEAK FWHM CD-109	7.0540E-01	1.1577E+00	9.8398E-01	
*PEAK FWHM CS-137	1.3206E+00	1.6654E+00	1.4569E+00	
*PEAK FWHM CO-60	1.7476E+00	2.2429E+00	2.0566E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1863E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9580E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	9.4483E-01	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LL Approval Date: 12 / 7 / 07

RUNLOGS

Instrument Run Log

ID	Sample Type	Analyst	Instrument	Dil	Run Date	Batch Id	Status	Geometry	Cal Date
198324001	SAMPLE	MJH1	GAM01		30-NOV-2007 07:07	706245	**DONE**	CAN	07-MAR-2007
198324002	SAMPLE	MJH1	GAM21		30-NOV-2007 07:09	706245	**DONE**	CAN	03-JUL-2007
198324003	SAMPLE	MJH1	GAM23		30-NOV-2007 07:52	706245	**DONE**	CAN	23-MAY-2007
198324004	SAMPLE	MJH1	GAM04		30-NOV-2007 09:54	706245	**DONE**	CAN	07-MAR-2007
198324005	SAMPLE	MJH1	GAM06		30-NOV-2007 09:55	706245	**DONE**	CAN	21-FEB-2007
198324006	SAMPLE	MJH1	GAM07		30-NOV-2007 09:56	706245	**DONE**	CAN	30-OCT-2007
198324007	SAMPLE	MJH1	GAM08		30-NOV-2007 09:57	706245	**DONE**	CAN	30-OCT-2007
198324008	SAMPLE	MJH1	GAM11		30-NOV-2007 09:58	706245	**DONE**	CAN	02-OCT-2007
198324009	SAMPLE	MJH1	GAM12		30-NOV-2007 09:58	706245	DUSE	CAN	22-FEB-2007
198324010	SAMPLE	MJH1	GAM13		30-NOV-2007 09:59	706245	**DONE**	CAN	03-JUL-2007
198324011	SAMPLE	MJH1	GAM14		30-NOV-2007 10:00	706245	**DONE**	CAN	07-MAR-2007
198324012	SAMPLE	MJH1	GAM16		30-NOV-2007 10:01	706245	**DONE**	CAN	02-OCT-2007
198324013	SAMPLE	MJH1	GAM17		30-NOV-2007 10:02	706245	**DONE**	CAN	07-FEB-2007
198324014	SAMPLE	MJH1	GAM18		30-NOV-2007 10:05	706245	**DONE**	CAN	02-OCT-2007
198324015	SAMPLE	MJH1	GAM19		30-NOV-2007 10:06	706245	**DONE**	CAN	07-MAR-2007
198324016	SAMPLE	MJH1	GAM20		30-NOV-2007 10:08	706245	DUSE	CAN	10-SEP-2007
198324017	SAMPLE	MJH1	GAM01		30-NOV-2007 11:14	706245	**DONE**	CAN	07-MAR-2007
198324018	SAMPLE	MJH1	GAM21		30-NOV-2007 11:15	706245	**DONE**	CAN	03-JUL-2007
198324019	SAMPLE	MJH1	GAM23		30-NOV-2007 11:54	706245	**DONE**	CAN	23-MAY-2007
198324020	SAMPLE	MJH1	GAM05		30-NOV-2007 12:20	706245	**DONE**	CAN	31-MAY-2007
1201469643	MB	MJH1	GAM17		30-NOV-2007 14:05	706245	**DONE**	CAN	07-FEB-2007
1201469644	DUP	MJH1	GAM13		30-NOV-2007 14:05	706245	**DONE**	CAN	03-JUL-2007
1201469645	LCS	MJH1	GAM04		30-NOV-2007 14:06	706245	**DONE**	CAN	07-MAR-2007
198324009	SAMPLE	MJH1	GAM07		07-DEC-2007 05:45	706245	**DONE**	CAN	30-OCT-2007
198324016	SAMPLE	MJH1	GAM11		07-DEC-2007 05:46	706245	**DONE**	CAN	02-OCT-2007

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GEL Laboratories LLC

Instrument Run Log

ID	Sample Type	Analyst	Instrument	Dil	Run Date	Batch Id	Status	Geometry	Cal Date
198324021	SAMPLE	MJH1	GAM21		30-NOV-2007 14:17	706246	DONE	CAN	03-JUL-2007
198324023	SAMPLE	MJH1	GAM03		01-DEC-2007 05:36	706246	DONE	CAN	29-MAR-2007
198324024	SAMPLE	MJH1	GAM06		01-DEC-2007 05:36	706246	DONE	CAN	21-FEB-2007
198324022	SAMPLE	MJH1	GAM02		01-DEC-2007 05:37	706246	DONE	CAN	23-OCT-2007
198324025	SAMPLE	MJH1	GAM11		01-DEC-2007 05:37	706246	DONE	CAN	02-OCT-2007
198324026	SAMPLE	MJH1	GAM12		01-DEC-2007 05:38	706246	DONE	CAN	22-FEB-2007
198324027	SAMPLE	MJH1	GAM13		01-DEC-2007 05:39	706246	DONE	CAN	03-JUL-2007
198324028	SAMPLE	MJH1	GAM21		01-DEC-2007 05:40	706246	DONE	CAN	03-JUL-2007
198324029	SAMPLE	MJH1	GAM16		01-DEC-2007 05:43	706246	DONE	CAN	02-OCT-2007
198324030	SAMPLE	MJH1	GAM23		01-DEC-2007 05:44	706246	DONE	CAN	23-MAY-2007
198324031	SAMPLE	MJH1	GAM17		01-DEC-2007 05:51	706246	DONE	CAN	07-FEB-2007
198324032	SAMPLE	MJH1	GAM07		01-DEC-2007 08:09	706246	DONE	CAN	30-OCT-2007
198324034	SAMPLE	MJH1	GAM14		01-DEC-2007 08:10	706246	DONE	CAN	07-MAR-2007
198324035	SAMPLE	MJH1	GAM19		01-DEC-2007 08:11	706246	DONE	CAN	07-MAR-2007
198324036	SAMPLE	MJH1	GAM20		01-DEC-2007 08:12	706246	DONE	CAN	10-SEP-2007
198324037	SAMPLE	MJH1	GAM01		01-DEC-2007 08:52	706246	DONE	CAN	07-MAR-2007
198324038	SAMPLE	MJH1	GAM05		01-DEC-2007 08:53	706246	DONE	CAN	31-MAY-2007
198324039	SAMPLE	MJH1	GAM18		01-DEC-2007 08:54	706246	DONE	CAN	02-OCT-2007
198324040	SAMPLE	MJH1	GAM13		01-DEC-2007 09:54	706246	DONE	CAN	03-JUL-2007
1201469646	MB	MJH1	GAM21		01-DEC-2007 09:55	706246	DONE	CAN	03-JUL-2007
1201469647	DUP	MJH1	GAM23		01-DEC-2007 09:56	706246	DONE	CAN	23-MAY-2007
1201469648	LCS	MJH1	GAM02		01-DEC-2007 09:57	706246	DONE	CAN	23-OCT-2007
198324033	SAMPLE	MJH1	GAM13		07-DEC-2007 14:46	706246	DONE	CAN	03-JUL-2007

Version 1.1 9/5/05
GEL Laboratories LLC

Analytical Report For 711009

for

SC&A, Inc.

Project Manager : Cynthia White

Project Name : Cabrera-Schofield CZ

December 20, 2007

GPL

Laboratories

GPL Laboratories, LLLP Certifies that the test results meet all requirements of the NELAC Standards unless otherwise noted.

Reviewed by, Project Manager	Approved by, Laboratory Director

7210A Corporate CT Frederick, MD 21703 Phone (301) 694-5310 Fax: (301) 620-0731
www.gplab.com

GPL LABORATORIES, LLLP

Summary of Analytical Results

Client ID: SB-CZ-SS-2396-ST
GPL ID: 711009-001-001-1/1
Matrix: SOIL
Date Collected: 10/05/2007
Date Received: 11/01/2007

Prep Method: SW3050B
Prep Date: 11/05/2007
Prep Time: 12:00
Prep Batch: 101714

Analytical Method: SW6010C
Date Analyzed: 12/07/2007
Time Analyzed: 20:00
Analysis Batch: 108780

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Lead	30.4	8.8	mg/kg	D	10

GPL LABORATORIES, LLLP

Summary of Analytical Results

Client ID: SB-CZ-SS-2397-ST
GPL ID: 711009-002-002-1/1
Matrix: SOIL
Date Collected: 10/05/2007
Date Received: 11/01/2007

Prep Method: SW3050B
Prep Date: 11/05/2007
Prep Time: 12:00
Prep Batch: 101714

Analytical Method: SW6010C
Date Analyzed: 12/07/2007
Time Analyzed: 20:24
Analysis Batch: 108780

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Lead	17.2	8.9	mg/kg	D	10

GPL LABORATORIES, LLLP

Summary of Analytical Results

Client ID: SB-CZ-SS-2398-ST
GPL ID: 711009-003-003-1/1
Matrix: SOIL
Date Collected: 10/05/2007
Date Received: 11/01/2007

Prep Method: SW3050B
Prep Date: 11/05/2007
Prep Time: 12:00
Prep Batch: 101714

Analytical Method: SW6010C
Date Analyzed: 12/07/2007
Time Analyzed: 20:28
Analysis Batch: 108780

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Lead	97.8	8.5	mg/kg	D	10

GPL LABORATORIES, LLLP

Summary of Analytical Results

Client ID: SB-CZ-SS-2399-ST
GPL ID: 711009-004-004-1/1
Matrix: SOIL
Date Collected: 10/05/2007
Date Received: 11/01/2007

Prep Method: SW3050B
Prep Date: 11/05/2007
Prep Time: 12:00
Prep Batch: 101714

Analytical Method: SW6010C
Date Analyzed: 12/07/2007
Time Analyzed: 20:31
Analysis Batch: 108780

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Lead	11.6	9.1	mg/kg	D	10

GPL LABORATORIES, LLLP

Summary of Analytical Results

Client ID: SB-CZ-SS-2400-ST
GPL ID: 711009-005-005-1/1
Matrix: SOIL
Date Collected: 10/05/2007
Date Received: 11/01/2007

Prep Method: SW3050B
Prep Date: 11/05/2007
Prep Time: 12:00
Prep Batch: 101714

Analytical Method: SW6010C
Date Analyzed: 12/07/2007
Time Analyzed: 20:35
Analysis Batch: 108780

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Lead	18.8	8.8	mg/kg	D	10

GPL LABORATORIES, LLLP

Summary of Analytical Results

Client ID: SB-CZ-SS-2401-ST
GPL ID: 711009-006-006-1/1
Matrix: SOIL
Date Collected: 10/05/2007
Date Received: 11/01/2007

Prep Method: SW3050B
Prep Date: 11/05/2007
Prep Time: 12:00
Prep Batch: 101714

Analytical Method: SW6010C
Date Analyzed: 12/07/2007
Time Analyzed: 20:38
Analysis Batch: 108780

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Lead	27.4	8.7	mg/kg	D	10

GPL LABORATORIES, LLLP

Summary of Analytical Results

Client ID: SB-CZ-SS-2402-ST
GPL ID: 711009-007-007-1/1
Matrix: SOIL
Date Collected: 10/05/2007
Date Received: 11/01/2007

Prep Method: SW3050B
Prep Date: 11/05/2007
Prep Time: 12:00
Prep Batch: 101714

Analytical Method: SW6010C
Date Analyzed: 12/07/2007
Time Analyzed: 20:42
Analysis Batch: 108780

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Lead	30.9	8.3	mg/kg	D	10

GPL LABORATORIES, LLLP

Summary of Analytical Results

Client ID: SB-CZ-SS-2403-ST
GPL ID: 711009-008-008-1/1
Matrix: SOIL
Date Collected: 10/05/2007
Date Received: 11/01/2007

Prep Method: SW3050B
Prep Date: 11/05/2007
Prep Time: 12:00
Prep Batch: 101714

Analytical Method: SW6010C
Date Analyzed: 12/07/2007
Time Analyzed: 20:45
Analysis Batch: 108780

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Lead	18.5	8.6	mg/kg	D	10

GPL LABORATORIES, LLLP

Summary of Analytical Results

Client ID: SB-CZ-SS-2404-ST
GPL ID: 711009-009-009-1/1
Matrix: SOIL
Date Collected: 10/05/2007
Date Received: 11/01/2007

Prep Method: SW3050B
Prep Date: 11/05/2007
Prep Time: 12:00
Prep Batch: 101714

Analytical Method: SW6010C
Date Analyzed: 12/07/2007
Time Analyzed: 20:49
Analysis Batch: 108780

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Lead	9.8	8.1	mg/kg	D	10

GPL LABORATORIES, LLLP

Summary of Analytical Results

Client ID: SB-CZ-SS-2405-ST
GPL ID: 711009-010-010-1/1
Matrix: SOIL
Date Collected: 10/05/2007
Date Received: 11/01/2007

Prep Method: SW3050B
Prep Date: 11/05/2007
Prep Time: 12:00
Prep Batch: 101714

Analytical Method: SW6010C
Date Analyzed: 12/07/2007
Time Analyzed: 20:52
Analysis Batch: 108780

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Lead	18.2	9.1	mg/kg	D	10

GPL LABORATORIES, LLLP

Summary of Analytical Results

Client ID: SB-CZ-SS-2406-ST
GPL ID: 711009-011-011-1/1
Matrix: SOIL
Date Collected: 10/05/2007
Date Received: 11/01/2007

Prep Method: SW3050B
Prep Date: 11/05/2007
Prep Time: 12:00
Prep Batch: 101714

Analytical Method: SW6010C
Date Analyzed: 12/07/2007
Time Analyzed: 20:56
Analysis Batch: 108780

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Lead	10.2	9.1	mg/kg	D	10

GPL LABORATORIES, LLLP

Summary of Analytical Results

Client ID: SB-CZ-SS-2407-ST
GPL ID: 711009-012-012-1/1
Matrix: SOIL
Date Collected: 10/05/2007
Date Received: 11/01/2007

Prep Method: SW3050B
Prep Date: 11/05/2007
Prep Time: 12:00
Prep Batch: 101714

Analytical Method: SW6010C
Date Analyzed: 12/07/2007
Time Analyzed: 21:06
Analysis Batch: 108780

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Lead	14.5	8.8	mg/kg	D	10

GPL LABORATORIES, LLLP

Summary of Analytical Results

Client ID: SB-CZ-SS-2408-ST
GPL ID: 711009-013-013-1/1
Matrix: SOIL
Date Collected: 10/05/2007
Date Received: 11/01/2007

Prep Method: SW3050B
Prep Date: 11/05/2007
Prep Time: 12:00
Prep Batch: 101714

Analytical Method: SW6010C
Date Analyzed: 12/07/2007
Time Analyzed: 21:10
Analysis Batch: 108780

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Lead	31.0	8.9	mg/kg	D	10

GPL LABORATORIES, LLLP

Summary of Analytical Results

Client ID: SB-CZ-SS-2409-ST
GPL ID: 711009-014-014-1/1
Matrix: SOIL
Date Collected: 10/05/2007
Date Received: 11/01/2007

Prep Method: SW3050B
Prep Date: 11/05/2007
Prep Time: 12:00
Prep Batch: 101714

Analytical Method: SW6010C
Date Analyzed: 12/07/2007
Time Analyzed: 21:13
Analysis Batch: 108780

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Lead	9.5	9.1	mg/kg	D	10

GPL LABORATORIES, LLLP

Summary of Analytical Results

Client ID: SB-CZ-SS-2410-ST
GPL ID: 711009-015-015-1/1
Matrix: SOIL
Date Collected: 10/05/2007
Date Received: 11/01/2007

Prep Method: SW3050B
Prep Date: 11/05/2007
Prep Time: 12:00
Prep Batch: 101714

Analytical Method: SW6010C
Date Analyzed: 12/07/2007
Time Analyzed: 21:17
Analysis Batch: 108780

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Lead	20.7	8	mg/kg	D	10

GPL LABORATORIES, LLLP

Summary of Analytical Results

Client ID: SB-CZ-SS-2411-ST
GPL ID: 711009-016-016-1/1
Matrix: SOIL
Date Collected: 10/05/2007
Date Received: 11/01/2007

Prep Method: SW3050B
Prep Date: 11/05/2007
Prep Time: 12:00
Prep Batch: 101714

Analytical Method: SW6010C
Date Analyzed: 12/07/2007
Time Analyzed: 21:20
Analysis Batch: 108780

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Lead	8.0	8.8	mg/kg	JD	10

GPL LABORATORIES, LLLP

Summary of Analytical Results

Client ID: SB-CZ-SS-2412-ST
GPL ID: 711009-017-017-1/1
Matrix: SOIL
Date Collected: 10/05/2007
Date Received: 11/01/2007

Prep Method: SW3050B
Prep Date: 11/05/2007
Prep Time: 12:00
Prep Batch: 101714

Analytical Method: SW6010C
Date Analyzed: 12/07/2007
Time Analyzed: 21:24
Analysis Batch: 108780

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Lead	18.5	8.9	mg/kg	D	10

GPL LABORATORIES, LLLP

Summary of Analytical Results

Client ID: SB-CZ-SS-2413-ST
GPL ID: 711009-018-018-1/1
Matrix: SOIL
Date Collected: 10/05/2007
Date Received: 11/01/2007

Prep Method: SW3050B
Prep Date: 11/05/2007
Prep Time: 12:00
Prep Batch: 101714

Analytical Method: SW6010C
Date Analyzed: 12/07/2007
Time Analyzed: 21:27
Analysis Batch: 108780

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Lead	22.6	9.2	mg/kg	D	10

GPL LABORATORIES, LLLP

Summary of Analytical Results

Client ID: SB-CZ-SS-2414-ST
GPL ID: 711009-019-019-1/1
Matrix: SOIL
Date Collected: 10/05/2007
Date Received: 11/01/2007

Prep Method: SW3050B
Prep Date: 11/05/2007
Prep Time: 12:00
Prep Batch: 101714

Analytical Method: SW6010C
Date Analyzed: 12/07/2007
Time Analyzed: 21:31
Analysis Batch: 108780

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Lead	10.5	8.2	mg/kg	D	10

GPL LABORATORIES, LLLP

Summary of Analytical Results

Client ID: SB-CZ-SS-2415-ST
GPL ID: 711009-020-020-1/1
Matrix: SOIL
Date Collected: 10/05/2007
Date Received: 11/01/2007

Prep Method: SW3050B
Prep Date: 11/05/2007
Prep Time: 12:00
Prep Batch: 101714

Analytical Method: SW6010C
Date Analyzed: 12/07/2007
Time Analyzed: 21:34
Analysis Batch: 108780

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Lead	10.2	8.3	mg/kg	D	10

GPL LABORATORIES, LLLP

Summary of Analytical Results

Client ID: SB-CZ-SS-2396-SD
GPL ID: 711009-021-021-1/1
Matrix: SOIL
Date Collected: 10/05/2007
Date Received: 11/01/2007

Prep Method: SW3050B
Prep Date: 11/05/2007
Prep Time: 12:00
Prep Batch: 101664

Analytical Method: SW6010C
Date Analyzed: 12/05/2007
Time Analyzed: 03:25
Analysis Batch: 108778

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Lead	16.6	8.6	mg/kg	D	10

GPL LABORATORIES, LLLP

Summary of Analytical Results

Client ID: SB-CZ-SS-2397-SD
GPL ID: 711009-022-022-1/1
Matrix: SOIL
Date Collected: 10/05/2007
Date Received: 11/01/2007

Prep Method: SW3050B
Prep Date: 11/05/2007
Prep Time: 12:00
Prep Batch: 101664

Analytical Method: SW6010C
Date Analyzed: 12/05/2007
Time Analyzed: 03:42
Analysis Batch: 108778

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Lead	4.5	8.6	mg/kg	JD	10

GPL LABORATORIES, LLLP

Summary of Analytical Results

Client ID: SB-CZ-SS-2398-SD
GPL ID: 711009-023-023-1/1
Matrix: SOIL
Date Collected: 10/05/2007
Date Received: 11/01/2007

Prep Method: SW3050B
Prep Date: 11/05/2007
Prep Time: 12:00
Prep Batch: 101664

Analytical Method: SW6010C
Date Analyzed: 12/05/2007
Time Analyzed: 03:45
Analysis Batch: 108778

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Lead	14.4	8.3	mg/kg	D	10

GPL LABORATORIES, LLLP

Summary of Analytical Results

Client ID: SB-CZ-SS-2399-SD
GPL ID: 711009-024-024-1/1
Matrix: SOIL
Date Collected: 10/05/2007
Date Received: 11/01/2007

Prep Method: SW3050B
Prep Date: 11/05/2007
Prep Time: 12:00
Prep Batch: 101664

Analytical Method: SW6010C
Date Analyzed: 12/05/2007
Time Analyzed: 03:49
Analysis Batch: 108778

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Lead	6.5	8.8	mg/kg	JD	10

GPL LABORATORIES, LLLP

Summary of Analytical Results

Client ID: SB-CZ-SS-2400-SD
GPL ID: 711009-025-025-1/1
Matrix: SOIL
Date Collected: 10/05/2007
Date Received: 11/01/2007

Prep Method: SW3050B
Prep Date: 11/05/2007
Prep Time: 12:00
Prep Batch: 101664

Analytical Method: SW6010C
Date Analyzed: 12/05/2007
Time Analyzed: 03:52
Analysis Batch: 108778

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Lead	6.7	8.3	mg/kg	JD	10

GPL LABORATORIES, LLLP

Summary of Analytical Results

Client ID: SB-CZ-SS-2401-SD
GPL ID: 711009-026-026-1/1
Matrix: SOIL
Date Collected: 10/05/2007
Date Received: 11/01/2007

Prep Method: SW3050B
Prep Date: 11/05/2007
Prep Time: 12:00
Prep Batch: 101664

Analytical Method: SW6010C
Date Analyzed: 12/05/2007
Time Analyzed: 04:02
Analysis Batch: 108778

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Lead	7.4	9	mg/kg	JD	10

GPL LABORATORIES, LLLP

Summary of Analytical Results

Client ID: SB-CZ-SS-2402-SD
GPL ID: 711009-027-027-1/1
Matrix: SOIL
Date Collected: 10/05/2007
Date Received: 11/01/2007

Prep Method: SW3050B
Prep Date: 11/05/2007
Prep Time: 12:00
Prep Batch: 101664

Analytical Method: SW6010C
Date Analyzed: 12/05/2007
Time Analyzed: 04:05
Analysis Batch: 108778

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Lead	14.2	8.5	mg/kg	D	10

GPL LABORATORIES, LLLP

Summary of Analytical Results

Client ID: SB-CZ-SS-2403-SD
GPL ID: 711009-028-028-1/1
Matrix: SOIL
Date Collected: 10/05/2007
Date Received: 11/01/2007

Prep Method: SW3050B
Prep Date: 11/05/2007
Prep Time: 12:00
Prep Batch: 101664

Analytical Method: SW6010C
Date Analyzed: 12/05/2007
Time Analyzed: 04:09
Analysis Batch: 108778

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Lead	6.1	8.5	mg/kg	JD	10

GPL LABORATORIES, LLLP

Summary of Analytical Results

Client ID: SB-CZ-SS-2404-SD
GPL ID: 711009-029-029-1/1
Matrix: SOIL
Date Collected: 10/05/2007
Date Received: 11/01/2007

Prep Method: SW3050B
Prep Date: 11/05/2007
Prep Time: 12:00
Prep Batch: 101664

Analytical Method: SW6010C
Date Analyzed: 12/05/2007
Time Analyzed: 04:12
Analysis Batch: 108778

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Lead	3.4	8.4	mg/kg	JD	10

GPL LABORATORIES, LLLP

Summary of Analytical Results

Client ID: SB-CZ-SS-2405-SD
GPL ID: 711009-030-030-1/1
Matrix: SOIL
Date Collected: 10/05/2007
Date Received: 11/01/2007

Prep Method: SW3050B
Prep Date: 11/05/2007
Prep Time: 12:00
Prep Batch: 101664

Analytical Method: SW6010C
Date Analyzed: 12/05/2007
Time Analyzed: 04:16
Analysis Batch: 108778

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Lead	2.6	8.3	mg/kg	JD	10

GPL LABORATORIES, LLLP

Summary of Analytical Results

Client ID: SB-CZ-SS-2406-SD
GPL ID: 711009-031-031-1/1
Matrix: SOIL
Date Collected: 10/05/2007
Date Received: 11/01/2007

Prep Method: SW3050B
Prep Date: 11/05/2007
Prep Time: 12:00
Prep Batch: 101664

Analytical Method: SW6010C
Date Analyzed: 12/05/2007
Time Analyzed: 04:19
Analysis Batch: 108778

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Lead	6.3	8.7	mg/kg	JD	10

GPL LABORATORIES, LLLP

Summary of Analytical Results

Client ID: SB-CZ-SS-2407-SD
GPL ID: 711009-032-032-1/1
Matrix: SOIL
Date Collected: 10/05/2007
Date Received: 11/01/2007

Prep Method: SW3050B
Prep Date: 11/05/2007
Prep Time: 12:00
Prep Batch: 101664

Analytical Method: SW6010C
Date Analyzed: 12/05/2007
Time Analyzed: 04:22
Analysis Batch: 108778

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Lead	6.1	8.5	mg/kg	JD	10

GPL LABORATORIES, LLLP

Summary of Analytical Results

Client ID: SB-CZ-SS-2408-SD
GPL ID: 711009-033-033-1/1
Matrix: SOIL
Date Collected: 10/05/2007
Date Received: 11/01/2007

Prep Method: SW3050B
Prep Date: 11/05/2007
Prep Time: 12:00
Prep Batch: 101664

Analytical Method: SW6010C
Date Analyzed: 12/05/2007
Time Analyzed: 04:26
Analysis Batch: 108778

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Lead	7.4	8.4	mg/kg	JD	10

GPL LABORATORIES, LLLP

Summary of Analytical Results

Client ID: SB-CZ-SS-2409-SD
GPL ID: 711009-034-034-1/1
Matrix: SOIL
Date Collected: 10/05/2007
Date Received: 11/01/2007

Prep Method: SW3050B
Prep Date: 11/05/2007
Prep Time: 12:00
Prep Batch: 101664

Analytical Method: SW6010C
Date Analyzed: 12/05/2007
Time Analyzed: 04:29
Analysis Batch: 108778

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Lead	7.8	8.4	mg/kg	JD	10

GPL LABORATORIES, LLLP

Summary of Analytical Results

Client ID: SB-CZ-SS-2410-SD
GPL ID: 711009-035-035-1/1
Matrix: SOIL
Date Collected: 10/05/2007
Date Received: 11/01/2007

Prep Method: SW3050B
Prep Date: 11/05/2007
Prep Time: 12:00
Prep Batch: 101664

Analytical Method: SW6010C
Date Analyzed: 12/05/2007
Time Analyzed: 04:33
Analysis Batch: 108778

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Lead	5.5	8.9	mg/kg	JD	10

GPL LABORATORIES, LLLP

Summary of Analytical Results

Client ID: SB-CZ-SS-2411-SD
GPL ID: 711009-036-036-1/1
Matrix: SOIL
Date Collected: 10/05/2007
Date Received: 11/01/2007

Prep Method: SW3050B
Prep Date: 11/05/2007
Prep Time: 12:00
Prep Batch: 101664

Analytical Method: SW6010C
Date Analyzed: 12/05/2007
Time Analyzed: 04:43
Analysis Batch: 108778

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Lead	2.6	9	mg/kg	JD	10

GPL LABORATORIES, LLLP

Summary of Analytical Results

Client ID: SB-CZ-SS-2412-SD
GPL ID: 711009-037-037-1/1
Matrix: SOIL
Date Collected: 10/05/2007
Date Received: 11/01/2007

Prep Method: SW3050B
Prep Date: 11/05/2007
Prep Time: 12:00
Prep Batch: 101664

Analytical Method: SW6010C
Date Analyzed: 12/05/2007
Time Analyzed: 04:46
Analysis Batch: 108778

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Lead	5.3	8.3	mg/kg	JD	10

GPL LABORATORIES, LLLP

Summary of Analytical Results

Client ID: SB-CZ-SS-2413-SD
GPL ID: 711009-038-038-1/1
Matrix: SOIL
Date Collected: 10/05/2007
Date Received: 11/01/2007

Prep Method: SW3050B
Prep Date: 11/05/2007
Prep Time: 12:00
Prep Batch: 101664

Analytical Method: SW6010C
Date Analyzed: 12/05/2007
Time Analyzed: 04:50
Analysis Batch: 108778

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Lead	3.3	8.2	mg/kg	JD	10

GPL LABORATORIES, LLLP

Summary of Analytical Results

Client ID: SB-CZ-SS-2414-SD
GPL ID: 711009-039-039-1/1
Matrix: SOIL
Date Collected: 10/05/2007
Date Received: 11/01/2007

Prep Method: SW3050B
Prep Date: 11/05/2007
Prep Time: 12:00
Prep Batch: 101664

Analytical Method: SW6010C
Date Analyzed: 12/05/2007
Time Analyzed: 04:53
Analysis Batch: 108778

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Lead	3.8	8.3	mg/kg	JD	10

GPL LABORATORIES, LLLP

Summary of Analytical Results

Client ID: SB-CZ-SS-2415-SD
GPL ID: 711009-040-040-1/1
Matrix: SOIL
Date Collected: 10/05/2007
Date Received: 11/01/2007

Prep Method: SW3050B
Prep Date: 11/05/2007
Prep Time: 12:00
Prep Batch: 101664

Analytical Method: SW6010C
Date Analyzed: 12/05/2007
Time Analyzed: 04:56
Analysis Batch: 108778

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Lead	6.1	8.1	mg/kg	JD	10

GPL LABORATORIES, LLP
ANALYTICAL RESULTS

Project Name : Cabrera-Schofield CZ

Date Printed December 20, 2007

GPL ID	Client ID
711009-021-021-1/1	SB-CZ-SS-2396-SD
711009-001-001-1/1	SB-CZ-SS-2396-ST
711009-022-022-1/1	SB-CZ-SS-2397-SD
711009-002-002-1/1	SB-CZ-SS-2397-ST
711009-023-023-1/1	SB-CZ-SS-2398-SD
711009-003-003-1/1	SB-CZ-SS-2398-ST
711009-024-024-1/1	SB-CZ-SS-2399-SD
711009-004-004-1/1	SB-CZ-SS-2399-ST
711009-025-025-1/1	SB-CZ-SS-2400-SD
711009-005-005-1/1	SB-CZ-SS-2400-ST
711009-026-026-1/1	SB-CZ-SS-2401-SD
711009-006-006-1/1	SB-CZ-SS-2401-ST
711009-027-027-1/1	SB-CZ-SS-2402-SD
711009-007-007-1/1	SB-CZ-SS-2402-ST
711009-028-028-1/1	SB-CZ-SS-2403-SD
711009-008-008-1/1	SB-CZ-SS-2403-ST
711009-029-029-1/1	SB-CZ-SS-2404-SD
711009-009-009-1/1	SB-CZ-SS-2404-ST
711009-030-030-1/1	SB-CZ-SS-2405-SD
711009-010-010-1/1	SB-CZ-SS-2405-ST
711009-031-031-1/1	SB-CZ-SS-2406-SD
711009-011-011-1/1	SB-CZ-SS-2406-ST
711009-032-032-1/1	SB-CZ-SS-2407-SD
711009-012-012-1/1	SB-CZ-SS-2407-ST
711009-033-033-1/1	SB-CZ-SS-2408-SD
711009-013-013-1/1	SB-CZ-SS-2408-ST
711009-034-034-1/1	SB-CZ-SS-2409-SD
711009-014-014-1/1	SB-CZ-SS-2409-ST
711009-035-035-1/1	SB-CZ-SS-2410-SD
711009-015-015-1/1	SB-CZ-SS-2410-ST
711009-036-036-1/1	SB-CZ-SS-2411-SD
711009-016-016-1/1	SB-CZ-SS-2411-ST
711009-037-037-1/1	SB-CZ-SS-2412-SD
711009-017-017-1/1	SB-CZ-SS-2412-ST
711009-038-038-1/1	SB-CZ-SS-2413-SD
711009-018-018-1/1	SB-CZ-SS-2413-ST
711009-039-039-1/1	SB-CZ-SS-2414-SD
711009-019-019-1/1	SB-CZ-SS-2414-ST
711009-040-040-1/1	SB-CZ-SS-2415-SD
711009-020-020-1/1	SB-CZ-SS-2415-ST

TRACE METALS

GPL Laboratories

USEPA - CLP

COVER PAGE

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 711009

SOW No.: SW846

EPA Sample No.	Lab Sample ID
SB-CZ-SS-2396-SD	S 711009-021-021-1/1
SB-CZ-SS-2396-SD MS	SP711009-021-021-1/1
SB-CZ-SS-2396-SD MSD	SD711009-021-021-1/1
SB-CZ-SS-2396-ST	S 711009-001-001-1/1
SB-CZ-SS-2396-ST MS	SP711009-001-001-1/1
SB-CZ-SS-2396-ST MSD	SD711009-001-001-1/1
SB-CZ-SS-2397-SD	S 711009-022-022-1/1
SB-CZ-SS-2397-ST	S 711009-002-002-1/1
SB-CZ-SS-2398-SD	S 711009-023-023-1/1
SB-CZ-SS-2398-ST	S 711009-003-003-1/1
SB-CZ-SS-2399-SD	S 711009-024-024-1/1
SB-CZ-SS-2399-ST	S 711009-004-004-1/1
SB-CZ-SS-2400-SD	S 711009-025-025-1/1
SB-CZ-SS-2400-ST	S 711009-005-005-1/1
SB-CZ-SS-2401-SD	S 711009-026-026-1/1
SB-CZ-SS-2401-ST	S 711009-006-006-1/1
SB-CZ-SS-2402-SD	S 711009-027-027-1/1
SB-CZ-SS-2402-ST	S 711009-007-007-1/1
SB-CZ-SS-2403-SD	S 711009-028-028-1/1
SB-CZ-SS-2403-ST	S 711009-008-008-1/1
SB-CZ-SS-2404-SD	S 711009-029-029-1/1
SB-CZ-SS-2404-ST	S 711009-009-009-1/1
SB-CZ-SS-2405-SD	S 711009-030-030-1/1
SB-CZ-SS-2405-ST	S 711009-010-010-1/1
SB-CZ-SS-2406-SD	S 711009-031-031-1/1
SB-CZ-SS-2406-ST	S 711009-011-011-1/1
SB-CZ-SS-2407-SD	S 711009-032-032-1/1
SB-CZ-SS-2407-ST	S 711009-012-012-1/1
SB-CZ-SS-2408-SD	S 711009-033-033-1/1
SB-CZ-SS-2408-ST	S 711009-013-013-1/1
SB-CZ-SS-2409-SD	S 711009-034-034-1/1
SB-CZ-SS-2409-ST	S 711009-014-014-1/1
SB-CZ-SS-2410-SD	S 711009-035-035-1/1
SB-CZ-SS-2410-ST	S 711009-015-015-1/1
SB-CZ-SS-2411-SD	S 711009-036-036-1/1

EPA Sample No.	Lab Sample ID
SB-CZ-SS-2411-ST	S 711009-016-016-1/1
SB-CZ-SS-2412-SD	S 711009-037-037-1/1
SB-CZ-SS-2412-ST	S 711009-017-017-1/1
SB-CZ-SS-2413-SD	S 711009-038-038-1/1
SB-CZ-SS-2413-ST	S 711009-018-018-1/1
SB-CZ-SS-2414-SD	S 711009-039-039-1/1
SB-CZ-SS-2414-ST	S 711009-019-019-1/1
SB-CZ-SS-2415-SD	S 711009-040-040-1/1
SB-CZ-SS-2415-ST	S 711009-020-020-1/1

		ICP-AES	ICP-MS
Were ICP-AES and ICP-MS interelement corrections applied?	(Yes/No)	YES	YES
Were ICP-AES and ICP-MS background corrections applied?	(Yes/No)	YES	YES
if yes, were raw data generated before application of background corrections?	(Yes/No)	NO	YES

Comments:

I certify that this Sample Data Package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy Sample Data Package and in the computer-readable data submitted on diskette (or via an alternate means of electronic transmission, if approved in advance by USEPA) has been authorized by the Laboratory Manager or the Manager's designee, as referred by the following signature.

Signature: Name: Richard Turse

Date: 12/14/2007 Title: Asst Lab Director

GPL Laboratories, LLLP

Sample Results

Project:	711009	Matrix:	Soil
Lab Sample ID:	S 711009-001-001-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2396-ST	Prep Batch:	101714
Analysis Method:	6010 ICP Analysis	Reporting Units:	mg/kg

Analyte	WL/ Mass	Method Detection Limit	Reporting Limit	Reported Result	Q	Dilution Factor	Analysis Date/Time
Lead	220.353	0.88	8.8	30.4	D	10	12/07/07 20:00

U = The analyte concentration was less than the MDL

J = Reported value was less than the CRQL but greater than or equal to the MDL

GPL Laboratories, LLLP

Sample Results

Project:	711009	Matrix:	Soil
Lab Sample ID:	S 711009-002-002-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2397-ST	Prep Batch:	101714
Analysis Method:	6010 ICP Analysis	Reporting Units:	mg/kg

Analyte	WL/ Mass	Method Detection Limit	Reporting Limit	Reported Result	Q	Dilution Factor	Analysis Date/Time
Lead	220.353	0.89	8.9	17.2	D	10	12/07/07 20:24

U = The analyte concentration was less than the MDL

J = Reported value was less than the CRQL but greater than or equal to the MDL

GPL Laboratories, LLLP

Sample Results

Project:	711009	Matrix:	Soil
Lab Sample ID:	S 711009-003-003-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2398-ST	Prep Batch:	101714
Analysis Method:	6010 ICP Analysis	Reporting Units:	mg/kg

Analyte	WL/ Mass	Method Detection Limit	Reporting Limit	Reported Result	Q	Dilution Factor	Analysis Date/Time
Lead	220.353	0.85	8.5	97.8	D	10	12/07/07 20:28

U = The analyte concentration was less than the MDL

J = Reported value was less than the CRQL but greater than or equal to the MDL

GPL Laboratories, LLLP

Sample Results

Project:	711009	Matrix:	Soil
Lab Sample ID:	S 711009-004-004-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2399-ST	Prep Batch:	101714
Analysis Method:	6010 ICP Analysis	Reporting Units:	mg/kg

Analyte	WL/ Mass	Method Detection Limit	Reporting Limit	Reported Result	Q	Dilution Factor	Analysis Date/Time
Lead	220.353	0.91	9.1	11.6	D	10	12/07/07 20:31

U = The analyte concentration was less than the MDL

J = Reported value was less than the CRQL but greater than or equal to the MDL

GPL Laboratories, LLLP

Sample Results

Project:	711009	Matrix:	Soil
Lab Sample ID:	S 711009-005-005-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2400-ST	Prep Batch:	101714
Analysis Method:	6010 ICP Analysis	Reporting Units:	mg/kg

Analyte	WL/ Mass	Method Detection Limit	Reporting Limit	Reported Result	Q	Dilution Factor	Analysis Date/Time
Lead	220.353	0.88	8.8	18.8	D	10	12/07/07 20:35

U = The analyte concentration was less than the MDL

J = Reported value was less than the CRQL but greater than or equal to the MDL

GPL Laboratories, LLLP

Sample Results

Project:	711009	Matrix:	Soil
Lab Sample ID:	S 711009-006-006-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2401-ST	Prep Batch:	101714
Analysis Method:	6010 ICP Analysis	Reporting Units:	mg/kg

Analyte	WL/ Mass	Method Detection Limit	Reporting Limit	Reported Result	Q	Dilution Factor	Analysis Date/Time
Lead	220.353	0.87	8.7	27.4	D	10	12/07/07 20:38

U = The analyte concentration was less than the MDL

J = Reported value was less than the CRQL but greater than or equal to the MDL

GPL Laboratories, LLLP

Sample Results

Project:	711009	Matrix:	Soil
Lab Sample ID:	S 711009-007-007-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2402-ST	Prep Batch:	101714
Analysis Method:	6010 ICP Analysis	Reporting Units:	mg/kg

Analyte	WL/ Mass	Method Detection Limit	Reporting Limit	Reported Result	Q	Dilution Factor	Analysis Date/Time
Lead	220.353	0.83	8.3	30.9	D	10	12/07/07 20:42

U = The analyte concentration was less than the MDL

J = Reported value was less than the CRQL but greater than or equal to the MDL

GPL Laboratories, LLLP

Sample Results

Project:	711009	Matrix:	Soil
Lab Sample ID:	S 711009-008-008-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2403-ST	Prep Batch:	101714
Analysis Method:	6010 ICP Analysis	Reporting Units:	mg/kg

Analyte	WL/ Mass	Method Detection Limit	Reporting Limit	Reported Result	Q	Dilution Factor	Analysis Date/Time
Lead	220.353	0.86	8.6	18.5	D	10	12/07/07 20:45

U = The analyte concentration was less than the MDL

J = Reported value was less than the CRQL but greater than or equal to the MDL

GPL Laboratories, LLLP

Sample Results

Project:	711009	Matrix:	Soil
Lab Sample ID:	S 711009-009-009-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2404-ST	Prep Batch:	101714
Analysis Method:	6010 ICP Analysis	Reporting Units:	mg/kg

Analyte	WL/ Mass	Method Detection Limit	Reporting Limit	Reported Result	Q	Dilution Factor	Analysis Date/Time
Lead	220.353	0.81	8.1	9.8	D	10	12/07/07 20:49

U = The analyte concentration was less than the MDL

J = Reported value was less than the CRQL but greater than or equal to the MDL

GPL Laboratories, LLLP

Sample Results

Project:	711009	Matrix:	Soil
Lab Sample ID:	S 711009-010-010-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2405-ST	Prep Batch:	101714
Analysis Method:	6010 ICP Analysis	Reporting Units:	mg/kg

Analyte	WL/ Mass	Method Detection Limit	Reporting Limit	Reported Result	Q	Dilution Factor	Analysis Date/Time
Lead	220.353	0.91	9.1	18.2	D	10	12/07/07 20:52

U = The analyte concentration was less than the MDL

J = Reported value was less than the CRQL but greater than or equal to the MDL

GPL Laboratories, LLLP

Sample Results

Project:	711009	Matrix:	Soil
Lab Sample ID:	S 711009-011-011-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2406-ST	Prep Batch:	101714
Analysis Method:	6010 ICP Analysis	Reporting Units:	mg/kg

Analyte	WL/ Mass	Method Detection Limit	Reporting Limit	Reported Result	Q	Dilution Factor	Analysis Date/Time
Lead	220.353	0.91	9.1	10.2	D	10	12/07/07 20:56

U = The analyte concentration was less than the MDL

J = Reported value was less than the CRQL but greater than or equal to the MDL

GPL Laboratories, LLLP

Sample Results

Project:	711009	Matrix:	Soil
Lab Sample ID:	S 711009-012-012-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2407-ST	Prep Batch:	101714
Analysis Method:	6010 ICP Analysis	Reporting Units:	mg/kg

Analyte	WL/ Mass	Method Detection Limit	Reporting Limit	Reported Result	Q	Dilution Factor	Analysis Date/Time
Lead	220.353	0.88	8.8	14.5	D	10	12/07/07 21:06

U = The analyte concentration was less than the MDL

J = Reported value was less than the CRQL but greater than or equal to the MDL

GPL Laboratories, LLLP

Sample Results

Project:	711009	Matrix:	Soil
Lab Sample ID:	S 711009-013-013-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2408-ST	Prep Batch:	101714
Analysis Method:	6010 ICP Analysis	Reporting Units:	mg/kg

Analyte	WL/ Mass	Method Detection Limit	Reporting Limit	Reported Result	Q	Dilution Factor	Analysis Date/Time
Lead	220.353	0.89	8.9	31.0	D	10	12/07/07 21:10

U = The analyte concentration was less than the MDL

J = Reported value was less than the CRQL but greater than or equal to the MDL

GPL Laboratories, LLLP

Sample Results

Project:	711009	Matrix:	Soil
Lab Sample ID:	S 711009-014-014-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2409-ST	Prep Batch:	101714
Analysis Method:	6010 ICP Analysis	Reporting Units:	mg/kg

Analyte	WL/ Mass	Method Detection Limit	Reporting Limit	Reported Result	Q	Dilution Factor	Analysis Date/Time
Lead	220.353	0.91	9.1	9.5	D	10	12/07/07 21:13

U = The analyte concentration was less than the MDL

J = Reported value was less than the CRQL but greater than or equal to the MDL

GPL Laboratories, LLLP

Sample Results

Project:	711009	Matrix:	Soil
Lab Sample ID:	S 711009-015-015-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2410-ST	Prep Batch:	101714
Analysis Method:	6010 ICP Analysis	Reporting Units:	mg/kg

Analyte	WL/ Mass	Method Detection Limit	Reporting Limit	Reported Result	Q	Dilution Factor	Analysis Date/Time
Lead	220.353	0.80	8.0	20.7	D	10	12/07/07 21:17

U = The analyte concentration was less than the MDL

J = Reported value was less than the CRQL but greater than or equal to the MDL

GPL Laboratories, LLLP

Sample Results

Project:	711009	Matrix:	Soil
Lab Sample ID:	S 711009-016-016-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2411-ST	Prep Batch:	101714
Analysis Method:	6010 ICP Analysis	Reporting Units:	mg/kg

Analyte	WL/ Mass	Method Detection Limit	Reporting Limit	Reported Result	Q	Dilution Factor	Analysis Date/Time
Lead	220.353	0.88	8.8	8.0	JD	10	12/07/07 21:20

U = The analyte concentration was less than the MDL

J = Reported value was less than the CRQL but greater than or equal to the MDL

GPL Laboratories, LLLP

Sample Results

Project:	711009	Matrix:	Soil
Lab Sample ID:	S 711009-017-017-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2412-ST	Prep Batch:	101714
Analysis Method:	6010 ICP Analysis	Reporting Units:	mg/kg

Analyte	WL/ Mass	Method Detection Limit	Reporting Limit	Reported Result	Q	Dilution Factor	Analysis Date/Time
Lead	220.353	0.89	8.9	18.5	D	10	12/07/07 21:24

U = The analyte concentration was less than the MDL

J = Reported value was less than the CRQL but greater than or equal to the MDL

GPL Laboratories, LLLP

Sample Results

Project:	711009	Matrix:	Soil
Lab Sample ID:	S 711009-018-018-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2413-ST	Prep Batch:	101714
Analysis Method:	6010 ICP Analysis	Reporting Units:	mg/kg

Analyte	WL/ Mass	Method Detection Limit	Reporting Limit	Reported Result	Q	Dilution Factor	Analysis Date/Time
Lead	220.353	0.92	9.2	22.6	D	10	12/07/07 21:27

U = The analyte concentration was less than the MDL

J = Reported value was less than the CRQL but greater than or equal to the MDL

GPL Laboratories, LLLP

Sample Results

Project:	711009	Matrix:	Soil
Lab Sample ID:	S 711009-019-019-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2414-ST	Prep Batch:	101714
Analysis Method:	6010 ICP Analysis	Reporting Units:	mg/kg

Analyte	WL/ Mass	Method Detection Limit	Reporting Limit	Reported Result	Q	Dilution Factor	Analysis Date/Time
Lead	220.353	0.82	8.2	10.5	D	10	12/07/07 21:31

U = The analyte concentration was less than the MDL

J = Reported value was less than the CRQL but greater than or equal to the MDL

GPL Laboratories, LLLP

Sample Results

Project:	711009	Matrix:	Soil
Lab Sample ID:	S 711009-020-020-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2415-ST	Prep Batch:	101714
Analysis Method:	6010 ICP Analysis	Reporting Units:	mg/kg

Analyte	WL/ Mass	Method Detection Limit	Reporting Limit	Reported Result	Q	Dilution Factor	Analysis Date/Time
Lead	220.353	0.83	8.3	10.2	D	10	12/07/07 21:34

U = The analyte concentration was less than the MDL

J = Reported value was less than the CRQL but greater than or equal to the MDL

GPL Laboratories, LLLP

Sample Results

Project:	711009	Matrix:	Soil
Lab Sample ID:	S 711009-021-021-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2396-SD	Prep Batch:	101664
Analysis Method:	6010 ICP Analysis	Reporting Units:	mg/kg

Analyte	WL/ Mass	Method Detection Limit	Reporting Limit	Reported Result	Q	Dilution Factor	Analysis Date/Time
Lead	220.353	0.86	8.6	16.6	D	10	12/05/07 3:25

U = The analyte concentration was less than the MDL

J = Reported value was less than the CRQL but greater than or equal to the MDL

GPL Laboratories, LLLP

Sample Results

Project:	711009	Matrix:	Soil
Lab Sample ID:	S 711009-022-022-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2397-SD	Prep Batch:	101664
Analysis Method:	6010 ICP Analysis	Reporting Units:	mg/kg

Analyte	WL/ Mass	Method Detection Limit	Reporting Limit	Reported Result	Q	Dilution Factor	Analysis Date/Time
Lead	220.353	0.86	8.6	4.5	JD	10	12/05/07 3:42

U = The analyte concentration was less than the MDL

J = Reported value was less than the CRQL but greater than or equal to the MDL

GPL Laboratories, LLLP

Sample Results

Project:	711009	Matrix:	Soil
Lab Sample ID:	S 711009-023-023-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2398-SD	Prep Batch:	101664
Analysis Method:	6010 ICP Analysis	Reporting Units:	mg/kg

Analyte	WL/ Mass	Method Detection Limit	Reporting Limit	Reported Result	Q	Dilution Factor	Analysis Date/Time
Lead	220.353	0.83	8.3	14.4	D	10	12/05/07 3:45

U = The analyte concentration was less than the MDL

J = Reported value was less than the CRQL but greater than or equal to the MDL

GPL Laboratories, LLLP

Sample Results

Project:	711009	Matrix:	Soil
Lab Sample ID:	S 711009-024-024-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2399-SD	Prep Batch:	101664
Analysis Method:	6010 ICP Analysis	Reporting Units:	mg/kg

Analyte	WL/ Mass	Method Detection Limit	Reporting Limit	Reported Result	Q	Dilution Factor	Analysis Date/Time
Lead	220.353	0.88	8.8	6.5	JD	10	12/05/07 3:49

U = The analyte concentration was less than the MDL

J = Reported value was less than the CRQL but greater than or equal to the MDL

GPL Laboratories, LLLP

Sample Results

Project:	711009	Matrix:	Soil
Lab Sample ID:	S 711009-025-025-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2400-SD	Prep Batch:	101664
Analysis Method:	6010 ICP Analysis	Reporting Units:	mg/kg

Analyte	WL/ Mass	Method Detection Limit	Reporting Limit	Reported Result	Q	Dilution Factor	Analysis Date/Time
Lead	220.353	0.83	8.3	6.7	JD	10	12/05/07 3:52

U = The analyte concentration was less than the MDL

J = Reported value was less than the CRQL but greater than or equal to the MDL

GPL Laboratories, LLLP

Sample Results

Project:	711009	Matrix:	Soil
Lab Sample ID:	S 711009-026-026-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2401-SD	Prep Batch:	101664
Analysis Method:	6010 ICP Analysis	Reporting Units:	mg/kg

Analyte	WL/ Mass	Method Detection Limit	Reporting Limit	Reported Result	Q	Dilution Factor	Analysis Date/Time
Lead	220.353	0.90	9.0	7.4	JD	10	12/05/07 4:02

U = The analyte concentration was less than the MDL

J = Reported value was less than the CRQL but greater than or equal to the MDL

GPL Laboratories, LLLP

Sample Results

Project:	711009	Matrix:	Soil
Lab Sample ID:	S 711009-027-027-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2402-SD	Prep Batch:	101664
Analysis Method:	6010 ICP Analysis	Reporting Units:	mg/kg

Analyte	WL/ Mass	Method Detection Limit	Reporting Limit	Reported Result	Q	Dilution Factor	Analysis Date/Time
Lead	220.353	0.85	8.5	14.2	D	10	12/05/07 4:05

U = The analyte concentration was less than the MDL

J = Reported value was less than the CRQL but greater than or equal to the MDL

GPL Laboratories, LLLP

Sample Results

Project:	711009	Matrix:	Soil
Lab Sample ID:	S 711009-028-028-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2403-SD	Prep Batch:	101664
Analysis Method:	6010 ICP Analysis	Reporting Units:	mg/kg

Analyte	WL/ Mass	Method Detection Limit	Reporting Limit	Reported Result	Q	Dilution Factor	Analysis Date/Time
Lead	220.353	0.85	8.5	6.1	JD	10	12/05/07 4:09

U = The analyte concentration was less than the MDL

J = Reported value was less than the CRQL but greater than or equal to the MDL

GPL Laboratories, LLLP

Sample Results

Project:	711009	Matrix:	Soil
Lab Sample ID:	S 711009-029-029-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2404-SD	Prep Batch:	101664
Analysis Method:	6010 ICP Analysis	Reporting Units:	mg/kg

Analyte	WL/ Mass	Method Detection Limit	Reporting Limit	Reported Result	Q	Dilution Factor	Analysis Date/Time
Lead	220.353	0.84	8.4	3.4	JD	10	12/05/07 4:12

U = The analyte concentration was less than the MDL

J = Reported value was less than the CRQL but greater than or equal to the MDL

GPL Laboratories, LLLP

Sample Results

Project:	711009	Matrix:	Soil
Lab Sample ID:	S 711009-030-030-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2405-SD	Prep Batch:	101664
Analysis Method:	6010 ICP Analysis	Reporting Units:	mg/kg

Analyte	WL/ Mass	Method Detection Limit	Reporting Limit	Reported Result	Q	Dilution Factor	Analysis Date/Time
Lead	220.353	0.83	8.3	2.6	JD	10	12/05/07 4:16

U = The analyte concentration was less than the MDL

J = Reported value was less than the CRQL but greater than or equal to the MDL

GPL Laboratories, LLLP

Sample Results

Project:	711009	Matrix:	Soil
Lab Sample ID:	S 711009-031-031-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2406-SD	Prep Batch:	101664
Analysis Method:	6010 ICP Analysis	Reporting Units:	mg/kg

Analyte	WL/ Mass	Method Detection Limit	Reporting Limit	Reported Result	Q	Dilution Factor	Analysis Date/Time
Lead	220.353	0.87	8.7	6.3	JD	10	12/05/07 4:19

U = The analyte concentration was less than the MDL

J = Reported value was less than the CRQL but greater than or equal to the MDL

GPL Laboratories, LLLP

Sample Results

Project:	711009	Matrix:	Soil
Lab Sample ID:	S 711009-032-032-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2407-SD	Prep Batch:	101664
Analysis Method:	6010 ICP Analysis	Reporting Units:	mg/kg

Analyte	WL/ Mass	Method Detection Limit	Reporting Limit	Reported Result	Q	Dilution Factor	Analysis Date/Time
Lead	220.353	0.85	8.5	6.1	JD	10	12/05/07 4:22

U = The analyte concentration was less than the MDL

J = Reported value was less than the CRQL but greater than or equal to the MDL

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Sample Results

Project:	711009	Matrix:	Soil
Lab Sample ID:	S 711009-033-033-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2408-SD	Prep Batch:	101664
Analysis Method:	6010 ICP Analysis	Reporting Units:	mg/kg

Analyte	WL/ Mass	Method Detection Limit	Reporting Limit	Reported Result	Q	Dilution Factor	Analysis Date/Time
Lead	220.353	0.84	8.4	7.4	JD	10	12/05/07 4:26

U = The analyte concentration was less than the MDL

J = Reported value was less than the CRQL but greater than or equal to the MDL

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Sample Results

Project:	711009	Matrix:	Soil
Lab Sample ID:	S 711009-034-034-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2409-SD	Prep Batch:	101664
Analysis Method:	6010 ICP Analysis	Reporting Units:	mg/kg

Analyte	WL/ Mass	Method Detection Limit	Reporting Limit	Reported Result	Q	Dilution Factor	Analysis Date/Time
Lead	220.353	0.84	8.4	7.8	JD	10	12/05/07 4:29

U = The analyte concentration was less than the MDL

J = Reported value was less than the CRQL but greater than or equal to the MDL

GPL Laboratories, LLLP

Sample Results

Project:	711009	Matrix:	Soil
Lab Sample ID:	S 711009-035-035-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2410-SD	Prep Batch:	101664
Analysis Method:	6010 ICP Analysis	Reporting Units:	mg/kg

Analyte	WL/ Mass	Method Detection Limit	Reporting Limit	Reported Result	Q	Dilution Factor	Analysis Date/Time
Lead	220.353	0.89	8.9	5.5	JD	10	12/05/07 4:33

U = The analyte concentration was less than the MDL

J = Reported value was less than the CRQL but greater than or equal to the MDL

GPL Laboratories, LLLP

Sample Results

Project:	711009	Matrix:	Soil
Lab Sample ID:	S 711009-036-036-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2411-SD	Prep Batch:	101664
Analysis Method:	6010 ICP Analysis	Reporting Units:	mg/kg

Analyte	WL/ Mass	Method Detection Limit	Reporting Limit	Reported Result	Q	Dilution Factor	Analysis Date/Time
Lead	220.353	0.90	9.0	2.6	JD	10	12/05/07 4:43

U = The analyte concentration was less than the MDL

J = Reported value was less than the CRQL but greater than or equal to the MDL

GPL Laboratories, LLLP

Sample Results

Project:	711009	Matrix:	Soil
Lab Sample ID:	S 711009-037-037-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2412-SD	Prep Batch:	101664
Analysis Method:	6010 ICP Analysis	Reporting Units:	mg/kg

Analyte	WL/ Mass	Method Detection Limit	Reporting Limit	Reported Result	Q	Dilution Factor	Analysis Date/Time
Lead	220.353	0.83	8.3	5.3	JD	10	12/05/07 4:46

U = The analyte concentration was less than the MDL

J = Reported value was less than the CRQL but greater than or equal to the MDL

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Sample Results

Project:	711009	Matrix:	Soil
Lab Sample ID:	S 711009-038-038-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2413-SD	Prep Batch:	101664
Analysis Method:	6010 ICP Analysis	Reporting Units:	mg/kg

Analyte	WL/ Mass	Method Detection Limit	Reporting Limit	Reported Result	Q	Dilution Factor	Analysis Date/Time
Lead	220.353	0.82	8.2	3.3	JD	10	12/05/07 4:50

U = The analyte concentration was less than the MDL

J = Reported value was less than the CRQL but greater than or equal to the MDL

GPL Laboratories, LLLP

Sample Results

Project:	711009	Matrix:	Soil
Lab Sample ID:	S 711009-039-039-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2414-SD	Prep Batch:	101664
Analysis Method:	6010 ICP Analysis	Reporting Units:	mg/kg

Analyte	WL/ Mass	Method Detection Limit	Reporting Limit	Reported Result	Q	Dilution Factor	Analysis Date/Time
Lead	220.353	0.83	8.3	3.8	JD	10	12/05/07 4:53

U = The analyte concentration was less than the MDL

J = Reported value was less than the CRQL but greater than or equal to the MDL

GPL Laboratories, LLLP

Sample Results

Project:	711009	Matrix:	Soil
Lab Sample ID:	S 711009-040-040-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2415-SD	Prep Batch:	101664
Analysis Method:	6010 ICP Analysis	Reporting Units:	mg/kg

Analyte	WL/ Mass	Method Detection Limit	Reporting Limit	Reported Result	Q	Dilution Factor	Analysis Date/Time
Lead	220.353	0.81	8.1	6.1	JD	10	12/05/07 4:56

U = The analyte concentration was less than the MDL

J = Reported value was less than the CRQL but greater than or equal to the MDL

GPL Laboratories, LLLP

Preparation Blank Results

Project:	711009	Matrix:	Soil
Lab Sample ID:	BLK101664	Percent Moisture:	0.0
Client Sample ID:	NA	Prep Batch:	101664
Analysis Method:	6010 ICP Analysis	Reporting Units:	mg/kg

Analyte	WL/ Mass	Method Detection Limit	Reporting Limit	Reported Result	Q	Dilution Factor	Analysis Date/Time
Lead	220.353	0.10	1.0	0.10	U	1	12/05/07 3:11

U = The analyte concentration was less than the MDL

J = Reported value was less than the CRQL but greater than or equal to the MDL

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Preparation Blank Results

Project:	711009	Matrix:	Soil
Lab Sample ID:	BLK101714	Percent Moisture:	0.0
Client Sample ID:	NA	Prep Batch:	101714
Analysis Method:	6010 ICP Analysis	Reporting Units:	mg/kg

Analyte	WL/ Mass	Method Detection Limit	Reporting Limit	Reported Result	Q	Dilution Factor	Analysis Date/Time
~~Lead~~	~~220.353~~	~~0.10~~	~~1.0~~	~~0.10~~	~~U~~	~~1~~	~~12/05/07 1:29~~
Lead	220.353	0.10	1.0	0.10	U	1	12/07/07 19:53

RA
12-14

U = The analyte concentration was less than the MDL

J = Reported value was less than the CRQL but greater than or equal to the MDL

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Initial Calibration Verification

Project:	711009	Instrument:	iTEVA-Soil
Units:	ug/L	Data File Name:	071204.txt
Standard Source:	AB.ST.	Standard ID:	

Analyte	True	ICV 12/4/2007 6:31:52 PM							
		Found	%R	Found	%R	Found	%R	Found	%R
Lead	400.0	428.56	107						

GPL Laboratories, LLLP

Initial Calibration Verification

Project:	711009	Instrument:	iTEVA-Soil
Units:	ug/L	Data File Name:	071207.txt
Standard Source:	AB.ST.	Standard ID:	

Analyte	True	ICV 12/7/2007 4:16:51 PM							
		Found	%R	Found	%R	Found	%R	Found	%R
Lead	400.0	426.65	107						

GPL Laboratories, LLLP

Continuing Calibration Verification

Project:	711009	Instrument:	iTEVA-Soil
Units:	ug/L	Data File Name:	071204.txt
Standard Source:	H.P.	Standard ID:	

Analyte	True	CCV1 12/4/2007 6:38:36 PM		CCV2 12/4/2007 7:02:56 PM		CCV3 12/4/2007 7:44:07 PM		CCV4 12/4/2007 8:24:47 PM	
		Found	%R	Found	%R	Found	%R	Found	%R
Lead	500.0	485.92	97	492.75	99	497.46	99	499.15	100

GPL Laboratories, LLLP

Continuing Calibration Verification

Project:	711009	Instrument:	iTEVA-Soil
Units:	ug/L	Data File Name:	071204.txt
Standard Source:	H. P.	Standard ID:	

Analyte	True	CCV5 12/4/2007 9:03:54 PM		CCV6 12/4/2007 9:43:10 PM		CCV7 12/4/2007 10:26:07 PM		CCV8 12/4/2007 11:08:50 PM	
		Found	%R	Found	%R	Found	%R	Found	%R
Lead	500.0	490.49	98	505.01	101	504.95	101	511.18	102

GPL Laboratories, LLLP

Continuing Calibration Verification

Project:	711009	Instrument:	iTEVA-Soil
Units:	ug/L	Data File Name:	071204.txt
Standard Source:	H.P.	Standard ID:	

Analyte	True	CCV9 12/4/2007 11:50:52 PM		CCV10 12/5/2007 12:31:58 AM		CCV11 12/5/2007 1:12:29 AM		CCV12 12/5/2007 1:53:29 AM	
		Found	%R	Found	%R	Found	%R	Found	%R
Lead	500.0	507.66	102	505.03	101	511.94	102	517.30	103

GPL Laboratories, LLLP

Continuing Calibration Verification

Project:	711009	Instrument:	iTEVA-Soil
Units:	ug/L	Data File Name:	071204.txt
Standard Source:	H. P.	Standard ID:	

Analyte	True	CCV13 12/5/2007 2:34:12 AM		CCV14 12/5/2007 3:14:46 AM		CCV15 12/5/2007 3:55:45 AM		CCV16 12/5/2007 4:36:34 AM	
		Found	%R	Found	%R	Found	%R	Found	%R
Lead	500.0	518.90	104	521.72	104	525.06	105	520.98	104

GPL Laboratories, LLLP

Continuing Calibration Verification

Project:	711009	Instrument:	iTEVA-Soil
Units:	ug/L	Data File Name:	071204.txt
Standard Source:	H.P.	Standard ID:	

Analyte	True	CCV17 12/5/2007 5:07:36 AM							
		Found	%R	Found	%R	Found	%R	Found	%R
Lead	500.0	518.03	104						

GPL Laboratories, LLLP

Continuing Calibration Verification

Project:	711009	Instrument:	iTEVA-Soil
Units:	ug/L	Data File Name:	071207.txt
Standard Source:	H. P.	Standard ID:	

Analyte	True	CCV1 12/7/2007 4:23:49 PM		CCV2 12/7/2007 4:48:52 PM		CCV3 12/7/2007 5:30:23 PM		CCV4 12/7/2007 6:12:33 PM	
		Found	%R	Found	%R	Found	%R	Found	%R
Lead	500.0	494.02	99	496.65	99	497.81	100	504.48	101

GPL Laboratories, LLLP

Continuing Calibration Verification

Project:	711009	Instrument:	iTEVA-Soil
Units:	ug/L	Data File Name:	071207.txt
Standard Source:	H.L	Standard ID:	

Analyte	True	CCV5 12/7/2007 6:54:19 PM		CCV6 12/7/2007 7:35:59 PM		CCV7 12/7/2007 8:17:41 PM		CCV8 12/7/2007 8:59:40 PM	
		Found	%R	Found	%R	Found	%R	Found	%R
Lead	500.0	501.75	100	504.55	101	504.95	101	509.73	102

GPL Laboratories, LLLP

Continuing Calibration Verification

Project:	711009	Instrument:	iTEVA-Soil
Units:	ug/L	Data File Name:	071207.txt
Standard Source:	H.P.	Standard ID:	

Analyte	True	CCV9 12/7/2007 9:41:42 PM							
		Found	%R	Found	%R	Found	%R	Found	%R
Lead	500.0	502.99	101						

GPL Laboratories, LLLP

Low Level Check Standard

Project:	711009	Instrument:	iTEVA-Soil
Units:	ug/L	Data File Name:	071204.txt
Standard Source:	H.P.	Standard ID:	

Analyte	True	PQL 12/4/2007 6:45:26 PM							
		Found	%R	Found	%R	Found	%R	Found	%R
Lead	10.0	10.45	105						

GPL Laboratories, LLLP

Low Level Check Standard

Project:	711009	Instrument:	iTEVA-Soil
Units:	ug/L	Data File Name:	071207.txt
Standard Source:	H.P.	Standard ID:	

Analyte	True	PQL 12/7/2007 4:30:52 PM							
		Found	%R	Found	%R	Found	%R	Found	%R
Lead	10.0	8.94	89						

GPL Laboratories, LLLP

Initial Calibration Blanks

Project:	711009	Instrument:	iTEVA-Soil
Units:	ug/L	Data File Name:	071204.txt
Standard Source:		Standard ID:	

Analyte	RL	ICB 12/4/2007 6:35:16 PM							
		Found	Flag	Found	Flag	Found	Flag	Found	Flag
Lead	10.00	1.00	U						

GPL Laboratories, LLLP

Initial Calibration Blanks

Project:	711009	Instrument:	iTEVA-Soil
Units:	ug/L	Data File Name:	071207.txt
Standard Source:		Standard ID:	

Analyte	RL	ICB 12/7/2007 4:20:22 PM							
		Found	Flag	Found	Flag	Found	Flag	Found	Flag
Lead	10.00	1.00	U						

GPL Laboratories, LLLP

Continuing Calibration Blanks

Project:	711009	Instrument:	iTEVA-Soil
Units:	ug/L	Data File Name:	071204.txt
Standard Source:		Standard ID:	

Analyte	RL	CCB1 12/4/2007 6:42:05 PM		CCB2 12/4/2007 7:06:25 PM		CCB3 12/4/2007 7:47:36 PM		CCB4 12/4/2007 8:28:16 PM	
		Found	Flag	Found	Flag	Found	Flag	Found	Flag
Lead	10.00	1.33	J	1.00	U	1.00	U	1.00	U

GPL Laboratories, LLLP

Continuing Calibration Blanks

Project:	711009	Instrument:	iTEVA-Soil
Units:	ug/L	Data File Name:	071204.txt
Standard Source:		Standard ID:	

Analyte	RL	CCB5 12/4/2007 9:07:23 PM		CCB6 12/4/2007 9:46:39 PM		CCB7 12/4/2007 10:29:37 PM		CCB8 12/4/2007 11:12:19 PM	
		Found	Flag	Found	Flag	Found	Flag	Found	Flag
Lead	10.00	1.00	U	1.00	U	1.00	U	1.00	U

GPL Laboratories, LLLP

Continuing Calibration Blanks

Project:	711009	Instrument:	iTEVA-Soil
Units:	ug/L	Data File Name:	071204.txt
Standard Source:		Standard ID:	

Analyte	RL	CCB9 12/4/2007 11:54:21 PM		CCB10 12/5/2007 12:35:27 AM		CCB11 12/5/2007 1:15:59 AM		CCB12 12/5/2007 1:56:58 AM	
		Found	Flag	Found	Flag	Found	Flag	Found	Flag
Lead	10.00	1.00	U	1.00	U	1.00	U	1.00	U

GPL Laboratories, LLLP

Continuing Calibration Blanks

Project:	711009	Instrument:	iTEVA-Soil
Units:	ug/L	Data File Name:	071204.txt
Standard Source:		Standard ID:	

Analyte	RL	CCB13 12/5/2007 2:37:41 AM		CCB14 12/5/2007 3:18:16 AM		CCB15 12/5/2007 3:59:14 AM		CCB16 12/5/2007 4:40:04 AM	
		Found	Flag	Found	Flag	Found	Flag	Found	Flag
Lead	10.00	1.00	U	1.00	U	1.00	U	1.00	U

GPL Laboratories, LLLP

Continuing Calibration Blanks

Project:	711009	Instrument:	iTEVA-Soil
Units:	ug/L	Data File Name:	071204.txt
Standard Source:		Standard ID:	

Analyte	RL	CCB17 12/5/2007 5:11:06 AM							
		Found	Flag	Found	Flag	Found	Flag	Found	Flag
Lead	10.00	1.00	U						

GPL Laboratories, LLLP

Continuing Calibration Blanks

Project:	711009	Instrument:	iTEVA-Soil
Units:	ug/L	Data File Name:	071207.txt
Standard Source:		Standard ID:	

Analyte	RL	CCB1 12/7/2007 4:27:24 PM		CCB2 12/7/2007 4:52:28 PM		CCB3 12/7/2007 5:33:59 PM		CCB4 12/7/2007 6:16:08 PM	
		Found	Flag	Found	Flag	Found	Flag	Found	Flag
Lead	10.00	1.00	U	1.00	U	1.00	U	1.00	U

GPL Laboratories, LLLP

Continuing Calibration Blanks

Project:	711009	Instrument:	iTEVA-Soil
Units:	ug/L	Data File Name:	071207.txt
Standard Source:		Standard ID:	

Analyte	RL	CCB5 12/7/2007 6:58:00 PM		CCB6 12/7/2007 7:39:35 PM		CCB7 12/7/2007 8:21:17 PM		CCB8 12/7/2007 9:03:17 PM	
		Found	Flag	Found	Flag	Found	Flag	Found	Flag
Lead	10.00	1.00	U	1.00	U	1.00	U	1.00	U

GPL Laboratories, LLLP

Continuing Calibration Blanks

Project:	711009	Instrument:	iTEVA-Soil
Units:	ug/L	Data File Name:	071207.txt
Standard Source:		Standard ID:	

Analyte	RL	CCB9 12/7/2007 9:45:17 PM							
		Found	Flag	Found	Flag	Found	Flag	Found	Flag
Lead	10.00	1.00	U						

GPL Laboratories, LLLP

Interference Check Standards

Project:	711009	Instrument:	iTEVA
Units:	ug/L	Data File Name:	071204.txt
Standard Source:	H.P./AB.ST.	Standard ID:	

Analyte	RL	True		Initial Found				Final Found			
		Sol. A	Sol. B		%R	ICSAB 12/04/07 18:52	%R		%R		%R
Lead	10		50.0			1.0					
Lead	10		50			50.7	101				

GPL Laboratories, LLLP

Matrix Spike Recovery

Client ID:	SB-CZ-SS-2396-ST MS	Lab Sample ID:	SP711009-001-001-1/1
Project:	711009	Instrument:	iTEVA-Soil
Units:	mg/kg	Data File Name:	071207.txt
Standard Source:	H.P.	Standard ID:	

Analyte	Spiked Sample Result 12/07/07 20:03		Sample Result 12/05/07 01:36		Spike Added	%R
Lead	118.64		18.02		85.47	118

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Matrix Spike Recovery

Client ID:	SB-CZ-SS-2396-SD MS	Lab Sample ID:	SP711009-021-021-1/1
Project:	711009	Instrument:	iTEVA-Soil
Units:	mg/kg	Data File Name:	071204.txt
Standard Source:	H.P.	Standard ID:	

Analyte	Spiked Sample Result 12/05/07 03:28	Sample Result 12/05/07 03:25	Spike Added	%R
Lead	89.40	16.61	84.03	87

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Matrix Spike Duplicate Recovery

Client ID:	SB-CZ-SS-2396-ST MSD	Lab Sample ID:	SD711009-001-001-1/1
Project:	711009	Instrument:	iTEVA-Soil
Units:	mg/kg	Data File Name:	071207.txt
Standard Source:	H.P.	Standard ID:	

Analyte	Spiked Sample Result 12/07/07 20:07		Sample Result 12/05/07 01:36		Spike Added	%R
Lead	119.38		18.02		83.33	122

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Matrix Spike Duplicate Recovery

Client ID:	SB-CZ-SS-2396-SD MSD	Lab Sample ID:	SD711009-021-021-1/1
Project:	711009	Instrument:	iTEVA-Soil
Units:	mg/kg	Data File Name:	071204.txt
Standard Source:	H.P.	Standard ID:	

Analyte	Spiked Sample Result 12/05/07 03:32		Sample Result 12/05/07 03:25		Spike Added	%R
Lead	100.60		16.61		81.97	102

GPL Laboratories, LLLP

Duplicates RPD

Client ID:	SB-CZ-SS-2396-SD MSD	Lab Sample ID:	SD711009-021-021-1/1
Project:	711009	Instrument:	iTEVA-Soil
Units:	mg/kg	Data File Name:	071204.txt

Analyte	Matrix Spike Original Sample Results RA 12-14	Matrix Spike Duplicate Sample Results	RPD	Control Limit	Q
Lead	89.40	100.60	12	20	D

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Duplicates RPD

Client ID:	SB-CZ-SS-2396-ST MSD	Lab Sample ID:	SD711009-001-001-1/1
Project:	711009	Instrument:	iTEVA-Soil
Units:	mg/kg	Data File Name:	071207.txt

Analyte	~~Original~~ Matrix Spike Sample Results RA 12-14		~~Duplicate~~ Matrix Spike Sample Results		RPD	Control Limit	Q
Lead	118.64		119.38		1	20	D

GPL Laboratories, LLLP

Laboratory Control Sample

Project:	711009	Lab Sample ID:	BKS101714
Units:	mg/kg	Instrument:	iTEVA-Soil
		Data File Name:	071204.txt
Standard Source:	H.P.	Standard ID:	

Analyte	Spiked Sample Result 12/05/07 01:32	Spike Added	%R
Lead	104.30	100.00	104

GPL Laboratories, LLLP

Laboratory Control Sample

Project:	711009	Lab Sample ID:	BKS101664
Units:	mg/kg	Instrument:	iTEVA-Soil
		Data File Name:	071204.txt
Standard Source:	H.P.	Standard ID:	

Analyte	Spiked Sample Result 12/05/07 03:21	Spike Added	%R
Lead	104.44	100.00	104

GPL Laboratories, LLLP

Laboratory Control Sample

Project:	711009	Lab Sample ID:	BKS101714
Units:	mg/kg	Instrument:	iTEVA-Soil
		Data File Name:	071207.txt
Standard Source:	H.P.	Standard ID:	

Analyte	Spiked Sample Result 12/07/07 19:56	Spike Added	%R
Lead	103.96	100.00	104

GPL Laboratories, LLLP

Serial Dilutions

Client ID:	SB-CZ-SS-2396-SD	Lab Sample ID:	SE711009-021-021-1/1
Project:	711009	Instrument:	iTEVA-Soil
Units:	ug/L	Data File Name:	071204.txt

Analyte	Sample Result 12/05/07 03:25		Serial Dilution Result 12/05/07 03:38		Percent Difference	Flag
Lead	19.27		16.95	J	12	

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Serial Dilutions

Client ID:	SB-CZ-SS-2396-ST	Lab Sample ID:	SE711009-001-001-1/1
Project:	711009	Instrument:	iTEVA-Soil
Units:	ug/L	Data File Name:	071207.txt

Analyte	Sample Result 12/05/07 01:36		Serial Dilution Result 12/07/07 20:14		Percent Difference	Flag
Lead	20.54		27.25	J	33	

GPL Laboratories, LLLP

Detection Limits

Project: 711009 Instrument: iTEVA

Units: ug/L

Analyte	Wavelength/Mass	Reporting Limit	Method Detection Limit	Date of MDL
Lead	220.353	10.0	1.0	11/30/07

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Ag 328.068 {103}	☐	4	Fe	-0.000015	0.000000	No
			Mn	0.000084	0.000000	No
			Cu	0.000068	0.000000	No
			Ti	-0.000115	0.000000	No
Al 396.152 { 85}	☐	5	Mo	0.051689	0.000000	No
			Fe	-0.000009	0.000000	No
			Cu	0.007323	0.000000	No
			Ca	0.000144	0.000000	No
			Na	0.000079	0.000000	No
As 193.759 {474}	☐	8	Al	-0.000182	0.000000	No
			V	-0.004848	0.000000	No
			Fe	-0.000159	0.000000	No
			Mo	-0.000304	0.000000	No
			Ca	-0.000010	0.000000	No
			Cr	0.001489	0.000000	No
			Ti	-0.000159	0.000000	No
			Zn	-0.000199	0.000000	No
B 208.959 {461}	☐	8	Mo	0.040678	0.000000	No
			Zn	0.000094	0.000000	No
			Mn	0.000290	0.000000	No
			Fe	-0.000008	0.000000	No
			Cu	-0.000516	0.000000	No
			Cr	0.001056	0.000000	No
			Co	0.000360	0.000000	No
			Ti	0.000557	0.000000	No
Ba 455.403 { 74}	☐	2	Fe	-0.000008	0.000000	No
			Al	0.000003	0.000000	No
Be 313.042 {108}	☐	3	Ti	-0.000402	0.000000	No
			Mo	-0.000038	0.000000	No
			V	0.000959	0.000000	No
Ca 317.933 {106}	☐	1	Na	0.000256	0.000000	No
Cd 226.502 {449}	☐	1	Fe	0.000054	0.000000	No
Co 228.616 {447}	☐	4	Mo	-0.001136	0.000000	No
			Ti	0.001995	0.000000	No
			Fe	-0.000002	0.000000	No
			Mn	0.000069	0.000000	No
Cr 267.716 {126}	☒	6	Fe	-0.000006	0.000000	No
			Mn	0.000116	0.000000	No
			Al	0.000005	0.000000	No
			Cu	0.000075	0.000000	No
			Ca	0.000001	0.000000	No
			Co	0.000063	0.000000	No
Cu 219.958 {453}	☒	13	Al	0.000568	0.000000	No
			Ca	-0.000227	0.000000	No
			Na	-0.000238	0.000000	No
			Mg	-0.000439	0.000000	No
			B	-0.003834	0.000000	No
			Cr	-0.007088	0.000000	No
			Co	-0.011022	0.000000	No
			Mn	-0.004165	0.000000	No
			Mo	-0.011425	0.000000	No
			Ti	-0.011681	0.000000	No
			V	-0.010122	0.000000	No
			Zn	-0.011796	0.000000	No
			Fe	-0.000223	0.000000	No
Cu 221.810 {452}	☒	13	Al	-0.000147	0.000000	No
			Ca	-0.000148	0.000000	No
			Na	-0.000148	0.000000	No
			Mg	-0.000277	0.000000	No
			B	0.014899	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Cr	0.020542	0.000000	No
			Co	-0.005233	0.000000	No
			Mn	0.002165	0.000000	No
			Mo	-0.010463	0.000000	No
			Ti	-0.007247	0.000000	No
			V	-0.007106	0.000000	No
			Zn	-0.007367	0.000000	No
			Fe	-0.001067	0.000000	No
Cu 327.396 {103}	☒	13	Al	-0.000143	0.000000	No
			Ca	-0.000123	0.000000	No
			Na	-0.000138	0.000000	No
			Mg	-0.000249	0.000000	No
			B	0.012714	0.000000	No
			Cr	0.000995	0.000000	No
			Co	-0.006974	0.000000	No
			Mn	0.001006	0.000000	No
			Mo	-0.007649	0.000000	No
			Ti	-0.008111	0.000000	No
			V	-0.005533	0.000000	No
			Zn	-0.007110	0.000000	No
			Fe	-0.000017	0.000000	No
Fe 259.940 {130}	☒	5	Na	-0.000014	0.000000	No
			Mn	-0.001399	0.000000	No
			Mo	-0.000705	0.000000	No
			V	-0.000340	0.000000	No
			Zn	0.000310	0.000000	No
K 766.490 { 44}	☒	13	Cu	0.003618	0.000000	No
			Mg	0.000031	0.000000	No
			Fe	-0.000501	0.000000	No
			Mn	0.008244	0.000000	No
			Mo	-0.008795	0.000000	No
			Al	0.000271	0.000000	No
			B	0.008494	0.000000	No
			Co	0.005627	0.000000	No
			Ti	0.005118	0.000000	No
			V	-0.004687	0.000000	No
			Zn	0.002340	0.000000	No
			Cr	0.004371	0.000000	No
			Na	0.000003	0.000000	No
Mg 280.270 {120}	☒	11	Ca	-0.000042	0.000000	No
			Na	0.000045	0.000000	No
			B	-0.001335	0.000000	No
			Cr	-0.001430	0.000000	No
			Co	-0.001417	0.000000	No
			Mn	-0.001523	0.000000	No
			Mo	-0.001745	0.000000	No
			Ti	-0.001522	0.000000	No
			V	-0.000962	0.000000	No
			Zn	-0.001715	0.000000	No
			Fe	-0.000034	0.000000	No
Mg 285.213 {118}	☒	11	Ca	-0.000042	0.000000	No
			Na	0.000044	0.000000	No
			B	-0.001799	0.000000	No
			Cr	-0.001797	0.000000	No
			Co	-0.001949	0.000000	No
			Mn	-0.001953	0.000000	No
			Mo	-0.002286	0.000000	No
			Ti	-0.002038	0.000000	No
			V	-0.002423	0.000000	No
			Zn	-0.002295	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Fe	-0.000527	0.000000	No
Mn 257.610 {131}	☒	5	Mg	0.000024	0.000000	No
			Fe	-0.000014	0.000000	No
			Al	-0.000002	0.000000	No
			Cr	-0.000058	0.000000	No
			V	-0.000028	0.000000	No
Mo 202.030 {467}	☒	8	Fe	-0.000006	0.000000	No
			Mn	-0.000090	0.000000	No
			Al	-0.000001	0.000000	No
			Mg	-0.000002	0.000000	No
			Cr	0.000043	0.000000	No
			Ti	0.000030	0.000000	No
			V	-0.000131	0.000000	No
			Zn	-0.000254	0.000000	No
Na 589.592 { 57}	☒	4	Mg	0.000593	0.000000	No
			Cr	0.010584	0.000000	No
			Zn	0.005397	0.000000	No
			Fe	-0.000012	0.000000	No
Ni 231.604 {445}	☒	8	Fe	-0.000062	0.000000	No
			Mo	0.001560	0.000000	No
			Al	0.000002	0.000000	No
			Mg	0.000003	0.000000	No
			Cr	-0.000055	0.000000	No
			Co	0.000472	0.000000	No
			Mn	0.000095	0.000000	No
			Zn	0.000064	0.000000	No
Pb 220.353 {453}	☒	10	Al	0.000241	0.000000	No
			Cu	0.002348	0.000000	No
			Mg	0.000008	0.000000	No
			Mo	-0.001992	0.000000	No
			Fe	0.000027	0.000000	No
			Mn	0.000149	0.000000	No
			Cr	0.000109	0.000000	No
			Ca	-0.000013	0.000000	No
			Na	-0.000002	0.000000	No
			Zn	0.000108	0.000000	No
Sb 206.833 {463}	☒	9	Cr	0.017119	0.000000	No
			V	-0.001556	0.000000	No
			Fe	0.000034	0.000000	No
			Mn	0.000000	0.000000	No
			Mo	-0.005080	0.000000	No
			Ca	0.000003	0.000000	No
			Co	0.000139	0.000000	No
			Ti	0.000447	0.000000	No
			Zn	0.000099	0.000000	No
Se 196.090 {472}	☒	14	Al	0.000005	0.000000	No
			Mn	0.000837	0.000000	No
			Fe	-0.000160	0.000000	No
			Co	-0.000157	0.000000	No
			Cu	0.000107	0.000000	No
			Mg	-0.000003	0.000000	No
			Cr	-0.000048	0.000000	No
			Mo	-0.000060	0.000000	No
			Ca	-0.000007	0.000000	No
			Na	-0.000006	0.000000	No
			B	-0.000110	0.000000	No
			Ti	-0.000067	0.000000	No
			V	-0.000070	0.000000	No
			Zn	-0.000068	0.000000	No
Si 251.611 {134}	☒	10	Ca	0.000006	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Na	0.000049	0.000000	No
			Mg	0.000036	0.000000	No
			B	-0.000732	0.000000	No
			Mn	0.000830	0.000000	No
			Mo	0.009831	0.000000	No
			Ti	0.006504	0.000000	No
			V	0.000256	0.000000	No
			Zn	0.000733	0.000000	No
			Fe	-0.000083	0.000000	No
Sn 189.989 {477}	☒	6	Fe	0.000006	0.000000	No
			Ca	-0.000003	0.000000	No
			Na	0.000003	0.000000	No
			Mg	0.000004	0.000000	No
			Ti	-0.001478	0.000000	No
			Zn	0.000107	0.000000	No
Sr 407.771 { 83}	☒	1	Ca	0.000009	0.000000	No
Sr 421.552 { 80}	☒	None				
Te 214.281 {457}	☒	11	Mo	0.000341	0.000000	No
			Ti	0.002474	0.000000	No
			V	-0.171245	0.000000	No
			Zn	-0.002905	0.000000	No
			Fe	-0.000278	0.000000	No
			Al	-0.000014	0.000000	No
			Mg	0.000003	0.000000	No
			Ca	0.000007	0.000000	No
			Na	0.000003	0.000000	No
			B	0.000321	0.000000	No
			Mn	-0.000102	0.000000	No
Ti 334.941 {101}	☒	5	Fe	-0.000000	0.000000	No
			Mn	0.000000	0.000000	No
			Mg	-0.000004	0.000000	No
			Cr	0.000161	0.000000	No
			Ca	0.000004	0.000000	No
Tl 190.856 {477}	☒	10	Co	0.005004	0.000000	No
			Mo	-0.007135	0.000000	No
			Ti	-0.001460	0.000000	No
			V	-0.020145	0.000000	No
			Mn	0.001894	0.000000	No
			Fe	-0.000038	0.000000	No
			Cu	-0.000070	0.000000	No
			Cr	0.000181	0.000000	No
			Ca	0.000003	0.000000	No
			Zn	-0.000050	0.000000	No
V 292.402 {115}	☒	8	Cr	-0.003158	0.000000	No
			Mo	-0.008495	0.000000	No
			Ti	0.000800	0.000000	No
			Fe	0.000008	0.000000	No
			Mn	-0.000485	0.000000	No
			Cu	0.000072	0.000000	No
			Mg	-0.000002	0.000000	No
			Zn	0.000078	0.000000	No
Y 224.306 {450}*	☒	None				
Y 377.433 { 89}*	☒	None				
Y 377.433 { 89}2*	☒	None				
Zn 213.856 {458}	☒	12	Fe	0.000080	0.000000	No
			Mn	0.000094	0.000000	No
			Mg	0.000036	0.000000	No
			Cu	0.000365	0.000000	No
			Ca	0.000003	0.000000	No
			Na	0.000002	0.000000	No

	Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
				B	0.000128	0.000000	No
				Cr	0.000161	0.000000	No
				Co	0.000113	0.000000	No
				Mo	-0.000118	0.000000	No
				Ti	-0.000755	0.000000	No
				V	0.000129	0.000000	No
	Zr 343.823 { 98}	☒	1	Fe	0.000031	0.000000	No

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Linear Dynamic Ranges

Project: 711009 Instrument: iTEVA-Soil

Units: ug/L

Analyte	Wavelength/Mass	Linear Dynamic Range	Date of LDR
Lead	220.353	22000	~~11/14/07~~ 12/4/07 RA 12-14

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Preparation Log

Project: 711009 Instrument: iTEVA-Soil

Prep Method: Batch Number: 101664

Lab Sample ID	Client ID	Preparation Date	Initial Weight (grams)	Final Volume (ml)
BLK101664	BLK101664	11/05/2007	1.00	100
BKS101664	BKS101664	11/05/2007	1.00	100
S 711009-021-021-1/1	SB-CZ-SS-2396-SD	11/05/2007	1.16	100
SP711009-021-021-1/1	SB-CZ-SS-2396-SD MS	11/05/2007	1.19	100
S 711009-022-022-1/1	SB-CZ-SS-2397-SD	11/05/2007	1.16	100
S 711009-023-023-1/1	SB-CZ-SS-2398-SD	11/05/2007	1.21	100
S 711009-024-024-1/1	SB-CZ-SS-2399-SD	11/05/2007	1.13	100
S 711009-025-025-1/1	SB-CZ-SS-2400-SD	11/05/2007	1.21	100
S 711009-026-026-1/1	SB-CZ-SS-2401-SD	11/05/2007	1.11	100
S 711009-027-027-1/1	SB-CZ-SS-2402-SD	11/05/2007	1.17	100
S 711009-028-028-1/1	SB-CZ-SS-2403-SD	11/05/2007	1.18	100
S 711009-029-029-1/1	SB-CZ-SS-2404-SD	11/05/2007	1.19	100
S 711009-030-030-1/1	SB-CZ-SS-2405-SD	11/05/2007	1.21	100
S 711009-031-031-1/1	SB-CZ-SS-2406-SD	11/05/2007	1.15	100
S 711009-032-032-1/1	SB-CZ-SS-2407-SD	11/05/2007	1.18	100
S 711009-033-033-1/1	SB-CZ-SS-2408-SD	11/05/2007	1.19	100
S 711009-034-034-1/1	SB-CZ-SS-2409-SD	11/05/2007	1.19	100
S 711009-035-035-1/1	SB-CZ-SS-2410-SD	11/05/2007	1.12	100
S 711009-036-036-1/1	SB-CZ-SS-2411-SD	11/05/2007	1.11	100
S 711009-037-037-1/1	SB-CZ-SS-2412-SD	11/05/2007	1.21	100
S 711009-038-038-1/1	SB-CZ-SS-2413-SD	11/05/2007	1.22	100
S 711009-039-039-1/1	SB-CZ-SS-2414-SD	11/05/2007	1.20	100
S 711009-040-040-1/1	SB-CZ-SS-2415-SD	11/05/2007	1.24	100
SD711009-021-021-1/1	SB-CZ-SS-2396-SD MSD	11/05/2007	1.22	100

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Preparation Log

Project: 711009 Instrument: iTEVA-Soil

Prep Method: Batch Number: 101714

Lab Sample ID	Client ID	Preparation Date	Initial Weight (grams)	Final Volume (ml)
BLK101714	BLK101714	11/05/2007	1.00	100
BKS101714	BKS101714	11/05/2007	1.00	100
S 711009-001-001-1/1	SB-CZ-SS-2396-ST	11/05/2007	1.14	100
SP711009-001-001-1/1	SB-CZ-SS-2396-ST MS	11/05/2007	1.17	100
S 711009-002-002-1/1	SB-CZ-SS-2397-ST	11/05/2007	1.12	100
S 711009-003-003-1/1	SB-CZ-SS-2398-ST	11/05/2007	1.18	100
S 711009-004-004-1/1	SB-CZ-SS-2399-ST	11/05/2007	1.10	100
S 711009-005-005-1/1	SB-CZ-SS-2400-ST	11/05/2007	1.14	100
S 711009-006-006-1/1	SB-CZ-SS-2401-ST	11/05/2007	1.15	100
S 711009-007-007-1/1	SB-CZ-SS-2402-ST	11/05/2007	1.21	100
S 711009-008-008-1/1	SB-CZ-SS-2403-ST	11/05/2007	1.16	100
S 711009-009-009-1/1	SB-CZ-SS-2404-ST	11/05/2007	1.23	100
S 711009-010-010-1/1	SB-CZ-SS-2405-ST	11/05/2007	1.10	100
S 711009-011-011-1/1	SB-CZ-SS-2406-ST	11/05/2007	1.10	100
S 711009-012-012-1/1	SB-CZ-SS-2407-ST	11/05/2007	1.13	100
S 711009-013-013-1/1	SB-CZ-SS-2408-ST	11/05/2007	1.12	100
S 711009-014-014-1/1	SB-CZ-SS-2409-ST	11/05/2007	1.10	100
S 711009-015-015-1/1	SB-CZ-SS-2410-ST	11/05/2007	1.25	100
S 711009-016-016-1/1	SB-CZ-SS-2411-ST	11/05/2007	1.14	100
S 711009-017-017-1/1	SB-CZ-SS-2412-ST	11/05/2007	1.12	100
S 711009-018-018-1/1	SB-CZ-SS-2413-ST	11/05/2007	1.09	100
S 711009-019-019-1/1	SB-CZ-SS-2414-ST	11/05/2007	1.22	100
S 711009-020-020-1/1	SB-CZ-SS-2415-ST	11/05/2007	1.20	100
SD711009-001-001-1/1	SB-CZ-SS-2396-ST MSD	11/05/2007	1.20	100

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Analysis Run Log

Project: 711009 Instrument: iTEVA-Soil

Data File Name: 071204.txt

Sample Name	Client ID	Analysis Date	Analysis Time
STD0		12/04/07	6:05 PM
STD1		12/04/07	6:08 PM
STD2		12/04/07	6:11 PM
STD3		12/04/07	6:14 PM
STD4		12/04/07	6:18 PM
STD5		12/04/07	6:21 PM
STD6		12/04/07	6:25 PM
ICV		12/04/07	6:31 PM
ICB		12/04/07	6:35 PM
CCV1		12/04/07	6:38 PM
CCB1		12/04/07	6:42 PM
PQL		12/04/07	6:45 PM
ICSA		12/04/07	6:48 PM
ICSAB		12/04/07	6:52 PM
CCV2		12/04/07	7:02 PM
CCB2		12/04/07	7:06 PM
CCV3		12/04/07	7:44 PM
CCB3		12/04/07	7:47 PM
CCV4		12/04/07	8:24 PM
CCB4		12/04/07	8:28 PM
CCV5		12/04/07	9:03 PM
CCB5		12/04/07	9:07 PM
CCV6		12/04/07	9:43 PM
CCB6		12/04/07	9:46 PM
CCV7		12/04/07	10:26 PM
CCB7		12/04/07	10:29 PM
CCV8		12/04/07	11:08 PM
CCB8		12/04/07	11:12 PM
CCV9		12/04/07	11:50 PM
CCB9		12/04/07	11:54 PM
CCV10		12/05/07	12:31 AM
CCB10		12/05/07	12:35 AM
CCV11		12/05/07	1:12 AM
CCB11		12/05/07	1:15 AM
~~BLK101714~~	~~BLK101714~~ 222222	12/05/07	1:29 AM
~~BKS101714~~	~~BKS101714~~ 222222	12/05/07	1:32 AM
CCV12		12/05/07	1:53 AM
CCB12		12/05/07	1:56 AM
CCV13		12/05/07	2:34 AM

RA 12-14

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Analysis Run Log

Project: 711009 Instrument: iTEVA-Soil

Data File Name: 071204.txt

Sample Name	Client ID	Analysis Date	Analysis Time
CCB13		12/05/07	2:37 AM
BLK101664	BLK101664	12/05/07	3:11 AM
CCV14		12/05/07	3:14 AM
CCB14		12/05/07	3:18 AM
BKS101664	BKS101664	12/05/07	3:21 AM
S 711009-021-021-1/1	SB-CZ-SS-2396-SD	12/05/07	3:25 AM
SP711009-021-021-1/1	SB-CZ-SS-2396-SD MS	12/05/07	3:28 AM
SD711009-021-021-1/1	SB-CZ-SS-2396-SD MSD	12/05/07	3:32 AM
SE711009-021-021-1/1	SB-CZ-SS-2396-SD	12/05/07	3:38 AM
S 711009-022-022-1/1	SB-CZ-SS-2397-SD	12/05/07	3:42 AM
S 711009-023-023-1/1	SB-CZ-SS-2398-SD	12/05/07	3:45 AM
S 711009-024-024-1/1	SB-CZ-SS-2399-SD	12/05/07	3:49 AM
S 711009-025-025-1/1	SB-CZ-SS-2400-SD	12/05/07	3:52 AM
CCV15		12/05/07	3:55 AM
CCB15		12/05/07	3:59 AM
S 711009-026-026-1/1	SB-CZ-SS-2401-SD	12/05/07	4:02 AM
S 711009-027-027-1/1	SB-CZ-SS-2402-SD	12/05/07	4:05 AM
S 711009-028-028-1/1	SB-CZ-SS-2403-SD	12/05/07	4:09 AM
S 711009-029-029-1/1	SB-CZ-SS-2404-SD	12/05/07	4:12 AM
S 711009-030-030-1/1	SB-CZ-SS-2405-SD	12/05/07	4:16 AM
S 711009-031-031-1/1	SB-CZ-SS-2406-SD	12/05/07	4:19 AM
S 711009-032-032-1/1	SB-CZ-SS-2407-SD	12/05/07	4:22 AM
S 711009-033-033-1/1	SB-CZ-SS-2408-SD	12/05/07	4:26 AM
S 711009-034-034-1/1	SB-CZ-SS-2409-SD	12/05/07	4:29 AM
S 711009-035-035-1/1	SB-CZ-SS-2410-SD	12/05/07	4:33 AM
CCV16		12/05/07	4:36 AM
CCB16		12/05/07	4:40 AM
S 711009-036-036-1/1	SB-CZ-SS-2411-SD	12/05/07	4:43 AM
S 711009-037-037-1/1	SB-CZ-SS-2412-SD	12/05/07	4:46 AM
S 711009-038-038-1/1	SB-CZ-SS-2413-SD	12/05/07	4:50 AM
S 711009-039-039-1/1	SB-CZ-SS-2414-SD	12/05/07	4:53 AM
S 711009-040-040-1/1	SB-CZ-SS-2415-SD	12/05/07	4:56 AM
CCV17		12/05/07	5:07 AM
CCB17		12/05/07	5:11 AM

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Analysis Run Log

Project: 711009 Instrument: iTEVA-Soil

Data File Name: 071207.txt

Sample Name	Client ID	Analysis Date	Analysis Time
STD0		12/07/07	3:45 PM
STD1		12/07/07	3:49 PM
STD2		12/07/07	3:52 PM
STD3		12/07/07	3:55 PM
STD4		12/07/07	3:59 PM
STD5		12/07/07	4:03 PM
STD6		12/07/07	4:06 PM
ICV		12/07/07	4:16 PM
ICB		12/07/07	4:20 PM
CCV1		12/07/07	4:23 PM
CCB1		12/07/07	4:27 PM
PQL		12/07/07	4:30 PM
ICSA		12/07/07	4:34 PM
ICSAB		12/07/07	4:37 PM
CCV2		12/07/07	4:48 PM
CCB2		12/07/07	4:52 PM
CCV3		12/07/07	5:30 PM
CCB3		12/07/07	5:33 PM
CCV4		12/07/07	6:12 PM
CCB4		12/07/07	6:16 PM
CCV5		12/07/07	6:54 PM
CCB5		12/07/07	6:58 PM
CCV6		12/07/07	7:35 PM
CCB6		12/07/07	7:39 PM
BLK101714	BLK101714	12/07/07	7:53 PM
BKS101714	BKS101714	12/07/07	7:56 PM
S 711009-001-001-1/1	SB-CZ-SS-2396-ST	12/07/07	8:00 PM
SP711009-001-001-1/1	SB-CZ-SS-2396-ST MS	12/07/07	8:03 PM
SD711009-001-001-1/1	SB-CZ-SS-2396-ST MSD	12/07/07	8:07 PM
SE711009-001-001-1/1	SB-CZ-SS-2396-ST	12/07/07	8:14 PM
CCV7		12/07/07	8:17 PM
CCB7		12/07/07	8:21 PM
S 711009-002-002-1/1	SB-CZ-SS-2397-ST	12/07/07	8:24 PM
S 711009-003-003-1/1	SB-CZ-SS-2398-ST	12/07/07	8:28 PM
S 711009-004-004-1/1	SB-CZ-SS-2399-ST	12/07/07	8:31 PM
S 711009-005-005-1/1	SB-CZ-SS-2400-ST	12/07/07	8:35 PM
S 711009-006-006-1/1	SB-CZ-SS-2401-ST	12/07/07	8:38 PM
S 711009-007-007-1/1	SB-CZ-SS-2402-ST	12/07/07	8:42 PM
S 711009-008-008-1/1	SB-CZ-SS-2403-ST	12/07/07	8:45 PM

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Analysis Run Log

Project: 711009

Instrument: iTEVA-Soil

Data File Name: 071207.txt

Sample Name	Client ID	Analysis Date	Analysis Time
S 711009-009-009-1/1	SB-CZ-SS-2404-ST	12/07/07	8:49 PM
S 711009-010-010-1/1	SB-CZ-SS-2405-ST	12/07/07	8:52 PM
S 711009-011-011-1/1	SB-CZ-SS-2406-ST	12/07/07	8:56 PM
CCV8		12/07/07	8:59 PM
CCB8		12/07/07	9:03 PM
S 711009-012-012-1/1	SB-CZ-SS-2407-ST	12/07/07	9:06 PM
S 711009-013-013-1/1	SB-CZ-SS-2408-ST	12/07/07	9:10 PM
S 711009-014-014-1/1	SB-CZ-SS-2409-ST	12/07/07	9:13 PM
S 711009-015-015-1/1	SB-CZ-SS-2410-ST	12/07/07	9:17 PM
S 711009-016-016-1/1	SB-CZ-SS-2411-ST	12/07/07	9:20 PM
S 711009-017-017-1/1	SB-CZ-SS-2412-ST	12/07/07	9:24 PM
S 711009-018-018-1/1	SB-CZ-SS-2413-ST	12/07/07	9:27 PM
S 711009-019-019-1/1	SB-CZ-SS-2414-ST	12/07/07	9:31 PM
S 711009-020-020-1/1	SB-CZ-SS-2415-ST	12/07/07	9:34 PM
CCV9		12/07/07	9:41 PM
CCB9		12/07/07	9:45 PM

ICP ANALYSIS LOG

Instrument ID: ICAP 6500 (20072904) Inst. Method: TRACE Nebulizer:

Analytical Batch No: 071207

Workorder	Project/SDG #	Prep. Seq.	Batch #	Matrix S/W/E	Prep. Date	Method	Comments / Dilution	
MDL			156	S	12/5/07	~~3050B~~ 12/10	Soil → 6010B	1x
711124	Arcadis		135	S		6010B	(Batch QC)	2.x
710199	SC&A		058	S	11-1-07	6010C		10.x
711009	Tidewater, Inc		065	S	11-5-07	6010C		10.x
710210	SC&A, Inc		062	S	11-2-07	6010C		10.x
710210	SC&A, Inc		063	S	11-2-07	6010C		10.x
711020	SC&A, Inc.		092	S	11/09/07	~~3050B~~ 6010C		10.x
MDL			155	W	12/5/07	3010A		10.x
710216	USACE		056	W	11-01-07	6010B		1.0x
711067	SC&A, Inc		121	S	11-20-07	6010C		2.x
~~711020~~ 12/10/07								10.x
711015	FPM		135	S	SR	6010B		2.x

Source Solution Numbers

Stds.	Number	Stds.	Number
S0	GP-129-116-10	ICV	42173
S1	42105	CCV	42200
S2	42106	ICSA	42304
S3	42109	ICSAB	42305
S4	42110	Low Ck	42234
S5	42111	LR	42008
S6	42112	IS	42235

Post Digestion Spikes

Spike 9.9 mls of sample with 0.1 mls of 41513

Samples: PS 711124-021-022-1/1, PS 711067-041-041-1/1, PS 710199-029-029-1/1, PS 711099-001-001-1/1, PS 710210-015-039-1/1, PS 710210-035-012-1/1, PS 711020-041-041-1/1, PS 710216-001

Analyst: [signature] Date: 12/10/07 Reviewed: [signature] Date: 12/10/07

Sample Name: STD0 Acquired: 12/7/2007 15:45:49 Type: Cal
Method: TRACEPB Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.00003**	**-.00016**	**-.00001**	**.00015**	**.00072**	**.00001**	**.00367**
Stddev	.00000	.00001	.00000	.00003	.00001	.00001	.00017
%RSD	14.115	8.6343	31.197	18.774	1.3191	69.241	4.5779
#1	-.00003	-.00017	-.00001	.00017	.00071	.00002	.00355
#2	-.00003	-.00015	-.00001	.00013	.00073	.00001	.00379

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00000**	**-.00005**	**.00000**	**.0001**	**.0001**	**.0000**	**.00024**
Stddev	.0001	.00003	.0000	.0000	.0000	.000	.00019
%RSD	5959.0	50.496	127.44	17.27	24.31	11.53	80.732
#1	-.00004	-.00003	.00000	.0001	.0001	.0000	.00037
#2	.00004	-.00007	-.00001	.0001	.0001	.0000	.00010

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.00449**	**.0009**	**.0002**	**.00001**	**.00004**	**-.00040**	**.00003**
Stddev	.00023	.0001	.0000	.00000	.00002	.00057	.00002
%RSD	5.1855	8.457	23.00	21.069	37.519	142.93	47.759
#1	-.00433	.0009	.0002	.00001	.00005	.00000	.00004
#2	-.00466	.0008	.0002	.00001	.00003	-.00080	.00002

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.00014**	**.00003**	**.00002**	**.00007**	**.00000**	**.00103**	**.00002**
Stddev	.00005	.00004	.00001	.00000	.00000	.00003	.00000
%RSD	38.687	115.60	48.306	.57641	111.25	2.8206	3.4986
#1	-.00010	.00006	.00001	.00007	.00000	.00101	.00002
#2	-.00017	.00001	.00002	.00007	.00001	.00105	.00002

Sample Name: STD0 Acquired: 12/7/2007 15:45:49 Type: Cal
Method: TRACEPB Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti	Tl	V	Zn
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.00001	-.00003	.00003	.00042
Stddev	.00001	.00001	.00001	.00001
%RSD	114.50	22.497	22.746	3.4368
#1	-.00002	-.00003	.00003	.00041
#2	.00000	-.00002	.00002	.00043

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	46791.	23654.	646640.
Stddev	275.	330.	8776.
%RSD	.58826	1.3957	1.3572
#1	46596.	23420.	640430.
#2	46985.	23887.	652840.

Sample Name: STD1 Acquired: 12/7/2007 15:49:12 Type: Cal
Method: TRACEPB Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Cd	Co
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00821**	**.33351**	**.00295**	**.01534**	**.19720**	**.02495**	**.10480**	**.04300**
Stddev	.00008	.00015	.00005	.00002	.00191	.00024	.00028	.00007
%RSD	1.0071	.04381	1.6119	.12858	.96801	.95718	.27006	.15447
#1	.00827	.33361	.00298	.01535	.19855	.02512	.10500	.04305
#2	.00815	.33340	.00292	.01533	.19585	.02478	.10460	.04295

Elem	Cr	Cu2199	Cu2218	Cu3273	Fe	Mn	Mo	Ni
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00528**	**.0062**	**.0086**	**.0021**	**.40269**	**.03444**	**.02355**	**.02369**
Stddev	.00004	.0000	.0000	.0000	.00020	.00028	.00003	.00002
%RSD	.74876	.2050	.4341	.2472	.04929	.81656	.12710	.10222
#1	.00531	.0062	.0086	.0021	.40283	.03464	.02357	.02367
#2	.00525	.0061	.0086	.0021	.40255	.03424	.02353	.02370

Elem	Pb	Sb	Se	Si	Sn	Sr	Te	Ti
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00828**	**.00442**	**.00273**	**.00212**	**.00812**	**.41918**	**.00331**	**.02145**
Stddev	.00001	.00001	.00004	.00001	.00006	.00365	.00002	.00015
%RSD	.08764	.28257	1.4756	.66138	.69687	.87121	.58388	.69314
#1	.00828	.00443	.00276	.00213	.00816	.42176	.00333	.02155
#2	.00829	.00441	.00270	.00211	.00808	.41660	.00330	.02134

Elem	Tl	V	Zn
Units	Cts/S	Cts/S	Cts/S
Avg	**.00348**	**.00817**	**.07020**
Stddev	.00000	.00007	.00028
%RSD	.06381	.84017	.39978
#1	.00347	.00822	.07040
#2	.00348	.00812	.07000

Sample Name: STD1 Acquired: 12/7/2007 15:49:12 Type: Cal
Method: TRACEPB Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	46387.	23420.	641030.
Stddev	30.	27.	4517.
%RSD	.06378	.11328	.70461
#1	46366.	23401.	637830.
#2	46408.	23439.	644220.

Sample Name: STD2 Acquired: 12/7/2007 15:52:28 Type: Cal
Method: TRACEPB Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Cd	Co
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.02052**	**.85332**	**.00729**	**.03786**	**.48736**	**.06239**	**.25745**	**.10624**
Stddev	.00020	.03474	.00007	.00011	.00741	.00047	.00009	.00013
%RSD	.95929	4.0714	.94015	.29239	1.5199	.75953	.03674	.12515
#1	.02066	.87788	.00734	.03794	.49260	.06272	.25752	.10633
#2	.02038	.82875	.00724	.03778	.48212	.06205	.25739	.10614

Elem	Cr	Cu2199	Cu2218	Cu3273	Fe	Mn	Mo	Ni
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.01305**	**.0152**	**.0209**	**.0051**	**1.0212**	**.08633**	**.05818**	**.05874**
Stddev	.00008	.0001	.0001	.0001	.0357	.00059	.00000	.00012
%RSD	.60795	.6644	.3337	1.226	3.4981	.68288	.00697	.19746
#1	.01311	.0152	.0209	.0051	1.0465	.08675	.05818	.05882
#2	.01300	.0153	.0208	.0052	.99595	.08591	.05819	.05866

Elem	Pb	Sb	Se	Si	Sn	Sr	Te	Ti
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.02064**	**.01093**	**.00662**	**.00514**	**.02002**	**1.0271**	**.00810**	**.05403**
Stddev	.00005	.00007	.00005	.00004	.00001	.0071	.00002	.00037
%RSD	.25754	.61701	.71519	.70567	.05839	.68884	.29646	.67646
#1	.02061	.01097	.00665	.00517	.02001	1.0321	.00811	.05429
#2	.02068	.01088	.00658	.00512	.02003	1.0221	.00808	.05377

Elem	Tl	V	Zn
Units	Cts/S	Cts/S	Cts/S
Avg	**.00855**	**.02021**	**.17115**
Stddev	.00005	.00018	.00015
%RSD	.55030	.87211	.08662
#1	.00852	.02033	.17126
#2	.00859	.02008	.17105

Sample Name: STD2 Acquired: 12/7/2007 15:52:28 Type: Cal
Method: TRACEPB Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	46255.	22591.	638220.
Stddev	51.	786.	3918.
%RSD	.10958	3.4789	.61385
#1	46291.	22035.	635450.
#2	46219.	23146.	640990.

Sample Name: STD3 Acquired: 12/7/2007 15:55:59 Type: Cal
Method: TRACEPB Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Cd	Co
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.04119**	**1.6785**	**.01463**	**.07492**	**.96870**	**.12616**	**.51820**	**.21271**
Stddev	.00023	.0107	.00013	.00073	.00586	.00050	.00525	.00217
%RSD	.55276	.64058	.87658	.97346	.60496	.39690	1.0130	1.0178
#1	.04135	1.6861	.01472	.07544	.97285	.12652	.52191	.21424
#2	.04102	1.6709	.01454	.07441	.96456	.12581	.51449	.21118

Elem	Cr	Cu2199	Cu2218	Cu3273	Fe	Mn	Mo	Ni
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.02635**	**.0304**	**.0418**	**.0101**	**1.9903**	**.17334**	**.11709**	**.11709**
Stddev	.00008	.0002	.0004	.0001	.0208	.00083	.00121	.00097
%RSD	.31111	.7848	.8997	1.033	1.0459	.48080	1.0316	.83196
#1	.02641	.0305	.0421	.0102	2.0050	.17393	.11795	.11777
#2	.02630	.0302	.0416	.0100	1.9756	.17275	.11624	.11640

Elem	Pb	Sb	Se	Si	Sn	Sr	Te	Ti
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.04161**	**.02160**	**.01314**	**.01009**	**.04027**	**2.0551**	**.01606**	**.10857**
Stddev	.00035	.00025	.00013	.00005	.00038	.0199	.00013	.00062
%RSD	.83929	1.1733	.95415	.50753	.94122	.96872	.80319	.57024
#1	.04185	.02178	.01323	.01013	.04054	2.0691	.01615	.10901
#2	.04136	.02142	.01305	.01005	.04001	2.0410	.01597	.10813

Elem	Tl	V	Zn
Units	Cts/S	Cts/S	Cts/S
Avg	**.01725**	**.04059**	**.34419**
Stddev	.00014	.00016	.00359
%RSD	.82131	.40001	1.0418
#1	.01735	.04070	.34673
#2	.01715	.04047	.34166

Sample Name: STD3 Acquired: 12/7/2007 15:55:59 Type: Cal
Method: TRACEPB Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	45625.	22577.	629120.
Stddev	283.	162.	2419.
%RSD	.61986	.71855	.38446
#1	45425.	22463.	627410.
#2	45825.	22692.	630830.

Sample Name: STD4 Acquired: 12/7/2007 15:59:31 Type: Cal
Method: TRACEPB Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ca	K	Mg2802	Mg2852	Na
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.6441**	**.06467**	**23.22**	**2.319**	**1.7406**
Stddev	.0178	.00018	.02	.024	.0222
%RSD	1.0808	.28448	.0763	1.044	1.2736
#1	1.6315	.06480	23.21	2.302	1.7249
#2	1.6566	.06454	23.24	2.336	1.7563

Int. Std.	Y_3774
Units	Cts/S
Avg	22668.
Stddev	178.
%RSD	.78510
#1	22794.
#2	22542.

Sample Name: STD5 Acquired: 12/7/2007 16:03:01 Type: Cal
Method: TRACEPB Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ca	K	Mg2802	Mg2852	Na
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**4.2018**	**.13687**	**55.86**	**5.756**	**4.4961**
Stddev	.1335	.00382	1.47	.206	.1150
%RSD	3.1761	2.7898	2.638	3.575	2.5577
#1	4.2962	.13957	56.90	5.902	4.5774
#2	4.1075	.13417	54.82	5.611	4.4148

Int. Std.	Y_3774
Units	Cts/S
Avg	**22569.**
Stddev	646.
%RSD	2.8627
#1	22112.
#2	23026.

Sample Name: STD6 Acquired: 12/7/2007 16:06:31 Type: Cal
Method: TRACEPB Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ca	K	Mg2802	Mg2852	Na
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**8.0957**	**.34181**	**97.20**	**10.35**	**8.5543**
Stddev	.1859	.00919	2.32	.27	.1538
%RSD	2.2965	2.6881	2.389	2.600	1.7984
#1	7.9642	.33531	95.56	10.16	8.4455
#2	8.2271	.34831	98.85	10.54	8.6631

Int. Std.	Y_3774
Units	Cts/S
Avg	**22781.**
Stddev	536.
%RSD	2.3549
#1	23161.
#2	22402.

Sample Name: Blank Acquired: 12/7/2007 16:09:59 Type: Cal
Method: TRACEPB Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Cu2218	Cu3273
Units	Cts/S	Cts/S
Avg	.0001	.0000
Stddev	.0000	.0000
%RSD	24.47	87.03
#1	.0002	.0000
#2	.0001	.0001

Int. Std.	Y_2243
Units	Cts/S
Avg	47068.
Stddev	74.
%RSD	.15730
#1	47016.
#2	47120.

Sample Name: PBLK Acquired: 12/7/2007 16:13:24 Type: QC
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca	Cd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.35059**	**-1.4176**	**.45559**	**.51704**	**-.00843**	**.00728**	**.35127**	**-.00559**
Stddev	.11927	3.1307	1.2760	.00012	.02173	.01546	1.8211	.04601
%RSD	34.020	220.84	280.07	.02290	257.90	212.22	518.43	822.73
#1	.43493	-3.6314	-.44665	.51712	-.02380	.01821	-.93643	.02694
#2	.26626	.79612	1.3578	.51696	.00694	-.00365	1.6390	-.03812
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co	Cr	Cu2199	Cu2218	Cu3273	Fe	K	Mg2802
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.02126**	**.28893**	**-1.175**	**.9632**	**-2.446**	**-6.4611**	**27.365**	**1.692**
Stddev	.07311	.12768	1.797	1.764	.825	2.1654	42.028	.087
%RSD	343.87	44.190	153.0	183.1	33.73	33.514	153.59	5.143
#1	.03044	.19865	.0960	-.2839	-3.030	-7.9922	57.083	1.631
#2	-.07296	.37921	-2.446	2.210	-1.863	-4.9300	-2.3540	1.754
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mg2852	Mn	Mo	Na	Ni	Pb	Sb	Se
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F **-4.077**	**-.04399**	**-.24010**	**38.567**	**-.51584**	**-.43769**	**.11727**	**.69039**
Stddev	1.034	.04463	.07862	3.554	.03505	.17300	2.9858	.22628
%RSD	25.37	101.46	32.744	9.2140	6.7949	39.526	2546.0	32.775
#1	-4.808	-.01243	-.29569	41.079	-.49106	-.31536	2.2286	.53038
#2	-3.345	-.07554	-.18451	36.054	-.54063	-.56002	-1.9940	.85039
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	3.000							
Low Limit	-3.000							

Sample Name: PBLK Acquired: 12/7/2007 16:13:24 Type: QC
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si	Sn	Sr	Te	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.04727	-.04432	-.01876	-1.1406	.13395	.30821	-.14970	-.50480
Stddev	.18586	.20179	.00391	.3123	.10531	1.5541	.02410	.11499
%RSD	393.18	455.30	20.866	27.383	78.622	504.24	16.096	22.778
#1	-.08415	.09837	-.01599	-1.3615	.20842	-.79071	-.16674	-.42350
#2	.17870	-.18701	-.02153	-.91978	.05948	1.4071	-.13266	-.58611
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	46695.	24467.	646710.
Stddev	89.	1015.	9278.
%RSD	.18966	4.1468	1.4346
#1	46632.	25184.	640140.
#2	46758.	23749.	653270.

Sample Name: ICV Acquired: 12/7/2007 16:16:51 Type: QC
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**411.47**	**4960.7**	**439.17**	**438.38**	**425.81**	**42.024**	**4924.7**
Stddev	.24	103.1	.14	.77	1.35	.103	70.4
%RSD	.05952	2.0781	.03132	.17638	.31812	.24541	1.4296
#1	411.65	4887.8	439.27	437.83	424.85	41.951	4874.9
#2	411.30	5033.6	439.07	438.92	426.77	42.097	4974.4
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**42.116**	**439.21**	**410.51**	F **442.2**	**376.9**	**408.8**	**4984.5**
Stddev	.039	.43	.31	.2	.4	10.5	72.7
%RSD	.09241	.09788	.07513	.0378	.1085	2.573	1.4580
#1	42.144	438.91	410.29	442.3	376.6	401.3	4933.2
#2	42.089	439.51	410.72	442.1	377.2	416.2	5035.9
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value				400.0			
Range				10.00%			

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**4981.0**	**5014.**	F **5588.**	**417.82**	**411.55**	**9830.0**	**428.15**
Stddev	76.2	85.	91.	.58	.36	164.5	.72
%RSD	1.5294	1.687	1.627	.13936	.08834	1.6734	.16910
#1	4927.2	4954.	5524.	417.41	411.80	9713.7	428.66
#2	5034.9	5074.	5652.	418.23	411.29	9946.3	427.63
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			5000.				
Range			10.00%				

Sample Name: ICV Acquired: 12/7/2007 16:16:51 Type: QC
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**426.65**	**420.61**	**432.53**	F **96.927**	**419.63**	**413.00**	F **12.858**
Stddev	.63	3.23	1.59	.079	.30	1.63	1.370
%RSD	.14715	.76713	.36695	.08120	.07259	.39483	10.652
#1	427.10	422.89	431.41	96.871	419.42	414.15	11.890
#2	426.21	418.33	433.65	96.983	419.85	411.85	13.827
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail
Value				400.00			400.00
Range				-10.000%			-10.000%

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**418.43**	**412.88**	**419.70**	**432.66**
Stddev	.46	.33	1.30	.30
%RSD	.10883	.08036	.31011	.06937
#1	418.11	413.12	418.78	432.87
#2	418.76	412.65	420.62	432.44
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				
Range				

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	**46915.**	**23822.**	**646610.**
Stddev	2.	342.	1684.
%RSD	.00338	1.4344	.26046
#1	46916.	24063.	647800.
#2	46914.	23580.	645410.

Sample Name: ICB Acquired: 12/7/2007 16:20:22 Type: QC
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca	Cd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.19200**	**17.879**	**-.27043**	**-.00691**	**-.01720**	**.01015**	**-3.0032**	**-.05242**
Stddev	.27553	5.741	.41877	.10664	.00032	.00869	1.8141	.01888
%RSD	143.51	32.108	154.85	1542.6	1.8392	85.617	60.404	36.027
#1	-.00283	13.820	.02568	.06850	-.01743	.01630	-1.7205	-.03906
#2	.38683	21.939	-.56654	-.08232	-.01698	.00401	-4.2859	-.06577
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co	Cr	Cu2199	Cu2218	Cu3273	Fe	K	Mg2802
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.01251**	**-.11468**	**.0083**	**.1542**	**-1.664**	**-9.8891**	**67.311**	**1.727**
Stddev	.06797	.02338	.4644	.2422	.463	1.3729	13.527	.014
%RSD	543.39	20.389	5628.	157.1	27.79	13.883	20.097	.7987
#1	.06057	-.09815	-.3201	.3254	-1.991	-10.860	76.876	1.717
#2	-.03555	-.13121	.3366	-.0170	-1.337	-8.9183	57.745	1.736
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mg2852	Mn	Mo	Na	Ni	Pb	Sb	Se
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-1.722**	**-.04521**	**.22958**	**11.052**	**-.47925**	**-.38932**	**.57766**	**1.3756**
Stddev	.138	.02362	.12515	18.119	.00861	.50478	.08735	1.2001
%RSD	7.998	52.241	54.512	163.94	1.7971	129.66	15.121	87.238
#1	-1.819	-.06191	.14109	23.865	-.48534	-.74625	.51589	2.2242
#2	-1.625	-.02851	.31807	-1.7601	-.47316	-.03239	.63942	.52704
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: ICB Acquired: 12/7/2007 16:20:22 Type: QC
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si	Sn	Sr	Te	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.07040	.00585	-.00570	.68692	-.04216	.57938	-.20642	.29707
Stddev	.32630	.05605	.00554	1.0932	.02650	.04339	.00238	.00495
%RSD	463.47	958.70	97.229	159.14	62.852	7.4890	1.1510	1.6678
#1	-.16032	.04548	-.00178	-.08608	-.02342	.54870	-.20474	.30057
#2	.30113	-.03379	-.00962	1.4599	-.06089	.61007	-.20810	.29357
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	47209.	23935.	651920.
Stddev	167.	551.	716.
%RSD	.35442	2.3023	.10976
#1	47090.	24324.	651410.
#2	47327.	23545.	652420.

Sample Name: CCV Acquired: 12/7/2007 16:23:49 Type: QC
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**514.48**	**51381.**	**508.23**	**510.61**	**498.20**	**49.978**	**101430.**
Stddev	.33	1753.	6.08	2.31	.62	.041	3609.
%RSD	.06503	3.4111	1.1959	.45304	.12491	.08243	3.5579
#1	514.24	52621.	512.53	512.24	498.64	49.949	103980.
#2	514.71	50142.	503.94	508.97	497.76	50.007	98881.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**492.97**	**493.37**	**497.95**	F **598.1**	F **555.4**	F **571.1**	**49889.**
Stddev	1.54	1.33	.36	2.4	6.7	8.4	1699.
%RSD	.31269	.27022	.07234	.3934	1.213	1.477	3.4047
#1	494.06	494.31	497.70	599.7	560.2	577.0	51090.
#2	491.88	492.43	498.21	596.4	550.6	565.1	48688.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Pass
Value				500.0	500.0	500.0	
Range				10.00%	10.00%	10.00%	

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**25636.**	**99960.**	**105800.**	**497.72**	**503.07**	**102260.**	**494.28**
Stddev	867.	2218.	3739.	.52	1.32	3525.	1.08
%RSD	3.3812	2.219	3.535	.10431	.26267	3.4470	.21877
#1	26249.	101500.	108400.	497.35	504.00	104750.	495.05
#2	25023.	98390.	103100.	498.09	502.13	99765.	493.52
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV Acquired: 12/7/2007 16:23:49 Type: QC
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**494.02**	**511.51**	**509.84**	**518.17**	**496.12**	**498.87**	**505.38**
Stddev	.38	1.03	2.75	1.38	2.10	2.57	2.43
%RSD	.07747	.20083	.53904	.26684	.42412	.51549	.48094
#1	493.75	510.79	511.78	517.19	497.60	500.69	507.10
#2	494.29	512.24	507.90	519.15	494.63	497.05	503.66
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**512.96**	**492.22**	**504.31**	F **600.29**
Stddev	.35	2.67	.72	2.35
%RSD	.06911	.54298	.14332	.39166
#1	512.71	494.11	503.80	601.96
#2	513.21	490.33	504.82	598.63
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value				500.00
Range				10.000%

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	45222.	22842.	623850.
Stddev	69.	622.	1485.
%RSD	.15217	2.7239	.23798
#1	45173.	22402.	624900.
#2	45271.	23282.	622800.

Sample Name: CCB Acquired: 12/7/2007 16:27:24 Type: QC
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca	Cd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.19766	2.0492	-.47480	.64100	-.00777	.00564	-4.3531	-.03293
Stddev	.33791	1.2034	1.2173	.59749	.00395	.00616	2.4935	.07132
%RSD	170.96	58.727	256.39	93.212	50.829	109.24	57.282	216.55
#1	-.04128	2.9002	.38599	.21851	-.00498	.01000	-2.5899	.01750
#2	.43659	1.1982	-1.3356	1.0635	-.01056	.00128	-6.1162	-.08336
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co	Cr	Cu2199	Cu2218	Cu3273	Fe	K	Mg2802
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.01623	.36901	-.8012	.7167	-.3450	-4.7198	63.052	F 4.880
Stddev	.12353	.27159	.7327	.4702	2.273	1.0604	55.802	1.434
%RSD	760.96	73.601	91.44	65.60	658.8	22.468	88.501	29.38
#1	-.10359	.17696	-.2832	.3842	1.262	-5.4696	102.51	5.894
#2	.07112	.56105	-1.319	1.049	-1.952	-3.9699	23.594	3.866
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit								3.000
Low Limit								-3.000

Elem	Mg2852	Mn	Mo	Na	Ni	Pb	Sb	Se
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.419	-.08365	.14936	52.906	-.76851	.37861	-1.1062	-.54072
Stddev	.912	.01668	.10732	5.068	.13190	.71202	1.3405	1.5893
%RSD	64.29	19.940	71.857	9.5788	17.163	188.06	121.18	293.93
#1	-2.064	-.09545	.22525	56.489	-.67524	.88208	-.15832	-1.6645
#2	-.7738	-.07186	.07347	49.322	-.86178	-.12486	-2.0540	.58310
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB Acquired: 12/7/2007 16:27:24 Type: QC
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si	Sn	Sr	Te	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.33130	.80188	-.00199	.66438	-.05761	1.0673	-.19690	-.50492
Stddev	.35215	.11467	.00255	.74856	.02444	.0959	.17090	.02195
%RSD	106.29	14.300	128.03	112.67	42.429	8.9838	86.798	4.3474
#1	-.58030	.88296	-.00019	.13507	-.07489	1.1351	-.31775	-.48940
#2	-.08229	.72080	-.00380	1.1937	-.04033	.99947	-.07605	-.52045
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	47185.	23791.	645390.
Stddev	97.	140.	2989.
%RSD	.20484	.58692	.46313
#1	47117.	23889.	643270.
#2	47253.	23692.	647500.

Sample Name: PQL Acquired: 12/7/2007 16:30:52 Type: QC
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca	Cd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**5.0609**	**220.29**	**19.219**	**16.274**	**5.0136**	**1.9894**	**1003.7**	**6.1276**
Stddev	.0281	22.32	.421	.528	.0146	.0049	49.5	.0247
%RSD	.55559	10.134	2.1888	3.2473	.29061	.24715	4.9360	.40311
#1	5.0410	236.07	19.517	15.900	5.0033	1.9929	1038.8	6.1102
#2	5.0807	204.50	18.922	16.647	5.0239	1.9859	968.72	6.1451
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co	Cr	Cu2199	Cu2218	Cu3273	Fe	K	Mg2802
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**5.1505**	**5.3802**	F **9.497**	F **14.02**	F **10.33**	**140.83**	**288.76**	F **258.6**
Stddev	.0305	.0441	.459	.39	14.22	7.83	22.27	13.1
%RSD	.59249	.81970	4.836	2.768	137.6	5.5571	7.7138	5.079
#1	5.1289	5.3490	9.172	14.30	.2773	146.37	273.01	267.8
#2	5.1720	5.4114	9.822	13.75	20.39	135.30	304.51	249.3
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail
Value			5.000	5.000	5.000			5.000
Range			20.00%	20.00%	20.00%			20.00%

Elem	Mg2852	Mn	Mo	Na	Ni	Pb	Sb	Se
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F **281.9**	**4.8792**	**4.9706**	**2569.6**	**9.8011**	**8.9364**	**20.128**	**20.023**
Stddev	14.5	.0197	.1296	113.2	.1081	.2701	.183	1.958
%RSD	5.136	.40278	2.6065	4.4033	1.1028	3.0227	.91140	9.7779
#1	292.1	4.8931	5.0622	2649.6	9.8775	9.1274	20.258	18.639
#2	271.7	4.8653	4.8790	2489.6	9.7247	8.7454	19.998	21.408
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	5.000							
Range	20.00%							

Sample Name: PQL Acquired: 12/7/2007 16:30:52 Type: QC
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si	Sn	Sr	Te	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	56.455	25.735	4.9648	.17735	24.952	30.873	9.6173	21.927
Stddev	.068	.111	.0287	.38763	.109	.036	.0956	.026
%RSD	.12051	.43313	.57820	218.57	.43670	.11625	.99459	.12025
#1	56.504	25.656	4.9445	-.09675	24.875	30.898	9.5496	21.945
#2	56.407	25.814	4.9851	.45144	25.029	30.847	9.6849	21.908
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	47617.	23216.	658940.
Stddev	69.	1057.	499.
%RSD	.14595	4.5523	.07579
#1	47568.	22469.	659290.
#2	47666.	23963.	658580.

Sample Name: ICSA Acquired: 12/7/2007 16:34:16 Type: QC
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.29609**	**494460.**	**-4.5416**	**6.7073**	**1.8421**	**-.03955**
Stddev	.07623	7278.	.4827	.1394	.0813	.00063
%RSD	25.746	1.4718	10.629	2.0791	4.4156	1.6013
#1	-.24219	489310.	-4.2003	6.6087	1.7846	-.03910
#2	-.34999	499610.	-4.8830	6.8059	1.8996	-.03999
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu2199	Cu2218
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**522790.**	**1.0407**	**.13611**	**.34424**	F **-178.5**	F **274.7**
Stddev	3045.	.0789	.10626	.06367	2.3	6.1
%RSD	.58237	7.5814	78.072	18.496	1.299	2.216
#1	520640.	1.0965	.21125	.29922	-176.8	270.4
#2	524950.	.98492	.06097	.38926	-180.1	279.1
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail
High Limit					3.000	3.000
Low Limit					-3.000	-3.000

Elem	Cu3273	Fe	K	Mg2802	Mg2852	Mn
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F **203.9**	**186190.**	**28.594**	F **235500.**	F **222300.**	**.13590**
Stddev	2.7	2242.	11.547	4887.	2074.	.02333
%RSD	1.304	1.2040	40.381	2.076	.9328	17.164
#1	205.8	184610.	36.759	232000.	220800.	.15239
#2	202.0	187780.	20.430	238900.	223800.	.11940
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass
High Limit	3.000			3.000	3.000	
Low Limit	-3.000			-3.000	-3.000	

Sample Name: ICSA Acquired: 12/7/2007 16:34:16 Type: QC
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mo	Na	Ni	Pb	Sb	Se
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.05225	-53.671	-1.5936	5.1711	-2.1901	1.5200
Stddev	.07507	23.388	1.0286	.7318	1.0518	3.2146
%RSD	143.68	43.577	64.544	14.151	48.027	211.49
#1	-.10534	-37.133	-2.3209	5.6885	-2.9339	-.75307
#2	.00083	-70.209	-.86630	4.6536	-1.4464	3.7931
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Si	Sn	Sr	Te	Ti	Tl
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.33094	.43344	-.17208	10.178	.67946	.05216
Stddev	.63550	.64977	.10804	.570	.01130	1.5648
%RSD	192.03	149.91	62.789	5.6037	1.6629	2999.6
#1	-.78031	.89290	-.24848	10.581	.67147	-1.0543
#2	.11842	-.02602	-.09568	9.7746	.68745	1.1586
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	V	Zn
Units	ppb	ppb
Avg	-.04896	-1.9427
Stddev	.15582	.2773
%RSD	318.27	14.273
#1	-.15914	-1.7466
#2	.06122	-2.1387
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Sample Name: ICSA Acquired: 12/7/2007 16:34:16 Type: QC
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	44160.	23388.	617180.
Stddev	116.	353.	15658.
%RSD	.26311	1.5078	2.5370
#1	44078.	23638.	628250.
#2	44242.	23139.	606110.

Sample Name: ICSAB Acquired: 12/7/2007 16:37:45 Type: QC
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**210.24**	**493390.**	**100.81**	**922.69**	**498.87**	**494.79**	**520600.**
Stddev	1.80	2783.	10.83	2.36	3.32	5.71	1633.
%RSD	.85436	.56413	10.739	.25552	.66473	1.1546	.31370
#1	208.97	491430.	93.152	921.02	496.53	490.75	521760.
#2	211.51	495360.	108.46	924.35	501.22	498.83	519450.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**934.56**	**460.87**	**487.54**	F **340.4**	F **771.5**	F **719.9**	**184730.**
Stddev	2.54	.15	3.39	4.2	2.6	.6	535.
%RSD	.27180	.03229	.69564	1.244	.3376	.0865	.28972
#1	932.77	460.76	485.14	343.4	769.7	720.3	184350.
#2	936.36	460.97	489.94	337.4	773.4	719.4	185110.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Pass
Value				200.0	200.0	200.0	
Range				20.00%	20.00%	20.00%	

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**4713.5**	**244500.**	**226200.**	**483.98**	**910.33**	**9727.7**	**923.69**
Stddev	10.9	1412.	3097.	2.44	2.81	7.6	.70
%RSD	.23202	.5775	1.369	.50456	.30838	.07776	.07632
#1	4705.8	243500.	224000.	482.26	908.35	9733.0	923.19
#2	4721.3	245500.	228400.	485.71	912.32	9722.3	924.19
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: ICSAB Acquired: 12/7/2007 16:37:45 Type: QC
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**50.674**	**596.14**	**48.991**	**1178.9**	**886.99**	**494.39**	**204.90**
Stddev	.789	1.20	4.140	7.6	1.54	2.27	1.93
%RSD	1.5571	.20109	8.4502	.64491	.17307	.45951	.94257
#1	51.232	596.99	46.063	1173.6	885.90	492.79	203.54
#2	50.116	595.30	51.918	1184.3	888.07	496.00	206.27
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**922.38**	**91.991**	**493.00**	**1062.4**
Stddev	5.49	.422	1.68	3.1
%RSD	.59509	.45908	.34012	.29046
#1	918.49	92.289	491.81	1060.2
#2	926.26	91.692	494.18	1064.6
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				
Range				

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	43792.	22890.	599030.
Stddev	121.	128.	3581.
%RSD	.27668	.55868	.59785
#1	43877.	22981.	601560.
#2	43706.	22800.	596500.

Sample Name: LR Acquired: 12/7/2007 16:41:39 Type: QC
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1029.9**	**-21.230**	**2062.3**	**5039.5**	^F *****	**495.75**	**52.264**
Stddev	2.7	15.554	3.9	1.2	-----	2.38	2.042
%RSD	.26040	73.261	.18767	.02312	-----	.47924	3.9065
#1	1028.0	-10.232	2059.6	5038.7	^ -----	494.07	53.707
#2	1031.8	-32.229	2065.1	5040.4	^ -----	497.43	50.820
Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None
Value					10000.		
Range					-10.000%		

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**2046.0**	**10124.**	**10390.**	F **11050.**	F **10020.**	F **10170.**	**488160.**
Stddev	4.6	6.	30.	2.	7.	11.	16469.
%RSD	.22580	.06205	.29234	.0163	.0734	.1092	3.3738
#1	2042.8	10119.	10369.	11050.	10020.	10180.	499800.
#2	2049.3	10128.	10412.	11050.	10010.	10160.	476510.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Pass
Value				1000.	1000.	1000.	
Range				10.00%	10.00%	10.00%	

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-197.47**	F **169.5**	F **191.7**	**9856.6**	**10083.**	**-112.74**	**7645.2**
Stddev	2.82	4.1	7.5	3.8	15.	14.92	4.7
%RSD	1.4273	2.406	3.886	.03806	.14589	13.230	.06117
#1	-195.47	172.4	197.0	9853.9	10073.	-102.19	7648.5
#2	-199.46	166.6	186.5	9859.2	10094.	-123.29	7641.9
Check ?	None	Chk Fail	Chk Fail	Chk Pass	Chk Pass	None	Chk Pass
Value		1000.	1000.				
Range		-10.00%	-10.00%				

Sample Name: LR Acquired: 12/7/2007 16:41:39 Type: QC
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**20343.**	**5106.5**	**2036.3**	F **11024.**	**10139.**	**1973.8**	**335.91**
Stddev	36.	6.9	7.2	40.	22.	1.9	2.39
%RSD	.17518	.13477	.35381	.36328	.21257	.09851	.71013
#1	20318.	5111.4	2041.4	10995.	10124.	1975.2	337.59
#2	20368.	5101.7	2031.2	11052.	10154.	1972.4	334.22
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	None
Value				10000.			
Range				10.000%			

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**10058.**	**2050.3**	**10364.**	**10027.**
Stddev	123.	.8	32.	17.
%RSD	1.2277	.03887	.31352	.17145
#1	9970.3	2049.7	10341.	10015.
#2	10145.	2050.8	10387.	10039.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				
Range				

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	44661.	22086.	620070.
Stddev	83.	644.	961.
%RSD	.18683	2.9141	.15502
#1	44720.	21631.	620750.
#2	44602.	22542.	619390.

Sample Name: CCV Acquired: 12/7/2007 16:48:52 Type: QC
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**508.83**	**49751.**	**511.61**	**514.33**	**496.13**	**49.866**	**98417.**
Stddev	1.43	930.	1.91	.51	7.60	.094	1731.
%RSD	.28175	1.8695	.37353	.10008	1.5325	.18870	1.7588
#1	507.82	49093.	510.26	513.96	490.75	49.800	97193.
#2	509.85	50408.	512.96	514.69	501.50	49.933	99641.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**497.76**	**497.29**	**496.74**	F **596.6**	F **556.4**	F **556.6**	**48361.**
Stddev	.73	.30	.94	3.3	2.8	.9	804.
%RSD	.14675	.06104	.18997	.5488	.4999	.1550	1.6625
#1	497.25	497.50	496.08	594.2	554.4	557.2	47792.
#2	498.28	497.07	497.41	598.9	558.4	556.0	48929.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Pass
Value				500.0	500.0	500.0	
Range				10.00%	10.00%	10.00%	

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**24991.**	**97530.**	**102300.**	**497.79**	**506.96**	**99332.**	**497.27**
Stddev	491.	2223.	1900.	1.63	.60	1715.	.48
%RSD	1.9639	2.279	1.858	.32698	.11780	1.7261	.09613
#1	24644.	95960.	100900.	496.64	507.38	98119.	497.60
#2	25338.	99100.	103600.	498.94	506.54	100540.	496.93
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV Acquired: 12/7/2007 16:48:52 Type: QC
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**496.65**	**512.32**	**507.89**	**515.57**	**498.98**	**494.29**	**502.37**
Stddev	1.66	1.49	.33	3.14	.43	.59	.21
%RSD	.33498	.29123	.06502	.60930	.08673	.11979	.04129
#1	495.47	511.26	507.66	513.34	498.67	493.88	502.51
#2	497.82	513.37	508.13	517.79	499.29	494.71	502.22
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**507.30**	**497.68**	**503.18**	F **603.19**
Stddev	1.94	.67	1.19	.23
%RSD	.38190	.13560	.23682	.03797
#1	505.93	497.21	502.34	603.36
#2	508.67	498.16	504.02	603.03
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value				500.00
Range				10.000%

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	44580.	22442.	619000.
Stddev	56.	387.	2714.
%RSD	.12564	1.7224	.43852
#1	44620.	22715.	620920.
#2	44540.	22169.	617080.

Sample Name: CCB Acquired: 12/7/2007 16:52:28 Type: QC
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca	Cd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.02289	11.909	.11110	2.3743	.01441	-.00365	5.4928	.03583
Stddev	.21027	3.961	.76192	.2440	.00004	.00297	.2343	.02224
%RSD	918.54	33.259	685.77	10.277	.27001	81.487	4.2653	62.071
#1	-.12579	9.1085	.64986	2.5469	.01443	-.00575	5.3271	.05156
#2	.17158	14.710	-.42765	2.2018	.01438	-.00155	5.6584	.02011
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co	Cr	Cu2199	Cu2218	Cu3273	Fe	K	Mg2802
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.00373	.30473	.1562	.3417	-2.278	-2.8503	54.370	F 7.724
Stddev	.03432	.19229	.7938	1.388	6.461	2.5449	1.139	2.475
%RSD	919.77	63.104	508.3	406.1	283.6	89.284	2.0948	32.05
#1	-.02800	.16875	.7175	1.323	-6.847	-4.6498	55.175	9.474
#2	.02053	.44070	-.4052	-.6395	2.291	-1.0508	53.564	5.973
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit								3.000
Low Limit								-3.000

Elem	Mg2852	Mn	Mo	Na	Ni	Pb	Sb	Se
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.623	.00391	.68804	35.190	-.28092	-2.0786	.19317	-.45740
Stddev	2.884	.00366	.18585	15.196	.55071	.8611	.61946	1.0651
%RSD	177.7	93.740	27.012	43.182	196.04	41.429	320.68	232.87
#1	3.662	.00132	.81945	45.935	-.67033	-2.6875	.63119	-1.2106
#2	-.4163	.00650	.55662	24.445	.10849	-1.4697	-.24486	.29577
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB Acquired: 12/7/2007 16:52:28 Type: QC
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si	Sn	Sr	Te	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.19550	.27382	.00728	-.35675	-.01076	1.2593	-.07471	-.54214
Stddev	.27503	.32707	.00146	1.0920	.04866	.2744	.15020	.12522
%RSD	140.68	119.45	20.114	306.10	452.30	21.791	201.04	23.098
#1	.38997	.50509	.00832	.41543	-.04517	1.4534	-.18091	-.45359
#2	.00102	.04255	.00624	-1.1289	.02365	1.0653	.03150	-.63068
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	46248.	22288.	635640.
Stddev	58.	275.	6843.
%RSD	.12515	1.2359	1.0765
#1	46289.	22093.	630800.
#2	46207.	22483.	640480.

Sample Name: CCV Acquired: 12/7/2007 17:30:23 Type: QC
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**509.72**	**51918.**	**509.20**	**509.29**	**492.84**	**50.217**	**101980.**
Stddev	3.46	1359.	.36	.22	3.93	.349	2392.
%RSD	.67886	2.6181	.06980	.04348	.79770	.69560	2.3456
#1	507.27	52879.	509.45	509.14	490.06	49.970	103670.
#2	512.17	50957.	508.95	509.45	495.62	50.464	100290.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**499.33**	**497.12**	**502.94**	F **596.3**	F **560.6**	**528.5**	**49867.**
Stddev	.73	.73	3.77	4.3	4.1	7.4	1088.
%RSD	.14615	.14693	.75056	.7222	.7327	1.400	2.1817
#1	499.85	497.64	500.27	599.4	563.5	533.7	50636.
#2	498.81	496.61	505.61	593.3	557.7	523.3	49098.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass
Value				500.0	500.0		
Range				10.00%	10.00%		

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**26207.**	**99800.**	**106600.**	**498.82**	**508.02**	**102480.**	**496.67**
Stddev	562.	1970.	2568.	2.84	.77	2012.	.97
%RSD	2.1457	1.974	2.409	.56917	.15089	1.9632	.19483
#1	26604.	101200.	108500.	496.82	508.56	103900.	497.35
#2	25809.	98410.	104800.	500.83	507.48	101060.	495.98
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV Acquired: 12/7/2007 17:30:23 Type: QC
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**497.81**	**509.46**	**502.90**	**514.97**	**501.80**	**493.91**	**499.62**
Stddev	1.83	.45	2.19	2.17	1.82	2.36	2.28
%RSD	.36738	.08898	.43459	.42174	.36230	.47690	.45688
#1	496.52	509.78	504.44	513.44	503.09	492.24	501.23
#2	499.10	509.14	501.35	516.51	500.52	495.57	498.00
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**510.12**	**498.81**	**505.32**	F **602.51**
Stddev	3.60	1.73	3.01	1.04
%RSD	.70485	.34661	.59516	.17278
#1	507.57	500.03	503.19	603.25
#2	512.66	497.59	507.45	601.78
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value				500.00
Range				10.000%

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	44597.	20807.	616630.
Stddev	23.	394.	4070.
%RSD	.05088	1.8920	.66007
#1	44581.	20529.	619500.
#2	44613.	21086.	613750.

Sample Name: CCB Acquired: 12/7/2007 17:33:59 Type: QC
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca	Cd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.44989	22.789	.27089	.99411	.08476	-.01261	5.4794	.07322
Stddev	.06990	.740	1.1757	.19970	.01310	.01957	4.8250	.02803
%RSD	15.537	3.2455	434.01	20.088	15.454	155.17	88.058	38.276
#1	.40046	23.313	1.1022	.85290	.07550	.00123	2.0676	.09304
#2	.49932	22.266	-.56044	1.1353	.09403	-.02645	8.8912	.05340
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co	Cr	Cu2199	Cu2218	Cu3273	Fe	K	Mg2802
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.05890	.20556	.1707	-.0449	F 4.026	-1.9094	20.052	F 11.87
Stddev	.00095	.07733	.2738	.6768	2.211	.0882	41.153	.15
%RSD	1.6089	37.617	160.4	1508.	54.92	4.6218	205.23	1.262
#1	.05823	.26024	.3643	-.5235	2.462	-1.9718	-9.0469	11.76
#2	.05957	.15088	-.0229	.4337	5.589	-1.8470	49.152	11.98
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail
High Limit					3.000			3.000
Low Limit					-3.000			-3.000

Elem	Mg2852	Mn	Mo	Na	Ni	Pb	Sb	Se
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 6.196	.05854	.30293	26.043	.04253	-.78472	-.31075	-1.7474
Stddev	1.348	.00859	.31094	13.656	.31727	.25336	1.5703	1.3938
%RSD	21.76	14.681	102.64	52.435	746.00	32.287	505.31	79.763
#1	7.149	.05247	.52280	35.700	.26688	-.96388	.79960	-2.7330
#2	5.242	.06462	.08307	16.387	-.18182	-.60557	-1.4211	-.76187
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	3.000							
Low Limit	-3.000							

Sample Name: CCB Acquired: 12/7/2007 17:33:59 Type: QC
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si	Sn	Sr	Te	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.17237	.20872	.08101	.24868	.12548	1.2945	.10763	-.34708
Stddev	.03216	.06980	.01318	1.2992	.01484	.9172	.00621	.03458
%RSD	18.657	33.440	16.274	522.42	11.829	70.855	5.7657	9.9619
#1	.14963	.25808	.09034	-.66996	.11498	.64595	.10324	-.32263
#2	.19511	.15937	.07169	1.1673	.13598	1.9431	.11202	-.37153
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	46427.	21907.	636420.
Stddev	132.	92.	3622.
%RSD	.28515	.42076	.56911
#1	46334.	21973.	633860.
#2	46521.	21842.	638980.

Sample Name: CCV Acquired: 12/7/2007 18:12:33 Type: QC
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**507.11**	**48408.**	**511.23**	**508.13**	**491.50**	**50.425**	**95631.**
Stddev	1.39	4635.	2.07	.45	5.65	.052	9364.
%RSD	.27379	9.5749	.40412	.08899	1.1498	.10298	9.7921
#1	506.13	45130.	512.69	508.45	487.50	50.388	89010.
#2	508.09	51685.	509.77	507.81	495.49	50.462	102250.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**503.80**	**496.24**	**506.83**	F **590.5**	F **555.1**	**519.2**	**46918.**
Stddev	.33	.32	1.73	9.1	6.2	12.0	4448.
%RSD	.06480	.06396	.34099	1.547	1.124	2.314	9.4792
#1	504.03	496.46	505.60	584.0	550.7	510.7	43773.
#2	503.57	496.01	508.05	596.9	559.5	527.7	50063.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass
Value				500.0	500.0		
Range				10.00%	10.00%		

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**24640.**	**92250.**	**98920.**	**495.33**	**510.36**	**97590.**	**492.54**
Stddev	2236.	3256.	9488.	.30	.45	9193.	.60
%RSD	9.0747	3.529	9.591	.05985	.08905	9.4197	.12149
#1	23059.	89950.	92210.	495.12	510.04	91089.	492.12
#2	26221.	94560.	105600.	495.54	510.68	104090.	492.97
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV Acquired: 12/7/2007 18:12:33 Type: QC
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**504.48**	**506.71**	**508.76**	**510.29**	**504.94**	**491.56**	**500.07**
Stddev	2.26	.57	.21	1.75	.02	1.15	.17
%RSD	.44869	.11337	.04213	.34316	.00343	.23452	.03342
#1	506.08	506.31	508.91	509.05	504.96	490.74	499.96
#2	502.88	507.12	508.61	511.53	504.93	492.37	500.19
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**505.11**	**500.95**	**505.12**	F **608.59**
Stddev	.28	3.29	1.03	1.04
%RSD	.05633	.65747	.20475	.17024
#1	504.91	503.28	504.39	609.33
#2	505.31	498.63	505.86	607.86
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value				500.00
Range				10.000%

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	44393.	21571.	613920.
Stddev	107.	1458.	127.
%RSD	.23997	6.7581	.02061
#1	44468.	22602.	614010.
#2	44318.	20541.	613830.

Sample Name: CCB Acquired: 12/7/2007 18:16:08 Type: QC
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca	Cd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.09450	7.7462	1.1725	.97732	.01992	-.02096	-1.4757	-.00129
Stddev	.12666	21.753	.9152	.55301	.00754	.00273	3.3456	.02720
%RSD	134.03	280.83	78.056	56.585	37.844	13.007	226.71	2112.4
#1	.18407	-7.6357	1.8196	1.3684	.01459	-.01903	-3.8414	.01794
#2	.00494	23.128	.52533	.58628	.02525	-.02289	.88998	-.02052
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co	Cr	Cu2199	Cu2218	Cu3273	Fe	K	Mg2802
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.05914	.10846	.8321	.0209	-1.886	-4.2812	5.3702	2.277
Stddev	.17741	.00126	.2697	.0880	1.823	.0851	94.010	.057
%RSD	300.01	1.1640	32.41	421.5	96.65	1.9886	1750.6	2.522
#1	-.18459	.10757	.6414	.0831	-3.176	-4.3414	71.845	2.236
#2	.06631	.10936	1.023	-.0413	-.5972	-4.2210	-61.105	2.317
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mg2852	Mn	Mo	Na	Ni	Pb	Sb	Se
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F -4.669	.04227	.14797	28.097	-.32934	-.93706	-.97235	.82211
Stddev	.690	.02395	.21570	13.536	.17980	.07964	.53939	.96039
%RSD	14.77	56.661	145.78	48.177	54.595	8.4991	55.473	116.82
#1	-5.157	.02533	-.00456	37.669	-.20220	-.99337	-.59094	1.5012
#2	-4.182	.05920	.30049	18.526	-.45648	-.88074	-1.3538	.14301
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	3.000							
Low Limit	-3.000							

Sample Name: CCB Acquired: 12/7/2007 18:16:08 Type: QC
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si	Sn	Sr	Te	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.17984	.31740	.00330	-.54704	-.06142	.15258	-.09860	-.37948
Stddev	.43393	.15724	.00126	1.1393	.02740	2.3463	.10792	.04850
%RSD	241.28	49.541	38.246	208.27	44.613	1537.8	109.45	12.779
#1	-.48668	.42859	.00419	.25857	-.04205	1.8117	-.17492	-.41377
#2	.12699	.20621	.00241	-1.3526	-.08080	-1.5065	-.02229	-.34519
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	46070.	21712.	634600.
Stddev	8.	593.	2524.
%RSD	.01717	2.7292	.39772
#1	46064.	22131.	632820.
#2	46076.	21293.	636380.

Sample Name: CCV Acquired: 12/7/2007 18:54:19 Type: QC
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**508.97**	**49193.**	**507.28**	**507.72**	**494.44**	**50.584**	**96300.**
Stddev	2.71	1773.	2.27	1.88	.62	.424	3411.
%RSD	.53292	3.6050	.44802	.36999	.12560	.83731	3.5416
#1	507.06	47939.	505.67	506.39	494.00	50.285	93889.
#2	510.89	50447.	508.89	509.05	494.88	50.884	98712.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**503.98**	**498.90**	**507.48**	F **595.1**	F **556.4**	**525.5**	**47036.**
Stddev	.08	.69	4.71	1.7	4.8	10.3	1621.
%RSD	.01540	.13773	.92730	.2804	.8608	1.967	3.4453
#1	504.03	498.41	504.15	593.9	553.0	518.2	45890.
#2	503.92	499.38	510.81	596.3	559.8	532.8	48181.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass
Value				500.0	500.0		
Range				10.00%	10.00%		

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**25112.**	**94730.**	**100500.**	**499.06**	**510.48**	**98128.**	**496.50**
Stddev	1010.	2529.	3584.	2.16	.18	3440.	.74
%RSD	4.0237	2.670	3.567	.43333	.03557	3.5054	.14981
#1	24397.	92940.	97930.	497.53	510.60	95696.	497.03
#2	25826.	96520.	103000.	500.59	510.35	100560.	495.98
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV Acquired: 12/7/2007 18:54:19 Type: QC
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**501.75**	**506.71**	**509.94**	**514.34**	**508.22**	**494.47**	**499.91**
Stddev	.57	2.03	2.62	3.18	.06	1.89	6.59
%RSD	.11264	.40080	.51409	.61805	.01160	.38126	1.3174
#1	502.15	508.14	508.09	512.09	508.26	493.14	495.26
#2	501.35	505.27	511.80	516.58	508.18	495.80	504.57
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**511.47**	**503.01**	**507.41**	F **607.33**
Stddev	2.15	.28	3.36	.41
%RSD	.42094	.05631	.66240	.06770
#1	509.95	502.81	505.04	607.04
#2	513.00	503.21	509.79	607.62
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value				500.00
Range				10.000%

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	**43802.**	**21005.**	**603000.**
Stddev	14.	512.	3619.
%RSD	.03198	2.4374	.60012
#1	43812.	21367.	605560.
#2	43792.	20643.	600440.

Sample Name: CCB Acquired: 12/7/2007 18:58:00 Type: QC
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca	Cd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.00979	25.156	.65909	.96530	.03311	-.01724	-.07591	.00668
Stddev	.33251	11.109	1.4034	.56155	.01219	.00143	2.0419	.06649
%RSD	3396.0	44.160	212.93	58.173	36.813	8.2836	2689.9	994.72
#1	.22533	33.011	1.6514	1.3624	.04172	-.01623	1.3680	.05370
#2	-.24491	17.301	-.33324	.56823	.02449	-.01825	-1.5198	-.04033
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co	Cr	Cu2199	Cu2218	Cu3273	Fe	K	Mg2802
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.15639	.05580	.2548	.2301	F -3.970	1.5938	48.879	F 6.324
Stddev	.01762	.35422	.7764	.7227	6.699	2.0738	22.205	.605
%RSD	11.266	634.84	304.7	314.0	168.7	130.12	45.429	9.562
#1	-.14393	-.19468	.8038	.7411	-8.708	.12740	33.178	6.752
#2	-.16885	.30627	-.2942	-.2809	.7668	3.0601	64.581	5.897
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail
High Limit					3.000			3.000
Low Limit					-3.000			-3.000

Elem	Mg2852	Mn	Mo	Na	Ni	Pb	Sb	Se
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.5062	.07113	-.07918	25.472	-.43945	.00984	.63096	.93665
Stddev	3.916	.00618	.03615	9.592	.29424	.93825	1.3774	1.3942
%RSD	773.6	8.6878	45.647	37.658	66.957	9536.4	218.30	148.85
#1	2.263	.07550	-.05363	18.689	-.23139	.67328	-.34301	-.04921
#2	-3.275	.06676	-.10474	32.254	-.64750	-.65361	1.6049	1.9225
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB Acquired: 12/7/2007 18:58:00 Type: QC
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si	Sn	Sr	Te	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.28052	.37342	.01217	-1.2333	.34255	1.0692	-.05693	-.42482
Stddev	.40123	.45988	.00230	1.0186	.06286	.4560	.17218	.01379
%RSD	143.03	123.15	18.874	82.588	18.350	42.648	302.45	3.2471
#1	.00319	.04823	.01054	-1.9535	.38699	.74679	-.17868	-.43457
#2	-.56423	.69860	.01379	-.51307	.29810	1.3917	.06482	-.41506
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	44923.	20773.	617530.
Stddev	18.	306.	2146.
%RSD	.03946	1.4728	.34745
#1	44935.	20989.	619040.
#2	44910.	20556.	616010.

Sample Name: CCV Acquired: 12/7/2007 19:35:59 Type: QC
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**512.52**	**51199.**	**513.09**	**509.51**	**493.57**	**50.995**	**99977.**
Stddev	2.49	78.	.89	1.13	6.60	.333	81.
%RSD	.48556	.15178	.17308	.22169	1.3370	.65314	.08139
#1	510.76	51145.	513.72	508.71	488.90	50.759	99920.
#2	514.28	51254.	512.46	510.30	498.23	51.230	100040.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**505.72**	**501.28**	**510.39**	F **600.1**	F **562.4**	**510.8**	**48710.**
Stddev	.18	1.26	3.04	1.2	.1	1.1	122.
%RSD	.03546	.25135	.59589	.1986	.0207	.2143	.25090
#1	505.85	502.18	508.24	600.9	562.4	510.0	48796.
#2	505.59	500.39	512.54	599.2	562.3	511.6	48623.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass
Value				500.0	500.0		
Range				10.00%	10.00%		

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**26089.**	**99120.**	**104200.**	**503.90**	**511.87**	**102800.**	**501.70**
Stddev	38.	808.	350.	2.50	.92	542.	.52
%RSD	.14641	.8155	.3360	.49653	.18044	.52698	.10335
#1	26062.	99690.	104000.	502.13	511.22	103190.	502.06
#2	26116.	98550.	104500.	505.67	512.53	102420.	501.33
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV Acquired: 12/7/2007 19:35:59 Type: QC
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**504.55**	**509.46**	**512.15**	**516.77**	**508.53**	**498.57**	**504.93**
Stddev	.45	3.92	.17	2.81	.00	.75	.76
%RSD	.08945	.76958	.03376	.54301	.00042	.15112	.15106
#1	504.23	512.23	512.27	514.78	508.53	499.10	504.39
#2	504.86	506.69	512.03	518.75	508.53	498.03	505.47
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**517.31**	**500.19**	**510.86**	F **608.24**
Stddev	3.57	1.46	3.37	.18
%RSD	.69009	.29115	.65908	.03003
#1	514.78	499.16	508.48	608.37
#2	519.83	501.22	513.24	608.11
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value				500.00
Range				10.000%

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	43559.	19857.	597570.
Stddev	72.	101.	2432.
%RSD	.16513	.50849	.40702
#1	43508.	19786.	599290.
#2	43610.	19928.	595850.

Sample Name: CCB Acquired: 12/7/2007 19:39:35 Type: QC
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca	Cd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.18295	.03099	-.67496	.53768	.04307	-.01257	-.85430	-.03775
Stddev	.18887	1.4081	1.2271	.13706	.00988	.00550	3.1198	.02636
%RSD	103.24	4544.4	181.80	25.492	22.930	43.739	365.20	69.834
#1	.31650	1.0267	-1.5426	.44076	.03609	-.01645	-3.0604	-.05639
#2	.04939	-.96470	.19271	.63460	.05005	-.00868	1.3518	-.01911
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co	Cr	Cu2199	Cu2218	Cu3273	Fe	K	Mg2802
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.19847	.16714	-1.103	.2382	F 10.14	.41330	37.718	F 10.59
Stddev	.23292	.11993	.784	.8533	7.88	3.3601	12.621	1.22
%RSD	117.36	71.752	71.08	358.3	77.76	812.99	33.463	11.51
#1	-.36316	.25194	-1.657	-.3652	4.563	-1.9627	28.793	9.728
#2	-.03377	.08234	-.5486	.8415	15.71	2.7893	46.643	11.45
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail
High Limit					3.000			3.000
Low Limit					-3.000			-3.000

Elem	Mg2852	Mn	Mo	Na	Ni	Pb	Sb	Se
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 7.338	.06893	.08547	43.733	-.12430	-1.7813	-.46478	-.39331
Stddev	.675	.00564	.02625	1.908	.07926	.5072	.20272	.82568
%RSD	9.205	8.1753	30.710	4.3634	63.768	28.471	43.616	209.93
#1	6.861	.06495	.06691	42.384	-.18035	-2.1399	-.60812	.19053
#2	7.816	.07292	.10403	45.082	-.06825	-1.4227	-.32144	-.97715
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	3.000							
Low Limit	-3.000							

Sample Name: CCB Acquired: 12/7/2007 19:39:35 Type: QC
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si	Sn	Sr	Te	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.19445	.57514	.01879	-.38389	.20258	-1.1624	.04532	-.25788
Stddev	.17076	.07621	.01297	.06138	.05264	1.7478	.03933	.01148
%RSD	87.820	13.250	69.057	15.989	25.985	150.36	86.782	4.4525
#1	.07370	.62903	.02796	-.42730	.16535	.07346	.07314	-.24976
#2	.31520	.52125	.00961	-.34049	.23980	-2.3984	.01751	-.26600
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	44744.	20833.	624980.
Stddev	114.	139.	9116.
%RSD	.25443	.66890	1.4587
#1	44824.	20734.	631420.
#2	44663.	20931.	618530.

Sample Name: BLK 065 Acquired: 12/7/2007 19:53:17 Type: Unk
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca	Cd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.23844**	**25.171**	**-3.3458**	**.56934**	**.04850**	**.00032**	**56.210**	**-.12619**
Stddev	.08050	39.145	.1268	.45111	.00245	.00452	5.243	.00463
%RSD	33.760	155.51	3.7912	79.234	5.0580	1401.7	9.3276	3.6672
#1	.18152	-2.5085	-3.2561	.88832	.05024	.00352	52.502	-.12947
#2	.29536	52.850	-3.4354	.25036	.04677	-.00287	59.917	-.12292

Elem	Co	Cr	Cu2199	Cu2218	Cu3273	Fe	K	Mg2802
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.22819**	**1.7772**	**-.5269**	**.8516**	**1.505**	**5.0033**	**-103.93**	**.7550**
Stddev	.16891	.0228	1.012	.4011	4.093	2.0209	65.81	.0751
%RSD	74.020	1.2859	192.2	47.10	272.0	40.390	63.314	9.942
#1	-.10876	1.7934	-1.243	.5680	-1.389	6.4323	-57.403	.7019
#2	-.34763	1.7610	.1891	1.135	4.398	3.5744	-150.47	.8081

Elem	Mg2852	Mn	Mo	Na	Ni	Pb	Sb	Se
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-4.771**	**.07039**	**.43494**	**-54.273**	**-.61778**	**-1.9805**	**1.4989**	**2.5927**
Stddev	3.068	.01608	.28668	8.616	.16465	.8356	.6492	.4805
%RSD	64.32	22.851	65.912	15.875	26.651	42.192	43.310	18.534
#1	-6.940	.05902	.23223	-48.180	-.73421	-2.5714	1.0399	2.2529
#2	-2.601	.08176	.63765	-60.365	-.50136	-1.3896	1.9580	2.9325

Elem	Si	Sn	Sr	Te	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**6.8046**	**30.016**	**.02574**	**-1.1543**	**2.8226**	**-4.7332**	**.01801**	**3.5201**
Stddev	.2989	1.041	.00242	2.4812	.0713	.4120	.10482	.0918
%RSD	4.3933	3.4670	9.4099	214.95	2.5271	8.7047	581.97	2.6090
#1	6.5933	30.752	.02746	.60019	2.8730	-5.0245	.09213	3.4551
#2	7.0160	29.280	.02403	-2.9088	2.7722	-4.4419	-.05611	3.5850

Sample Name: BLK 065 Acquired: 12/7/2007 19:53:17 Type: Unk
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	42830.	20012.	600460.
Stddev	121.	300.	6258.
%RSD	.28292	1.5005	1.0421
#1	42744.	20224.	596040.
#2	42916.	19800.	604890.

Sample Name: BKS 065 Acquired: 12/7/2007 19:56:44 Type: Unk
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca	Cd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**100.53**	**10111.**	**98.430**	**963.18**	**1012.9**	**51.236**	**9976.8**	**106.23**
Stddev	.44	463.	.049	1.14	2.2	.170	432.3	.03
%RSD	.43369	4.5756	.05026	.11786	.21889	.33147	4.3327	.02685
#1	100.84	9783.9	98.395	963.98	1011.4	51.356	9671.2	106.25
#2	100.22	10438.	98.465	962.37	1014.5	51.116	10283.	106.21

Elem	Co	Cr	Cu2199	Cu2218	Cu3273	Fe	K	Mg2802
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**515.71**	**528.29**	**569.9**	**1024.**	**467.4**	**9875.3**	**10048.**	**9821.**
Stddev	.44	2.29	1.3	.	6.6	431.3	457.	425.
%RSD	.08491	.43350	.2274	.0221	1.417	4.3676	4.5509	4.327
#1	516.02	529.91	570.8	1024.	462.7	9570.3	9725.0	9520.
#2	515.40	526.67	568.9	1024.	472.1	10180.	10372.	10120.

Elem	Mg2852	Mn	Mo	Na	Ni	Pb	Sb	Se
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**10970.**	**1020.1**	**531.72**	**9960.3**	**519.49**	**1039.6**	**95.565**	**98.291**
Stddev	497.	3.6	.21	384.9	.04	2.1	.819	1.583
%RSD	4.533	.34961	.04033	3.8639	.00747	.19849	.85677	1.6108
#1	10620.	1022.6	531.57	9688.2	519.51	1041.0	94.986	99.410
#2	11320.	1017.6	531.88	10232.	519.46	1038.1	96.144	97.171

Elem	Si	Sn	Sr	Te	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**8664.4**	**555.26**	**1004.0**	**380.44**	**2025.5**	**102.84**	**523.32**	**1034.3**
Stddev	27.6	2.28	6.4	3.21	5.4	.65	1.72	.8
%RSD	.31895	.40975	.64127	.84371	.26461	.63054	.32834	.08053
#1	8684.0	553.65	999.43	382.71	2029.3	103.30	524.54	1033.7
#2	8644.9	556.87	1008.5	378.17	2021.7	102.38	522.11	1034.9

Sample Name: BKS 065 Acquired: 12/7/2007 19:56:44 Type: Unk
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	43042.	19918.	604890.
Stddev	6.	1068.	4174.
%RSD	.01469	5.3634	.68998
#1	43047.	20673.	601940.
#2	43038.	19163.	607840.

Sample Name: S 711009-001-001-1/1 Acquired: 12/7/2007 20:00:18 Type: Unk
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.19170**	**41590.**	**8.2843**	**2.7437**	**72.136**	^ *****	**3518.4**
Stddev	.06618	135.	.7219	.5152	.365	-----	7.1
%RSD	34.521	.32572	8.7147	18.778	.50624	-----	.20152
#1	.14491	41686.	8.7948	2.3794	72.394	^ -----	3523.4
#2	.23849	41494.	7.7738	3.1080	71.878	^ -----	3513.4

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.0434**	**37.485**	**417.34**	**311.4**	**307.8**	**217.4**	**138660.**
Stddev	.2441	.037	1.48	2.5	1.2	10.6	694.
%RSD	23.397	.09995	.35422	.7876	.3851	4.858	.50039
#1	1.2161	37.458	418.39	313.1	308.7	224.8	139150.
#2	.87081	37.511	416.30	309.7	307.0	209.9	138160.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**981.09**	**1856.**	**2097.**	**3972.9**	**2.0594**	**119.58**	**108.40**
Stddev	93.89	12.	20.	28.8	.0344	6.50	.43
%RSD	9.5704	.6439	.9490	.72513	1.6709	5.4367	.39329
#1	1047.5	1864.	2111.	3993.3	2.0837	124.18	108.70
#2	914.69	1847.	2083.	3952.6	2.0351	114.99	108.10

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**34.606**	**-.95836**	**-.77163**	**732.88**	**3.9090**	**65.286**	**15.868**
Stddev	1.608	1.3044	2.0846	2.88	1.2612	.363	1.599
%RSD	4.6477	136.10	270.15	.39311	32.263	.55678	10.077
#1	35.744	-1.8807	-2.2456	734.91	3.0172	65.543	14.738
#2	33.469	-.03603	.70238	730.84	4.8008	65.029	16.999

Sample Name: S 711009-001-001-1/1 Acquired: 12/7/2007 20:00:18 Type: Unk
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**7511.1**	**.30634**	**375.55**	**121.86**
Stddev	20.9	2.3339	1.98	1.09
%RSD	.27785	761.86	.52747	.89810
#1	7525.9	-1.3440	376.95	122.63
#2	7496.3	1.9566	374.15	121.09

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	44470.	19734.	617860.
Stddev	54.	519.	128.
%RSD	.12172	2.6288	.02072
#1	44432.	20101.	617770.
#2	44509.	19368.	617950.

Sample Name: SP711009-001-001-1/1 Acquired: 12/7/2007 20:03:50 Type: Unk
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**10.498**	**58547.**	**14.733**	**94.833**	**177.71**	**5.2165**	**4623.6**
Stddev	.127	208.	.977	.802	1.09	.0365	33.1
%RSD	1.2074	.35442	6.6299	.84618	.61123	.69943	.71604
#1	10.408	58694.	14.042	94.266	178.47	5.2423	4647.0
#2	10.588	58400.	15.424	95.401	176.94	5.1907	4600.2

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**12.052**	**92.457**	**472.84**	**370.8**	**380.5**	**277.5**	**139790.**
Stddev	.078	.300	1.23	2.2	1.9	6.0	1272.
%RSD	.64614	.32400	.26028	.5970	.5099	2.164	.90984
#1	11.997	92.245	473.71	372.3	381.9	281.8	140690.
#2	12.107	92.669	471.97	369.2	379.2	273.3	138900.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**2102.2**	**2942.**	**3308.**	**4201.8**	**47.746**	**1169.1**	**195.61**
Stddev	17.3	8.	6.	30.3	.254	15.6	.42
%RSD	.82154	.2792	.1739	.72027	.53292	1.3348	.21691
#1	2114.4	2948.	3312.	4223.2	47.926	1180.1	195.91
#2	2090.0	2936.	3304.	4180.4	47.566	1158.0	195.31

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**138.81**	**4.5686**	**5.4983**	**900.55**	**52.123**	**172.48**	**50.055**
Stddev	.00	.5630	2.4575	9.39	.463	.90	.347
%RSD	.00044	12.324	44.697	1.0422	.88887	.52081	.69395
#1	138.81	4.1705	3.7605	907.18	51.796	173.11	50.301
#2	138.81	4.9667	7.2360	893.91	52.451	171.84	49.810

Sample Name: SP711009-001-001-1/1 Acquired: 12/7/2007 20:03:50 Type: Unk
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**7668.1**	**10.230**	**433.66**	**238.77**
Stddev	57.1	1.167	2.46	.09
%RSD	.74400	11.403	.56808	.03662
#1	7708.4	9.4050	435.40	238.71
#2	7627.8	11.055	431.92	238.83

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	44512.	19947.	616060.
Stddev	16.	114.	3291.
%RSD	.03541	.57338	.53417
#1	44501.	19866.	613740.
#2	44523.	20028.	618390.

Sample Name: SD711009-001-001-1/1 Acquired: 12/7/2007 20:07:20 Type: Unk
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**10.298**	**63990.**	**17.092**	**93.556**	**183.09**	**5.3128**	**4811.8**
Stddev	.206	802.	3.209	.879	2.68	.0574	58.6
%RSD	1.9967	1.2531	18.773	.93962	1.4642	1.0804	1.2176
#1	10.443	63423.	14.823	94.178	184.98	5.3534	4770.4
#2	10.153	64557.	19.361	92.934	181.19	5.2722	4853.2

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**11.190**	**90.663**	**499.79**	**389.4**	**395.4**	**302.0**	**148210.**
Stddev	.116	.115	5.40	.9	2.4	10.8	1027.
%RSD	1.0353	.12664	1.0801	.2251	.6081	3.559	.69288
#1	11.272	90.744	503.61	390.0	393.7	309.6	147480.
#2	11.108	90.582	495.98	388.8	397.1	294.4	148940.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**2181.9**	**3150.**	**3555.**	**4412.1**	**47.996**	**1206.2**	**203.32**
Stddev	71.9	25.	54.	105.0	.271	5.3	.29
%RSD	3.2970	.7971	1.527	2.3794	.56509	.43852	.14137
#1	2232.8	3133.	3516.	4486.4	47.805	1202.4	203.52
#2	2131.0	3168.	3593.	4337.9	48.188	1209.9	203.11

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**143.26**	**4.6512**	**8.3076**	**866.85**	**52.608**	**177.08**	**53.227**
Stddev	.90	1.8942	.3812	14.30	.264	2.39	.848
%RSD	.62759	40.724	4.5892	1.6500	.50174	1.3489	1.5924
#1	142.63	5.9906	8.5772	876.96	52.794	178.77	53.827
#2	143.90	3.3118	8.0380	856.73	52.421	175.39	52.628

Sample Name: SD711009-001-001-1/1 Acquired: 12/7/2007 20:07:20 Type: Unk
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**8509.1**	**11.001**	**462.43**	**245.46**
Stddev	89.7	.562	6.33	.55
%RSD	1.0542	5.1110	1.3690	.22293
#1	8572.5	11.399	466.91	245.84
#2	8445.7	10.604	457.96	245.07

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	44697.	19851.	608680.
Stddev	44.	328.	4823.
%RSD	.09767	1.6531	.79241
#1	44666.	20083.	605270.
#2	44727.	19619.	612090.

Sample Name: PS711009-001-001-1/1 Acquired: 12/7/2007 20:10:50 Type: Unk
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**51.851**	**42704.**	**108.25**	**89.332**	**96.446**	**12.418**	**8896.6**
Stddev	1.470	895.	2.99	2.788	.460	.267	12.3
%RSD	2.8342	2.0963	2.7602	3.1206	.47697	2.1497	.13797
#1	50.812	43337.	106.14	87.361	96.120	12.229	8905.2
#2	52.890	42071.	110.36	91.303	96.771	12.607	8887.9

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**26.324**	**73.039**	**434.38**	**339.7**	**715.2**	**242.1**	**139480.**
Stddev	1.281	2.898	.13	4.1	15.0	.6	2907.
%RSD	4.8651	3.9678	.02900	1.193	2.095	.2500	2.0838
#1	25.419	70.989	434.29	336.9	704.6	242.5	141540.
#2	27.230	75.088	434.47	342.6	725.8	241.6	137430.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**6615.1**	**7214.**	**8130.**	**3953.5**	**40.397**	**5568.1**	**155.19**
Stddev	83.7	24.	38.	20.2	1.262	65.4	3.24
%RSD	1.2647	.3329	.4722	.51075	3.1245	1.1752	2.0880
#1	6556.0	7197.	8102.	3967.8	39.504	5521.8	152.90
#2	6674.3	7231.	8157.	3939.2	41.289	5614.4	157.48

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**136.10**	**99.365**	**86.884**	**6743.2**	**131.59**	**89.410**	**608.89**
Stddev	5.80	5.139	3.923	144.0	3.61	.551	17.83
%RSD	4.2609	5.1723	4.5156	2.1359	2.7422	.61648	2.9278
#1	132.00	95.731	84.110	6641.3	129.04	89.021	596.29
#2	140.20	103.00	89.658	6845.0	134.15	89.800	621.50

Sample Name: PS711009-001-001-1/1 Acquired: 12/7/2007 20:10:50 Type: Unk
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**7455.0**	**127.03**	**394.42**	**218.46**
Stddev	77.6	3.70	.51	7.36
%RSD	1.0407	2.9090	.12804	3.3683
#1	7509.9	124.42	394.06	213.26
#2	7400.2	129.65	394.78	223.67

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	44744.	19478.	608110.
Stddev	886.	386.	328.
%RSD	1.9801	1.9818	.05388
#1	45371.	19205.	607870.
#2	44118.	19751.	608340.

Sample Name: SE711009-001-001-1/1 Acquired: 12/7/2007 20:14:19 Type: Unk
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca	Cd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.09065**	**8855.7**	**2.7929**	**.54458**	**15.408**	**.01369**	**737.00**	**.17805**
Stddev	.04946	71.8	.0245	.28665	.084	.00616	1.01	.02313
%RSD	54.561	.81064	.87740	52.636	.54638	44.999	.13753	12.991
#1	.05568	8805.0	2.7756	.74727	15.348	.00934	737.72	.16169
#2	.12563	8906.5	2.8102	.34190	15.467	.01805	736.28	.19440

Elem	Co	Cr	Cu2199	Cu2218	Cu3273	Fe	K	Mg2802
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**7.7092**	**90.397**	**67.35**	**65.88**	**46.56**	**29786.**	**123.14**	**395.7**
Stddev	.0038	.231	1.05	.79	1.41	159.	6.64	5.5
%RSD	.04904	.25519	1.567	1.199	3.024	.53327	5.3949	1.393
#1	7.7066	90.234	66.60	66.44	47.56	29674.	118.44	391.8
#2	7.7119	90.560	68.09	65.32	45.56	29898.	127.83	399.5

Elem	Mg2852	Mn	Mo	Na	Ni	Pb	Sb	Se
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**441.6**	**865.58**	**.32704**	**-31.249**	**22.710**	**5.4505**	**.65133**	**-.21806**
Stddev	1.0	5.48	.34160	8.627	.036	.6849	1.1194	.80469
%RSD	.2260	.63351	104.45	27.607	.15850	12.566	171.87	369.02
#1	442.3	861.70	.56859	-37.349	22.736	5.9348	1.4429	.35094
#2	440.9	869.45	.08549	-25.149	22.685	4.9662	-.14022	-.78706

Elem	Si	Sn	Sr	Te	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**157.10**	**1.0678**	**13.841**	**3.7875**	**1636.3**	**-1.7591**	**81.003**	**25.545**
Stddev	3.40	.4139	.095	.1858	12.7	3.2617	.435	.096
%RSD	2.1629	38.759	.68899	4.9054	.77631	185.42	.53653	.37502
#1	154.70	.77514	13.773	3.6561	1627.3	.54730	80.695	25.612
#2	159.51	1.3604	13.908	3.9189	1645.3	-4.0655	81.310	25.477

Sample Name: SE711009-001-001-1/1 Acquired: 12/7/2007 20:14:19 Type: Unk
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	44789.	19452.	605770.
Stddev	142.	638.	3569.
%RSD	.31642	3.2793	.58919
#1	44688.	19904.	608300.
#2	44889.	19001.	603250.

Sample Name: CCV Acquired: 12/7/2007 20:17:41 Type: QC
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**508.46**	**50094.**	**513.44**	**510.95**	**494.07**	**50.834**	**97744.**
Stddev	1.09	1524.	2.78	1.18	4.50	.054	3315.
%RSD	.21413	3.0419	.54071	.23022	.91000	.10669	3.3910
#1	507.69	49017.	511.47	511.79	497.25	50.796	95400.
#2	509.23	51172.	515.40	510.12	490.89	50.873	100090.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**506.74**	**500.94**	**511.33**	F **597.8**	F **560.1**	**503.8**	**47586.**
Stddev	.78	.17	1.17	1.0	2.5	10.3	1633.
%RSD	.15426	.03302	.22820	.1671	.4553	2.053	3.4306
#1	507.30	501.05	510.51	597.1	558.3	496.5	46431.
#2	506.19	500.82	512.16	598.5	561.9	511.1	48740.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass
Value				500.0	500.0		
Range				10.00%	10.00%		

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**25706.**	**95920.**	**101800.**	**498.45**	**512.50**	**100190.**	**498.48**
Stddev	861.	2630.	3425.	.06	.73	3363.	.55
%RSD	3.3500	2.742	3.366	.01116	.14314	3.3570	.11030
#1	25097.	94060.	99350.	498.49	513.02	97812.	498.87
#2	26315.	97780.	104200.	498.41	511.98	102570.	498.09
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV Acquired: 12/7/2007 20:17:41 Type: QC
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**504.95**	**508.33**	**508.51**	**511.48**	**509.24**	**494.54**	**504.31**
Stddev	1.03	.80	.28	.85	.20	4.05	2.89
%RSD	.20326	.15774	.05535	.16532	.03928	.81917	.57231
#1	505.68	508.90	508.31	512.08	509.38	497.40	502.27
#2	504.23	507.76	508.70	510.89	509.10	491.67	506.36
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**510.83**	**507.45**	**508.09**	F **610.90**
Stddev	.11	.28	.34	.89
%RSD	.02181	.05522	.06762	.14513
#1	510.91	507.65	507.85	611.53
#2	510.75	507.25	508.34	610.27
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value				500.00
Range				10.000%

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	43367.	19877.	598950.
Stddev	55.	514.	138.
%RSD	.12774	2.5854	.02309
#1	43328.	20240.	598860.
#2	43407.	19514.	599050.

Sample Name: CCB Acquired: 12/7/2007 20:21:17 Type: QC
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca	Cd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.09623	8.1726	.36553	.49823	.05346	-.02299	2.0981	.03134
Stddev	.52334	7.7782	1.9881	.19301	.00172	.00044	1.1645	.00665
%RSD	543.85	95.174	543.88	38.738	3.2126	1.9056	55.505	21.209
#1	.46629	13.673	1.7713	.63471	.05225	-.02330	2.9215	.02664
#2	-.27383	2.6726	-1.0402	.36176	.05468	-.02268	1.2746	.03604
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co	Cr	Cu2199	Cu2218	Cu3273	Fe	K	Mg2802
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.14611	.29718	1.278	.2115	-2.038	-.27427	-60.007	F 8.017
Stddev	.01792	.19330	1.647	.7802	5.347	2.4517	34.146	1.329
%RSD	12.267	65.046	128.9	368.9	262.4	893.90	56.903	16.58
#1	-.13344	.16049	.1132	.7632	1.743	1.4593	-35.862	8.957
#2	-.15878	.43387	2.443	-.3402	-5.819	-2.0079	-84.152	7.077
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit								3.000
Low Limit								-3.000

Elem	Mg2852	Mn	Mo	Na	Ni	Pb	Sb	Se
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 3.716	.11214	-.09828	30.589	-.53438	-.52993	.40624	-.32466
Stddev	2.426	.01283	.40152	23.731	.31192	1.0963	.73827	1.9911
%RSD	65.29	11.439	408.57	77.581	58.370	206.88	181.73	613.29
#1	5.432	.10307	.18564	13.808	-.75494	.24530	.92827	-1.7326
#2	2.001	.12121	-.38220	47.369	-.31382	-1.3052	-.11579	1.0833
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	3.000							
Low Limit	-3.000							

Sample Name: CCB Acquired: 12/7/2007 20:21:17 Type: QC
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si	Sn	Sr	Te	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.21693	.42858	.02447	1.8661	.15852	.04500	-.00108	-.47456
Stddev	.24160	.11880	.01117	.6231	.08810	1.7523	.20110	.00622
%RSD	111.38	27.720	45.660	33.391	55.578	3893.8	18691.	1.3097
#1	-.04609	.51258	.01657	1.4255	.22082	-1.1941	-.14328	-.47895
#2	-.38776	.34457	.03237	2.3067	.09622	1.2841	.14112	-.47016
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	44322.	19753.	608970.
Stddev	3.	202.	2994.
%RSD	.00654	1.0232	.49163
#1	44324.	19896.	611090.
#2	44320.	19610.	606850.

Sample Name: S 711009-002-002-1/1 Acquired: 12/7/2007 20:24:42 Type: Unk
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.24799**	**29627.**	**-.57059**	**6.6750**	**277.92**	**1.5311**	**13379.**
Stddev	.23825	463.	.43801	.2596	.27	.0234	181.
%RSD	96.070	1.5641	76.765	3.8890	.09814	1.5302	1.3521
#1	.41646	29954.	-.26087	6.4914	278.11	1.5477	13506.
#2	.07953	29299.	-.88031	6.8586	277.73	1.5145	13251.

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.3019**	**117.15**	**321.43**	**313.4**	**281.0**	**204.1**	**101190.**
Stddev	.0145	.05	.48	2.1	.9	3.8	1272.
%RSD	1.1154	.04192	.14789	.6647	.3169	1.878	1.2574
#1	1.2916	117.12	321.77	314.9	281.6	206.8	102090.
#2	1.3122	117.19	321.10	311.9	280.3	201.4	100290.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**2625.2**	**5520.**	**6218.**	**6688.9**	**1.1646**	**111.47**	**321.85**
Stddev	107.3	77.	85.	27.5	.1195	18.26	.87
%RSD	4.0876	1.394	1.363	.41052	10.258	16.383	.26964
#1	2701.1	5575.	6278.	6708.3	1.2491	98.558	322.46
#2	2549.3	5466.	6158.	6669.5	1.0802	124.38	321.23

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**19.260**	**-2.9410**	**-1.9883**	**724.11**	**2.2263**	**115.08**	**9.2381**
Stddev	1.344	1.1175	1.3581	2.89	.1277	.09	1.9041
%RSD	6.9786	37.997	68.306	.39968	5.7363	.08132	20.612
#1	18.309	-3.7312	-2.9486	726.16	2.3166	115.15	7.8917
#2	20.210	-2.1508	-1.0279	722.06	2.1360	115.02	10.585

Sample Name: S 711009-002-002-1/1 Acquired: 12/7/2007 20:24:42 Type: Unk
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**6902.4**	**.48977**	**280.10**	**222.90**
Stddev	26.0	1.0464	.61	.17
%RSD	.37633	213.66	.21790	.07814
#1	6920.8	1.2297	280.53	223.02
#2	6884.0	-.25017	279.67	222.77

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	**45023.**	**19792.**	**618520.**
Stddev	127.	156.	903.
%RSD	.28180	.79054	.14598
#1	44933.	19681.	619160.
#2	45112.	19902.	617880.

Sample Name: S 711009-003-003-1/1 Acquired: 12/7/2007 20:28:13 Type: Unk
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.02240**	**34238.**	**6.3117**	**-1.1640**	**49.628**	^ *****	**2263.3**
Stddev	.24379	19.	3.2133	.1058	.665	-----	3.8
%RSD	1088.4	.05480	50.910	9.0852	1.3406	-----	.16976
#1	.14998	34225.	8.5838	-1.2388	50.099	^ -----	2260.6
#2	-.19478	34251.	4.0395	-1.0893	49.158	^ -----	2266.0

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.84600**	**53.703**	**389.09**	**311.9**	**310.9**	**234.1**	**129380.**
Stddev	.02407	.077	5.45	1.7	1.4	6.0	174.
%RSD	2.8453	.14364	1.4006	.5492	.4477	2.549	.13487
#1	.86302	53.649	392.95	313.2	311.9	238.3	129500.
#2	.82898	53.758	385.24	310.7	309.9	229.9	129260.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1611.4**	**1552.**	**1746.**	**1616.0**	**1.5696**	**68.815**	**133.92**
Stddev	14.8	4.	8.	22.7	.0931	2.064	.54
%RSD	.91692	.2794	.4627	1.4046	5.9316	2.9992	.40523
#1	1621.8	1549.	1740.	1632.0	1.6354	67.356	134.30
#2	1600.9	1555.	1751.	1599.9	1.5038	70.275	133.53

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**115.40**	**-1.3011**	**-.71053**	**738.46**	**2.6691**	**29.825**	**13.529**
Stddev	.58	.0576	1.5823	11.96	.4951	.451	1.331
%RSD	.50026	4.4264	222.69	1.6191	18.547	1.5133	9.8359
#1	115.81	-1.3418	-1.8294	746.91	3.0192	30.144	14.470
#2	114.99	-1.2603	.40833	730.01	2.3191	29.506	12.588

Sample Name: S 711009-003-003-1/1 Acquired: 12/7/2007 20:28:13 Type: Unk
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**8079.5**	**1.1916**	**377.43**	**147.87**
Stddev	108.0	1.0893	5.30	.77
%RSD	1.3365	91.416	1.4051	.52129
#1	8155.8	1.9618	381.18	148.41
#2	8003.1	.42133	373.68	147.32

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	44676.	20277.	613710.
Stddev	71.	167.	4851.
%RSD	.15933	.82156	.79047
#1	44726.	20395.	610280.
#2	44626.	20160.	617140.

Sample Name: S 711009-004-004-1/1 Acquired: 12/7/2007 20:31:40 Type: Unk
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.10962**	**36162.**	**5.7752**	**-1.1151**	**83.224**	^ *****	**2191.5**
Stddev	.36704	691.	.9204	.0862	.465	-----	44.0
%RSD	334.82	1.9097	15.938	7.7328	.55909	-----	2.0082
#1	-.14991	35674.	5.1243	-1.0541	83.553	^ -----	2160.4
#2	.36916	36651.	6.4260	-1.1760	82.895	^ -----	2222.6

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.55826**	**47.725**	**517.82**	**289.2**	**291.9**	**214.3**	**131890.**
Stddev	.34689	.466	3.17	2.3	2.5	.7	2676.
%RSD	62.137	.97633	.61259	.7792	.8585	.3370	2.0290
#1	.80355	48.054	520.06	290.8	290.2	213.8	130000.
#2	.31298	47.396	515.57	287.6	293.7	214.8	133780.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**674.96**	**1832.**	**2075.**	**2944.2**	**.91716**	**78.866**	**219.83**
Stddev	78.07	35.	41.	23.7	.13350	9.309	1.10
%RSD	11.566	1.892	1.986	.80474	14.556	11.804	.50039
#1	730.16	1807.	2046.	2960.9	.82276	72.284	220.61
#2	619.76	1856.	2104.	2927.4	1.0116	85.449	219.05

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**12.791**	**-2.7603**	**3.1839**	**806.41**	**2.6603**	**30.986**	**16.452**
Stddev	.602	1.1851	1.7954	5.39	.3786	.180	.340
%RSD	4.7065	42.934	56.389	.66890	14.232	.57955	2.0641
#1	13.216	-1.9223	4.4534	810.23	2.9281	31.113	16.692
#2	12.365	-3.5983	1.9144	802.60	2.3926	30.859	16.212

Sample Name: S 711009-004-004-1/1 Acquired: 12/7/2007 20:31:40 Type: Unk
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**7518.5**	**.44088**	**347.41**	**111.81**
Stddev	69.7	1.8770	2.16	1.33
%RSD	.92752	425.73	.62314	1.1874
#1	7567.8	1.7681	348.94	112.75
#2	7469.2	-.88633	345.88	110.87

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	44781.	19196.	608950.
Stddev	82.	720.	507.
%RSD	.18270	3.7486	.08329
#1	44839.	19705.	608590.
#2	44723.	18687.	609310.

Sample Name: S 711009-005-005-1/1 Acquired: 12/7/2007 20:35:12 Type: Unk
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.11222**	**36199.**	**5.7925**	**-.28219**	**118.21**	^ *****	**2760.1**
Stddev	.00246	1776.	.7195	.71932	3.51	-----	137.6
%RSD	2.1946	4.9070	12.422	254.91	2.9687	-----	4.9840
#1	.11396	34943.	5.2837	-.79083	120.69	^ -----	2662.9
#2	.11047	37455.	6.3012	.22645	115.73	^ -----	2857.4

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.6445**	**63.842**	**373.79**	**369.7**	**354.1**	**265.0**	**126840.**
Stddev	.5246	.575	11.63	2.7	4.2	1.2	6166.
%RSD	31.901	.89994	3.1125	.7400	1.192	.4352	4.8616
#1	2.0155	63.436	382.01	371.6	351.1	264.2	122480.
#2	1.2735	64.249	365.56	367.7	357.1	265.8	131200.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**952.23**	**2115.**	**2386.**	**3401.8**	**.87179**	**88.056**	**197.76**
Stddev	34.89	107.	115.	82.6	.02236	19.177	.30
%RSD	3.6640	5.059	4.823	2.4283	2.5650	21.779	.15359
#1	976.90	2039.	2305.	3460.2	.88760	101.62	197.55
#2	927.56	2191.	2468.	3343.3	.85598	74.496	197.97

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**21.431**	**-.61672**	**.69688**	**728.77**	**2.5966**	**38.394**	**14.119**
Stddev	1.331	.56814	1.5456	24.36	.9076	1.190	.289
%RSD	6.2083	92.123	221.79	3.3426	34.954	3.0999	2.0498
#1	20.490	-.21498	1.7898	746.00	3.2383	39.236	13.914
#2	22.372	-1.0185	-.39602	711.55	1.9548	37.553	14.323

Sample Name: S 711009-005-005-1/1 Acquired: 12/7/2007 20:35:12 Type: Unk
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**8230.2**	**.68123**	**355.74**	**146.69**
Stddev	204.4	2.0641	11.22	.62
%RSD	2.4835	303.00	3.1525	.42556
#1	8374.8	2.1408	363.67	147.13
#2	8085.7	-.77833	347.81	146.24

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	45047.	19148.	618970.
Stddev	239.	1174.	16664.
%RSD	.53038	6.1303	2.6922
#1	45216.	19978.	607190.
#2	44878.	18318.	630760.

Sample Name: S 711009-006-006-1/1 Acquired: 12/7/2007 20:38:44 Type: Unk
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.18623**	**35534.**	**1.3838**	**-.60968**	**213.26**	^ *****	**3353.8**
Stddev	.18267	1517.	.5588	.68427	2.33	-----	127.8
%RSD	98.088	4.2692	40.383	112.23	1.0929	-----	3.8116
#1	-.31540	34462.	.98866	-1.0935	214.91	^ -----	3263.4
#2	-.05706	36607.	1.7790	-.12583	211.62	^ -----	3444.2

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.3403**	**109.53**	**280.46**	**380.2**	**344.9**	**266.4**	**109350.**
Stddev	.2140	.54	2.05	.8	5.4	.9	4665.
%RSD	15.970	.49000	.73171	.1992	1.559	.3267	4.2659
#1	1.4917	109.91	281.91	380.8	341.1	265.7	106060.
#2	1.1890	109.15	279.01	379.7	348.7	267.0	112650.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1058.8**	**2030.**	**2286.**	**6495.9**	**1.4116**	**105.77**	**217.98**
Stddev	38.2	86.	96.	12.0	.2342	20.48	1.23
%RSD	3.6048	4.229	4.186	.18415	16.591	19.366	.56523
#1	1031.8	1970.	2218.	6487.5	1.2460	91.286	218.85
#2	1085.8	2091.	2353.	6504.4	1.5772	120.25	217.11

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**31.508**	**-.95890**	**3.3043**	**683.75**	**2.4364**	**50.367**	**14.298**
Stddev	.573	3.2906	2.5722	5.73	.4435	.394	2.232
%RSD	1.8187	343.16	77.843	.83871	18.205	.78295	15.612
#1	31.913	1.3679	1.4855	687.81	2.7500	50.646	12.719
#2	31.103	-3.2857	5.1232	679.70	2.1228	50.089	15.876

Sample Name: S 711009-006-006-1/1 Acquired: 12/7/2007 20:38:44 Type: Unk
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**7203.1**	**.83976**	**318.27**	**167.11**
Stddev	3.8	1.7666	2.31	1.11
%RSD	.05344	210.37	.72622	.66604
#1	7205.8	-.40944	319.91	167.90
#2	7200.4	2.0890	316.64	166.32

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	45423.	19301.	614860.
Stddev	73.	941.	3646.
%RSD	.16129	4.8729	.59300
#1	45371.	19966.	612280.
#2	45475.	18636.	617440.

Sample Name: S 711009-007-007-1/1 Acquired: 12/7/2007 20:42:16 Type: Unk
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.11489**	**35190.**	**4.7045**	**.84798**	**104.12**	^ *****	**5096.6**
Stddev	.08961	99.	.5071	.43959	.19	-----	15.9
%RSD	77.998	.28226	10.780	51.840	.18048	-----	.31166
#1	.17825	35119.	5.0631	1.1588	104.25	^ -----	5085.4
#2	.05152	35260.	4.3459	.53714	103.99	^ -----	5107.9

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.4862**	**30.336**	**393.61**	**383.2**	**358.9**	**277.7**	**129490.**
Stddev	.0755	.007	.24	2.1	.4	2.4	827.
%RSD	5.0825	.02423	.06097	.5473	.1176	.8529	.63832
#1	1.5396	30.331	393.44	384.7	358.6	279.4	128910.
#2	1.4328	30.341	393.78	381.7	359.2	276.1	130080.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1059.1**	**2272.**	**2552.**	**3256.5**	**1.1878**	**91.004**	**146.03**
Stddev	36.9	10.	8.	21.5	.0675	14.381	.51
%RSD	3.4807	.4194	.3099	.66113	5.6791	15.803	.35232
#1	1085.2	2265.	2546.	3271.7	1.1401	80.835	146.39
#2	1033.0	2279.	2558.	3241.3	1.2355	101.17	145.67

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**37.370**	**-1.3062**	**.73688**	**705.32**	**2.8051**	**81.317**	**12.491**
Stddev	.007	.3201	.10764	1.64	.8272	.039	.052
%RSD	.01810	24.505	14.608	.23208	29.490	.04740	.41659
#1	37.365	-1.0799	.66076	706.48	3.3900	81.344	12.528
#2	37.375	-1.5326	.81299	704.16	2.2201	81.290	12.454

Sample Name: S 711009-007-007-1/1 Acquired: 12/7/2007 20:42:16 Type: Unk
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**8931.3**	**.89849**	**408.33**	**169.09**
Stddev	72.6	.17517	.22	.64
%RSD	.81324	19.496	.05491	.37829
#1	8982.6	1.0224	408.49	169.55
#2	8879.9	.77463	408.17	168.64

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	44550.	19761.	613400.
Stddev	191.	18.	590.
%RSD	.42784	.08879	.09618
#1	44415.	19773.	613820.
#2	44684.	19749.	612980.

Sample Name: S 711009-008-008-1/1 Acquired: 12/7/2007 20:45:48 Type: Unk
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.16917**	**26487.**	**6.3929**	**-3.8461**	**48.948**	^ *****	**1969.4**
Stddev	.04609	459.	.7492	.2362	.538	-----	29.1
%RSD	27.247	1.7318	11.719	6.1403	1.0987	-----	1.4762
#1	-.13657	26163.	6.9226	-4.0131	49.329	^ -----	1948.8
#2	-.20176	26812.	5.8631	-3.6791	48.568	^ -----	1989.9

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.5339**	**26.715**	**496.44**	**363.6**	**330.8**	**237.2**	**167720.**
Stddev	.0977	.212	3.18	.2	2.4	11.9	2743.
%RSD	6.3668	.79524	.64126	.0592	.7208	5.035	1.6357
#1	1.6030	26.565	498.69	363.8	329.1	228.7	165780.
#2	1.4649	26.866	494.19	363.5	332.5	245.6	169660.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**556.71**	**1974.**	**2220.**	**1272.1**	**2.1773**	**-.74133**	**89.986**
Stddev	47.03	36.	23.	12.4	.1978	10.636	.205
%RSD	8.4472	1.807	1.055	.97847	9.0849	1434.7	.22808
#1	523.46	1949.	2204.	1280.9	2.0375	-8.2623	90.131
#2	589.96	1999.	2237.	1263.3	2.3172	6.7796	89.840

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**21.464**	**-.55790**	**.45589**	**656.36**	**2.8883**	**39.269**	**16.416**
Stddev	.427	1.4178	2.2653	9.50	.8928	.358	.757
%RSD	1.9899	254.12	496.90	1.4475	30.912	.91102	4.6125
#1	21.766	-1.5604	-1.1459	663.08	3.5197	39.522	16.951
#2	21.162	.44460	2.0577	649.64	2.2570	39.016	15.880

Sample Name: S 711009-008-008-1/1 Acquired: 12/7/2007 20:45:48 Type: Unk
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**12310.**	**.86663**	**527.44**	**157.69**
Stddev	65.	.39558	5.18	.03
%RSD	.52938	45.646	.98230	.01751
#1	12356.	.58691	531.11	157.70
#2	12264.	1.1464	523.78	157.67

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	44526.	19881.	609900.
Stddev	100.	303.	1232.
%RSD	.22442	1.5261	.20201
#1	44597.	20096.	609030.
#2	44456.	19666.	610770.

Sample Name: S 711009-009-009-1/1 Acquired: 12/7/2007 20:49:14 Type: Unk
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.14620**	**30951.**	**5.3849**	**-.46337**	**21.993**	^ *****	**1638.2**
Stddev	.12444	391.	2.2065	.20052	.261	-----	12.4
%RSD	85.114	1.2626	40.976	43.275	1.1871	-----	.75439
#1	.05821	30674.	3.8247	-.32158	22.178	^ -----	1629.5
#2	.23419	31227.	6.9451	-.60516	21.809	^ -----	1647.0

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.92606**	**14.637**	**528.65**	**241.2**	**252.2**	**161.8**	**161130.**
Stddev	.11889	.174	5.13	.1	2.4	1.7	1899.
%RSD	12.838	1.1918	.97070	.0428	.9405	1.032	1.1786
#1	1.0101	14.514	532.28	241.3	250.5	160.6	159790.
#2	.84199	14.761	525.03	241.2	253.9	163.0	162470.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**560.37**	**1351.**	**1523.**	**561.09**	**1.7623**	**-3.1824**	**62.022**
Stddev	36.84	18.	33.	6.55	.4688	22.129	.141
%RSD	6.5733	1.341	2.173	1.1671	26.600	695.36	.22771
#1	534.33	1338.	1499.	565.72	2.0938	12.465	61.922
#2	586.42	1364.	1546.	556.45	1.4309	-18.830	62.122

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**12.034**	**-1.3577**	**3.8340**	**762.22**	**2.4952**	**20.608**	**14.428**
Stddev	1.075	1.5394	.4311	9.35	.0649	.273	1.626
%RSD	8.9313	113.38	11.245	1.2265	2.5991	1.3250	11.269
#1	12.794	-2.4462	4.1388	768.83	2.5410	20.801	15.578
#2	11.274	-.26925	3.5291	755.61	2.4493	20.415	13.279

Sample Name: S 711009-009-009-1/1 Acquired: 12/7/2007 20:49:14 Type: Unk
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**9039.9**	**-.77482**	**422.98**	**74.896**
Stddev	127.9	.74056	4.40	.431
%RSD	1.4149	95.579	1.0405	.57540
#1	9130.4	-.25116	426.10	74.592
#2	8949.5	-1.2985	419.87	75.201

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	44939.	19955.	612720.
Stddev	120.	108.	4095.
%RSD	.26609	.53918	.66838
#1	45023.	20031.	609830.
#2	44854.	19879.	615620.

Sample Name: S 711009-010-010-1/1 Acquired: 12/7/2007 20:52:41 Type: Unk
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.60289**	**24805.**	**3.2926**	**-2.6509**	**51.700**	^ *****	**2451.8**
Stddev	.51038	685.	1.2963	.1001	.399	-----	63.5
%RSD	84.656	2.7595	39.371	3.7776	.77202	-----	2.5910
#1	.24200	25289.	2.3759	-2.7217	51.982	^ -----	2496.8
#2	.96379	24321.	4.2092	-2.5801	51.417	^ -----	2406.9

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.94619**	**45.013**	**424.17**	**362.2**	**334.0**	**241.8**	**149340.**
Stddev	.29569	.065	2.40	2.3	5.5	4.1	4583.
%RSD	31.251	.14547	.56667	.6360	1.642	1.682	3.0691
#1	.73710	44.967	425.87	363.8	337.8	239.0	152580.
#2	1.1553	45.059	422.47	360.6	330.1	244.7	146090.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**648.11**	**2381.**	**2676.**	**2179.6**	**.76047**	**11.471**	**104.60**
Stddev	14.87	70.	91.	14.6	.02544	17.318	.49
%RSD	2.2938	2.931	3.392	.67115	3.3449	150.98	.46949
#1	658.62	2430.	2740.	2189.9	.74248	23.717	104.95
#2	637.60	2332.	2612.	2169.2	.77846	-.77510	104.25

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**20.012**	**-1.1781**	**1.0800**	**709.62**	**2.1483**	**30.335**	**13.824**
Stddev	1.496	.8981	1.1837	6.84	.3789	.231	.101
%RSD	7.4749	76.236	109.60	.96377	17.638	.76080	.73274
#1	21.070	-.54302	1.9171	714.45	2.4163	30.498	13.896
#2	18.955	-1.8132	.24300	704.78	1.8804	30.172	13.752

Sample Name: S 711009-010-010-1/1 Acquired: 12/7/2007 20:52:41 Type: Unk
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**11630.**	**.45196**	**458.83**	**149.54**
Stddev	71.	.20864	3.01	.19
%RSD	.60703	46.163	.65595	.12788
#1	11680.	.59949	460.96	149.67
#2	11580.	.30443	456.70	149.40

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	**44735.**	**19265.**	**617080.**
Stddev	52.	502.	642.
%RSD	.11629	2.6057	.10408
#1	44771.	18910.	616620.
#2	44698.	19620.	617530.

Sample Name: S 711009-011-011-1/1 Acquired: 12/7/2007 20:56:08 Type: Unk
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.35029**	**34081.**	**3.9850**	**-.37984**	**135.58**	^ *****	**2905.4**
Stddev	.17639	58.	.0520	.01043	.32	-----	14.2
%RSD	50.355	.16946	1.3042	2.7448	.23960	-----	.48785
#1	.47502	34121.	4.0217	-.37247	135.81	^ -----	2915.4
#2	.22556	34040.	3.9482	-.38721	135.35	^ -----	2895.4

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.1740**	**137.06**	**467.19**	**334.9**	**311.0**	**223.9**	**122820.**
Stddev	.0686	.07	1.43	.7	1.0	.0	167.
%RSD	5.8460	.04806	.30659	.2109	.3160	.0033	.13623
#1	1.1254	137.10	468.21	335.4	311.7	223.9	122940.
#2	1.2225	137.01	466.18	334.4	310.3	223.9	122700.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**733.59**	**3256.**	**3653.**	**4899.1**	**.80415**	**70.164**	**375.11**
Stddev	54.45	1.	1.	28.0	.02451	3.034	.23
%RSD	7.4229	.0205	.0243	.57176	3.0478	4.3236	.06002
#1	695.09	3256.	3652.	4918.9	.78682	68.019	375.27
#2	772.10	3255.	3654.	4879.3	.82148	72.309	374.95

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**11.258**	**-1.2845**	**-1.8356**	**738.25**	**2.4661**	**47.238**	**13.532**
Stddev	2.135	.6746	.1886	1.39	.6825	.099	1.516
%RSD	18.962	52.520	10.274	.18841	27.674	.20987	11.204
#1	9.7486	-.80746	-1.9689	739.23	1.9835	47.308	12.460
#2	12.768	-1.7615	-1.7022	737.26	2.9487	47.168	14.604

Sample Name: S 711009-011-011-1/1 Acquired: 12/7/2007 20:56:08 Type: Unk
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**7683.7**	**.49825**	**327.00**	**130.29**
Stddev	59.8	1.6374	1.01	.25
%RSD	.77891	328.63	.30988	.19462
#1	7726.1	-.65956	327.72	130.11
#2	7641.4	1.6561	326.29	130.47

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	45601.	20424.	624920.
Stddev	72.	138.	911.
%RSD	.15740	.67580	.14571
#1	45652.	20326.	624280.
#2	45550.	20521.	625560.

Sample Name: CCV Acquired: 12/7/2007 20:59:40 Type: QC
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**508.74**	**49222.**	**519.58**	**512.26**	**498.54**	**50.752**	**97249.**
Stddev	3.41	624.	1.03	1.75	1.72	.435	1426.
%RSD	.67034	1.2687	.19820	.34204	.34460	.85738	1.4660
#1	506.33	48781.	520.30	513.50	497.32	50.444	96241.
#2	511.15	49664.	518.85	511.02	499.75	51.060	98257.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**510.31**	**502.54**	**509.24**	F **596.7**	F **563.5**	**502.6**	**47597.**
Stddev	.47	.34	4.33	2.9	.5	6.4	693.
%RSD	.09245	.06846	.85109	.4805	.0894	1.271	1.4565
#1	510.64	502.29	506.18	594.7	563.1	498.1	47107.
#2	509.98	502.78	512.31	598.7	563.8	507.2	48088.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass
Value				500.0	500.0		
Range				10.00%	10.00%		

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**25362.**	**93920.**	**99350.**	**502.21**	**514.61**	**101580.**	**497.12**
Stddev	401.	2009.	1291.	2.93	.39	1885.	.02
%RSD	1.5795	2.139	1.300	.58431	.07612	1.8556	.00457
#1	25079.	92500.	98430.	500.14	514.33	100250.	497.13
#2	25646.	95340.	100300.	504.29	514.89	102910.	497.10
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV Acquired: 12/7/2007 20:59:40 Type: QC
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**509.73**	**509.03**	**516.95**	**513.75**	**511.05**	**496.52**	**506.03**
Stddev	.68	1.04	1.29	1.56	1.26	5.67	1.95
%RSD	.13268	.20339	.24997	.30368	.24687	1.1428	.38525
#1	510.20	509.76	516.04	512.65	511.94	492.50	507.40
#2	509.25	508.30	517.86	514.86	510.16	500.53	504.65
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**504.54**	**511.48**	**509.78**	F **615.71**
Stddev	3.89	.21	3.93	.32
%RSD	.77003	.04189	.77122	.05254
#1	501.79	511.33	507.00	615.94
#2	507.29	511.63	512.56	615.48
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value				500.00
Range				10.000%

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	**43655.**	**20235.**	**603910.**
Stddev	124.	233.	4357.
%RSD	.28458	1.1505	.72143
#1	43743.	20399.	606990.
#2	43568.	20070.	600830.

Sample Name: CCB Acquired: 12/7/2007 21:03:17 Type: QC
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca	Cd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.17643**	**11.479**	**.25316**	**.56152**	**.07058**	**-.02186**	**3.0457**	**-.02757**
Stddev	.25393	18.891	1.3528	.04279	.02743	.00002	4.2354	.01301
%RSD	143.93	164.57	534.36	7.6206	38.861	.09293	139.06	47.180
#1	.35598	-1.8791	-.70341	.53126	.08997	-.02185	6.0406	-.01837
#2	-.00313	24.836	1.2097	.59178	.05118	-.02188	.05083	-.03676
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co	Cr	Cu2199	Cu2218	Cu3273	Fe	K	Mg2802
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.05856**	**.24798**	**1.139**	**.1370**	F **-4.136**	**8.1925**	**-50.936**	F **9.121**
Stddev	.05754	.19080	.042	.2639	1.347	10.698	22.128	1.968
%RSD	98.252	76.941	3.640	192.6	32.57	130.58	43.443	21.58
#1	-.09925	.11306	1.110	.3237	-3.184	15.757	-35.289	10.51
#2	-.01788	.38289	1.169	-.0496	-5.089	.62793	-66.583	7.729
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail
High Limit					3.000			3.000
Low Limit					-3.000			-3.000

Elem	Mg2852	Mn	Mo	Na	Ni	Pb	Sb	Se
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.972**	**.16934**	**-.06635**	**42.996**	**-.20601**	**-1.6269**	**.21306**	**.55787**
Stddev	1.243	.04459	.03017	18.002	.22071	.9537	.77254	.95237
%RSD	63.04	26.330	45.480	41.869	107.13	58.622	362.59	170.71
#1	2.851	.20087	-.04501	55.726	-.04995	-2.3013	-.33320	1.2313
#2	1.093	.13782	-.08768	30.267	-.36207	-.95254	.75933	-.11555
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB Acquired: 12/7/2007 21:03:17 Type: QC
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si	Sn	Sr	Te	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.75193	.49379	.03528	-.00749	.31093	.91249	-.07859	-.36260
Stddev	.20324	.76816	.00159	1.0591	.10825	.29083	.02289	.04606
%RSD	27.029	155.56	4.4955	14147.	34.814	31.873	29.131	12.701
#1	-.60822	-.04938	.03641	.74138	.38747	.70683	-.06240	-.39517
#2	-.89564	1.0370	.03416	-.75635	.23439	1.1181	-.09478	-.33003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	44644.	19963.	616760.
Stddev	35.	28.	1940.
%RSD	.07860	.13839	.31460
#1	44620.	19982.	615390.
#2	44669.	19943.	618130.

Sample Name: S 711009-012-012-1/1 Acquired: 12/7/2007 21:06:42 Type: Unk
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.21869**	**30984.**	**3.9998**	**-.85337**	**111.55**	^ *****	**2875.2**
Stddev	.07254	572.	1.6435	.60923	.60	-----	45.3
%RSD	33.171	1.8467	41.090	71.391	.53807	-----	1.5754
#1	.26998	31388.	5.1620	-1.2842	111.97	^ -----	2907.3
#2	.16739	30579.	2.8376	-.42258	111.12	^ -----	2843.2

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.4691**	**77.693**	**408.07**	**377.2**	**349.6**	**260.4**	**133880.**
Stddev	.1892	.322	2.53	1.9	2.4	4.6	1871.
%RSD	12.881	.41446	.61971	.5101	.6798	1.753	1.3973
#1	1.3352	77.466	409.85	378.6	351.3	263.7	135200.
#2	1.6029	77.921	406.28	375.9	347.9	257.2	132560.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**894.60**	**2459.**	**2771.**	**3435.7**	**1.0199**	**107.02**	**193.18**
Stddev	35.05	44.	56.	17.8	.2981	6.12	.09
%RSD	3.9181	1.801	2.028	.51824	29.228	5.7221	.04817
#1	919.39	2490.	2810.	3448.3	1.2307	111.35	193.24
#2	869.82	2428.	2731.	3423.1	.80914	102.69	193.11

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**16.393**	**.09906**	**1.3067**	**671.72**	**2.8251**	**48.179**	**11.873**
Stddev	.232	.00387	3.9698	6.50	.9872	.260	.771
%RSD	1.4150	3.9115	303.81	.96761	34.943	.53863	6.4904
#1	16.557	.10180	4.1137	676.32	2.1271	48.363	12.418
#2	16.229	.09632	-1.5004	667.12	3.5232	47.996	11.329

Sample Name: S 711009-012-012-1/1 Acquired: 12/7/2007 21:06:42 Type: Unk
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**9249.8**	**-.14149**	**397.04**	**163.75**
Stddev	56.1	1.5523	2.34	.01
%RSD	.60704	1097.1	.58848	.00776
#1	9289.5	-1.2391	398.70	163.75
#2	9210.1	.95613	395.39	163.74

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	44486.	20006.	616120.
Stddev	26.	60.	2118.
%RSD	.05923	.30194	.34379
#1	44467.	19963.	614630.
#2	44505.	20049.	617620.

Sample Name: S 711009-013-013-1/1 Acquired: 12/7/2007 21:10:15 Type: Unk
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.60568**	**29637.**	**4.5638**	**-2.3086**	**119.65**	^ *****	**2680.7**
Stddev	.38938	23.	.8906	.4096	.47	-----	5.0
%RSD	64.287	.07913	19.515	17.744	.39233	-----	.18674
#1	.88102	29653.	5.1936	-2.5982	119.98	^ -----	2684.2
#2	.33035	29620.	3.9341	-2.0189	119.32	^ -----	2677.2

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.3882**	**45.240**	**410.89**	**339.5**	**321.0**	**233.5**	**128500.**
Stddev	.0846	.137	.07	1.0	.1	3.3	435.
%RSD	6.0928	.30256	.01814	.2839	.0363	1.405	.33887
#1	1.3284	45.337	410.84	340.2	321.1	231.2	128800.
#2	1.4480	45.143	410.95	338.8	320.9	235.8	128190.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**695.78**	**2066.**	**2333.**	**2778.4**	**1.0316**	**81.218**	**165.47**
Stddev	8.03	4.	6.	12.8	.1725	1.562	.34
%RSD	1.1541	.1773	.2605	.45898	16.722	1.9233	.20246
#1	701.46	2063.	2337.	2787.5	1.1536	82.323	165.71
#2	690.10	2068.	2329.	2769.4	.90966	80.114	165.24

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**34.770**	**-.25948**	**-.99186**	**720.82**	**2.2566**	**49.007**	**13.478**
Stddev	.421	.22950	3.2706	1.37	.0942	.210	1.776
%RSD	1.2115	88.445	329.74	.19025	4.1740	.42865	13.174
#1	35.068	-.42176	-3.3045	721.79	2.1900	49.156	12.223
#2	34.472	-.09720	1.3208	719.86	2.3232	48.858	14.734

Sample Name: S 711009-013-013-1/1 Acquired: 12/7/2007 21:10:15 Type: Unk
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**9952.9**	**-1.0854**	**413.03**	**152.97**
Stddev	2.2	.7584	1.43	.27
%RSD	.02198	69.879	.34623	.17633
#1	9951.3	-.54906	414.04	152.78
#2	9954.4	-1.6216	412.02	153.17

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	44413.	19706.	616910.
Stddev	90.	79.	1479.
%RSD	.20243	.40315	.23966
#1	44349.	19649.	615860.
#2	44476.	19762.	617960.

Sample Name: S 711009-014-014-1/1 Acquired: 12/7/2007 21:13:41 Type: Unk
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.48006**	**25411.**	**3.3582**	**-2.2134**	**7.1881**	^ *****	**481.13**
Stddev	.01542	435.	1.2522	.0834	.0244	-----	3.35
%RSD	3.2127	1.7120	37.288	3.7678	.33955	-----	.69681
#1	.46915	25719.	4.2437	-2.2724	7.2053	^ -----	483.50
#2	.49096	25103.	2.4728	-2.1544	7.1708	^ -----	478.76

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.66011**	**8.6746**	**570.89**	**191.1**	**214.2**	**137.2**	**129340.**
Stddev	.18593	.1623	2.83	.7	1.6	6.9	2061.
%RSD	28.167	1.8710	.49544	.3815	.7695	5.038	1.5934
#1	.52864	8.7893	572.89	190.5	215.4	142.1	130800.
#2	.79158	8.5598	568.89	191.6	213.1	132.3	127880.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**41.024**	**763.8**	**849.7**	**315.28**	**.69194**	**-18.965**	**39.767**
Stddev	13.107	14.1	17.1	2.76	.21586	7.200	.194
%RSD	31.950	1.839	2.011	.87569	31.197	37.966	.48796
#1	31.756	773.7	861.8	317.23	.84457	-13.874	39.904
#2	50.292	753.9	837.7	313.33	.53930	-24.057	39.630

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**10.452**	**-.83950**	**3.7856**	**773.90**	**2.8789**	**6.4501**	**13.394**
Stddev	.010	1.7395	4.2332	5.61	.5903	.0382	.596
%RSD	.09267	207.20	111.82	.72494	20.504	.59224	4.4482
#1	10.445	-2.0695	.79226	777.86	2.4616	6.4772	12.973
#2	10.459	.39050	6.7789	769.93	3.2963	6.4231	13.815

Sample Name: S 711009-014-014-1/1 Acquired: 12/7/2007 21:13:41 Type: Unk
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**5794.3**	**-2.2618**	**305.86**	**48.582**
Stddev	1.8	2.5388	1.67	.075
%RSD	.03149	112.25	.54743	.15413
#1	5795.6	-.46660	307.04	48.529
#2	5793.0	-4.0570	304.68	48.635

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	**44143.**	**19397.**	**604220.**
Stddev	22.	254.	2510.
%RSD	.05027	1.3100	.41548
#1	44128.	19576.	602440.
#2	44159.	19217.	605990.

Sample Name: S 711009-015-015-1/1 Acquired: 12/7/2007 21:17:09 Type: Unk
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.43862**	**27501.**	**4.5103**	**-3.3819**	**16.209**	^ *****	**978.10**
Stddev	.45861	47.	3.1570	.8409	.115	-----	9.31
%RSD	104.56	.17017	69.996	24.866	.70857	-----	.95178
#1	.11433	27534.	6.7426	-3.9766	16.290	^ -----	971.52
#2	.76290	27468.	2.2779	-2.7873	16.128	^ -----	984.68

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.1653**	**15.121**	**621.33**	**262.2**	**270.0**	**178.0**	**156270.**
Stddev	.0150	.058	3.48	2.6	.4	1.8	198.
%RSD	1.2885	.38544	.55982	.9797	.1523	1.023	.12649
#1	1.1759	15.163	623.79	264.0	269.7	179.3	156410.
#2	1.1547	15.080	618.87	260.3	270.3	176.7	156130.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**244.57**	**1243.**	**1394.**	**551.41**	**1.1094**	**35.909**	**54.372**
Stddev	26.82	4.	11.	3.92	.1086	5.956	.317
%RSD	10.967	.3399	.7818	.71062	9.7856	16.586	.58338
#1	225.60	1246.	1401.	554.18	1.0327	31.697	54.596
#2	263.54	1240.	1386.	548.64	1.1862	40.120	54.147

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**25.880**	**-.15138**	**-1.0416**	**790.13**	**2.9509**	**13.138**	**14.937**
Stddev	.076	.10406	1.8607	7.66	.0041	.109	.770
%RSD	.29504	68.742	178.63	.96912	.13839	.82749	5.1518
#1	25.826	-.22497	-2.3573	795.54	2.9538	13.215	15.481
#2	25.934	-.07780	.27406	784.71	2.9481	13.061	14.393

Sample Name: S 711009-015-015-1/1 Acquired: 12/7/2007 21:17:09 Type: Unk
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**7833.1**	**-.51135**	**385.76**	**84.944**
Stddev	57.5	.10329	2.83	.452
%RSD	.73423	20.200	.73370	.53210
#1	7873.7	-.58438	387.76	85.263
#2	7792.4	-.43831	383.76	84.624

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	44100.	19712.	609420.
Stddev	50.	44.	3527.
%RSD	.11292	.22562	.57874
#1	44065.	19744.	606930.
#2	44135.	19681.	611920.

Sample Name: S 711009-016-016-1/1 Acquired: 12/7/2007 21:20:37 Type: Unk
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.51250**	**34690.**	**3.4715**	**-2.9504**	**38.210**	^ *****	**1710.8**
Stddev	.14563	2216.	.8058	.3942	.313	-----	105.7
%RSD	28.415	6.3892	23.212	13.360	.81940	-----	6.1781
#1	.61548	33123.	2.9017	-3.2291	38.431	^ -----	1636.0
#2	.40953	36257.	4.0413	-2.6717	37.988	^ -----	1785.5

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.88740**	**27.132**	**432.90**	**250.0**	**250.8**	**170.9**	**121530.**
Stddev	.55451	.080	6.15	1.2	6.8	1.3	7439.
%RSD	62.486	.29564	1.4199	.4719	2.718	.7314	6.1208
#1	1.2795	27.189	437.25	250.9	246.0	171.7	116270.
#2	.49531	27.075	428.56	249.2	255.7	170.0	126790.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**409.28**	**2403.**	**2723.**	**1335.9**	**.54265**	**32.601**	**74.030**
Stddev	35.43	147.	163.	13.8	.38490	3.575	.542
%RSD	8.6559	6.134	5.993	1.0294	70.929	10.966	.73214
#1	384.23	2298.	2608.	1345.6	.81481	35.129	73.647
#2	434.33	2507.	2838.	1326.1	.27048	30.073	74.413

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**9.1019**	**-2.2086**	**2.5203**	**666.18**	**2.9056**	**17.483**	**9.3231**
Stddev	.6828	.4467	2.8649	6.39	.4347	.154	1.6889
%RSD	7.5017	20.226	113.67	.95988	14.961	.88040	18.115
#1	8.6191	-2.5245	.49449	670.70	3.2130	17.592	8.1288
#2	9.5847	-1.8928	4.5461	661.66	2.5982	17.374	10.517

Sample Name: S 711009-016-016-1/1 Acquired: 12/7/2007 21:20:37 Type: Unk
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**10026.**	**.43770**	**374.23**	**79.490**
Stddev	66.	.78415	4.56	.699
%RSD	.66064	179.15	1.2180	.87979
#1	10072.	.99218	377.45	79.984
#2	9978.7	-.11678	371.01	78.995

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	44208.	19274.	608620.
Stddev	70.	1521.	2692.
%RSD	.15737	7.8904	.44224
#1	44257.	20349.	606710.
#2	44159.	18198.	610520.

Sample Name: S 711009-017-017-1/1 Acquired: 12/7/2007 21:24:04 Type: Unk
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.21276**	**28570.**	**1.3755**	**-2.4683**	**115.89**	^ *****	**3774.0**
Stddev	.35686	754.	.7461	.4638	.53	-----	87.3
%RSD	167.73	2.6399	54.244	18.789	.45835	-----	2.3129
#1	.46510	28037.	1.9031	-2.7963	116.26	^ -----	3712.3
#2	-.03958	29103.	.84793	-2.1404	115.51	^ -----	3835.7

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.2082**	**75.539**	**418.62**	**368.7**	**337.4**	**248.0**	**131530.**
Stddev	.1950	.781	3.14	2.8	3.0	.5	3599.
%RSD	16.135	1.0339	.75037	.7553	.8872	.1833	2.7360
#1	1.3461	74.987	420.84	370.7	335.3	247.7	128980.
#2	1.0704	76.091	416.39	366.7	339.5	248.4	134070.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**905.25**	**4145.**	**4695.**	**3171.2**	**.39710**	**50.146**	**208.31**
Stddev	18.38	105.	123.	17.7	.04214	6.033	.32
%RSD	2.0306	2.539	2.619	.55719	10.612	12.030	.15275
#1	892.25	4071.	4608.	3183.7	.42690	45.881	208.53
#2	918.25	4220.	4782.	3158.7	.36730	54.412	208.08

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**20.685**	**-.79908**	**.97094**	**802.89**	**4.3793**	**34.501**	**12.941**
Stddev	.091	.91903	.17756	1.45	1.3223	.184	.542
%RSD	.43931	115.01	18.287	.18077	30.193	.53383	4.1913
#1	20.621	-1.4489	1.0965	803.92	5.3143	34.632	12.558
#2	20.749	-.14923	.84538	801.87	3.4443	34.371	13.325

Sample Name: S 711009-017-017-1/1 Acquired: 12/7/2007 21:24:04 Type: Unk
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**12021.**	**.42540**	**416.33**	**191.51**
Stddev	85.	3.4430	3.21	.04
%RSD	.70405	809.36	.77084	.02079
#1	12081.	-2.0092	418.60	191.54
#2	11961.	2.8600	414.06	191.48

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	43993.	19954.	608640.
Stddev	2.	547.	350.
%RSD	.00409	2.7428	.05756
#1	43992.	20341.	608390.
#2	43994.	19567.	608890.

Sample Name: S 711009-018-018-1/1 Acquired: 12/7/2007 21:27:36 Type: Unk
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.27379**	**29398.**	**1.8133**	**-1.6669**	**157.75**	^ *****	**5629.6**
Stddev	.34266	264.	.1876	.0176	.84	-----	52.7
%RSD	125.16	.89848	10.346	1.0590	.53497	-----	.93676
#1	.51609	29585.	1.9460	-1.6544	158.34	^ -----	5666.9
#2	.03149	29211.	1.6807	-1.6794	157.15	^ -----	5592.4

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.88385**	**98.742**	**380.46**	**326.4**	**306.7**	**229.3**	**120600.**
Stddev	.03632	.133	1.70	3.7	2.8	6.3	1351.
%RSD	4.1091	.13497	.44689	1.127	.9074	2.726	1.1199
#1	.85816	98.836	381.66	329.0	308.7	224.8	121550.
#2	.90953	98.648	379.26	323.8	304.7	233.7	119640.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**299.51**	**6245.**	**7021.**	**3527.2**	**.83016**	**105.92**	**254.36**
Stddev	1.80	60.	70.	19.5	.00429	1.10	.44
%RSD	.60024	.9558	.9982	.55215	.51630	1.0401	.17206
#1	298.23	6287.	7071.	3540.9	.83319	105.14	254.67
#2	300.78	6202.	6972.	3513.4	.82713	106.70	254.05

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**24.626**	**-2.2250**	**1.3047**	**781.97**	**2.9794**	**67.589**	**10.020**
Stddev	1.494	.7915	.7560	4.88	.9296	.320	1.714
%RSD	6.0648	35.572	57.942	.62395	31.201	.47323	17.109
#1	23.570	-2.7847	1.8393	785.42	3.6367	67.815	11.232
#2	25.682	-1.6654	.77018	778.52	2.3221	67.363	8.8077

Sample Name: S 711009-018-018-1/1 Acquired: 12/7/2007 21:27:36 Type: Unk
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**9527.0**	**2.4091**	**345.57**	**145.34**
Stddev	21.7	.8010	1.60	.09
%RSD	.22814	33.251	.46155	.06045
#1	9542.4	1.8426	346.70	145.40
#2	9511.7	2.9755	344.44	145.28

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	44394.	19664.	613230.
Stddev	4.	263.	419.
%RSD	.00852	1.3350	.06833
#1	44391.	19478.	612930.
#2	44396.	19849.	613520.

Sample Name: S 711009-019-019-1/1 Acquired: 12/7/2007 21:31:09 Type: Unk
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.01681**	**32821.**	**.76266**	**-3.7692**	**145.48**	^ *****	**3117.2**
Stddev	.31907	563.	3.3782	.3661	2.80	-----	47.9
%RSD	1897.6	1.7162	442.95	9.7139	1.9220	-----	1.5358
#1	-.24243	33220.	-1.6261	-4.0281	147.46	^ -----	3151.0
#2	.20881	32423.	3.1514	-3.5103	143.51	2.2198	3083.3

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.47479**	**75.503**	**319.30**	**339.4**	**321.2**	**244.0**	**125820.**
Stddev	.03407	.872	6.96	4.8	4.1	3.3	1762.
%RSD	7.1765	1.1545	2.1783	1.429	1.262	1.356	1.4005
#1	.49888	76.119	324.21	342.9	324.0	241.7	127070.
#2	.45069	74.886	314.38	336.0	318.3	246.3	124570.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**228.69**	**3395.**	**3831.**	**3513.5**	**.72398**	**98.043**	**126.36**
Stddev	6.71	54.	66.	78.4	.01906	5.181	1.80
%RSD	2.9331	1.604	1.727	2.2307	2.6321	5.2844	1.4237
#1	223.95	3433.	3878.	3569.0	.71050	101.71	127.64
#2	233.43	3356.	3785.	3458.1	.73745	94.380	125.09

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**12.812**	**-2.3408**	**-.40773**	**777.30**	**3.2223**	**40.637**	**14.336**
Stddev	.410	.6092	.02903	13.11	1.1532	.768	.903
%RSD	3.2002	26.027	7.1198	1.6862	35.788	1.8894	6.2977
#1	12.522	-2.7716	-.38721	786.57	2.4069	41.180	14.974
#2	13.102	-1.9100	-.42826	768.03	4.0377	40.095	13.698

Sample Name: S 711009-019-019-1/1 Acquired: 12/7/2007 21:31:09 Type: Unk
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**11097.**	**.54878**	**396.11**	**123.33**
Stddev	183.	2.7269	7.98	1.45
%RSD	1.6457	496.91	2.0151	1.1730
#1	11226.	2.4770	401.76	124.35
#2	10968.	-1.3795	390.47	122.31

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	44416.	19426.	609160.
Stddev	87.	158.	3137.
%RSD	.19542	.81578	.51503
#1	44355.	19314.	606940.
#2	44478.	19538.	611380.

Sample Name: S 711009-020-020-1/1 Acquired: 12/7/2007 21:34:41 Type: Unk
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.48504**	**36180.**	**8.9106**	**-2.6033**	**110.46**	^ *****	**4691.4**
Stddev	.07819	415.	.7531	.0078	4.42	-----	78.5
%RSD	16.120	1.1479	8.4517	.29878	4.0053	-----	1.6738
#1	.42975	36473.	9.4431	-2.5978	113.58	3.0096	4747.0
#2	.54033	35886.	8.3781	-2.6088	107.33	^ -----	4635.9

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.47132**	**66.591**	**377.01**	**367.8**	**354.9**	**272.4**	**152330.**
Stddev	.20668	2.973	14.39	12.4	9.4	19.1	2129.
%RSD	43.850	4.4645	3.8163	3.369	2.660	7.020	1.3977
#1	-.32518	68.693	387.18	376.5	361.6	285.9	153840.
#2	-.61746	64.489	366.83	359.0	348.2	258.9	150830.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1743.7**	**8509.**	**9572.**	**3155.6**	**1.2087**	**50.034**	**186.47**
Stddev	41.4	131.	143.	130.8	.2920	3.426	6.59
%RSD	2.3749	1.533	1.493	4.1439	24.159	6.8471	3.5362
#1	1714.4	8601.	9673.	3248.1	1.0022	52.457	191.13
#2	1773.0	8416.	9471.	3063.2	1.4151	47.612	181.80

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**12.225**	**-6.6293**	**3.3483**	**776.55**	**5.0289**	**42.179**	**22.439**
Stddev	1.340	.3356	.7282	34.11	.5748	1.722	1.208
%RSD	10.960	5.0625	21.749	4.3928	11.429	4.0826	5.3852
#1	13.172	-6.3920	2.8333	800.68	4.6225	43.396	23.294
#2	11.277	-6.8666	3.8632	752.43	5.4353	40.961	21.585

Sample Name: S 711009-020-020-1/1 Acquired: 12/7/2007 21:34:41 Type: Unk
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**13519.**	**3.8094**	**475.97**	**177.29**
Stddev	434.	1.2946	19.29	7.48
%RSD	3.2079	33.984	4.0518	4.2189
#1	13826.	2.8940	489.61	182.58
#2	13212.	4.7248	462.33	172.00

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	44124.	19369.	609810.
Stddev	125.	2.	3371.
%RSD	.28409	.00996	.55285
#1	44213.	19368.	612190.
#2	44036.	19371.	607420.

Sample Name: CCV Acquired: 12/7/2007 21:41:42 Type: QC
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**514.68**	**50280.**	**506.94**	**508.00**	**495.44**	**51.182**	**96803.**
Stddev	1.55	2021.	1.08	.68	3.83	.216	3821.
%RSD	.30045	4.0203	.21241	.13423	.77356	.42157	3.9474
#1	515.77	48851.	506.18	508.48	498.15	51.335	94101.
#2	513.58	51709.	507.71	507.51	492.73	51.030	99505.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**502.84**	**499.53**	**513.03**	F **594.9**	F **556.4**	**492.0**	**46874.**
Stddev	.09	.33	2.37	1.8	5.2	2.8	1873.
%RSD	.01732	.06622	.46181	.2980	.9336	.5735	3.9952
#1	502.78	499.29	514.70	593.7	552.7	490.0	45550.
#2	502.90	499.76	511.35	596.2	560.0	494.0	48199.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass
Value				500.0	500.0		
Range				10.00%	10.00%		

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**25774.**	**96080.**	**101600.**	**506.39**	**511.02**	**100100.**	**498.77**
Stddev	955.	3228.	4078.	.74	.38	4198.	.35
%RSD	3.7039	3.360	4.015	.14650	.07481	4.1942	.06941
#1	25098.	93790.	98690.	506.91	511.29	97130.	499.01
#2	26449.	98360.	104500.	505.86	510.75	103070.	498.52
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV Acquired: 12/7/2007 21:41:42 Type: QC
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**502.99**	**506.89**	**504.98**	**518.86**	**506.08**	**500.31**	**497.08**
Stddev	.59	1.13	1.31	1.55	.62	.48	1.55
%RSD	.11782	.22278	.25932	.29817	.12187	.09629	.31093
#1	502.57	506.09	504.06	519.96	506.51	499.97	498.18
#2	503.41	507.69	505.91	517.77	505.64	500.65	495.99
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**520.82**	**499.14**	**513.46**	F **604.23**
Stddev	2.27	.89	1.89	.54
%RSD	.43644	.17785	.36778	.08987
#1	522.42	498.51	514.80	603.85
#2	519.21	499.77	512.13	604.61
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value				500.00
Range				10.000%

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	43533.	19615.	594150.
Stddev	67.	693.	932.
%RSD	.15355	3.5327	.15688
#1	43486.	20105.	593490.
#2	43580.	19125.	594800.

Sample Name: CCB Acquired: 12/7/2007 21:45:17 Type: QC
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca	Cd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.04880	4.4726	.08502	.10006	.14219	-.00823	17.771	.12652
Stddev	.33484	.6922	.90377	.24249	.03190	.00304	2.418	.07920
%RSD	686.21	15.476	1063.0	242.35	22.433	36.918	13.604	62.596
#1	-.28557	4.9620	.72408	.27152	.16475	-.01038	19.480	.18253
#2	.18797	3.9831	-.55404	-.07141	.11964	-.00608	16.061	.07052
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co	Cr	Cu2199	Cu2218	Cu3273	Fe	K	Mg2802
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.11860	.23890	.3225	1.089	-.5084	4.8451	-46.742	F 24.89
Stddev	.22074	.32482	.5495	.224	3.018	5.8481	26.389	2.28
%RSD	186.13	135.97	170.4	20.54	593.6	120.70	56.456	9.153
#1	.03749	.46858	.7110	.9305	-2.642	8.9803	-65.402	26.50
#2	-.27469	.00922	-.0661	1.247	1.625	.70989	-28.083	23.28
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit								3.000
Low Limit								-3.000

Elem	Mg2852	Mn	Mo	Na	Ni	Pb	Sb	Se
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 21.24	.19324	.11423	55.726	-.25849	-.91813	.76757	-.08990
Stddev	.19	.02620	.01202	18.547	.22512	.78236	1.1855	1.0923
%RSD	.8892	13.557	10.524	33.281	87.091	85.212	154.44	1215.0
#1	21.10	.17471	.10573	68.841	-.41768	-.36492	-.07067	.68248
#2	21.37	.21176	.12273	42.612	-.09931	-1.4713	1.6058	-.86228
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	3.000							
Low Limit	-3.000							

Sample Name: CCB Acquired: 12/7/2007 21:45:17 Type: QC
Method: TRACEPB Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si	Sn	Sr	Te	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.21267	.52843	.12092	-.38080	.55314	.03725	.07675	-.26232
Stddev	.87856	.67569	.02024	.01176	.16264	.28486	.04306	.03424
%RSD	413.11	127.87	16.740	3.0884	29.403	764.62	56.108	13.054
#1	-.83391	.05064	.13523	-.37248	.43813	-.16417	.10720	-.28653
#2	.40856	1.0062	.10660	-.38912	.66814	.23868	.04630	-.23811
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	44789.	19663.	607970.
Stddev	206.	573.	8925.
%RSD	.46006	2.9141	1.4680
#1	44643.	19257.	601660.
#2	44934.	20068.	614280.

ICP ANALYSIS LOG

Instrument ID: ICAP 6500 (20072904) Inst. Method: Nebulizer: Analytical Batch No: 12/071204

Workorder	Project/SDG #	Prep. Seq.	Batch #	Matrix S/W/E	Prep. Date	Method	Comments / Dilution
710210	SC&A		062	S	11-2-07	6010C	Rerun
710124	Arcadis		135		11-27-07	6010B	
711105	FPM Group		↓		↓	↓	
711107	Arcadis		126		11-21-07	6010B	
711106	↓		↓		↓	6010B	
711107	Arcadis		125		11-21-07	6010B	
710199	SC&A		028		11-1-07	6010C	rerun
711009	↓		065		11-5-07	↓	rerun
711009	↓		066	↓	11-5-07	↓	ok
							12/11/07

Source Solution Numbers

Stds.	Number	Stds.	Number
S0	GP 129-116-10	ICV	42173
S1	42105	CCV	42200
S2	42106	ICSA	42304
S3	42109	ICSAB	42305
S4	42110	Low Ck	42234
S5	42111	LR	42008
S6	42112	IS	42235

Post Digestion Spikes

Spike 9.9 mls of sample with .1 mls of 41513

Samples:

PS 711124-021-022-1
PS 711106-003-017-1
PS 711107-009-022-1
PS 710199-029-029-1
PS 711009-021-021-1

Analyst: Date: 12/11/07 Reviewed: Date: 12/11/07

Sample Name: STD0 Acquired: 12/4/2007 18:05:07 Type: Cal
Method: TRACE(v3) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.00003	.00008	-.00004	.00024	.00083	.00026	.00975
Stddev	.00001	.00033	.00001	.00003	.00000	.00002	.00016
%RSD	38.280	385.69	14.614	13.957	.28272	7.1606	1.6847
#1	-.00002	-.00015	-.00003	.00027	.00083	.00025	.00963
#2	-.00003	.00032	-.00004	.00022	.00083	.00027	.00986

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00002	-.00002	.00001	.0001	.0002	-.0002	.00013
Stddev	.00001	.00001	.00001	.0000	.0000	.0001	.00003
%RSD	74.351	61.867	76.606	50.72	12.69	50.59	21.882
#1	.00003	-.00003	.00001	.0001	.0002	-.0003	.00011
#2	.00001	-.00001	.00002	.0001	.0002	-.0002	.00015

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.00194	.0054	.0005	.00002	.00003	-.00210	.00001
Stddev	.00017	.0019	.0001	.00001	.00001	.00191	.00001
%RSD	8.9652	34.52	13.33	33.554	35.947	91.251	152.54
#1	-.00207	.0041	.0005	.00001	.00004	-.00345	.00000
#2	-.00182	.0067	.0006	.00002	.00002	-.00074	.00002

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.00016	.00003	.00002	.00011	.00004	.00111	.00001
Stddev	.00001	.00002	.00002	.00000	.00001	.00006	.00001
%RSD	7.0420	56.056	111.53	.67960	36.166	5.3627	110.10
#1	-.00015	.00002	.00000	.00011	.00005	.00106	.00002
#2	-.00017	.00005	.00003	.00011	.00003	.00115	.00000

Sample Name: STD0 Acquired: 12/4/2007 18:05:07 Type: Cal
Method: TRACE(v3) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti	Tl	V	Zn
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.00001	-.00003	.00003	.00071
Stddev	.00000	.00001	.00000	.00002
%RSD	45.442	32.536	7.6958	2.9258
#1	-.00001	-.00003	.00003	.00070
#2	-.00001	-.00002	.00003	.00073

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	44815.	28630.	589150.
Stddev	86.	166.	1226.
%RSD	.19273	.57940	.20808
#1	44876.	28747.	590020.
#2	44754.	28513.	588290.

Sample Name: STD1 Acquired: 12/4/2007 18:08:23 Type: Cal
Method: TRACE(v3) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Cd	Co
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00847	.32816	.00298	.01487	.20045	.02554	.10765	.04234
Stddev	.00001	.01168	.00002	.00001	.00090	.00003	.00021	.00013
%RSD	.10678	3.5599	.54740	.08385	.44844	.12970	.19062	.31509
#1	.00848	.31990	.00299	.01487	.20109	.02551	.10780	.04243
#2	.00846	.33642	.00297	.01488	.19982	.02556	.10751	.04224

Elem	Cr	Fe	Mn	Mo	Ni	Pb	Sb	Se
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00639	.39937	.03775	.02241	.02482	.00813	.00434	.00251
Stddev	.00001	.01489	.00008	.00001	.00011	.00000	.00004	.00002
%RSD	.12351	3.7291	.20143	.03863	.44951	.02660	.84600	.91781
#1	.00638	.38884	.03780	.02240	.02490	.00812	.00437	.00252
#2	.00639	.40990	.03770	.02241	.02475	.00813	.00431	.00249

Elem	Si	Sn	Sr	Te	Ti	Tl	V	Zn
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00226	.00769	.43477	.00296	.02362	.00304	.00839	.07606
Stddev	.00000	.00000	.00090	.00001	.00002	.00003	.00003	.00016
%RSD	.20142	.03630	.20809	.36904	.07011	.85341	.32155	.20433
#1	.00226	.00768	.43541	.00297	.02361	.00302	.00840	.07617
#2	.00227	.00769	.43413	.00295	.02363	.00306	.00837	.07595

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	45014.	29049.	589470.
Stddev	3.	911.	1690.
%RSD	.00626	3.1360	.28669
#1	45016.	29693.	588280.
#2	45012.	28405.	590670.

Sample Name: STD2 Acquired: 12/4/2007 18:11:32 Type: Cal
Method: TRACE(v3) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Cd	Co
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.02080	.83200	.00737	.03636	.48594	.06275	.26509	.10459
Stddev	.00000	.00713	.00007	.00003	.00245	.00001	.00018	.00016
%RSD	.02037	.85701	.95903	.08224	.50363	.01715	.06865	.15115
#1	.02080	.82695	.00732	.03638	.48421	.06276	.26496	.10470
#2	.02080	.83704	.00742	.03634	.48767	.06274	.26521	.10448

Elem	Cr	Cu2199	Fe	Mn	Mo	Ni	Pb	Sb
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.01563	.0153	1.0029	.09325	.05554	.06139	.02033	.01076
Stddev	.00001	.0000	.0136	.00010	.00017	.00005	.00003	.00002
%RSD	.05694	.1027	1.3593	.10544	.30323	.07791	.15631	.21742
#1	.01562	.0153	.99322	.09318	.05542	.06142	.02031	.01077
#2	.01563	.0154	1.0125	.09332	.05566	.06135	.02035	.01074

Elem	Se	Si	Sn	Sr	Te	Ti	Tl	V
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00616	.00530	.01897	1.0565	.00736	.05843	.00754	.02054
Stddev	.00001	.00000	.00008	.0045	.00002	.00006	.00003	.00001
%RSD	.22259	.03617	.41553	.42756	.25301	.10325	.37543	.06685
#1	.00617	.00530	.01892	1.0533	.00737	.05847	.00756	.02053
#2	.00615	.00531	.01903	1.0597	.00734	.05839	.00752	.02055

Elem	Zn
Units	Cts/S
Avg	.18628
Stddev	.00006
%RSD	.03255
#1	.18624
#2	.18632

Sample Name: STD2 Acquired: 12/4/2007 18:11:32 Type: Cal
Method: TRACE(v3) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	44745.	28272.	590540.
Stddev	113.	427.	922.
%RSD	.25331	1.5092	.15620
#1	44825.	28574.	591190.
#2	44664.	27971.	589890.

Sample Name: STD3 Acquired: 12/4/2007 18:14:57 Type: Cal
Method: TRACE(v3) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Cd	Co
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.04205**	**1.7251**	**.01471**	**.07141**	**.97603**	**.12705**	**.52908**	**.20756**
Stddev	.00012	.0471	.00002	.00023	.01388	.00011	.00085	.00067
%RSD	.29718	2.7325	.12168	.32341	1.4217	.08302	.16097	.32151
#1	.04214	1.7584	.01470	.07157	.98584	.12712	.52968	.20803
#2	.04196	1.6918	.01472	.07124	.96622	.12697	.52848	.20709

Elem	Cr	Cu2199	Fe	Mn	Mo	Ni	Pb	Sb
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.03153**	**.0303**	**2.0691**	**.18803**	**.11089**	**.12187**	**.04071**	**.02133**
Stddev	.00003	.0000	.0457	.00074	.00015	.00024	.00002	.00006
%RSD	.10775	.0781	2.2068	.39193	.13392	.19722	.05614	.26929
#1	.03155	.0304	2.1013	.18855	.11100	.12204	.04069	.02137
#2	.03151	.0303	2.0368	.18751	.11079	.12170	.04072	.02129

Elem	Se	Si	Sn	Sr	Te	Ti	Tl	V
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.01209**	**.01052**	**.03793**	**2.1000**	**.01462**	**.11812**	**.01493**	**.04122**
Stddev	.00001	.00001	.00007	.0151	.00003	.00001	.00002	.00020
%RSD	.07623	.06187	.19127	.71735	.17134	.00810	.13479	.48808
#1	.01209	.01053	.03798	2.1106	.01463	.11813	.01491	.04137
#2	.01210	.01052	.03788	2.0893	.01460	.11811	.01494	.04108

Elem	Zn
Units	Cts/S
Avg	**.37125**
Stddev	.00052
%RSD	.14126
#1	.37162
#2	.37088

Sample Name: STD3 Acquired: 12/4/2007 18:14:57 Type: Cal
Method: TRACE(v3) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	44417.	26912.	580890.
Stddev	2.	528.	3064.
%RSD	.00358	1.9617	.52741
#1	44418.	26539.	578730.
#2	44416.	27285.	583060.

Sample Name: STD4 Acquired: 12/4/2007 18:18:22 Type: Cal
Method: TRACE(v3) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ca	K	Mg2802	Na
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.8300**	**.08241**	**22.93**	**1.8645**
Stddev	.0264	.00409	.28	.0536
%RSD	1.4405	4.9634	1.232	2.8723
#1	1.8114	.07951	22.73	1.8266
#2	1.8486	.08530	23.13	1.9023

Int. Std.	Y_3774
Units	Cts/S
Avg	26073.
Stddev	701.
%RSD	2.6869
#1	26568.
#2	25578.

Sample Name: STD5 Acquired: 12/4/2007 18:21:39 Type: Cal
Method: TRACE(v3) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ca	K	Mg2802	Na
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**4.6943**	**.15912**	**55.04**	**4.6745**
Stddev	.1928	.00543	1.55	.1540
%RSD	4.1062	3.4152	2.809	3.2936
#1	4.8306	.16296	56.14	4.7834
#2	4.5580	.15527	53.95	4.5656

Int. Std.	Y_3774
Units	Cts/S
Avg	26175.
Stddev	938.
%RSD	3.5853
#1	25511.
#2	26838.

Sample Name: STD6 Acquired: 12/4/2007 18:25:01 Type: Cal
Method: TRACE(v3) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ca	K	Mg2802	Na
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**8.9734**	**.38824**	**94.34**	**8.6734**
Stddev	.0478	.00190	.36	.1364
%RSD	.53324	.49043	.3828	1.5729
#1	8.9396	.38690	94.08	8.5770
#2	9.0072	.38959	94.60	8.7699

Int. Std.	Y_3774
Units	Cts/S
Avg	27317.
Stddev	22.
%RSD	.07942
#1	27301.
#2	27332.

Sample Name: Blank Acquired: 12/4/2007 18:28:34 Type: Cal
Method: TRACE(v3) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Cu2218	Cu3273	Mg2852
Units	Cts/S	Cts/S	Cts/S
Avg	**.0002**	**-.0002**	**.0006**
Stddev	.0000	.0000	.0003
%RSD	8.596	16.78	48.17
#1	.0002	-.0002	.0008
#2	.0002	-.0003	.0004

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	45499.	27125.
Stddev	.	1202.
%RSD	.00040	4.4301
#1	45499.	26275.
#2	45499.	27974.

Sample Name: ICV Acquired: 12/4/2007 18:31:52 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**413.38**	**5093.0**	**429.04**	**433.10**	**429.43**	**42.456**	**5166.7**
Stddev	.55	.5	.26	.41	1.42	.073	38.4
%RSD	.13336	.00946	.06080	.09443	.32961	.17280	.74236
#1	413.77	5093.3	429.22	432.81	428.43	42.508	5193.8
#2	412.99	5092.6	428.85	433.39	430.43	42.404	5139.5
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	Cts/S	Cts/S	ppb
Avg	**42.424**	**438.54**	**415.52**	**412.7**	zF *****	zF *****	**5184.0**
Stddev	.165	.45	.58	1.0	-----	-----	23.8
%RSD	.38947	.10300	.13861	.2423	-----	-----	.45878
#1	42.541	438.22	415.93	413.4	z 1428.	z 1016.	5200.8
#2	42.307	438.86	415.12	412.0	z 1427.	z 1010.	5167.2
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass
Value					400.0	400.0	
Range					-10.00%	-10.00%	

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	Cts/S	ppb	ppb	ppb	ppb
Avg	**5176.5**	F **4991.**	zF *****	**421.15**	**413.66**	**10483.**	**426.78**
Stddev	30.2	33.	-----	.23	.19	55.	.68
%RSD	.58403	.6660	-----	.05442	.04634	.52616	.15983
#1	5197.9	5015.	z 8262.	420.99	413.80	10522.	427.27
#2	5155.1	4968.	z 8210.	421.32	413.53	10444.	426.30
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value		400.0	400.0				
Range		10.00%	-10.00%				

Sample Name: ICV Acquired: 12/4/2007 18:31:52 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**428.56**	**415.88**	**430.07**	F **108.06**	**421.58**	**418.83**	F **6.1027**
Stddev	1.77	.88	2.81	.10	.60	4.12	2.1282
%RSD	.41357	.21186	.65416	.09158	.14265	.98312	34.874
#1	429.81	416.50	428.08	108.13	421.16	415.92	4.5978
#2	427.31	415.26	432.06	107.99	422.01	421.74	7.6076
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail
Value				400.00			400.00
Range				-10.000%			-10.000%

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**419.99**	**413.76**	**423.56**	**432.61**
Stddev	.44	2.06	.24	.72
%RSD	.10570	.49868	.05705	.16756
#1	420.31	415.22	423.73	433.12
#2	419.68	412.30	423.39	432.10
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				
Range				

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	45025.	27542.	584520.
Stddev	141.	23.	400.
%RSD	.31410	.08192	.06851
#1	44925.	27558.	584800.
#2	45125.	27526.	584240.

Sample Name: ICB Acquired: 12/4/2007 18:35:16 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca	Cd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.10139	-7.1260	.72118	-.02868	-.06672	-.02878	-12.901	-.10458
Stddev	.04910	20.293	2.6945	.16405	.00162	.00108	1.374	.03848
%RSD	48.423	284.77	373.62	572.03	2.4264	3.7519	10.650	36.794
#1	.13610	-21.475	-1.1841	-.14468	-.06787	-.02955	-13.873	-.07737
#2	.06667	7.2230	2.6265	.08732	-.06558	-.02802	-11.930	-.13179
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co	Cr	Cu2199	Cu2218	Cu3273	Fe	K	Mg2802
Units	ppb	ppb	ppb	Cts/S	Cts/S	ppb	ppb	ppb
Avg	-.22174	-.21129	-1.414	z *****	z *****	-8.2178	72.997	F -4.935
Stddev	.19072	.24176	.769	-----	-----	.5113	39.697	.242
%RSD	86.012	114.42	54.40	-----	-----	6.2218	54.381	4.898
#1	-.08688	-.04034	-1.958	z 631.2	z 741.5	-7.8563	44.927	-4.764
#2	-.35660	-.38224	-.8702	z 632.4	z 733.6	-8.5794	101.07	-5.105
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit								3.000
Low Limit								-3.000

Elem	Mg2852	Mn	Mo	Na	Ni	Pb	Sb	Se
Units	Cts/S	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	z *****	-.06482	.14987	48.003	-.20240	-.82021	-.84602	-.43713
Stddev	-----	.05222	.05778	15.793	.08274	.53598	.78509	1.2605
%RSD	-----	80.568	38.555	32.901	40.881	65.347	92.797	288.37
#1	z 277.1	-.10174	.10901	59.170	-.14389	-1.1992	-1.4012	-1.3285
#2	z 277.3	-.02789	.19072	36.835	-.26091	-.44121	-.29088	.45420
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: ICB Acquired: 12/4/2007 18:35:16 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si	Sn	Sr	Te	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.0869	-.34632	-.04037	.28736	-.08338	-.00274	.03447	-.47666
Stddev	.2555	.33263	.00015	.16130	.06357	.15229	.12874	.02777
%RSD	23.505	96.046	.37609	56.134	76.244	5559.9	373.46	5.8257
#1	-1.2675	-.58152	-.04048	.17330	-.03843	.10495	-.05656	-.49629
#2	-.90624	-.11112	-.04027	.40142	-.12834	-.11042	.12550	-.45702
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	45348.	27645.	594730.
Stddev	49.	646.	2216.
%RSD	.10744	2.3379	.37260
#1	45382.	27188.	596290.
#2	45313.	28103.	593160.

Sample Name: CCV Acquired: 12/4/2007 18:38:36 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**505.37**	**48386.**	**498.16**	**509.53**	**499.57**	**48.679**	**95674.**
Stddev	2.56	512.	.11	.23	2.09	.225	1063.
%RSD	.50741	1.0589	.02220	.04474	.41762	.46167	1.1114
#1	507.18	48023.	498.24	509.69	498.10	48.837	94922.
#2	503.55	48748.	498.08	509.37	501.05	48.520	96426.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	Cts/S	Cts/S	ppb
Avg	**487.90**	**492.65**	**485.16**	**501.7**	zF *****	zF *****	**47769.**
Stddev	1.08	.17	2.20	1.6	-----	-----	481.
%RSD	.22056	.03485	.45440	.3213	-----	-----	1.0075
#1	488.66	492.77	486.71	502.9	z 1726.	z 1052.	47428.
#2	487.14	492.53	483.60	500.6	z 1730.	z 1046.	48109.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass
Value					500.0	500.0	
Range					-10.00%	-10.00%	

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	Cts/S	ppb	ppb	ppb	ppb
Avg	**23568.**	F **92370.**	zF *****	**493.55**	**496.05**	**99897.**	**490.47**
Stddev	325.	491.	-----	2.55	2.05	1242.	.60
%RSD	1.3779	.5314	-----	.51591	.41368	1.2435	.12328
#1	23339.	92720.	z 141800.	495.35	497.50	99018.	490.90
#2	23798.	92020.	z 142800.	491.75	494.60	100770.	490.04
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value		500.0	500.0				
Range		10.00%	-10.00%				

Sample Name: CCV Acquired: 12/4/2007 18:38:36 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**485.92**	**513.57**	**510.17**	**519.08**	**489.82**	**496.94**	**499.44**
Stddev	2.57	.32	4.11	2.68	1.87	5.70	2.35
%RSD	.52952	.06225	.80622	.51712	.38140	1.1479	.46988
#1	487.74	513.34	513.08	520.98	491.14	500.97	501.10
#2	484.10	513.79	507.27	517.19	488.50	492.90	497.78
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**497.27**	**497.74**	**497.67**	F **594.98**
Stddev	2.48	.54	2.25	1.47
%RSD	.49860	.10792	.45191	.24633
#1	499.02	498.12	499.26	596.02
#2	495.51	497.36	496.08	593.95
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value				500.00
Range				10.000%

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	**44084.**	**28577.**	**580960.**
Stddev	149.	209.	2854.
%RSD	.33740	.73127	.49121
#1	43979.	28724.	578950.
#2	44190.	28429.	582980.

Sample Name: CCB Acquired: 12/4/2007 18:42:05 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca	Cd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.06322	2.6759	1.3093	.03651	-.05997	-.00880	-9.7843	-.09215
Stddev	.10388	2.5711	1.9304	.01428	.01780	.00631	.1380	.01802
%RSD	164.31	96.085	147.44	39.114	29.690	71.671	1.4102	19.559
#1	.13667	.85781	2.6743	.02642	-.07256	-.01326	-9.6867	-.10489
#2	-.01023	4.4939	-.05568	.04661	-.04738	-.00434	-9.8818	-.07940
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co	Cr	Cu2199	Cu2218	Cu3273	Fe	K	Mg2802
Units	ppb	ppb	ppb	Cts/S	Cts/S	ppb	ppb	ppb
Avg	-.39382	-.16824	-1.651	z *****	z *****	-3.7320	123.04	F -3.101
Stddev	.01220	.17522	1.435	-----	-----	.8628	18.57	1.199
%RSD	3.0991	104.14	86.92	-----	-----	23.119	15.091	38.67
#1	-.38519	-.29214	-.6362	z 630.9	z 720.7	-4.3421	109.91	-3.949
#2	-.40245	-.04435	-2.666	z 634.0	z 719.6	-3.1219	136.17	-2.253
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit								3.000
Low Limit								-3.000

Elem	Mg2852	Mn	Mo	Na	Ni	Pb	Sb	Se
Units	Cts/S	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	z *****	-.08460	.21469	96.553	-.35531	1.3302	1.0447	.38415
Stddev	-----	.00680	.06902	7.864	.26890	.4889	.6033	.78534
%RSD	-----	8.0394	32.146	8.1443	75.681	36.753	57.752	204.43
#1	z 270.3	-.08941	.16589	90.992	-.16517	1.6759	.61805	-.17117
#2	z 274.5	-.07979	.26350	102.11	-.54546	.98448	1.4713	.93947
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB Acquired: 12/4/2007 18:42:05 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si	Sn	Sr	Te	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.4676	-.33706	-.04056	.09251	-.14190	.82458	.25983	-.43725
Stddev	.1500	.07348	.00201	.09894	.00215	.60401	.17699	.00634
%RSD	10.220	21.801	4.9584	106.95	1.5169	73.250	68.118	1.4511
#1	-1.5737	-.28510	-.03914	.02255	-.14342	.39748	.13468	-.43276
#2	-1.3615	-.38902	-.04198	.16247	-.14037	1.2517	.38498	-.44174
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	45729.	29093.	599610.
Stddev	12.	385.	3000.
%RSD	.02525	1.3230	.50031
#1	45737.	29365.	597480.
#2	45721.	28821.	601730.

Sample Name: PQL Acquired: 12/4/2007 18:45:26 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca	Cd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**5.0908**	**173.78**	**20.388**	**15.431**	**5.1704**	**1.9486**	**959.28**	**6.1202**
Stddev	.4058	4.48	1.368	.466	.0840	.0315	10.16	.0284
%RSD	7.9718	2.5766	6.7095	3.0223	1.6254	1.6145	1.0591	.46381
#1	4.8038	176.95	19.421	15.101	5.1110	1.9263	952.10	6.1403
#2	5.3777	170.62	21.355	15.761	5.2299	1.9708	966.47	6.1001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co	Cr	Cu2199	Cu2218	Cu3273	Fe	K	Mg2802
Units	ppb	ppb	ppb	Cts/S	Cts/S	ppb	ppb	ppb
Avg	**4.7459**	**4.6254**	F **8.054**	zF *****	zF *****	**147.12**	**298.94**	F **232.2**
Stddev	.0583	.1291	.518	-----	-----	.22	11.67	2.1
%RSD	1.2293	2.7922	6.437	-----	-----	.14635	3.9031	.8957
#1	4.7871	4.5341	8.421	z 663.6	z 725.9	146.97	307.19	230.7
#2	4.7046	4.7168	7.688	z 659.2	z 725.7	147.27	290.69	233.6
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail
Value			5.000	5.000	5.000			5.000
Range			20.00%	-20.00%	-20.00%			20.00%

Elem	Mg2852	Mn	Mo	Na	Ni	Pb	Sb	Se
Units	Cts/S	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	zF *****	**5.0249**	**5.1818**	**2680.9**	**9.8945**	**10.454**	**19.586**	**23.182**
Stddev	-----	.0537	.2111	16.0	.0617	.133	.158	.484
%RSD	-----	1.0692	4.0734	.59756	.62413	1.2726	.80631	2.0859
#1	z 664.5	4.9869	5.3311	2669.6	9.9382	10.360	19.698	22.840
#2	z 665.0	5.0629	5.0326	2692.2	9.8508	10.549	19.475	23.524
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	5.000							
Range	-20.00%							

Sample Name: PQL Acquired: 12/4/2007 18:45:26 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si	Sn	Sr	Te	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**54.937**	**25.030**	**5.0232**	**1.8519**	**24.754**	**33.652**	**10.207**	**20.721**
Stddev	.937	.712	.0777	1.2938	.372	.103	.268	.166
%RSD	1.7060	2.8455	1.5470	69.867	1.5034	.30680	2.6264	.79885
#1	54.275	24.526	4.9683	.93699	24.491	33.579	10.017	20.838
#2	55.600	25.534	5.0782	2.7668	25.017	33.725	10.396	20.604
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	45622.	28744.	599580.
Stddev	136.	201.	7203.
%RSD	.29733	.69828	1.2014
#1	45526.	28886.	604680.
#2	45718.	28602.	594490.

Sample Name: ICSA Acquired: 12/4/2007 18:48:44 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	k **-2.0463**	k **512560.**	kF **-69.724**	k **3.6923**	k **.41731**	k **-.03676**
Stddev	.2733	1957.	7.568	.9015	.01086	.00659
%RSD	13.355	.38185	10.854	24.416	2.6019	17.918
#1	k -1.8531	k 513950.	k -75.076	k 3.0548	k .40963	k -.03211
#2	k -2.2395	k 511180.	k -64.373	k 4.3297	k .42499	k -.04142
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit			20.000			
Low Limit			-20.000			

Elem	Ca	Cd	Co	Cr	Cu2199	Cu2218
Units	ppb	ppb	ppb	ppb	ppb	Cts/S
Avg	**469060.**	kF **8.1404**	k **2.9540**	k **2.5790**	kF **-179.8**	z *****
Stddev	8496.	.1651	.3409	.3854	2.1	-----
%RSD	1.8112	2.0285	11.542	14.946	1.189	-----
#1	475070.	k 8.2572	k 2.7129	k 2.8515	k -178.3	z 1136.
#2	463060.	k 8.0236	k 3.1950	k 2.3064	k -181.3	z 1136.
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit		6.0000			3.000	
Low Limit		-6.0000			-3.000	

Elem	Cu3273	Fe	K	Mg2802	Mg2852	Mn
Units	Cts/S	ppb	ppb	ppb	Cts/S	ppb
Avg	z *****	**185680.**	k **130.53**	C **.0000**	z *****	kF **16.502**
Stddev	-----	831.	18.17	.0000	-----	.016
%RSD	-----	.44779	13.922	.0000	-----	.09464
#1	z 718.2	186270.	k 143.38	C .0000	z 500900.	k 16.513
#2	z 712.0	185090.	k 117.68	C .0000	z 507700.	k 16.490
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						5.0000
Low Limit						-5.0000

Sample Name: ICSA Acquired: 12/4/2007 18:48:44 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mo	Na	Ni	Pb	Sb	Se
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	k **-1.1424**	k **62.425**	k **4.8150**	kF **144.70**	k **-.04933**	k **-7.5876**
Stddev	.2185	14.976	.0779	1.27	1.6601	1.3189
%RSD	19.123	23.991	1.6176	.87459	3365.5	17.382
#1	k -.98796	k 51.835	k 4.7599	k 143.81	k -1.2232	k -6.6550
#2	k -1.2969	k 73.015	k 4.8701	k 145.60	k 1.1245	k -8.5202
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit				6.0000		
Low Limit				-6.0000		

Elem	Si	Sn	Sr	Te	Ti	Tl
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-11.114**	**-2.4320**	F **6.5774**	k **36.986**	k **12.340**	k **1.6970**
Stddev	1.314	.2288	.0062	.428	.010	.0736
%RSD	11.822	9.4065	.09494	1.1573	.07923	4.3352
#1	-10.185	-2.2702	6.5818	k 37.289	k 12.347	k 1.6449
#2	-12.043	-2.5937	6.5729	k 36.684	k 12.333	k 1.7490
Check ?	Chk Pass	Chk Pass	Chk Fail	None	Chk Pass	Chk Pass
High Limit			5.0000			
Low Limit			-5.0000			

Elem	V	Zn
Units	ppb	ppb
Avg	k **-.02626**	k **1.8285**
Stddev	.27174	.1447
%RSD	1034.8	7.9124
#1	k -.21841	k 1.9308
#2	k .16589	k 1.7262
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Sample Name: ICSA Acquired: 12/4/2007 18:48:44 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	41780.	27366.	551530.
Stddev	8.	170.	982.
%RSD	.01866	.62143	.17804
#1	41785.	27246.	550830.
#2	41774.	27486.	552220.

Sample Name: ICSAB Acquired: 12/4/2007 18:52:10 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	k **211.55**	k **512720.**	kF **30.264**	k **1048.0**	k **510.12**	k **483.41**	**463600.**
Stddev	.46	1034.	4.072	1.1	2.34	.17	1479.
%RSD	.21558	.20156	13.455	.10301	.45909	.03619	.31898
#1	k 211.23	k 513450.	k 27.385	k 1048.8	k 511.78	k 483.29	464650.
#2	k 211.87	k 511990.	k 33.143	k 1047.3	k 508.47	k 483.54	462560.
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			100.00				
Range			-20.000%				

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	Cts/S	Cts/S	ppb
Avg	k **936.23**	k **470.39**	k **480.98**	kF **288.0**	zF *****	zF *****	**184790.**
Stddev	1.42	1.13	.69	2.8	-----	-----	298.
%RSD	.15219	.24082	.14288	.9826	-----	-----	.16144
#1	k 937.24	k 471.19	k 480.50	k 286.0	z 2122.	z 1041.	185000.
#2	k 935.22	k 469.59	k 481.47	k 290.0	z 2122.	z 1034.	184570.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Pass
Value				200.0	200.0	200.0	
Range				20.00%	-20.00%	-20.00%	

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	Cts/S	ppb	ppb	ppb	ppb
Avg	k **5182.4**	CF **.0000**	zF *****	k **502.52**	k **974.84**	k **10747.**	k **934.57**
Stddev	84.8	.0000	-----	.40	2.92	20.	2.05
%RSD	1.6362	.0000	-----	.08022	.29966	.18178	.21935
#1	k 5122.4	C .0000	z 494300.	k 502.23	k 976.90	k 10761.	k 936.02
#2	k 5242.3	C .0000	z 497700.	k 502.80	k 972.77	k 10733.	k 933.12
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value		200.0	200.0				
Range		-20.00%	-20.00%				

Sample Name: ICSAB Acquired: 12/4/2007 18:52:10 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	kF **189.99**	k **620.98**	kF **39.210**	F **1250.0**	**944.37**	**506.82**	kF **143.57**
Stddev	.92	3.79	6.520	1.0	1.44	.99	1.37
%RSD	.48665	.61076	16.628	.08149	.15268	.19550	.95337
#1	k 190.65	k 623.66	k 34.599	1249.2	945.39	506.12	k 144.54
#2	k 189.34	k 618.29	k 43.820	1250.7	943.35	507.52	k 142.60
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail
Value	50.000		50.000	1000.0			200.00
Range	20.000%		-20.000%	20.000%			-20.000%

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	k **992.40**	kF **77.655**	k **485.64**	k **1016.3**
Stddev	.58	.422	.36	2.5
%RSD	.05846	.54303	.07340	.24261
#1	k 991.99	k 77.357	k 485.39	k 1018.0
#2	k 992.81	k 77.953	k 485.89	k 1014.5
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value		100.00		
Range		-20.000%		

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	41582.	26927.	548020.
Stddev	103.	22.	405.
%RSD	.24763	.08070	.07398
#1	41509.	26942.	548310.
#2	41655.	26911.	547730.

Sample Name: LR Acquired: 12/4/2007 18:55:57 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1071.6**	**-439.61**	**2080.5**	**5142.7**	^F *****	**485.98**	**67.814**
Stddev	21.4	16.97	10.9	7.4	-----	9.94	.314
%RSD	1.9974	3.8599	.52542	.14363	-----	2.0447	.46240
#1	1086.8	-427.61	2088.2	5148.0	^ -----	493.00	67.593
#2	1056.5	-451.61	2072.7	5137.5	^ -----	478.95	68.036
Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None
Value					10000.		
Range					-10.000%		

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	Cts/S	Cts/S	ppb
Avg	**2046.2**	**10188.**	**10355.**	F **10380.**	zF *****	zF *****	**474820.**
Stddev	9.0	14.	202.	29.	-----	-----	5669.
%RSD	.43899	.13741	1.9475	.2757	-----	-----	1.1940
#1	2052.6	10198.	10497.	10400.	z 20860.	z 7241.	478830.
#2	2039.8	10178.	10212.	10360.	z 20920.	z 7277.	470810.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Pass
Value				1000.	1000.	1000.	
Range				10.00%	-10.00%	-10.00%	

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	Cts/S	ppb	ppb	ppb	ppb
Avg	**242.13**	F **40.15**	zF *****	**9777.4**	**10040.**	**38.862**	**7642.1**
Stddev	46.28	.04	-----	187.8	41.	18.544	17.8
%RSD	19.113	.0972	-----	1.9213	.41098	47.718	.23358
#1	274.86	40.12	z 346.3	9910.3	10069.	51.975	7654.7
#2	209.41	40.17	z 351.0	9644.6	10010.	25.749	7629.4
Check ?	None	Chk Fail	Chk Fail	Chk Pass	Chk Pass	None	Chk Pass
Value		1000.	1000.				
Range		-10.00%	-10.00%				

Sample Name: LR Acquired: 12/4/2007 18:55:57 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**20208.**	**5149.8**	**2034.3**	F **11103.**	**10092.**	**1985.2**	**249.48**
Stddev	74.	3.1	2.5	199.	45.	39.7	35.06
%RSD	.36626	.06042	.12130	1.7954	.44613	2.0003	14.055
#1	20261.	5152.0	2032.6	11244.	10124.	2013.3	274.27
#2	20156.	5147.6	2036.1	10962.	10060.	1957.1	224.68
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	None
Value				10000.			
Range				10.000%			

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**9985.0**	**2086.2**	**10422.**	**10040.**
Stddev	130.4	10.4	212.	33.
%RSD	1.3057	.49756	2.0385	.32477
#1	10077.	2093.5	10572.	10063.
#2	9892.8	2078.8	10272.	10017.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				
Range				

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	**43495.**	**27013.**	**573590.**
Stddev	127.	449.	10769.
%RSD	.29228	1.6633	1.8775
#1	43406.	26695.	565970.
#2	43585.	27331.	581200.

Sample Name: CCV Acquired: 12/4/2007 19:02:56 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**511.89**	**49928.**	**502.56**	**515.75**	**497.93**	**49.314**	**97140.**
Stddev	.11	79.	.92	1.00	1.50	.070	443.
%RSD	.02092	.15826	.18262	.19375	.30123	.14278	.45636
#1	511.81	49872.	503.21	515.04	496.87	49.264	96826.
#2	511.96	49984.	501.91	516.45	498.99	49.364	97453.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	Cts/S	Cts/S	ppb
Avg	**493.20**	**495.25**	**495.37**	**503.5**	zF *****	zF *****	**48153.**
Stddev	.71	.99	.90	1.0	-----	-----	123.
%RSD	.14480	.20013	.18164	.2040	-----	-----	.25606
#1	493.70	495.95	494.73	504.2	z 1726.	z 1025.	48066.
#2	492.69	494.55	496.01	502.8	z 1723.	z 1023.	48240.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass
Value					500.0	500.0	
Range					-10.00%	-10.00%	

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	Cts/S	ppb	ppb	ppb	ppb
Avg	**24494.**	F **94420.**	zF *****	**494.55**	**504.33**	**101440.**	**493.81**
Stddev	132.	907.	-----	.84	1.26	122.	.30
%RSD	.53831	.9607	-----	.16925	.25012	.12040	.06156
#1	24401.	93780.	z 138800.	495.15	505.22	101530.	493.60
#2	24588.	95060.	z 138600.	493.96	503.44	101350.	494.03
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value		500.0	500.0				
Range		10.00%	-10.00%				

Sample Name: CCV Acquired: 12/4/2007 19:02:56 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**492.75**	**511.94**	**507.89**	**528.95**	**495.11**	**498.28**	**500.10**
Stddev	.80	2.39	1.06	1.42	.64	2.58	2.62
%RSD	.16226	.46628	.20814	.26764	.13025	.51860	.52372
#1	493.32	510.26	508.64	529.95	495.56	500.10	501.95
#2	492.19	513.63	507.14	527.95	494.65	496.45	498.24
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**506.96**	**500.23**	**502.50**	F **601.34**
Stddev	.68	3.13	.81	.43
%RSD	.13433	.62566	.16033	.07121
#1	506.47	498.02	501.93	601.64
#2	507.44	502.44	503.07	601.03
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value				500.00
Range				10.000%

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	43514.	27116.	573190.
Stddev	119.	182.	926.
%RSD	.27333	.67151	.16160
#1	43430.	27245.	573840.
#2	43598.	26987.	572530.

Sample Name: CCB Acquired: 12/4/2007 19:06:25 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca	Cd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.36464	-5.7863	1.4203	2.3234	.02516	.00475	-7.3700	.02902
Stddev	.06347	8.5426	.5959	.0996	.00255	.00177	3.8963	.07016
%RSD	17.405	147.63	41.954	4.2880	10.125	37.227	52.867	241.74
#1	-.31976	-11.827	.99894	2.3939	.02696	.00350	-4.6149	.07864
#2	-.40952	.2542	1.8416	2.2530	.02336	.00600	-10.125	-.02059
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co	Cr	Cu2199	Cu2218	Cu3273	Fe	K	Mg2802
Units	ppb	ppb	ppb	Cts/S	Cts/S	ppb	ppb	ppb
Avg	-.13316	-.02481	-.9170	z *****	z *****	2.9702	133.00	-.6018
Stddev	.01432	.04327	.3511	-----	-----	2.8975	36.94	.2951
%RSD	10.757	174.43	38.29	-----	-----	97.552	27.777	49.03
#1	-.14328	.00579	-.6687	z 630.7	z 704.3	.92135	159.12	-.3931
#2	-.12303	-.05540	-1.165	z 633.2	z 716.4	5.0190	106.87	-.8104
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mg2852	Mn	Mo	Na	Ni	Pb	Sb	Se
Units	Cts/S	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	z *****	.06126	1.0782	109.60	-.44047	-.32677	-.11247	2.2988
Stddev	-----	.01339	.1822	13.28	.20386	.67053	.39278	2.4347
%RSD	-----	21.851	16.902	12.117	46.283	205.20	349.23	105.91
#1	z 272.1	.05179	.94934	100.21	-.29632	.14737	-.39021	.57727
#2	z 271.1	.07072	1.2071	118.99	-.58463	-.80091	.16527	4.0204
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB Acquired: 12/4/2007 19:06:25 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si	Sn	Sr	Te	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.88189	-.14205	-.01464	-.48385	.07157	.89617	.14608	-.28186
Stddev	.36199	.48707	.00341	2.4101	.02312	.90389	.06423	.07182
%RSD	41.047	342.88	23.314	498.11	32.306	100.86	43.968	25.481
#1	-.62593	.20236	-.01223	1.2204	.05522	.25702	.10067	-.33264
#2	-1.1379	-.48646	-.01705	-2.1881	.08792	1.5353	.19150	-.23107
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	45153.	28136.	590410.
Stddev	83.	564.	2098.
%RSD	.18361	2.0054	.35542
#1	45094.	28535.	588930.
#2	45211.	27737.	591900.

Sample Name: CCV Acquired: 12/4/2007 19:44:07 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**511.56**	**50490.**	**505.23**	**510.88**	**502.73**	**50.587**	**98529.**
Stddev	1.72	258.	1.19	.92	.89	.096	642.
%RSD	.33580	.51088	.23576	.17950	.17692	.18889	.65205
#1	512.78	50307.	504.39	511.52	503.36	50.654	98075.
#2	510.35	50672.	506.07	510.23	502.10	50.519	98983.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	Cts/S	Cts/S	ppb
Avg	**498.36**	**497.14**	**503.82**	**506.7**	zF *****	zF *****	**48491.**
Stddev	.34	.56	.79	.2	-----	-----	311.
%RSD	.06724	.11359	.15608	.0308	-----	-----	.64076
#1	498.59	497.54	504.38	506.9	z 1750.	z 1001.	48271.
#2	498.12	496.74	503.26	506.6	z 1749.	z 1012.	48711.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass
Value					500.0	500.0	
Range					-10.00%	-10.00%	

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	Cts/S	ppb	ppb	ppb	ppb
Avg	**25289.**	F **95990.**	zF *****	**504.59**	**507.30**	**103420.**	**497.47**
Stddev	231.	343.	-----	1.77	.08	796.	1.04
%RSD	.91176	.3572	-----	.35056	.01660	.77005	.20862
#1	25126.	95750.	z 130200.	505.84	507.36	102850.	498.21
#2	25452.	96230.	z 130300.	503.33	507.24	103980.	496.74
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value		500.0	500.0				
Range		10.00%	-10.00%				

Sample Name: CCV Acquired: 12/4/2007 19:44:07 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**497.46**	**506.65**	**503.93**	**524.56**	**501.19**	**502.05**	**502.20**
Stddev	.08	.35	.73	2.35	.65	1.73	.25
%RSD	.01634	.06939	.14515	.44758	.12906	.34467	.04894
#1	497.40	506.90	504.44	526.22	500.73	503.27	502.37
#2	497.52	506.40	503.41	522.90	501.65	500.82	502.02
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**510.96**	**496.68**	**508.34**	F **602.90**
Stddev	1.34	.70	.66	.20
%RSD	.26192	.14056	.12947	.03261
#1	511.90	496.18	508.81	602.77
#2	510.01	497.17	507.87	603.04
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value				500.00
Range				10.000%

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	**43108.**	**25334.**	**563650.**
Stddev	.	155.	369.
%RSD	.00034	.61282	.06539
#1	43108.	25444.	563910.
#2	43108.	25225.	563390.

Sample Name: CCB Acquired: 12/4/2007 19:47:36 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.26485**	**13.917**	**.89498**	**.77267**	**.18495**	**-.01182**	**15.049**
Stddev	.21243	17.195	.92190	.13035	.03455	.00500	4.904
%RSD	80.208	123.55	103.01	16.870	18.679	42.307	32.584
#1	-.11464	26.076	.24310	.68050	.16052	-.01536	18.516
#2	-.41506	1.7584	1.5469	.86484	.20938	-.00829	11.581
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	Cts/S	Cts/S	ppb
Avg	**-.04095**	**-.19245**	**.00644**	**.2170**	z *****	z *****	**26.372**
Stddev	.05378	.00411	.20482	.6418	-----	-----	8.703
%RSD	131.34	2.1373	3182.5	295.8	-----	-----	33.000
#1	-.00292	-.18955	.15127	.6708	z 652.8	z 708.8	32.526
#2	-.07898	-.19536	-.13839	-.2368	z 650.1	z 700.2	20.218
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	Cts/S	ppb	ppb	ppb	ppb
Avg	F **334.70**	F **19.58**	z *****	**.24021**	**.40331**	**105.89**	**-.13389**
Stddev	40.98	7.56	-----	.09406	.31454	.71	.14966
%RSD	12.244	38.59	-----	39.159	77.990	.66907	111.78
#1	305.72	24.92	z 306.7	.17369	.62573	105.39	-.23972
#2	363.67	14.24	z 285.2	.30672	.18090	106.39	-.02807
Check ?	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	250.00	3.000					
Low Limit	-250.00	-3.000					

Sample Name: CCB Acquired: 12/4/2007 19:47:36 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.39972	-.14636	-1.6665	-.68807	.20452	.10094	1.8625
Stddev	.12516	.21067	.4864	.95751	.23878	.00296	2.0457
%RSD	31.311	143.94	29.188	139.16	116.75	2.9283	109.83
#1	-.31122	.00260	-1.3226	-1.3651	.37336	.09885	3.3091
#2	-.48822	-.29533	-2.0105	-.01101	.03568	.10303	.41599
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	.13461	.00253	.13763	-.12048
Stddev	.09716	.42280	.11407	.02017
%RSD	72.182	16680.	82.881	16.739
#1	.06590	-.29643	.05697	-.13474
#2	.20331	.30150	.21829	-.10622
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				
Low Limit				

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	44825.	25416.	576010.
Stddev	95.	55.	1251.
%RSD	.21189	.21763	.21720
#1	44758.	25455.	575130.
#2	44893.	25376.	576900.

Sample Name: CCV Acquired: 12/4/2007 20:24:47 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**523.94**	**50336.**	**514.66**	**515.23**	**502.34**	**51.251**	**97562.**
Stddev	1.73	1500.	2.26	1.33	3.96	.034	2653.
%RSD	.32979	2.9793	.43853	.25900	.78844	.06681	2.7198
#1	522.72	49275.	513.06	514.29	499.54	51.227	95686.
#2	525.16	51396.	516.26	516.17	505.14	51.276	99439.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	Cts/S	Cts/S	ppb
Avg	**500.39**	**497.53**	**511.59**	**508.5**	zF *****	zF *****	**47650.**
Stddev	1.89	.59	1.19	1.2	-----	-----	1270.
%RSD	.37738	.11797	.23336	.2282	-----	-----	2.6652
#1	501.72	497.94	510.74	509.3	z 1753.	z 991.5	46752.
#2	499.05	497.11	512.43	507.7	z 1750.	z 990.5	48548.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass
Value					500.0	500.0	
Range					-10.00%	-10.00%	

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	Cts/S	ppb	ppb	ppb	ppb
Avg	**25478.**	F **94930.**	zF *****	**507.47**	**510.88**	**101560.**	**499.56**
Stddev	790.	3778.	-----	.48	1.36	2408.	.25
%RSD	3.0989	3.979	-----	.09551	.26576	2.3705	.05061
#1	24920.	92260.	z 131600.	507.13	511.84	99862.	499.74
#2	26037.	97600.	z 132900.	507.81	509.92	103270.	499.38
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value		500.0	500.0				
Range		10.00%	-10.00%				

Sample Name: CCV Acquired: 12/4/2007 20:24:47 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**499.15**	**513.59**	**511.55**	**533.73**	**503.66**	**507.89**	**506.58**
Stddev	.12	.50	.57	.79	1.89	.26	.52
%RSD	.02329	.09787	.11063	.14773	.37443	.05070	.10237
#1	499.24	513.23	511.15	533.17	504.99	507.70	506.95
#2	499.07	513.94	511.95	534.29	502.33	508.07	506.21
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**521.71**	**498.62**	**513.60**	F **610.09**
Stddev	1.29	.85	1.59	2.15
%RSD	.24652	.17118	.31004	.35242
#1	520.80	499.22	512.47	611.61
#2	522.62	498.02	514.73	608.57
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value				500.00
Range				10.000%

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	44009.	26010.	569680.
Stddev	105.	573.	848.
%RSD	.23882	2.2032	.14884
#1	43935.	26416.	570280.
#2	44083.	25605.	569080.

Sample Name: CCB Acquired: 12/4/2007 20:28:16 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.06630**	**-14.353**	**1.7135**	**-.80431**	**-.02464**	**-.01026**	**-16.192**
Stddev	.22287	11.374	2.6311	.07141	.00788	.00481	1.440
%RSD	336.15	79.240	153.55	8.8778	31.985	46.905	8.8956
#1	.22389	-22.396	-.14697	-.85480	-.01907	-.01366	-17.211
#2	-.09129	-6.3110	3.5739	-.75382	-.03021	-.00685	-15.174
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	Cts/S	Cts/S	ppb
Avg	**-.00425**	**-.15495**	**-.38186**	**-2.098**	z *****	z *****	**-1.8283**
Stddev	.06942	.01465	.24627	1.274	-----	-----	2.8238
%RSD	1633.4	9.4524	64.492	60.75	-----	-----	154.44
#1	.04484	-.16531	-.55600	-1.197	z 646.2	z 689.0	.16837
#2	-.05334	-.14459	-.20772	-2.999	z 651.8	z 683.9	-3.8250
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	Cts/S	ppb	ppb	ppb	ppb
Avg	**F 310.79**	**-1.913**	z *****	**.00056**	**.10585**	**109.78**	**-.17951**
Stddev	14.43	.303	-----	.00968	.13484	7.14	.24085
%RSD	4.6433	15.84	-----	1714.2	127.39	6.5035	134.17
#1	320.99	-1.699	z 259.3	-.00628	.01050	114.83	-.00920
#2	300.58	-2.127	z 257.5	.00741	.20119	104.73	-.34982
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	250.00						
Low Limit	-250.00						

Sample Name: CCB Acquired: 12/4/2007 20:28:16 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.16359**	**.65312**	**-.10420**	**-3.5467**	**-.05782**	**-.02171**	**.12133**
Stddev	1.0162	1.2510	1.4659	.2574	.43785	.00810	.28552
%RSD	621.20	191.55	1406.9	7.2568	757.22	37.306	235.32
#1	.88215	1.5377	-1.1407	-3.7287	.25178	-.01598	-.08056
#2	-.55498	-.23149	.93235	-3.3647	-.36743	-.02743	.32322
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**-.02025**	**-.33145**	**-.03467**	**-.33150**
Stddev	.02274	.51285	.15665	.01578
%RSD	112.30	154.73	451.89	4.7600
#1	-.00417	.03119	-.14543	-.32034
#2	-.03633	-.69409	.07610	-.34266
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				
Low Limit				

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	**45117.**	**25318.**	**580310.**
Stddev	121.	558.	6241.
%RSD	.26903	2.2054	1.0754
#1	45031.	24923.	575900.
#2	45203.	25713.	584730.

Sample Name: CCV Acquired: 12/4/2007 21:03:54 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**511.74**	**50147.**	**505.31**	**507.52**	**502.13**	**50.345**	**99355.**
Stddev	.68	1918.	10.03	9.49	.46	.043	3675.
%RSD	.13353	3.8238	1.9844	1.8701	.09149	.08482	3.6993
#1	512.23	48791.	512.40	514.23	502.45	50.376	96756.
#2	511.26	51503.	498.22	500.81	501.80	50.315	101950.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	Cts/S	Cts/S	ppb
Avg	**494.65**	**494.69**	**498.12**	**502.9**	zF *****	zF *****	**48759.**
Stddev	7.81	6.91	.31	4.4	-----	-----	1689.
%RSD	1.5794	1.3962	.06141	.8768	-----	-----	3.4641
#1	500.18	499.57	498.34	506.0	z 1756.	z 973.5	47565.
#2	489.13	489.81	497.90	499.8	z 1752.	z 972.5	49954.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass
Value					500.0	500.0	
Range					-10.00%	-10.00%	

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	Cts/S	ppb	ppb	ppb	ppb
Avg	**25769.**	F **96280.**	zF *****	**504.23**	**502.90**	**105270.**	**495.16**
Stddev	971.	3173.	-----	.78	8.84	3636.	7.32
%RSD	3.7675	3.295	-----	.15542	1.7580	3.4535	1.4791
#1	25082.	94030.	z 128000.	504.79	509.15	102700.	500.34
#2	26455.	98520.	z 130200.	503.68	496.65	107840.	489.98
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value		500.0	500.0				
Range		10.00%	-10.00%				

Sample Name: CCV Acquired: 12/4/2007 21:03:54 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**490.49**	**514.36**	**508.47**	**520.23**	**497.92**	**502.31**	**503.32**
Stddev	10.55	9.04	13.05	1.33	10.64	.63	6.67
%RSD	2.1505	1.7583	2.5659	.25483	2.1378	.12560	1.3259
#1	497.95	520.75	517.70	521.17	505.45	502.75	508.04
#2	483.03	507.96	499.24	519.29	490.39	501.86	498.60
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**508.66**	**491.64**	**506.76**	F **600.69**
Stddev	.35	10.49	.33	11.34
%RSD	.06818	2.1331	.06592	1.8885
#1	508.91	499.05	506.99	608.71
#2	508.42	484.22	506.52	592.67
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value				500.00
Range				10.000%

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	**44365.**	**25600.**	**579070.**
Stddev	489.	701.	362.
%RSD	1.1027	2.7384	.06259
#1	44019.	26096.	578810.
#2	44711.	25104.	579320.

Sample Name: CCB Acquired: 12/4/2007 21:07:23 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.10445**	**3.9482**	**.80955**	**-.78982**	**-.00898**	**-.02725**	**-11.897**
Stddev	.16514	23.877	.24905	.40778	.00209	.00468	3.105
%RSD	158.10	604.75	30.764	51.629	23.316	17.187	26.101
#1	-.01232	20.832	.63344	-.50148	-.01047	-.02394	-14.092
#2	.22123	-12.935	.98565	-1.0782	-.00750	-.03056	-9.7009
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	Cts/S	Cts/S	ppb
Avg	**-.04757**	**-.12038**	**-.15185**	**-1.355**	z *****	z *****	**1.5276**
Stddev	.00068	.10995	.12984	.320	-----	-----	4.8728
%RSD	1.4226	91.334	85.511	23.63	-----	-----	318.99
#1	-.04805	-.19813	-.06003	-1.129	z 643.0	z 668.2	4.9731
#2	-.04709	-.04264	-.24366	-1.582	z 646.7	z 676.0	-1.9180
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	Cts/S	ppb	ppb	ppb	ppb
Avg	F **272.08**	**2.558**	z *****	**.01878**	**.21381**	**107.92**	**-.20677**
Stddev	15.80	.962	-----	.00440	.01543	9.19	.14743
%RSD	5.8085	37.62	-----	23.411	7.2184	8.5140	71.301
#1	283.26	1.877	z 260.6	.01567	.20290	114.41	-.31102
#2	260.91	3.238	z 257.4	.02189	.22473	101.42	-.10252
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	250.00						
Low Limit	-250.00						

Sample Name: CCB Acquired: 12/4/2007 21:07:23 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.92680	.42790	.06963	-3.5375	-.20953	-.01430	-.07561
Stddev	.13597	1.3940	.63763	.2644	.02256	.01177	.42232
%RSD	14.671	325.78	915.68	7.4732	10.766	82.340	558.59
#1	1.0229	-.55782	-.38124	-3.7244	-.22548	-.02262	-.37423
#2	.83065	1.4136	.52050	-3.3506	-.19358	-.00597	.22302
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	.00558	.85140	.17566	-.32784
Stddev	.00765	1.1145	.10005	.10703
%RSD	137.18	130.90	56.958	32.647
#1	.01099	.06334	.10491	-.40352
#2	.00017	1.6395	.24641	-.25216
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				
Low Limit				

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	45429.	24526.	587880.
Stddev	68.	1771.	1666.
%RSD	.15064	7.2196	.28335
#1	45381.	25778.	586700.
#2	45477.	23274.	589060.

Sample Name: CCV Acquired: 12/4/2007 21:43:10 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**522.28**	**50759.**	**520.17**	**523.43**	**517.23**	**51.360**	**99621.**
Stddev	2.62	975.	1.51	.75	3.18	.296	1899.
%RSD	.50163	1.9205	.29105	.14366	.61434	.57730	1.9066
#1	524.13	50069.	519.09	523.96	519.48	51.570	98278.
#2	520.43	51448.	521.24	522.90	514.99	51.150	100960.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	Cts/S	Cts/S	ppb
Avg	**508.66**	**508.01**	**509.33**	**518.5**	zF *****	zF *****	**48786.**
Stddev	.50	.53	3.82	.0	-----	-----	930.
%RSD	.09911	.10524	.75029	.0028	-----	-----	1.9072
#1	509.02	507.64	512.03	518.5	z 1773.	z 968.3	48128.
#2	508.31	508.39	506.63	518.5	z 1773.	z 975.6	49444.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass
Value					500.0	500.0	
Range					-10.00%	-10.00%	

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	Cts/S	ppb	ppb	ppb	ppb
Avg	**26014.**	F **95490.**	zF *****	**513.81**	**516.61**	**105190.**	**509.23**
Stddev	467.	2703.	-----	1.65	.40	1708.	.46
%RSD	1.7942	2.831	-----	.32039	.07717	1.6232	.09081
#1	25684.	93570.	z 130300.	514.98	516.90	103980.	508.90
#2	26344.	97400.	z 131200.	512.65	516.33	106400.	509.56
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value		500.0	500.0				
Range		10.00%	-10.00%				

Sample Name: CCV Acquired: 12/4/2007 21:43:10 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**505.01**	**525.79**	**523.08**	**529.27**	**509.48**	**511.77**	**516.73**
Stddev	.58	1.12	2.77	2.84	1.16	2.08	3.62
%RSD	.11456	.21273	.53032	.53645	.22705	.40693	.70014
#1	504.60	526.59	521.12	531.28	510.30	510.30	514.17
#2	505.42	525.00	525.04	527.26	508.66	513.24	519.29
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**519.30**	**507.28**	**518.53**	F **617.93**
Stddev	3.40	3.55	2.40	.76
%RSD	.65416	.69892	.46246	.12346
#1	521.70	504.77	520.22	618.47
#2	516.90	509.79	516.83	617.39
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value				500.00
Range				10.000%

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	43770.	25724.	574560.
Stddev	79.	342.	729.
%RSD	.18027	1.3299	.12680
#1	43826.	25966.	574040.
#2	43714.	25482.	575070.

Sample Name: CCB Acquired: 12/4/2007 21:46:39 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca	Cd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.11375**	**.52664**	**.08063**	**-1.0280**	**.08125**	**-.00115**	**12.501**	**.09769**
Stddev	.27456	5.7061	.91491	.2923	.01150	.00690	.479	.06050
%RSD	241.37	1083.5	1134.7	28.433	14.153	599.30	3.8320	61.928
#1	-.30790	-3.5082	-.56631	-.82132	.08938	-.00603	12.162	.14047
#2	.08039	4.5615	.72757	-1.2347	.07312	.00373	12.840	.05491
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co	Cr	Cu2199	Cu2218	Cu3273	Fe	K	Mg2802
Units	ppb	ppb	ppb	Cts/S	Cts/S	ppb	ppb	ppb
Avg	**-.14802**	**-.20049**	**-2.082**	z *****	z *****	**10.944**	**224.82**	F **20.82**
Stddev	.12680	.01957	.607	-----	-----	5.384	27.08	2.60
%RSD	85.665	9.7625	29.18	-----	-----	49.195	12.045	12.49
#1	-.05836	-.21433	-1.652	z 641.8	z 665.1	14.751	243.96	22.66
#2	-.23768	-.18665	-2.511	z 640.6	z 664.4	7.1370	205.67	18.98
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit								3.000
Low Limit								-3.000

Elem	Mg2852	Mn	Mo	Na	Ni	Pb	Sb	Se
Units	Cts/S	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	z *****	**.07028**	**.22219**	**104.26**	**-.06695**	**.59440**	**.07911**	**.63259**
Stddev	-----	.00142	.20585	12.39	.36965	1.1102	.56778	.05175
%RSD	-----	2.0163	92.646	11.886	552.09	186.78	717.66	8.1809
#1	z 288.4	.07128	.36775	113.02	.19443	-.19063	.48059	.66918
#2	z 281.9	.06928	.07663	95.494	-.32834	1.3794	-.32236	.59600
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB Acquired: 12/4/2007 21:46:39 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si	Sn	Sr	Te	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-3.7399	-.66834	.08010	-.60776	.08139	.62212	.15621	-.29746
Stddev	.6189	.28973	.00217	.96285	.07912	.52234	.21441	.00892
%RSD	16.549	43.351	2.7128	158.43	97.209	83.962	137.25	3.0002
#1	-4.1775	-.46347	.07856	-1.2886	.02544	.25277	.30782	-.30377
#2	-3.3022	-.87320	.08163	.07308	.13733	.99147	.00460	-.29115
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	45260.	25315.	586950.
Stddev	7.	314.	3251.
%RSD	.01588	1.2397	.55379
#1	45255.	25093.	584650.
#2	45265.	25537.	589250.

Sample Name: CCV Acquired: 12/4/2007 22:26:07 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**521.23**	**49780.**	**513.09**	**517.30**	**510.18**	**51.324**	**97314.**
Stddev	2.23	1529.	.27	.09	2.94	.142	2700.
%RSD	.42693	3.0712	.05280	.01794	.57609	.27624	2.7747
#1	522.80	48699.	512.90	517.36	512.26	51.425	95404.
#2	519.65	50861.	513.28	517.23	508.10	51.224	99223.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	Cts/S	Cts/S	ppb
Avg	**506.39**	**505.40**	**508.85**	**513.8**	zF *****	zF *****	**47471.**
Stddev	.54	.48	2.67	.2	-----	-----	1345.
%RSD	.10652	.09522	.52380	.0407	-----	-----	2.8331
#1	506.77	505.06	510.73	513.6	z 1785.	z 962.9	46520.
#2	506.01	505.74	506.96	513.9	z 1783.	z 963.4	48422.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass
Value					500.0	500.0	
Range					-10.00%	-10.00%	

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	Cts/S	ppb	ppb	ppb	ppb
Avg	**25502.**	F **94310.**	zF *****	**516.66**	**515.80**	**105220.**	**507.43**
Stddev	729.	2176.	-----	2.65	.21	3130.	.16
%RSD	2.8597	2.307	-----	.51215	.04040	2.9743	.03133
#1	24986.	92770.	z 124000.	518.53	515.95	103010.	507.32
#2	26017.	95850.	z 125000.	514.79	515.65	107430.	507.54
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value		500.0	500.0				
Range		10.00%	-10.00%				

Sample Name: CCV Acquired: 12/4/2007 22:26:07 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**504.95**	**521.54**	**518.59**	**528.35**	**510.01**	**509.51**	**511.96**
Stddev	4.02	2.09	1.45	2.40	2.03	5.69	1.59
%RSD	.79588	.40032	.28018	.45382	.39880	1.1171	.31036
#1	507.79	520.07	519.61	530.04	511.45	513.53	510.84
#2	502.11	523.02	517.56	526.65	508.57	505.48	513.09
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**517.13**	**502.25**	**517.40**	F **614.17**
Stddev	1.69	1.78	2.78	.28
%RSD	.32711	.35380	.53643	.04534
#1	518.32	503.50	519.36	614.37
#2	515.93	500.99	515.43	613.98
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value				500.00
Range				10.000%

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	43914.	25088.	572130.
Stddev	10.	575.	1003.
%RSD	.02366	2.2914	.17533
#1	43921.	25495.	571420.
#2	43907.	24682.	572840.

Sample Name: CCB Acquired: 12/4/2007 22:29:37 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.10488**	**35.404**	**1.2472**	**-.90649**	**.51910**	**-.00020**	**26.229**
Stddev	.09434	5.624	1.5509	.22700	.07555	.00430	17.937
%RSD	89.950	15.884	124.35	25.042	14.553	2176.8	68.388
#1	.17159	31.428	2.3439	-1.0670	.57252	.00284	13.545
#2	.03817	39.381	.15057	-.74597	.46568	-.00324	38.912
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	Cts/S	Cts/S	ppb
Avg	**.11994**	**-.21121**	**.00474**	**-1.226**	z *****	z *****	**50.475**
Stddev	.03549	.15578	.01984	.632	-----	-----	19.519
%RSD	29.592	73.757	418.50	51.53	-----	-----	38.671
#1	.14504	-.10105	.01877	-.7796	z 648.7	z 659.2	36.673
#2	.09484	-.32136	-.00929	-1.673	z 647.2	z 663.8	64.277
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	Cts/S	ppb	ppb	ppb	ppb
Avg	F **297.41**	F **31.72**	z *****	**1.3445**	**.35693**	**41.575**	**-.23868**
Stddev	4.14	6.62	-----	.2657	.16553	.545	.34141
%RSD	1.3915	20.86	-----	19.759	46.376	1.3097	143.04
#1	300.34	27.04	z 294.3	1.5323	.47397	41.960	-.48009
#2	294.49	36.40	z 306.5	1.1566	.23988	41.190	.00274
Check ?	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	250.00	3.000					
Low Limit	-250.00	-3.000					

Sample Name: CCB Acquired: 12/4/2007 22:29:37 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.53004	.53701	1.6483	-2.7221	-.42484	.17503	-.49075
Stddev	.01160	.03905	4.0342	.0827	.02279	.01227	2.5363
%RSD	2.1876	7.2724	244.75	3.0393	5.3655	7.0099	516.82
#1	-.53824	.56463	4.5009	-2.7806	-.44096	.18371	-2.2842
#2	-.52184	.50940	-1.2043	-2.6636	-.40872	.16635	1.3027
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	.21977	1.0311	.29569	-.14876
Stddev	.08628	1.7972	.15568	.15694
%RSD	39.261	174.30	52.651	105.50
#1	.15876	2.3019	.40577	-.03779
#2	.28078	-.23974	.18560	-.25974
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				
Low Limit				

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	45157.	25727.	586300.
Stddev	817.	1394.	5790.
%RSD	1.8084	5.4188	.98762
#1	44579.	26712.	590390.
#2	45734.	24741.	582210.

Sample Name: CCV Acquired: 12/4/2007 23:08:50 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**527.62**	**51486.**	**520.39**	**522.94**	**512.36**	**52.132**	**99487.**
Stddev	1.45	611.	1.39	.77	1.46	.138	1136.
%RSD	.27411	1.1876	.26727	.14686	.28551	.26521	1.1416
#1	528.65	51053.	521.38	522.40	513.40	52.230	98684.
#2	526.60	51918.	519.41	523.48	511.33	52.034	100290.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	Cts/S	Cts/S	ppb
Avg	**512.72**	**510.13**	**519.68**	**521.8**	zF *****	zF *****	**48217.**
Stddev	.09	.84	2.03	.2	-----	-----	491.
%RSD	.01765	.16376	.38993	.0294	-----	-----	1.0174
#1	512.65	510.73	521.12	521.7	z 1795.	z 951.2	47870.
#2	512.78	509.54	518.25	521.9	z 1794.	z 949.7	48564.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass
Value					500.0	500.0	
Range					-10.00%	-10.00%	

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	Cts/S	ppb	ppb	ppb	ppb
Avg	**26310.**	F **95150.**	zF *****	**518.70**	**521.79**	**106850.**	**511.74**
Stddev	386.	527.	-----	1.56	.44	988.	.44
%RSD	1.4681	.5535	-----	.30115	.08447	.92474	.08565
#1	26037.	94780.	z 124200.	519.80	522.11	106150.	512.05
#2	26583.	95520.	z 124900.	517.59	521.48	107550.	511.43
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value		500.0	500.0				
Range		10.00%	-10.00%				

Sample Name: CCV Acquired: 12/4/2007 23:08:50 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**511.18**	**526.47**	**520.84**	**537.13**	**514.97**	**514.42**	**514.96**
Stddev	.42	.04	.83	2.01	1.23	7.77	.75
%RSD	.08303	.00709	.15853	.37428	.23787	1.5103	.14646
#1	510.88	526.44	520.26	538.55	514.10	519.91	514.43
#2	511.48	526.49	521.43	535.71	515.83	508.93	515.49
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**527.35**	**509.97**	**523.52**	F **622.11**
Stddev	.96	.80	.77	.03
%RSD	.18116	.15705	.14691	.00415
#1	528.03	510.54	524.06	622.13
#2	526.67	509.41	522.97	622.09
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value				500.00
Range				10.000%

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	43828.	24404.	571500.
Stddev	18.	160.	1207.
%RSD	.04022	.65369	.21114
#1	43840.	24517.	570640.
#2	43815.	24292.	572350.

Sample Name: CCB Acquired: 12/4/2007 23:12:19 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.07272**	**31.128**	**1.3533**	**-1.6887**	**.17482**	**.00440**	**23.303**
Stddev	.11584	2.017	.7998	.6900	.02571	.00283	3.873
%RSD	159.29	6.4801	59.097	40.860	14.708	64.286	16.621
#1	.15463	29.702	.78778	-1.2008	.15664	.00640	26.042
#2	-.00919	32.555	1.9188	-2.1766	.19300	.00240	20.564
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	Cts/S	Cts/S	ppb
Avg	**.09873**	**-.14109**	**.06229**	**-1.515**	z *****	z *****	**25.901**
Stddev	.07274	.08888	.00267	1.147	-----	-----	4.569
%RSD	73.674	62.999	4.2797	75.66	-----	-----	17.638
#1	.04730	-.07824	.06040	-.7046	z 651.3	z 652.6	29.131
#2	.15017	-.20394	.06417	-2.326	z 647.0	z 656.0	22.671
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	Cts/S	ppb	ppb	ppb	ppb
Avg	F **375.28**	F **27.53**	z *****	**.26288**	**.15856**	**84.642**	**.02897**
Stddev	27.28	3.91	-----	.02166	.05925	3.926	.03621
%RSD	7.2703	14.21	-----	8.2385	37.366	4.6384	125.00
#1	355.99	30.30	z 292.3	.24756	.11667	87.418	.00336
#2	394.57	24.76	z 287.9	.27819	.20046	81.866	.05457
Check ?	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	250.00	3.000					
Low Limit	-250.00	-3.000					

Sample Name: CCB Acquired: 12/4/2007 23:12:19 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.29314**	**.26836**	**.68638**	**-3.1607**	**-.08513**	**.09689**	**2.2048**
Stddev	.42376	.11383	1.1536	.3232	.67769	.00699	2.3175
%RSD	144.56	42.415	168.07	10.225	796.03	7.2167	105.11
#1	-.59279	.18788	-.12934	-3.3892	-.56434	.09194	3.8435
#2	.00650	.34885	1.5021	-2.9322	.39407	.10183	.56608
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**.14999**	**.62431**	**.30787**	**-.20217**
Stddev	.12064	.48369	.13619	.03971
%RSD	80.433	77.476	44.235	19.640
#1	.23529	.28229	.40417	-.23025
#2	.06468	.96633	.21157	-.17409
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				
Low Limit				

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	**45309.**	**24073.**	**585060.**
Stddev	141.	694.	512.
%RSD	.31126	2.8843	.08754
#1	45210.	23582.	584690.
#2	45409.	24564.	585420.

Sample Name: CCV Acquired: 12/4/2007 23:50:52 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**521.42**	**50897.**	**517.66**	**519.95**	**503.58**	**51.556**	**98327.**
Stddev	5.66	1289.	3.20	.29	8.11	.448	1915.
%RSD	1.0862	2.5329	.61727	.05482	1.6110	.86866	1.9471
#1	525.42	49986.	515.40	520.16	509.31	51.872	96973.
#2	517.41	51809.	519.92	519.75	497.84	51.239	99681.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	Cts/S	Cts/S	ppb
Avg	**509.92**	**506.66**	**513.20**	**517.2**	zF *****	zF *****	**47605.**
Stddev	.85	.49	5.39	1.7	-----	-----	986.
%RSD	.16580	.09657	1.0493	.3379	-----	-----	2.0707
#1	510.51	507.01	517.01	518.4	z 1775.	z 931.7	46908.
#2	509.32	506.31	509.40	516.0	z 1776.	z 933.9	48302.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass
Value					500.0	500.0	
Range					-10.00%	-10.00%	

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	Cts/S	ppb	ppb	ppb	ppb
Avg	**25983.**	F **94230.**	zF *****	**512.89**	**518.96**	**105260.**	**507.55**
Stddev	681.	244.	-----	5.61	.87	2180.	.50
%RSD	2.6219	.2594	-----	1.0946	.16838	2.0708	.09761
#1	25501.	94060.	z 120900.	516.86	519.58	103720.	507.90
#2	26464.	94400.	z 122100.	508.92	518.34	106800.	507.20
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value		500.0	500.0				
Range		10.00%	-10.00%				

Sample Name: CCV Acquired: 12/4/2007 23:50:52 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**507.66**	**522.59**	**517.45**	**527.82**	**511.86**	**507.24**	**512.77**
Stddev	.60	.41	3.69	5.62	2.42	5.86	1.52
%RSD	.11836	.07932	.71234	1.0648	.47341	1.1555	.29592
#1	507.23	522.30	520.06	531.80	513.58	511.38	513.84
#2	508.08	522.88	514.85	523.85	510.15	503.09	511.69
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**521.75**	**504.11**	**517.01**	F **618.39**
Stddev	5.55	.49	5.95	1.21
%RSD	1.0631	.09733	1.1506	.19543
#1	525.68	504.46	521.21	619.25
#2	517.83	503.76	512.80	617.54
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value				500.00
Range				10.000%

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	**43569.**	**24146.**	**570280.**
Stddev	74.	445.	7044.
%RSD	.16913	1.8413	1.2351
#1	43517.	24461.	565300.
#2	43621.	23832.	575260.

Sample Name: CCB Acquired: 12/4/2007 23:54:21 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.19125**	**-10.007**	**.31095**	**-.95050**	**.05446**	**-.00615**	**9.3180**
Stddev	.13879	4.776	1.9652	.52762	.03237	.00048	.3101
%RSD	72.568	47.721	632.00	55.509	59.446	7.8100	3.3282
#1	.09311	-13.384	1.7006	-.57742	.07735	-.00581	9.5373
#2	.28939	-6.6305	-1.0787	-1.3236	.03157	-.00649	9.0987
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	Cts/S	Cts/S	ppb
Avg	**.03487**	**-.29528**	**-.06329**	**-.7278**	z *****	z *****	**17.757**
Stddev	.02246	.16990	.00375	1.835	-----	-----	3.040
%RSD	64.402	57.541	5.9271	252.1	-----	-----	17.121
#1	.05075	-.17513	-.06594	.5696	z 656.8	z 651.9	15.607
#2	.01899	-.41542	-.06064	-2.025	z 657.3	z 643.8	19.907
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	Cts/S	ppb	ppb	ppb	ppb
Avg	F **290.59**	F **21.54**	z *****	**.40235**	**.29937**	**87.005**	**.10493**
Stddev	67.95	1.54	-----	.07200	.13636	36.491	.30461
%RSD	23.385	7.174	-----	17.894	45.550	41.941	290.30
#1	338.64	22.63	z 279.6	.35144	.20294	112.81	-.11046
#2	242.54	20.44	z 271.1	.45326	.39579	61.202	.32032
Check ?	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	250.00	3.000					
Low Limit	-250.00	-3.000					

Sample Name: CCB Acquired: 12/4/2007 23:54:21 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.38519**	**-.74497**	**-2.9881**	**-4.1558**	**-.28099**	**.07079**	**1.0981**
Stddev	.18445	.36939	1.7724	.2031	.06806	.01863	.0525
%RSD	47.886	49.585	59.314	4.8876	24.222	26.322	4.7839
#1	.25476	-1.0062	-1.7349	-4.2994	-.32912	.05762	1.0609
#2	.51561	-.48377	-4.2414	-4.0121	-.23286	.08397	1.1352
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**.17366**	**2.1056**	**.25991**	**-.27285**
Stddev	.14956	.5373	.14704	.01658
%RSD	86.123	25.517	56.574	6.0775
#1	.06790	2.4855	.36388	-.26113
#2	.27941	1.7257	.15594	-.28458
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				
Low Limit				

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	44831.	23849.	578250.
Stddev	5.	50.	239.
%RSD	.01100	.21016	.04129
#1	44834.	23814.	578080.
#2	44827.	23885.	578420.

Sample Name: ICSA Acquired: 12/5/2007 0:24:41 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F **-4.4715**	**497330.**	F **31.061**	**12.348**	**.40337**	**-.06181**
Stddev	.2770	3434.	2.813	.565	.00636	.00368
%RSD	6.1947	.69054	9.0560	4.5778	1.5757	5.9477
#1	-4.2757	499760.	33.050	12.748	.40786	-.06441
#2	-4.6674	494900.	29.072	11.948	.39888	-.05921
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit	3.0000		20.000			
Low Limit	-3.0000		-20.000			

Elem	Ca	Cd	Co	Cr	Cu2199	Cu2218
Units	ppb	ppb	ppb	ppb	ppb	Cts/S
Avg	**475660.**	F **6.9410**	**.11149**	**2.0255**	F **-22.44**	z *****
Stddev	1276.	.0245	.14457	.2071	.31	-----
%RSD	.26818	.35327	129.66	10.224	1.379	-----
#1	476560.	6.9236	.00927	2.1719	-22.22	z 1137.
#2	474760.	6.9583	.21372	1.8791	-22.66	z 1136.
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit		6.0000			3.000	
Low Limit		-6.0000			-3.000	

Elem	Cu3273	Fe	K	Mg2802	Mg2852	Mn
Units	Cts/S	ppb	ppb	ppb	Cts/S	ppb
Avg	z *****	**182970.**	**127.75**	F **232800.**	z *****	**-.21109**
Stddev	-----	689.	3.01	1925.	-----	.08064
%RSD	-----	.37633	2.3531	.8269	-----	38.200
#1	z 635.6	183460.	125.62	231400.	z 250700.	-.15407
#2	z 633.2	182480.	129.87	234100.	z 252900.	-.26811
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit				3.000		
Low Limit				-3.000		

Sample Name: ICSA Acquired: 12/5/2007 0:24:41 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mo	Na	Ni	Pb	Sb	Se
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.10710**	**73.955**	**-.02455**	**2.3762**	**-1.2151**	**-15.689**
Stddev	.28840	2.398	.16425	3.6320	.5461	3.315
%RSD	269.27	3.2428	668.96	152.85	44.942	21.127
#1	-.31104	72.259	.09159	-.19195	-1.6013	-13.345
#2	.09683	75.651	-.14069	4.9445	-.82898	-18.033
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Si	Sn	Sr	Te	Ti	Tl
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-7.7994**	**-1.5677**	**4.4252**	**38.513**	**3.2183**	**-2.1227**
Stddev	.9332	.6302	.0385	.533	.0384	.5012
%RSD	11.965	40.196	.87034	1.3831	1.1930	23.610
#1	-7.1395	-2.0133	4.4525	38.136	3.2455	-2.4771
#2	-8.4592	-1.1221	4.3980	38.889	3.1912	-1.7683
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	V	Zn
Units	ppb	ppb
Avg	**-.09596**	**1.6290**
Stddev	.10298	.0695
%RSD	107.32	4.2687
#1	-.02314	1.6782
#2	-.16878	1.5798
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Sample Name: ICSA Acquired: 12/5/2007 0:24:41 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	42467.	23920.	543850.
Stddev	54.	22.	4096.
%RSD	.12641	.09042	.75310
#1	42429.	23935.	540960.
#2	42505.	23904.	546750.

Sample Name: ICSAB Acquired: 12/5/2007 0:28:09 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**210.62**	**496570.**	F **139.09**	**931.75**	**509.72**	**507.15**
Stddev	.38	1185.	4.85	.14	.81	.14
%RSD	.18187	.23859	3.4874	.01500	.15863	.02717
#1	210.35	497410.	135.66	931.85	509.15	507.05
#2	210.89	495730.	142.52	931.65	510.29	507.25
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value			100.00			
Range			20.000%			

Elem	Ca	Cd	Co	Cr	Cu2199	Cu2218
Units	ppb	ppb	ppb	ppb	ppb	Cts/S
Avg	**469440.**	**947.34**	**466.61**	**493.64**	F **449.1**	zF *****
Stddev	3253.	.32	.52	.97	1.0	-----
%RSD	.69297	.03359	.11245	.19687	.2190	-----
#1	471740.	947.57	466.98	492.95	449.8	z 2130.
#2	467140.	947.12	466.24	494.33	448.4	z 2128.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail
Value					200.0	200.0
Range					20.00%	-20.00%

Elem	Cu3273	Fe	K	Mg2802	Mg2852	Mn
Units	Cts/S	ppb	ppb	ppb	Cts/S	ppb
Avg	zF *****	**181070.**	**5094.4**	F **245000.**	zF *****	**499.74**
Stddev	-----	473.	18.8	4308.	-----	.18
%RSD	-----	.26113	.36953	1.759	-----	.03684
#1	z 907.2	180740.	5081.1	248000.	z 256600.	499.60
#2	z 913.0	181400.	5107.7	241900.	z 259800.	499.87
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass
Value	200.0			200.0	200.0	
Range	-20.00%			20.00%	-20.00%	

Sample Name: ICSAB Acquired: 12/5/2007 0:28:09 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mo	Na	Ni	Pb	Sb	Se
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**915.46**	**10852.**	**939.40**	**49.005**	**607.26**	F **35.642**
Stddev	1.10	12.	.04	.357	4.51	.349
%RSD	.11991	.10604	.00442	.72780	.74274	.98043
#1	916.24	10844.	939.37	49.257	604.07	35.889
#2	914.68	10860.	939.43	48.753	610.45	35.395
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value						50.000
Range						-20.000%

Elem	Si	Sn	Sr	Te	Ti	Tl
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1195.0**	**895.13**	**513.14**	**232.93**	**934.30**	**90.343**
Stddev	2.3	.91	1.30	1.93	1.89	3.303
%RSD	.19649	.10201	.25396	.82777	.20238	3.6558
#1	1193.4	894.48	514.06	234.29	932.96	88.007
#2	1196.7	895.77	512.22	231.56	935.64	92.678
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	V	Zn
Units	ppb	ppb
Avg	**503.20**	**1074.1**
Stddev	.79	.5
%RSD	.15674	.04548
#1	502.64	1074.4
#2	503.75	1073.7
Check ?	Chk Pass	Chk Pass
Value		
Range		

Sample Name: ICSAB Acquired: 12/5/2007 0:28:09 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	42353.	23625.	541110.
Stddev	64.	178.	28.
%RSD	.15085	.75155	.00519
#1	42398.	23499.	541090.
#2	42308.	23750.	541130.

Sample Name: CCV Acquired: 12/5/2007 0:31:58 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**521.98**	**50732.**	**520.34**	**520.89**	**506.52**	**51.764**	**98111.**
Stddev	.85	775.	.14	.17	1.46	.062	1759.
%RSD	.16375	1.5281	.02774	.03269	.28888	.11950	1.7928
#1	521.38	50184.	520.44	521.01	505.48	51.720	96867.
#2	522.59	51280.	520.23	520.77	507.55	51.808	99355.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	Cts/S	Cts/S	ppb
Avg	**508.81**	**505.44**	**513.33**	**514.4**	zF *****	zF *****	**47500.**
Stddev	.20	.12	.38	2.2	-----	-----	902.
%RSD	.03941	.02277	.07372	.4306	-----	-----	1.8987
#1	508.67	505.36	513.06	512.8	z 1756.	z 914.7	46862.
#2	508.96	505.52	513.60	515.9	z 1756.	z 918.9	48138.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass
Value					500.0	500.0	
Range					-10.00%	-10.00%	

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	Cts/S	ppb	ppb	ppb	ppb
Avg	**25953.**	F **94160.**	zF *****	**512.75**	**517.80**	**105570.**	**506.73**
Stddev	365.	1602.	-----	.57	.95	2221.	.29
%RSD	1.4083	1.701	-----	.11125	.18432	2.1038	.05707
#1	25694.	93020.	z 119400.	512.34	517.13	104000.	506.53
#2	26211.	95290.	z 119600.	513.15	518.48	107140.	506.94
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value		500.0	500.0				
Range		10.00%	-10.00%				

Sample Name: CCV Acquired: 12/5/2007 0:31:58 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**505.03**	**520.82**	**520.08**	**527.12**	**511.05**	**509.84**	**511.33**
Stddev	.15	4.77	1.88	2.22	.85	5.32	2.46
%RSD	.02889	.91599	.36205	.42133	.16629	1.0436	.48124
#1	504.93	517.44	521.41	525.55	510.45	506.08	509.59
#2	505.14	524.19	518.75	528.69	511.65	513.61	513.07
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**522.19**	**503.62**	**516.90**	F **617.41**
Stddev	1.35	1.33	1.83	.07
%RSD	.25763	.26339	.35498	.01057
#1	521.24	504.56	515.60	617.46
#2	523.14	502.68	518.19	617.37
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value				500.00
Range				10.000%

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	**43023.**	**23823.**	**561280.**
Stddev	57.	339.	1624.
%RSD	.13303	1.4224	.28934
#1	43063.	24063.	562430.
#2	42982.	23584.	560130.

Sample Name: CCB Acquired: 12/5/2007 0:35:27 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca	Cd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.11777**	**41.795**	**-.06885**	**-.80771**	**.13693**	**.02559**	**45.772**	**.18467**
Stddev	.46893	14.034	.49970	.25026	.02279	.00690	9.001	.12004
%RSD	398.17	33.579	725.81	30.984	16.642	26.973	19.665	65.001
#1	.44936	31.871	-.42219	-.98467	.12081	.02071	52.136	.09979
#2	-.21381	51.719	.28449	-.63075	.15304	.03048	39.407	.26956
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co	Cr	Cu2199	Cu2218	Cu3273	Fe	K	Mg2802
Units	ppb	ppb	ppb	Cts/S	Cts/S	ppb	ppb	ppb
Avg	**-.08215**	**-.04480**	**-1.406**	z *****	z *****	**32.347**	**231.70**	F **37.98**
Stddev	.32923	.07835	.468	-----	-----	4.088	34.89	4.69
%RSD	400.76	174.90	33.30	-----	-----	12.638	15.057	12.36
#1	.15065	-.10020	-1.075	z 649.4	z 632.9	35.237	256.36	41.30
#2	-.31496	.01060	-1.737	z 651.3	z 638.4	29.456	207.03	34.66
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit								3.000
Low Limit								-3.000

Elem	Mg2852	Mn	Mo	Na	Ni	Pb	Sb	Se
Units	Cts/S	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	z *****	**.27054**	**.42032**	**77.772**	**-.03330**	**-.79920**	**.45429**	**.00235**
Stddev	-----	.02175	.12472	29.766	.60384	.14466	.46449	1.4556
%RSD	-----	8.0409	29.674	38.273	1813.4	18.100	102.25	61818.
#1	z 300.5	.25515	.33212	98.820	.39368	-.69691	.12584	1.0316
#2	z 291.7	.28592	.50851	56.725	-.46028	-.90148	.78274	-1.0269
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB Acquired: 12/5/2007 0:35:27 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si	Sn	Sr	Te	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-3.8408**	**.90219**	**.12983**	**.46861**	**.28555**	**1.0338**	**.21299**	**-.11145**
Stddev	.0623	.10392	.00718	1.0402	.07464	2.7924	.03590	.00748
%RSD	1.6209	11.519	5.5282	221.98	26.139	270.10	16.856	6.7081
#1	-3.7968	.82871	.12476	-.26694	.23277	3.0084	.18761	-.10616
#2	-3.8849	.97568	.13491	1.2042	.33833	-.94071	.23838	-.11673
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	44678.	23659.	575530.
Stddev	11.	39.	4159.
%RSD	.02563	.16400	.72260
#1	44670.	23631.	572590.
#2	44687.	23686.	578470.

Sample Name: CCV Acquired: 12/5/2007 1:12:29 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**526.44**	**51644.**	**526.31**	**526.07**	**510.43**	**52.152**	**99499.**
Stddev	.10	340.	2.01	1.53	.18	.040	582.
%RSD	.01982	.65908	.38132	.29132	.03444	.07600	.58520
#1	526.36	51403.	527.73	527.15	510.55	52.180	99087.
#2	526.51	51884.	524.89	524.98	510.30	52.124	99911.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	Cts/S	Cts/S	ppb
Avg	**515.13**	**512.07**	**518.33**	**520.3**	zF *****	zF *****	**48177.**
Stddev	1.87	1.20	.07	5.2	-----	-----	349.
%RSD	.36301	.23422	.01311	1.003	-----	-----	.72406
#1	516.45	512.92	518.28	524.0	z 1758.	z 909.9	47930.
#2	513.81	511.22	518.38	516.6	z 1759.	z 909.7	48424.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass
Value					500.0	500.0	
Range					-10.00%	-10.00%	

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	Cts/S	ppb	ppb	ppb	ppb
Avg	**26294.**	F **94970.**	zF *****	**517.34**	**524.35**	**107320.**	**514.19**
Stddev	170.	205.	-----	.59	1.38	1346.	1.85
%RSD	.64799	.2155	-----	.11343	.26351	1.2537	.36067
#1	26173.	94830.	z 117700.	516.93	525.33	106360.	515.50
#2	26414.	95120.	z 119000.	517.76	523.37	108270.	512.88
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value		500.0	500.0				
Range		10.00%	-10.00%				

Sample Name: CCV Acquired: 12/5/2007 1:12:29 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**511.94**	**527.16**	**522.41**	**531.87**	**517.88**	**515.34**	**519.88**
Stddev	.12	1.42	.32	1.56	1.92	2.86	1.15
%RSD	.02379	.26851	.06190	.29414	.37157	.55587	.22064
#1	512.03	526.16	522.64	530.77	519.24	517.36	520.70
#2	511.86	528.16	522.19	532.98	516.52	513.31	519.07
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**526.68**	**510.66**	**522.23**	F **624.36**
Stddev	.19	2.36	.09	2.31
%RSD	.03678	.46286	.01633	.37066
#1	526.55	512.33	522.17	626.00
#2	526.82	508.99	522.29	622.72
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value				500.00
Range				10.000%

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	**42454.**	**23166.**	**555190.**
Stddev	92.	7.	389.
%RSD	.21607	.03029	.06999
#1	42389.	23171.	554910.
#2	42519.	23161.	555460.

Sample Name: CCB Acquired: 12/5/2007 1:15:59 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.10849**	**-12.861**	**1.1862**	**-1.0165**	**-.06194**	**-.01397**	**-19.672**
Stddev	.29481	2.604	1.7268	.0895	.01001	.00394	.412
%RSD	271.73	20.249	145.57	8.8049	16.167	28.227	2.0931
#1	.31695	-14.703	-.03484	-.95318	-.06902	-.01118	-19.963
#2	-.09997	-11.020	2.4073	-1.0797	-.05486	-.01676	-19.381
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	Cts/S	Cts/S	ppb
Avg	**.02736**	**-.29972**	**-.38847**	**-2.543**	z *****	z *****	**-.04562**
Stddev	.04951	.02375	.14184	1.979	-----	-----	2.6607
%RSD	180.92	7.9257	36.513	77.83	-----	-----	5832.3
#1	-.00764	-.31652	-.48876	-1.143	z 654.7	z 641.3	-1.9270
#2	.06237	-.28292	-.28817	-3.942	z 656.9	z 642.1	1.8358
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	Cts/S	ppb	ppb	ppb	ppb
Avg	F **269.15**	F **-4.617**	z *****	**.01939**	**.30922**	**104.49**	**-.10036**
Stddev	13.10	1.494	-----	.02544	.03439	10.18	.24958
%RSD	4.8665	32.37	-----	131.17	11.123	9.7459	248.68
#1	259.89	-3.560	z 238.8	.03738	.33354	97.287	.07612
#2	278.41	-5.673	z 232.6	.00141	.28490	111.69	-.27684
Check ?	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	250.00	3.000					
Low Limit	-250.00	-3.000					

Sample Name: CCB Acquired: 12/5/2007 1:15:59 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.35690**	**-.28123**	**2.1609**	**-3.9303**	**-.31884**	**-.05457**	**-.97362**
Stddev	.82447	.68477	.5165	.2876	1.0057	.00597	.95068
%RSD	231.01	243.49	23.901	7.3181	315.41	10.948	97.643
#1	-.22609	-.76543	2.5261	-4.1336	.39227	-.05034	-.30139
#2	.93989	.20297	1.7957	-3.7269	-1.0299	-.05879	-1.6459
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**.07128**	**.17698**	**.10973**	**-.37573**
Stddev	.03686	1.2487	.11720	.04305
%RSD	51.712	705.57	106.81	11.458
#1	.04522	-.70601	.02685	-.40617
#2	.09734	1.0600	.19260	-.34528
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				
Low Limit				

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	**43877.**	**23011.**	**566180.**
Stddev	37.	62.	1444.
%RSD	.08387	.26932	.25502
#1	43903.	22968.	565160.
#2	43851.	23055.	567200.

Sample Name: CCV Acquired: 12/5/2007 1:53:29 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**531.70**	**51975.**	**527.70**	**523.86**	**514.90**	**53.283**	**100480.**
Stddev	4.93	776.	2.88	.62	5.47	.425	1496.
%RSD	.92686	1.4929	.54570	.11826	1.0632	.79800	1.4887
#1	528.21	51426.	525.67	524.30	511.03	52.982	99426.
#2	535.18	52524.	529.74	523.43	518.78	53.583	101540.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	Cts/S	Cts/S	ppb
Avg	**519.33**	**511.30**	**529.38**	**520.1**	zF *****	zF *****	**48636.**
Stddev	.60	.57	4.41	.4	-----	-----	802.
%RSD	.11597	.11142	.83383	.0736	-----	-----	1.6490
#1	518.90	511.70	526.26	520.3	z 1762.	z 912.5	48069.
#2	519.75	510.90	532.50	519.8	z 1758.	z 915.0	49203.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass
Value					500.0	500.0	
Range					-10.00%	-10.00%	

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	Cts/S	ppb	ppb	ppb	ppb
Avg	**26629.**	F **96140.**	zF *****	**525.85**	**530.40**	**107290.**	**515.81**
Stddev	319.	951.	-----	3.20	.43	1806.	.33
%RSD	1.1984	.9889	-----	.60841	.08101	1.6836	.06348
#1	26403.	95460.	z 116400.	523.59	530.10	106010.	515.58
#2	26854.	96810.	z 117400.	528.11	530.70	108570.	516.04
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value		500.0	500.0				
Range		10.00%	-10.00%				

Sample Name: CCV Acquired: 12/5/2007 1:53:29 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**517.30**	**526.97**	**520.40**	**538.90**	**524.39**	**516.26**	**517.54**
Stddev	.39	3.26	.27	3.89	.54	2.51	1.52
%RSD	.07517	.61828	.05170	.72168	.10381	.48605	.29277
#1	517.03	529.27	520.21	536.15	524.01	514.49	516.47
#2	517.58	524.66	520.59	541.65	524.77	518.03	518.61
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**539.03**	**508.98**	**528.29**	F **627.58**
Stddev	3.13	2.96	5.35	.39
%RSD	.58108	.58128	1.0119	.06280
#1	536.81	506.89	524.51	627.30
#2	541.24	511.08	532.07	627.86
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value				500.00
Range				10.000%

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	42312.	22695.	547420.
Stddev	14.	196.	4804.
%RSD	.03201	.86327	.87757
#1	42322.	22834.	550820.
#2	42303.	22556.	544020.

Sample Name: CCB Acquired: 12/5/2007 1:56:58 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca	Cd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.17108**	**18.005**	**.44040**	**-1.0018**	**-.04640**	**-.02663**	**-15.379**	**.11878**
Stddev	.10543	32.346	2.1627	.0553	.02202	.00824	6.437	.09329
%RSD	61.626	179.65	491.08	5.5162	47.470	30.938	41.853	78.539
#1	-.24562	-4.8668	1.9697	-.96273	-.03082	-.02080	-10.828	.18475
#2	-.09653	40.878	-1.0889	-1.0409	-.06197	-.03245	-19.930	.05282
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co	Cr	Cu2199	Cu2218	Cu3273	Fe	K	Mg2802
Units	ppb	ppb	ppb	Cts/S	Cts/S	ppb	ppb	ppb
Avg	**-.05224**	**-.32257**	**-1.144**	z *****	z *****	**4.7135**	**222.46**	**-1.752**
Stddev	.10546	.32903	.210	-----	-----	.5443	55.73	3.897
%RSD	201.88	102.00	18.39	-----	-----	11.548	25.050	222.5
#1	-.12680	-.55523	-.9957	z 665.1	z 641.5	5.0984	183.05	1.004
#2	.02233	-.08990	-1.293	z 663.5	z 632.8	4.3286	261.86	-4.507
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mg2852	Mn	Mo	Na	Ni	Pb	Sb	Se
Units	Cts/S	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	z *****	**-.03942**	**.25029**	**91.550**	**-.10641**	**-1.1882**	**.07347**	**-.89314**
Stddev	-----	.01482	.04494	1.259	.19458	.7520	1.3446	.35289
%RSD	-----	37.584	17.954	1.3756	182.85	63.291	1830.3	39.511
#1	z 247.8	-.04990	.28207	92.440	.03117	-1.7199	-.87731	-1.1427
#2	z 239.0	-.02894	.21852	90.659	-.24400	-.65643	1.0242	-.64360
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB Acquired: 12/5/2007 1:56:58 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si	Sn	Sr	Te	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-4.4826**	**-.61160**	**-.03851**	**.78505**	**.03935**	**1.6317**	**.04813**	**-.29728**
Stddev	.6703	.31917	.00146	3.2268	.01024	.4363	.26877	.08719
%RSD	14.952	52.186	3.7919	411.03	26.033	26.741	558.39	29.330
#1	-4.0086	-.38591	-.03747	-1.4966	.04660	1.9402	-.14192	-.35894
#2	-4.9565	-.83729	-.03954	3.0667	.03211	1.3231	.23819	-.23563
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	43449.	22388.	554080.
Stddev	117.	549.	3771.
%RSD	.26815	2.4535	.68067
#1	43531.	21999.	551410.
#2	43367.	22776.	556740.

Sample Name: CCV Acquired: 12/5/2007 2:34:12 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**537.69**	**52730.**	**527.46**	**525.55**	**515.25**	**53.958**	**101790.**
Stddev	3.21	3629.	3.71	.06	.89	.333	6996.
%RSD	.59629	6.8818	.70265	.01142	.17307	.61676	6.8732
#1	539.95	50164.	530.08	525.51	514.62	54.194	96839.
#2	535.42	55296.	524.84	525.59	515.88	53.723	106730.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	Cts/S	Cts/S	ppb
Avg	**520.68**	**512.96**	**536.74**	**523.6**	zF *****	zF *****	**49234.**
Stddev	.13	.80	3.04	4.3	-----	-----	3401.
%RSD	.02466	.15502	.56550	.8298	-----	-----	6.9078
#1	520.59	512.40	538.89	520.5	z 1751.	z 898.3	46829.
#2	520.77	513.52	534.60	526.7	z 1751.	z 903.7	51639.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass
Value					500.0	500.0	
Range					-10.00%	-10.00%	

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	Cts/S	ppb	ppb	ppb	ppb
Avg	**27052.**	F **99730.**	zF *****	**528.11**	**530.71**	**107220.**	**516.32**
Stddev	1860.	6367.	-----	3.40	1.75	6916.	.51
%RSD	6.8760	6.384	-----	.64312	.33018	6.4500	.09909
#1	25737.	95230.	z 113400.	530.52	529.47	102330.	515.96
#2	28367.	104200.	z 115900.	525.71	531.94	112110.	516.68
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value		500.0	500.0				
Range		10.00%	-10.00%				

Sample Name: CCV Acquired: 12/5/2007 2:34:12 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**518.90**	**525.04**	**517.98**	**544.69**	**523.37**	**520.26**	**521.84**
Stddev	.45	2.47	1.59	2.32	1.71	1.23	.41
%RSD	.08652	.47033	.30645	.42671	.32630	.23572	.07885
#1	518.58	526.79	516.85	546.33	524.58	521.13	521.55
#2	519.22	523.30	519.10	543.04	522.17	519.40	522.13
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**543.25**	**508.12**	**533.34**	F **629.27**
Stddev	3.98	2.82	4.09	.71
%RSD	.73344	.55471	.76694	.11358
#1	546.06	506.12	536.24	629.77
#2	540.43	510.11	530.45	628.76
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value				500.00
Range				10.000%

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	**41868.**	**21910.**	**537570.**
Stddev	59.	1184.	3306.
%RSD	.14181	5.4044	.61498
#1	41826.	22747.	535240.
#2	41910.	21073.	539910.

Sample Name: CCB Acquired: 12/5/2007 2:37:41 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca	Cd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.00490**	**12.116**	**2.0085**	**-1.7220**	**-.01489**	**-.01619**	**-7.8104**	**-.01893**
Stddev	.32805	4.107	1.5672	.4051	.01381	.00111	.8037	.10624
%RSD	6694.9	33.900	78.029	23.522	92.718	6.8573	10.290	561.36
#1	-.22707	9.2120	3.1167	-2.0084	-.02466	-.01540	-8.3787	.05620
#2	.23687	15.021	.90030	-1.4356	-.00513	-.01697	-7.2421	-.09405
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co	Cr	Cu2199	Cu2218	Cu3273	Fe	K	Mg2802
Units	ppb	ppb	ppb	Cts/S	Cts/S	ppb	ppb	ppb
Avg	**.05046**	**-.17299**	**-2.049**	z *****	z *****	**8.2379**	**236.65**	**1.625**
Stddev	.04671	.23639	.902	-----	-----	1.9609	66.39	.786
%RSD	92.562	136.65	44.00	-----	-----	23.804	28.055	48.38
#1	.08349	-.34014	-1.412	z 665.1	z 642.5	9.6245	283.60	2.181
#2	.01743	-.00584	-2.687	z 667.6	z 641.4	6.8513	189.71	1.069
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mg2852	Mn	Mo	Na	Ni	Pb	Sb	Se
Units	Cts/S	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	z *****	**.05243**	**.18813**	**97.094**	**-.21057**	**.29595**	**-.73233**	**-.34455**
Stddev	-----	.04386	.37324	3.497	.24554	1.1510	.41509	2.3724
%RSD	-----	83.645	198.39	3.6015	116.61	388.92	56.681	688.56
#1	z 249.7	.02142	.45206	99.566	-.38419	1.1098	-1.0258	-2.0221
#2	z 245.2	.08345	-.07579	94.621	-.03695	-.51793	-.43882	1.3330
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB Acquired: 12/5/2007 2:37:41 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si	Sn	Sr	Te	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-4.3102**	**-.27014**	**-.01428**	**-.55326**	**.12624**	**.76905**	**-.01835**	**-.24911**
Stddev	.2902	.13770	.02917	.37184	.06668	2.0181	.05978	.01091
%RSD	6.7333	50.974	204.30	67.208	52.818	262.41	325.68	4.3783
#1	-4.5154	-.36750	-.03490	-.81619	.07909	2.1961	-.06062	-.25683
#2	-4.1050	-.17277	.00635	-.29033	.17339	-.65796	.02391	-.24140
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	42796.	22013.	549000.
Stddev	118.	1157.	2185.
%RSD	.27601	5.2577	.39793
#1	42712.	22831.	547450.
#2	42879.	21194.	550540.

Sample Name: BLK 066 Acquired: 12/5/2007 3:11:24 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.25028**	**8.9101**	**-1.6472**	**-.77210**	**-.01088**	**-.02940**	**15.376**
Stddev	.18388	2.7477	1.3963	.05687	.02440	.00463	1.974
%RSD	73.470	30.838	84.764	7.3656	224.24	15.759	12.841
#1	-.38031	10.853	-.65993	-.81231	-.02813	-.03267	13.980
#2	-.12026	6.9671	-2.6345	-.73189	.00637	-.02612	16.772
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	Cts/S	Cts/S	ppb
Avg	**-.03243**	**-.62485**	**1.4777**	**-1.793**	z *****	z *****	**7.2638**
Stddev	.04982	.07778	.1998	1.023	-----	-----	3.0856
%RSD	153.63	12.448	13.524	57.04	-----	-----	42.479
#1	.00280	-.67984	1.6190	-2.516	z 635.8	z 612.5	5.0819
#2	-.06766	-.56985	1.3364	-1.070	z 639.5	z 614.1	9.4457
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	Cts/S	ppb	ppb	ppb	ppb
Avg	**64.677**	F **-6.643**	z *****	**.20456**	**.19777**	**-39.972**	**-.08449**
Stddev	50.805	.139	-----	.03340	.25622	2.882	.08095
%RSD	78.551	2.098	-----	16.329	129.55	7.2087	95.811
#1	28.753	-6.742	z 225.6	.18094	.01660	-42.010	-.02725
#2	100.60	-6.545	z 226.7	.22818	.37895	-37.935	-.14173
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		3.000					
Low Limit		-3.000					

Sample Name: BLK 066 Acquired: 12/5/2007 3:11:24 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.61898**	**1.8621**	**3.2655**	**1.7435**	F **30.099**	**-.01187**	**1.7435**
Stddev	.30200	.3868	.3932	.8432	.104	.00753	1.0852
%RSD	48.789	20.775	12.042	48.365	.34595	63.413	62.239
#1	-.83253	1.5885	2.9875	1.1472	30.025	-.01720	.97621
#2	-.40544	2.1356	3.5436	2.3397	30.173	-.00655	2.5109
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit					20.000		
Low Limit					-20.000		

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**2.3614**	**-3.1254**	**.34360**	**3.5055**
Stddev	.0489	.8515	.09245	.0338
%RSD	2.0718	27.243	26.906	.96358
#1	2.3960	-2.5234	.40898	3.5294
#2	2.3268	-3.7275	.27823	3.4816
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				
Low Limit				

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	40992.	21751.	533360.
Stddev	21.	555.	200.
%RSD	.05035	2.5503	.03749
#1	40977.	22143.	533500.
#2	41006.	21358.	533220.

Sample Name: CCV Acquired: 12/5/2007 3:14:46 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**541.34**	**53187.**	**529.65**	**523.92**	**516.09**	**54.788**	**103300.**
Stddev	2.73	547.	.16	.44	1.37	.133	970.
%RSD	.50400	1.0286	.02947	.08329	.26582	.24250	.93945
#1	543.27	52800.	529.54	523.61	517.06	54.882	102620.
#2	539.41	53574.	529.77	524.22	515.12	54.694	103990.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	Cts/S	Cts/S	ppb
Avg	**523.78**	**512.98**	**544.01**	**526.7**	zF *****	zF *****	**50006.**
Stddev	.30	.59	1.48	1.7	-----	-----	437.
%RSD	.05716	.11516	.27217	.3251	-----	-----	.87356
#1	523.56	513.40	545.06	525.5	z 1757.	z 906.8	49697.
#2	523.99	512.56	542.96	528.0	z 1751.	z 906.3	50315.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass
Value					500.0	500.0	
Range					-10.00%	-10.00%	

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	Cts/S	ppb	ppb	ppb	ppb
Avg	**27307.**	F **99530.**	zF *****	**533.07**	**534.41**	**108180.**	**517.90**
Stddev	223.	1322.	-----	2.60	.81	1313.	1.19
%RSD	.81547	1.328	-----	.48717	.15156	1.2139	.22977
#1	27149.	98590.	z 115400.	534.91	534.98	107250.	518.74
#2	27464.	100500.	z 114900.	531.24	533.83	109110.	517.05
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value		500.0	500.0				
Range		10.00%	-10.00%				

Sample Name: CCV Acquired: 12/5/2007 3:14:46 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**521.72**	**527.00**	**520.21**	**547.89**	**528.40**	**527.24**	**522.69**
Stddev	.94	.54	2.41	3.20	.61	3.43	.20
%RSD	.18104	.10333	.46417	.58444	.11496	.65125	.03883
#1	522.39	527.39	518.50	550.16	527.97	529.66	522.83
#2	521.05	526.62	521.92	545.63	528.83	524.81	522.55
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	F **550.27**	**504.41**	**536.26**	F **631.79**
Stddev	1.62	1.54	2.82	.26
%RSD	.29475	.30483	.52630	.04099
#1	551.41	503.33	538.25	631.61
#2	549.12	505.50	534.26	631.97
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Fail
Value	500.00			500.00
Range	10.000%			10.000%

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	41756.	21737.	533450.
Stddev	35.	264.	2267.
%RSD	.08282	1.2147	.42501
#1	41781.	21924.	531840.
#2	41732.	21551.	535050.

Sample Name: CCB Acquired: 12/5/2007 3:18:16 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.19127**	**-.10351**	**.92467**	**-1.6441**	**.07444**	**-.01499**	**5.5900**
Stddev	.20776	13.294	2.1393	.2888	.03229	.00468	1.0152
%RSD	108.62	12844.	231.36	17.565	43.385	31.250	18.160
#1	-.33818	-9.5040	-.58803	-1.8484	.09727	-.01830	4.8722
#2	-.04436	9.2970	2.4374	-1.4399	.05160	-.01168	6.3079
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	Cts/S	Cts/S	ppb
Avg	**.09347**	**.00700**	**-.20575**	**.2024**	z *****	z *****	**13.296**
Stddev	.16493	.23332	.00102	.2559	-----	-----	1.615
%RSD	176.44	3331.9	.49442	126.4	-----	-----	12.150
#1	.21010	-.15798	-.20647	.0215	z 663.7	z 635.8	14.438
#2	-.02315	.17199	-.20503	.3834	z 662.5	z 636.7	12.153
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	Cts/S	ppb	ppb	ppb	ppb
Avg	F **265.11**	F **16.24**	z *****	**.15467**	**.22252**	**126.48**	**-.13205**
Stddev	35.19	1.49	-----	.04821	.08960	.78	.22888
%RSD	13.273	9.154	-----	31.172	40.266	.61594	173.33
#1	240.23	17.29	z 265.1	.18877	.15916	127.03	.02979
#2	289.99	15.19	z 261.3	.12058	.28588	125.93	-.29389
Check ?	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	250.00	3.000					
Low Limit	-250.00	-3.000					

Sample Name: CCB Acquired: 12/5/2007 3:18:16 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.01267**	**.65649**	**-.09559**	**-4.1246**	**-.12720**	**.08852**	**1.9205**
Stddev	.27497	.10078	4.1806	.2460	.65081	.03138	.2149
%RSD	2169.9	15.351	4373.7	5.9633	511.64	35.451	11.190
#1	.20710	.72775	-3.0517	-4.2986	.33299	.11070	1.7685
#2	-.18176	.58523	2.8606	-3.9507	-.58739	.06633	2.0724
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**.23460**	**2.5052**	**.44501**	**-.25240**
Stddev	.01139	.0978	.17513	.16974
%RSD	4.8553	3.9055	39.355	67.250
#1	.22655	2.5744	.56884	-.13238
#2	.24266	2.4360	.32117	-.37242
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				
Low Limit				

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	**42752.**	**22006.**	**544440.**
Stddev	8.	492.	2084.
%RSD	.01791	2.2352	.38269
#1	42757.	21658.	545910.
#2	42746.	22354.	542960.

Sample Name: BKS 066 Acquired: 12/5/2007 3:21:37 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**106.81**	**10189.**	**101.62**	**971.28**	**1054.4**	**52.886**	**10189.**
Stddev	.77	290.	1.17	1.78	1.4	.148	300.
%RSD	.71837	2.8474	1.1506	.18335	.12960	.28069	2.9458
#1	107.35	9983.4	100.79	970.02	1055.3	52.991	9977.0
#2	106.27	10394.	102.44	972.54	1053.4	52.781	10401.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	Cts/S	Cts/S	ppb
Avg	**106.52**	**516.24**	**542.68**	F **515.9**	zF *****	zF *****	**9921.7**
Stddev	.02	.65	2.27	3.2	-----	-----	302.0
%RSD	.02068	.12573	.41871	.6240	-----	-----	3.0436
#1	106.51	516.70	544.28	513.6	z 2802.	z 881.3	9708.1
#2	106.54	515.78	541.07	518.2	z 2814.	z 883.9	10135.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Pass
Value				100.0	100.0	100.0	
Range				20.00%	-20.00%	-20.00%	

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	Cts/S	ppb	ppb	ppb	ppb
Avg	**10581.**	F **9729.**	zF *****	**1073.6**	**535.18**	**10739.**	**531.61**
Stddev	264.	267.	-----	1.4	.35	282.	.10
%RSD	2.4982	2.745	-----	.13310	.06557	2.6244	.01813
#1	10394.	9540.	z 12440.	1074.6	535.43	10540.	531.67
#2	10768.	9917.	z 12380.	1072.5	534.93	10938.	531.54
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value		100.0	100.0				
Range		20.00%	-20.00%				

Sample Name: BKS 066 Acquired: 12/5/2007 3:21:37 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1044.4**	**98.749**	**99.789**	**8925.1**	**555.11**	F **1044.9**	**386.57**
Stddev	.3	.510	5.230	37.7	.69	.9	.97
%RSD	.03171	.51662	5.2408	.42198	.12365	.08937	.25086
#1	1044.2	98.388	103.49	8951.7	555.59	1044.2	385.88
#2	1044.7	99.109	96.091	8898.4	554.62	1045.6	387.25
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value						500.00	
Range						20.000%	

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**2124.5**	**100.86**	**540.34**	**1036.6**
Stddev	11.0	.39	1.01	.0
%RSD	.51919	.38761	.18762	.00272
#1	2132.3	100.58	541.06	1036.6
#2	2116.7	101.14	539.63	1036.6
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				
Range				

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	41663.	22079.	538550.
Stddev	131.	711.	3175.
%RSD	.31542	3.2184	.58947
#1	41570.	22582.	536310.
#2	41756.	21577.	540800.

Sample Name: S 711009-021-021-1/1 Acquired: 12/5/2007 3:25:07 Type: Unk
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: . Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**7.6447**	**45996.**	**31.246**	**27.436**	**55.714**	^ *****	**1815.0**
Stddev	.0816	114.	.050	1.196	.380	-----	5.5
%RSD	1.0672	.24782	.16160	4.3575	.68255	-----	.30322
#1	7.5870	45915.	31.210	28.281	55.983	^ -----	1818.8
#2	7.7023	46077.	31.282	26.590	55.445	^ -----	1811.1

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	Cts/S	Cts/S	ppb
Avg	**4.9222**	**35.899**	**392.55**	**173.3**	z *****	z *****	**128580.**
Stddev	.1130	.432	1.69	1.5	-----	-----	516.
%RSD	2.2950	1.2030	.43001	.8478	-----	-----	.40107
#1	4.8424	36.204	393.74	174.4	z 1194.	z 729.7	128950.
#2	5.0021	35.594	391.36	172.3	z 1188.	z 725.5	128220.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	Cts/S	ppb	ppb	ppb	ppb
Avg	**1210.6**	**1354.**	z *****	**4404.9**	**1.0203**	**144.49**	**118.28**
Stddev	19.4	.	-----	20.0	.2546	12.60	.41
%RSD	1.6016	.0210	-----	.45436	24.955	8.7184	.34635
#1	1224.3	1353.	z 2005.	4419.0	1.2004	153.40	118.57
#2	1196.9	1354.	z 2019.	4390.7	.84027	135.58	117.99

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**19.270**	**-1.8099**	**-14.840**	**824.51**	**-.26644**	**41.724**	**35.517**
Stddev	.657	.2602	.140	7.81	.58650	.331	2.125
%RSD	3.4084	14.378	.94292	.94714	220.13	.79242	5.9825
#1	19.734	-1.6259	-14.742	830.03	-.68116	41.958	34.014
#2	18.805	-1.9939	-14.939	818.99	.14828	41.490	37.019

Sample Name: S 711009-021-021-1/1 Acquired: 12/5/2007 3:25:07 Type: Unk
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**6781.2**	**4.3996**	**354.55**	**79.117**
Stddev	110.8	1.2122	2.01	.042
%RSD	1.6341	27.551	.56800	.05285
#1	6859.6	5.2568	355.97	79.088
#2	6702.9	3.5425	353.13	79.147

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	43606.	22727.	560420.
Stddev	22.	34.	1283.
%RSD	.05069	.15153	.22894
#1	43590.	22751.	559520.
#2	43622.	22702.	561330.

Sample Name: SP711009-021-021-1/1 Acquired: 12/5/2007 3:28:35 Type: Unk
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**17.324**	**59951.**	**40.690**	**106.35**	**147.32**	**1.9921**	**2683.2**
Stddev	.444	833.	2.578	.72	4.52	.1091	30.2
%RSD	2.5613	1.3890	6.3368	.67590	3.0701	5.4785	1.1249
#1	17.638	59362.	38.866	106.86	150.52	2.0693	2661.9
#2	17.010	60540.	42.513	105.84	144.12	1.9149	2704.6

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	Cts/S	Cts/S	ppb
Avg	**12.981**	**76.379**	**409.80**	**210.3**	z *****	z *****	**124350.**
Stddev	.073	.065	12.07	1.0	-----	-----	1300.
%RSD	.56180	.08535	2.9453	.4587	-----	-----	1.0450
#1	13.032	76.425	418.33	211.0	z 1273.	z 746.3	123430.
#2	12.929	76.333	401.26	209.6	z 1269.	z 744.7	125270.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	Cts/S	ppb	ppb	ppb	ppb
Avg	**2077.8**	**2269.**	z *****	**4309.0**	**39.777**	**1166.1**	**178.77**
Stddev	37.5	25.	-----	105.1	.030	7.5	.39
%RSD	1.8059	1.091	-----	2.4396	.07552	.64635	.21899
#1	2104.4	2251.	z 3210.	4383.3	39.756	1160.8	179.05
#2	2051.3	2286.	z 3199.	4234.7	39.798	1171.5	178.50

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**106.39**	**5.7248**	**-6.9351**	**1052.3**	**42.134**	**134.57**	**63.441**
Stddev	.25	1.0267	.8864	29.4	.275	4.07	.680
%RSD	.23366	17.935	12.781	2.7913	.65220	3.0231	1.0711
#1	106.56	6.4509	-7.5619	1073.0	41.939	137.44	63.921
#2	106.21	4.9988	-6.3084	1031.5	42.328	131.69	62.960

Sample Name: SP711009-021-021-1/1 Acquired: 12/5/2007 3:28:35 Type: Unk
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**6543.1**	**12.952**	**375.97**	**167.45**
Stddev	145.5	1.665	11.05	.25
%RSD	2.2231	12.856	2.9386	.14815
#1	6645.9	11.774	383.79	167.62
#2	6440.2	14.129	368.16	167.27

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	43286.	22547.	556360.
Stddev	121.	297.	1657.
%RSD	.28067	1.3159	.29774
#1	43371.	22757.	555190.
#2	43200.	22337.	557530.

Sample Name: SD711009-021-021-1/1 Acquired: 12/5/2007 3:32:02 Type: Unk
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**18.467**	**67663.**	**41.684**	**117.82**	**163.22**	^ *****	**2974.7**
Stddev	.332	672.	2.028	.43	.80	-----	24.8
%RSD	1.7971	.99285	4.8647	.36274	.48806	-----	.83535
#1	18.232	68138.	40.250	117.51	162.65	^ -----	2992.3
#2	18.702	67188.	43.118	118.12	163.78	^ -----	2957.1

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	Cts/S	Cts/S	ppb
Avg	**15.661**	**90.169**	**472.91**	**246.6**	z *****	z *****	**140320.**
Stddev	.011	.208	2.25	.7	-----	-----	1340.
%RSD	.06728	.23021	.47534	.2890	-----	-----	.95506
#1	15.654	90.316	471.32	246.1	z 1355.	z 752.7	141270.
#2	15.669	90.023	474.50	247.1	z 1356.	z 753.2	139370.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	Cts/S	ppb	ppb	ppb	ppb
Avg	**2401.1**	**2544.**	z *****	**4727.8**	**45.590**	**1217.5**	**209.98**
Stddev	12.3	22.	-----	9.6	.050	18.1	.40
%RSD	.51098	.8700	-----	.20331	.11072	1.4863	.19137
#1	2409.7	2560.	z 3483.	4721.0	45.554	1230.3	210.26
#2	2392.4	2529.	z 3495.	4734.6	45.626	1204.7	209.69

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**122.73**	**3.7679**	**-7.0211**	**1079.2**	**48.623**	**149.76**	**71.797**
Stddev	1.09	.6475	4.7452	3.9	.214	.67	1.380
%RSD	.88468	17.185	67.585	.36105	.43941	.44588	1.9226
#1	123.50	3.3100	-10.376	1076.4	48.472	149.29	72.773
#2	121.96	4.2258	-3.6657	1081.9	48.774	150.23	70.821

Sample Name: SD711009-021-021-1/1 Acquired: 12/5/2007 3:32:02 Type: Unk
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**7551.1**	**14.855**	**430.55**	**197.20**
Stddev	72.0	1.212	1.58	.41
%RSD	.95369	8.1622	.36802	.20897
#1	7500.2	13.997	429.43	196.91
#2	7602.0	15.712	431.67	197.49

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	43012.	22129.	555400.
Stddev	82.	247.	1606.
%RSD	.19051	1.1142	.28915
#1	43070.	21955.	556540.
#2	42955.	22304.	554270.

Sample Name: PS711009-021-021-1/1 Acquired: 12/5/2007 3:35:28 Type: Unk
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**54.463**	**47698.**	**119.17**	**102.02**	**77.781**	**8.2988**	**7321.5**
Stddev	.782	317.	1.86	.47	.872	.0951	38.4
%RSD	1.4358	.66397	1.5599	.45664	1.1217	1.1456	.52465
#1	55.016	47922.	117.85	102.35	78.398	8.3660	7348.7
#2	53.910	47474.	120.48	101.69	77.164	8.2316	7294.3

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	Cts/S	Cts/S	ppb
Avg	**27.431**	**68.248**	**412.30**	**200.3**	z *****	z *****	**129380.**
Stddev	.090	.147	3.67	2.8	-----	-----	673.
%RSD	.32915	.21514	.88959	1.375	-----	-----	.51998
#1	27.495	68.144	414.90	202.2	z 2009.	z 733.3	129860.
#2	27.367	68.352	409.71	198.3	z 2010.	z 735.0	128900.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	Cts/S	ppb	ppb	ppb	ppb
Avg	**6907.4**	**6606.**	z *****	**4409.1**	**34.955**	**6034.0**	**161.31**
Stddev	27.4	38.	-----	69.6	.073	52.1	.27
%RSD	.39598	.5820	-----	1.5779	.20978	.86392	.16665
#1	6888.0	6633.	z 8774.	4458.3	34.903	6070.9	161.50
#2	6926.7	6579.	z 8723.	4359.9	35.006	5997.1	161.12

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**110.29**	**89.867**	**64.187**	**6245.2**	**112.59**	**64.029**	**561.68**
Stddev	.02	1.526	3.006	55.1	.26	.673	1.14
%RSD	.01890	1.6985	4.6834	.88175	.22902	1.0505	.20318
#1	110.30	90.946	66.312	6284.1	112.77	64.504	562.49
#2	110.27	88.788	62.061	6206.2	112.40	63.553	560.87

Sample Name: PS711009-021-021-1/1 Acquired: 12/5/2007 3:35:28 Type: Unk
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**6788.0**	**115.20**	**372.38**	**168.71**
Stddev	99.6	.36	3.60	.10
%RSD	1.4666	.31027	.96713	.05635
#1	6858.4	114.95	374.92	168.64
#2	6717.6	115.45	369.83	168.78

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	42664.	22205.	551680.
Stddev	161.	12.	4965.
%RSD	.37629	.05359	.89993
#1	42551.	22197.	548170.
#2	42778.	22213.	555190.

Sample Name: SE711009-021-021-1/1 Acquired: 12/5/2007 3:38:53 Type: Unk
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca	Cd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.3906**	**9725.9**	**7.9608**	**4.5944**	**11.190**	**-.62486**	**358.04**	**.99357**
Stddev	.2803	105.2	1.2806	.1089	.062	.00420	1.18	.02186
%RSD	20.155	1.0814	16.086	2.3709	.55429	.67179	.33057	2.2002
#1	1.1924	9800.3	8.8663	4.6714	11.234	-.62189	357.21	1.0090
#2	1.5888	9651.5	7.0553	4.5174	11.146	-.62783	358.88	.97811

Elem	Co	Cr	Cu2199	Cu2218	Cu3273	Fe	K	Mg2802
Units	ppb	ppb	ppb	Cts/S	Cts/S	ppb	ppb	ppb
Avg	**6.9914**	**82.161**	**36.66**	z *****	z *****	**27196.**	**260.87**	**278.5**
Stddev	.0381	.088	.52	-----	-----	219.	17.92	2.2
%RSD	.54470	.10765	1.431	-----	-----	.80693	6.8678	.8069
#1	7.0183	82.223	37.03	z 776.2	z 652.3	27351.	248.20	280.1
#2	6.9645	82.098	36.29	z 775.6	z 653.6	27040.	273.54	276.9

Elem	Mg2852	Mn	Mo	Na	Ni	Pb	Sb	Se
Units	Cts/S	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	z *****	**921.97**	**.14026**	**-37.768**	**24.410**	**3.3899**	**.12366**	**-3.9134**
Stddev	-----	2.94	.21201	13.427	.162	.2077	.10925	1.2553
%RSD	-----	.31876	151.16	35.552	.66415	6.1270	88.346	32.076
#1	z 598.1	924.05	-.00965	-28.273	24.524	3.5368	.20091	-3.0258
#2	z 596.0	919.90	.29017	-47.262	24.295	3.2430	.04641	-4.8010

Elem	Si	Sn	Sr	Te	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**177.80**	**-.66857**	**8.3814**	**7.5515**	**1436.1**	**.90306**	**72.855**	**16.763**
Stddev	2.18	.03277	.0518	1.3599	1.5	.34356	.401	.044
%RSD	1.2251	4.9016	.61839	18.008	.10775	38.044	.55067	.25965
#1	179.34	-.64540	8.4180	8.5131	1437.2	.66013	73.138	16.794
#2	176.26	-.69174	8.3447	6.5899	1435.0	1.1460	72.571	16.732

Sample Name: SE711009-021-021-1/1 Acquired: 12/5/2007 3:38:53 Type: Unk
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	42844.	21917.	548720.
Stddev	8.	8.	3323.
%RSD	.01936	.03710	.60559
#1	42838.	21923.	546370.
#2	42850.	21911.	551070.

Sample Name: S 711009-022-022-1/1 Acquired: 12/5/2007 3:42:11 Type: Unk
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**14.292**	**44597.**	**28.149**	**37.310**	**249.40**	**.47778**	**4070.1**
Stddev	.072	304.	1.367	.358	1.25	.05004	43.0
%RSD	.50452	.68086	4.8562	.95841	.50042	10.472	1.0562
#1	14.343	44812.	29.116	37.563	250.28	.51316	4100.5
#2	14.241	44383.	27.183	37.057	248.51	.44240	4039.7

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	Cts/S	Cts/S	ppb
Avg	**4.5715**	**126.99**	**356.55**	**203.9**	z *****	z *****	**117140.**
Stddev	.0177	.28	.84	.4	-----	-----	1401.
%RSD	.38677	.22060	.23637	.2042	-----	-----	1.1963
#1	4.5840	126.79	357.15	203.6	z 1222.	z 733.3	118130.
#2	4.5590	127.18	355.95	204.2	z 1223.	z 729.4	116150.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	Cts/S	ppb	ppb	ppb	ppb
Avg	**1903.1**	**3276.**	z *****	**7317.7**	**-.21682**	**103.77**	**407.99**
Stddev	4.5	29.	-----	13.7	.12401	17.15	.98
%RSD	.23415	.8778	-----	.18683	57.194	16.524	.24008
#1	1900.0	3297.	z 4443.	7327.4	-.12913	91.647	407.30
#2	1906.3	3256.	z 4471.	7308.1	-.30450	115.90	408.68

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**5.2437**	**-.81959**	**-19.678**	**755.07**	**-.48775**	**56.027**	**30.826**
Stddev	.2681	.43887	.750	2.56	.24972	.219	1.314
%RSD	5.1126	53.547	3.8113	.33932	51.198	.39174	4.2626
#1	5.0541	-.50927	-20.208	756.88	-.31117	56.182	29.897
#2	5.4333	-1.1299	-19.148	753.26	-.66433	55.871	31.755

Sample Name: S 711009-022-022-1/1 Acquired: 12/5/2007 3:42:11 Type: Unk
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**8061.7**	**4.8955**	**317.66**	**135.22**
Stddev	4.2	.4408	1.01	.38
%RSD	.05208	9.0046	.31907	.27886
#1	8064.6	5.2072	318.37	134.95
#2	8058.7	4.5838	316.94	135.48

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	43505.	22163.	553980.
Stddev	84.	219.	1914.
%RSD	.19359	.99020	.34541
#1	43565.	22008.	552630.
#2	43446.	22318.	555340.

Sample Name: S 711009-023-023-1/1 Acquired: 12/5/2007 3:45:39 Type: Unk
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**3.1565**	**32121.**	**24.542**	**15.396**	**68.151**	^ *****	**2340.8**
Stddev	.2629	393.	.531	.035	1.501	-----	33.1
%RSD	8.3294	1.2221	2.1632	.22902	2.2023	-----	1.4136
#1	3.3424	32399.	24.917	15.421	69.213	^ -----	2364.2
#2	2.9706	31844.	24.166	15.371	67.090	^ -----	2317.4

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	Cts/S	Cts/S	ppb
Avg	**4.0333**	**50.395**	**312.29**	**181.5**	z *****	z *****	**122790.**
Stddev	.1495	.364	6.63	.3	-----	-----	1444.
%RSD	3.7075	.72293	2.1242	.1591	-----	-----	1.1761
#1	3.9275	50.137	316.98	181.7	z 1142.	z 734.3	123810.
#2	4.1390	50.652	307.60	181.3	z 1142.	z 727.8	121770.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	Cts/S	ppb	ppb	ppb	ppb
Avg	**1612.2**	**1702.**	z *****	**2413.7**	**.87330**	**65.026**	**138.38**
Stddev	8.9	23.	-----	48.5	.16949	11.874	.20
%RSD	.55320	1.343	-----	2.0089	19.408	18.260	.14131
#1	1618.5	1719.	z 2387.	2448.0	.75345	56.630	138.24
#2	1605.9	1686.	z 2349.	2379.4	.99315	73.422	138.52

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**17.439**	**-.96214**	**-9.6054**	**643.97**	**-1.3250**	**31.572**	**34.103**
Stddev	.913	.74890	1.7993	13.75	.1703	.690	2.884
%RSD	5.2348	77.837	18.732	2.1347	12.849	2.1864	8.4560
#1	16.794	-.43259	-8.3331	653.69	-1.2046	32.060	32.064
#2	18.085	-1.4917	-10.878	634.25	-1.4454	31.084	36.142

Sample Name: S 711009-023-023-1/1 Acquired: 12/5/2007 3:45:39 Type: Unk
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**8730.6**	**4.2290**	**358.53**	**106.04**
Stddev	256.8	.1885	7.39	.07
%RSD	2.9413	4.4580	2.0611	.06848
#1	8912.2	4.0957	363.75	105.99
#2	8549.0	4.3623	353.30	106.09

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	42625.	21588.	548210.
Stddev	69.	78.	4322.
%RSD	.16104	.36171	.78831
#1	42577.	21643.	545160.
#2	42674.	21533.	551270.

Sample Name: S 711009-024-024-1/1 Acquired: 12/5/2007 3:49:01 Type: Unk
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.3465**	**30804.**	**21.399**	**10.249**	**41.253**	^ *****	**982.52**
Stddev	.0739	64.	.135	.425	.639	-----	3.51
%RSD	5.4892	.20731	.62967	4.1472	1.5490	-----	.35728
#1	1.3988	30849.	21.494	10.549	41.705	^ -----	980.04
#2	1.2942	30759.	21.304	9.9481	40.801	^ -----	985.00

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	Cts/S	Cts/S	ppb
Avg	**4.4447**	**34.945**	**482.58**	**156.9**	z *****	z *****	**122510.**
Stddev	.0307	.330	6.70	1.6	-----	-----	104.
%RSD	.68976	.94344	1.3874	1.016	-----	-----	.08491
#1	4.4664	34.712	487.32	155.8	z 1119.	z 709.0	122580.
#2	4.4230	35.179	477.85	158.0	z 1120.	z 703.4	122430.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	Cts/S	ppb	ppb	ppb	ppb
Avg	**662.79**	**1239.**	z *****	**1509.9**	**.16833**	**60.499**	**175.57**
Stddev	14.47	2.	-----	23.7	.05255	1.211	.22
%RSD	2.1833	.1485	-----	1.5663	31.216	2.0014	.12753
#1	673.02	1240.	z 1804.	1526.7	.20549	59.643	175.41
#2	652.56	1237.	z 1808.	1493.2	.13118	61.355	175.73

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**7.3792**	**-.20273**	**-8.1141**	**730.06**	**-1.7528**	**16.349**	**31.521**
Stddev	2.1802	.38655	2.5444	10.27	.7083	.251	1.887
%RSD	29.545	190.67	31.357	1.4073	40.410	1.5352	5.9859
#1	5.8375	.07060	-9.9132	737.33	-1.2519	16.526	32.855
#2	8.9208	-.47607	-6.3149	722.80	-2.2537	16.171	30.187

Sample Name: S 711009-024-024-1/1 Acquired: 12/5/2007 3:49:01 Type: Unk
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**7445.6**	**5.3844**	**331.56**	**81.692**
Stddev	83.4	.2107	4.75	.130
%RSD	1.1206	3.9127	1.4335	.15965
#1	7504.6	5.5334	334.92	81.600
#2	7386.6	5.2354	328.20	81.784

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	42538.	21811.	549100.
Stddev	62.	50.	8222.
%RSD	.14537	.22795	1.4973
#1	42582.	21776.	543290.
#2	42495.	21846.	554910.

Sample Name: S 711009-025-025-1/1 Acquired: 12/5/2007 3:52:23 Type: Unk
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca	Cd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.0030**	**26408.**	**14.798**	**8.3631**	**52.339**	^ *****	**1049.5**	**3.5680**
Stddev	.1223	94.	1.782	.0497	.103	-----	7.4	.0356
%RSD	12.192	.35772	12.040	.59439	.19673	-----	.70627	.99718
#1	1.0894	26341.	16.057	8.3279	52.267	^ -----	1044.3	3.5429
#2	.91650	26474.	13.538	8.3982	52.412	^ -----	1054.8	3.5932

Elem	Co	Cr	Cu2199	Cu2218	Cu3273	Fe	K	Mg2802
Units	ppb	ppb	ppb	Cts/S	Cts/S	ppb	ppb	ppb
Avg	**27.981**	**299.84**	**154.3**	z *****	z *****	**89962.**	**828.21**	**979.6**
Stddev	.357	.67	2.0	-----	-----	489.	38.86	4.5
%RSD	1.2773	.22316	1.269	-----	-----	.54328	4.6915	.4595
#1	28.234	299.37	152.9	z 1065.	z 712.9	89616.	800.74	976.5
#2	27.728	300.31	155.7	z 1068.	z 710.5	90308.	855.69	982.8

Elem	Mg2852	Mn	Mo	Na	Ni	Pb	Sb	Se
Units	Cts/S	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	z *****	**1159.3**	**-.20293**	**63.929**	**121.74**	**8.0865**	**.79470**	**-4.3333**
Stddev	-----	2.7	.12488	5.566	.78	.7885	1.8358	1.2166
%RSD	-----	.23226	61.537	8.7070	.63837	9.7507	231.00	28.077
#1	z 1469.	1157.4	-.11463	67.864	122.29	8.6440	2.0928	-3.4730
#2	z 1470.	1161.2	-.29123	59.993	121.19	7.5289	-.50340	-5.1936

Elem	Si	Sn	Sr	Te	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**564.61**	**.00493**	**16.680**	**23.356**	**5601.0**	**2.2601**	**255.02**	**71.694**
Stddev	2.85	.66917	.052	.309	45.3	1.6870	.77	.389
%RSD	.50493	13585.	.31307	1.3217	.80807	74.643	.30115	.54232
#1	562.60	.47810	16.643	23.575	5569.0	3.4530	254.47	71.969
#2	566.63	-.46825	16.717	23.138	5633.0	1.0672	255.56	71.419

Sample Name: S 711009-025-025-1/1 Acquired: 12/5/2007 3:52:23 Type: Unk
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	42460.	21853.	542840.
Stddev	113.	44.	1893.
%RSD	.26514	.19930	.34868
#1	42381.	21883.	544180.
#2	42540.	21822.	541510.

Sample Name: CCV Acquired: 12/5/2007 3:55:45 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**538.50**	**52882.**	**536.30**	**529.47**	**515.30**	**54.663**	**103150.**
Stddev	1.72	1496.	.80	2.28	2.30	.192	2729.
%RSD	.31952	2.8295	.14940	.43036	.44623	.35128	2.6458
#1	539.72	51824.	535.74	527.85	516.93	54.799	101220.
#2	537.28	53940.	536.87	531.08	513.68	54.527	105080.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	Cts/S	Cts/S	ppb
Avg	**527.57**	**516.02**	**542.20**	**529.0**	zF *****	zF *****	**50199.**
Stddev	1.69	1.59	2.85	3.2	-----	-----	1266.
%RSD	.32103	.30735	.52598	.5984	-----	-----	2.5211
#1	526.37	514.90	544.21	526.8	z 1739.	z 895.4	49304.
#2	528.76	517.14	540.18	531.2	z 1742.	z 906.4	51094.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass
Value					500.0	500.0	
Range					-10.00%	-10.00%	

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	Cts/S	ppb	ppb	ppb	ppb
Avg	**27445.**	F **99580.**	zF *****	**530.84**	**540.27**	**107590.**	**522.25**
Stddev	798.	1572.	-----	1.57	1.59	2187.	2.92
%RSD	2.9065	1.578	-----	.29591	.29463	2.0326	.55928
#1	26881.	98470.	z 114400.	531.95	539.14	106040.	520.18
#2	28009.	100700.	z 116200.	529.73	541.40	109130.	524.31
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value		500.0	500.0				
Range		10.00%	-10.00%				

Sample Name: CCV Acquired: 12/5/2007 3:55:45 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**525.06**	**533.55**	**524.01**	**545.60**	**532.63**	**522.46**	**526.74**
Stddev	3.23	2.53	1.42	.87	3.32	.76	5.96
%RSD	.61452	.47383	.27134	.16015	.62357	.14603	1.1319
#1	522.78	531.77	525.01	546.22	530.28	523.00	522.52
#2	527.34	535.34	523.00	544.98	534.98	521.92	530.95
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**548.51**	**505.90**	**532.78**	F **637.92**
Stddev	1.98	3.87	1.22	1.44
%RSD	.36023	.76544	.22806	.22510
#1	549.90	503.16	533.64	636.90
#2	547.11	508.64	531.93	638.93
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value				500.00
Range				10.000%

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	41463.	21780.	532880.
Stddev	56.	362.	1950.
%RSD	.13530	1.6606	.36588
#1	41503.	22036.	531500.
#2	41423.	21524.	534250.

Sample Name: CCB Acquired: 12/5/2007 3:59:14 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.08137**	**22.251**	**1.4303**	**-1.0300**	**-.01754**	**-.03357**	**-11.487**
Stddev	.19111	17.716	1.0267	.6028	.00111	.00899	6.917
%RSD	234.88	79.617	71.780	58.524	6.3509	26.776	60.212
#1	.05377	9.7243	.70432	-.60378	-.01675	-.02721	-6.5965
#2	-.21650	34.778	2.1562	-1.4563	-.01832	-.03993	-16.378
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	Cts/S	Cts/S	ppb
Avg	**.10439**	**-.06449**	**-.12418**	**-.1843**	z *****	z *****	**1.5443**
Stddev	.10286	.16980	.39144	1.515	-----	-----	3.9486
%RSD	98.538	263.28	315.22	821.8	-----	-----	255.70
#1	.03165	.05557	-.40097	.8867	z 663.3	z 638.1	-1.2478
#2	.17712	-.18456	.15261	-1.255	z 663.2	z 637.2	4.3363
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	Cts/S	ppb	ppb	ppb	ppb
Avg	F **253.04**	**1.290**	z *****	**.02935**	**.14739**	**108.25**	**.07046**
Stddev	18.81	1.406	-----	.00782	.15218	15.13	.09757
%RSD	7.4337	109.0	-----	26.636	103.25	13.974	138.47
#1	266.34	2.284	z 242.4	.02382	.03978	118.95	.00147
#2	239.74	.2960	z 246.0	.03488	.25500	97.553	.13945
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	250.00						
Low Limit	-250.00						

Sample Name: CCB Acquired: 12/5/2007 3:59:14 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.40195	.83336	2.5899	-4.2051	.27383	-.01097	1.2655
Stddev	.09568	.44238	1.5414	.3199	.43994	.01434	.9043
%RSD	23.804	53.083	59.517	7.6081	160.66	130.77	71.458
#1	.33429	1.1462	3.6799	-3.9788	-.03725	-.00083	1.9049
#2	.46960	.52056	1.5000	-4.4313	.58491	-.02110	.62604
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	.10257	.99798	.01941	-.26644
Stddev	.06078	.38645	.28070	.02036
%RSD	59.255	38.723	1446.3	7.6406
#1	.05960	1.2712	-.17908	-.25204
#2	.14555	.72472	.21789	-.28083
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				
Low Limit				

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	42957.	21275.	550040.
Stddev	15.	819.	4620.
%RSD	.03428	3.8480	.83995
#1	42947.	20697.	546770.
#2	42967.	21854.	553310.

Sample Name: S 711009-026-026-1/1 Acquired: 12/5/2007 4:02:35 Type: Unk
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca	Cd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**3.6763**	**27137.**	**17.170**	**13.111**	**76.957**	^ *****	**1205.3**	**2.6744**
Stddev	.3186	1762.	.072	.439	.423	-----	82.4	.2418
%RSD	8.6656	6.4929	.42034	3.3504	.54953	-----	6.8359	9.0414
#1	3.4510	25891.	17.119	12.800	77.256	^ -----	1147.0	2.8454
#2	3.9015	28383.	17.221	13.421	76.658	^ -----	1263.6	2.5035

Elem	Co	Cr	Cu2199	Cu2218	Cu3273	Fe	K	Mg2802
Units	ppb	ppb	ppb	Cts/S	Cts/S	ppb	ppb	ppb
Avg	**42.297**	**211.84**	**154.5**	z *****	z *****	**84681.**	**922.48**	**1065.**
Stddev	.294	1.16	.0	-----	-----	5193.	37.02	64.
%RSD	.69597	.54672	.0189	-----	-----	6.1319	4.0127	6.040
#1	42.505	212.66	154.5	z 1072.	z 710.2	81009.	896.31	1020.
#2	42.089	211.02	154.5	z 1070.	z 709.5	88352.	948.66	1111.

Elem	Mg2852	Mn	Mo	Na	Ni	Pb	Sb	Se
Units	Cts/S	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	z *****	**2219.6**	**.32473**	**125.71**	**122.62**	**8.2051**	**-.58437**	**-9.2555**
Stddev	-----	11.3	.13082	15.31	.34	1.8532	.73451	2.6619
%RSD	-----	.51091	40.287	12.177	.27418	22.586	125.69	28.760
#1	z 1529.	2227.6	.23222	136.54	122.86	9.5156	-.06500	-11.138
#2	z 1527.	2211.6	.41723	114.89	122.38	6.8947	-1.1037	-7.3732

Elem	Si	Sn	Sr	Te	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**592.32**	**-.00673**	**20.093**	**23.054**	**5274.5**	**3.0817**	**226.46**	**67.249**
Stddev	.19	.03649	.053	1.050	27.4	2.2931	.96	1.007
%RSD	.03171	541.86	.26202	4.5523	.51866	74.412	.42544	1.4971
#1	592.45	.01907	20.130	22.312	5293.8	1.4602	227.14	67.961
#2	592.19	-.03254	20.056	23.796	5255.1	4.7031	225.77	66.537

Sample Name: S 711009-026-026-1/1 Acquired: 12/5/2007 4:02:35 Type: Unk
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	42914.	21218.	553560.
Stddev	176.	1365.	3173.
%RSD	.40966	6.4348	.57327
#1	42790.	22183.	551320.
#2	43039.	20252.	555810.

Sample Name: S 711009-027-027-1/1 Acquired: 12/5/2007 4:05:58 Type: Unk
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.3829**	**38429.**	**30.406**	**14.374**	**52.897**	^ *****	**2093.4**
Stddev	.2112	613.	2.310	.087	.226	-----	32.4
%RSD	15.273	1.5954	7.5970	.60736	.42800	-----	1.5474
#1	1.2336	38862.	32.039	14.312	52.737	^ -----	2116.3
#2	1.5323	37995.	28.773	14.436	53.057	^ -----	2070.5

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	Cts/S	Cts/S	ppb
Avg	**5.5296**	**22.239**	**454.54**	**216.7**	z *****	z *****	**148110.**
Stddev	.1110	.329	.69	.2	-----	-----	2131.
%RSD	2.0066	1.4786	.15153	.0901	-----	-----	1.4388
#1	5.4511	22.471	454.05	216.8	z 1250.	z 741.3	149620.
#2	5.6080	22.006	455.02	216.5	z 1249.	z 741.6	146600.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	Cts/S	ppb	ppb	ppb	ppb
Avg	**1110.2**	**1634.**	z *****	**1878.8**	**.57718**	**133.22**	**133.25**
Stddev	39.1	24.	-----	5.6	.33429	11.42	.55
%RSD	3.5212	1.486	-----	.29976	57.918	8.5681	.41120
#1	1137.8	1651.	z 2291.	1874.9	.81355	125.15	133.64
#2	1082.5	1617.	z 2281.	1882.8	.34080	141.30	132.87

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**16.590**	**-.20049**	**-11.757**	**873.82**	**-1.2310**	**36.661**	**43.468**
Stddev	.266	.25657	.644	1.15	.3470	.111	2.109
%RSD	1.6054	127.97	5.4791	.13196	28.191	.30266	4.8514
#1	16.779	-.01907	-12.212	873.00	-.98565	36.583	41.977
#2	16.402	-.38192	-11.301	874.63	-1.4764	36.739	44.959

Sample Name: S 711009-027-027-1/1 Acquired: 12/5/2007 4:05:58 Type: Unk
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**10121.**	**3.8388**	**449.98**	**112.71**
Stddev	46.	.5075	1.88	.01
%RSD	.45254	13.222	.41778	.00598
#1	10089.	3.4799	448.65	112.72
#2	10154.	4.1977	451.31	112.71

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	41897.	21658.	544760.
Stddev	142.	207.	2170.
%RSD	.33773	.95438	.39837
#1	41797.	21512.	546300.
#2	41997.	21804.	543230.

Sample Name: S 711009-028-028-1/1 Acquired: 12/5/2007 4:09:20 Type: Unk
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-1.2786**	**18051.**	**22.559**	**5.7308**	**18.961**	^ *****	**708.77**
Stddev	.4386	314.	2.386	.5281	.068	-----	.34
%RSD	34.305	1.7369	10.579	9.2143	.35938	-----	.04794
#1	-1.5887	17830.	20.871	5.3574	18.912	^ -----	708.53
#2	-.96842	18273.	24.246	6.1042	19.009	^ -----	709.01

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	Cts/S	Cts/S	ppb
Avg	**5.3825**	**14.451**	**413.81**	**125.1**	z *****	z *****	**132800.**
Stddev	.1249	.062	1.45	.3	-----	-----	1758.
%RSD	2.3204	.43125	.34936	.2660	-----	-----	1.3238
#1	5.4708	14.407	412.79	124.8	z 1042.	z 692.8	131550.
#2	5.2942	14.495	414.84	125.3	z 1044.	z 693.4	134040.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	Cts/S	ppb	ppb	ppb	ppb
Avg	**534.69**	**1133.**	z *****	**602.80**	**.94728**	**-1.9768**	**55.652**
Stddev	20.06	15.	-----	2.03	.13390	5.8649	.382
%RSD	3.7519	1.315	-----	.33605	14.135	296.68	.68660
#1	520.50	1122.	z 1649.	601.36	.85260	-6.1239	55.382
#2	548.87	1143.	z 1662.	604.23	1.0420	2.1703	55.923

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**7.2056**	**.10248**	**-5.7894**	**565.72**	**-1.2551**	**14.801**	**38.552**
Stddev	1.4956	1.5333	.4065	2.50	.1049	.047	.204
%RSD	20.756	1496.2	7.0209	.44246	8.3571	.31544	.52820
#1	8.2632	1.1867	-6.0768	563.95	-1.3293	14.768	38.408
#2	6.1481	-.98175	-5.5019	567.49	-1.1809	14.834	38.696

Sample Name: S 711009-028-028-1/1 Acquired: 12/5/2007 4:09:20 Type: Unk
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**9581.5**	**3.9858**	**412.30**	**89.995**
Stddev	153.8	1.5791	1.28	.124
%RSD	1.6051	39.619	.30966	.13725
#1	9472.7	5.1024	411.39	89.908
#2	9690.3	2.8691	413.20	90.082

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	41802.	21659.	539110.
Stddev	131.	221.	2391.
%RSD	.31452	1.0192	.44350
#1	41895.	21815.	540800.
#2	41709.	21503.	537420.

Sample Name: S 711009-029-029-1/1 Acquired: 12/5/2007 4:12:43 Type: Unk
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-1.9309**	**34496.**	**20.832**	**4.2531**	**11.470**	^ *****	**401.18**
Stddev	.3234	881.	3.993	.4348	.109	-----	8.91
%RSD	16.751	2.5546	19.169	10.224	.95094	-----	2.2214
#1	-2.1596	35119.	23.656	4.5606	11.547	^ -----	407.48
#2	-1.7022	33872.	18.009	3.9456	11.392	^ -----	394.88

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	Cts/S	Cts/S	ppb
Avg	**4.5923**	**4.4407**	**464.19**	**68.62**	z *****	z *****	**139240.**
Stddev	.1143	.3960	3.85	.15	-----	-----	3349.
%RSD	2.4891	8.9177	.82989	.2255	-----	-----	2.4052
#1	4.5115	4.1607	466.91	68.73	z 989.5	z 667.7	141610.
#2	4.6731	4.7208	461.46	68.51	z 990.0	z 668.2	136870.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	Cts/S	ppb	ppb	ppb	ppb
Avg	**593.11**	**580.6**	z *****	**232.68**	**.59128**	**-7.6319**	**60.159**
Stddev	9.79	15.1	-----	2.56	.06085	1.8594	.118
%RSD	1.6499	2.599	-----	1.0981	10.291	24.363	.19679
#1	586.19	591.2	z 964.9	234.49	.54825	-6.3171	60.243
#2	600.03	569.9	z 956.0	230.87	.63430	-8.9467	60.076

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**4.0991**	**-2.2212**	**1.2318**	**794.79**	**-.99896**	**5.7877**	**36.356**
Stddev	.6353	.1997	4.4797	6.65	.14778	.0636	2.365
%RSD	15.500	8.9905	363.67	.83731	14.793	1.0982	6.5063
#1	3.6498	-2.3624	4.3994	799.50	-1.1035	5.8326	38.029
#2	4.5483	-2.0800	-1.9358	790.09	-.89446	5.7427	34.684

Sample Name: S 711009-029-029-1/1 Acquired: 12/5/2007 4:12:43 Type: Unk
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**7022.7**	**2.1639**	**328.19**	**35.254**
Stddev	131.0	1.2089	2.20	.446
%RSD	1.8654	55.870	.67072	1.2646
#1	7115.3	3.0187	329.74	34.939
#2	6930.0	1.3090	326.63	35.569

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	42132.	21380.	542390.
Stddev	57.	362.	3782.
%RSD	.13560	1.6927	.69725
#1	42173.	21124.	539720.
#2	42092.	21636.	545070.

Sample Name: S 711009-030-030-1/1 Acquired: 12/5/2007 4:16:06 Type: Unk
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.10198**	**22444.**	**22.923**	**7.6047**	**20.652**	^ *****	**540.73**
Stddev	.18377	434.	1.721	.0474	.416	-----	14.38
%RSD	180.21	1.9346	7.5087	.62271	2.0132	-----	2.6595
#1	.23193	22751.	24.140	7.5713	20.946	^ -----	550.90
#2	-.02797	22137.	21.706	7.6382	20.358	^ -----	530.56

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	Cts/S	Cts/S	ppb
Avg	**4.4664**	**22.883**	**391.46**	**145.0**	z *****	z *****	**127280.**
Stddev	.1549	.308	7.43	2.4	-----	-----	2802.
%RSD	3.4681	1.3457	1.8978	1.621	-----	-----	2.2017
#1	4.3568	22.665	396.71	146.7	z 1072.	z 711.4	129260.
#2	4.5759	23.101	386.21	143.4	z 1070.	z 709.7	125300.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	Cts/S	ppb	ppb	ppb	ppb
Avg	**584.89**	**1350.**	z *****	**1072.2**	**-.22481**	**8.9493**	**80.770**
Stddev	29.47	30.	-----	19.5	.10065	1.9982	.076
%RSD	5.0382	2.201	-----	1.8187	44.774	22.328	.09443
#1	605.72	1371.	z 1924.	1086.0	-.29598	10.362	80.716
#2	564.05	1329.	z 1908.	1058.4	-.15363	7.5363	80.824

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**3.1665**	**.26911**	**-6.8835**	**588.37**	**-1.5851**	**8.9986**	**36.213**
Stddev	1.5034	.67255	1.8576	12.63	.0498	.1681	1.464
%RSD	47.480	249.92	26.986	2.1470	3.1409	1.8679	4.0419
#1	4.2296	-.20645	-5.5700	597.30	-1.5499	9.1174	37.248
#2	2.1034	.74467	-8.1969	579.44	-1.6203	8.8797	35.178

Sample Name: S 711009-030-030-1/1 Acquired: 12/5/2007 4:16:06 Type: Unk
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**9522.1**	**4.2542**	**384.23**	**86.212**
Stddev	181.9	.9823	7.20	.141
%RSD	1.9097	23.090	1.8732	.16315
#1	9650.7	3.5596	389.32	86.311
#2	9393.6	4.9488	379.14	86.112

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	42002.	21404.	539040.
Stddev	10.	357.	6827.
%RSD	.02383	1.6674	1.2665
#1	42009.	21152.	534210.
#2	41995.	21657.	543860.

Sample Name: S 711009-031-031-1/1 Acquired: 12/5/2007 4:19:29 Type: Unk
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**8.4374**	**33180.**	**23.408**	**24.962**	**103.46**	^ *****	**2250.4**
Stddev	.1079	29.	4.046	.088	.05	-----	.2
%RSD	1.2784	.08797	17.285	.35410	.04433	-----	.00971
#1	8.3611	33200.	26.269	24.899	103.50	^ -----	2250.3
#2	8.5136	33159.	20.547	25.024	103.43	^ -----	2250.6

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	Cts/S	Cts/S	ppb
Avg	**4.4961**	**136.05**	**431.07**	**200.7**	z *****	z *****	**116320.**
Stddev	.1885	.51	.56	.3	-----	-----	148.
%RSD	4.1920	.37732	.12986	.1740	-----	-----	.12762
#1	4.3628	135.68	431.47	200.5	z 1181.	z 725.6	116420.
#2	4.6294	136.41	430.68	201.0	z 1181.	z 727.2	116210.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	Cts/S	ppb	ppb	ppb	ppb
Avg	**927.12**	**3211.**	z *****	**4728.0**	**.18138**	**94.231**	**354.30**
Stddev	13.69	4.	-----	1.2	.18773	7.324	.39
%RSD	1.4770	.1357	-----	.02585	103.50	7.7724	.10919
#1	917.43	3214.	z 4287.	4727.2	.31413	99.410	354.03
#2	936.80	3208.	z 4280.	4728.9	.04864	89.052	354.58

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**7.2501**	**-.97933**	**-11.749**	**655.93**	**-.43695**	**37.565**	**30.632**
Stddev	.6886	1.0391	1.740	1.08	.00775	.027	.743
%RSD	9.4972	106.10	14.810	.16425	1.7726	.07218	2.4271
#1	6.7632	-.24456	-10.519	656.69	-.44243	37.545	30.106
#2	7.7370	-1.7141	-12.980	655.17	-.43148	37.584	31.158

Sample Name: S 711009-031-031-1/1 Acquired: 12/5/2007 4:19:29 Type: Unk
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**7210.5**	**4.7892**	**298.11**	**92.939**
Stddev	41.2	.8621	.88	.215
%RSD	.57207	18.000	.29506	.23138
#1	7239.6	4.1796	298.73	92.787
#2	7181.3	5.3987	297.48	93.091

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	42478.	21704.	543170.
Stddev	147.	45.	2178.
%RSD	.34687	.20562	.40098
#1	42583.	21736.	541630.
#2	42374.	21673.	544710.

Sample Name: S 711009-032-032-1/1 Acquired: 12/5/2007 4:22:58 Type: Unk
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.63993**	**36471.**	**23.599**	**11.597**	**62.563**	^ *****	**1488.9**
Stddev	.03845	162.	2.224	.445	.763	-----	2.3
%RSD	6.0090	.44406	9.4245	3.8358	1.2189	-----	.15763
#1	.61273	36585.	22.026	11.912	63.103	^ -----	1490.6
#2	.66712	36356.	25.172	11.283	62.024	^ -----	1487.3

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	Cts/S	Cts/S	ppb
Avg	**5.6292**	**64.864**	**480.03**	**225.7**	z *****	z *****	**144550.**
Stddev	.0208	.253	4.20	1.6	-----	-----	437.
%RSD	.36863	.38955	.87510	.7221	-----	-----	.30202
#1	5.6438	64.685	483.00	226.8	z 1247.	z 747.5	144850.
#2	5.6145	65.042	477.06	224.5	z 1244.	z 739.4	144240.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	Cts/S	ppb	ppb	ppb	ppb
Avg	**839.86**	**1814.**	z *****	**1631.3**	**-.07344**	**94.724**	**176.70**
Stddev	38.32	8.	-----	19.5	.24099	20.115	.69
%RSD	4.5632	.4263	-----	1.1937	328.15	21.235	.39319
#1	866.96	1820.	z 2512.	1645.1	-.24384	80.501	177.20
#2	812.76	1809.	z 2524.	1617.5	.09697	108.95	176.21

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**7.2559**	**-.52466**	**-11.643**	**741.49**	**-1.0293**	**31.287**	**41.334**
Stddev	1.0243	.58443	1.525	8.17	1.8785	.347	.632
%RSD	14.117	111.39	13.096	1.1018	182.51	1.1089	1.5285
#1	7.9802	-.93792	-10.565	747.27	.29905	31.532	41.780
#2	6.5315	-.11141	-12.722	735.71	-2.3576	31.041	40.887

Sample Name: S 711009-032-032-1/1 Acquired: 12/5/2007 4:22:58 Type: Unk
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**10404.**	**4.4332**	**434.05**	**102.41**
Stddev	92.	.1766	4.74	.32
%RSD	.88532	3.9834	1.0914	.31381
#1	10469.	4.3083	437.40	102.64
#2	10339.	4.5581	430.70	102.19

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	42243.	21648.	540280.
Stddev	37.	66.	4460.
%RSD	.08688	.30458	.82558
#1	42269.	21602.	537130.
#2	42217.	21695.	543430.

Sample Name: S 711009-033-033-1/1 Acquired: 12/5/2007 4:26:20 Type: Unk
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca	Cd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**8.1471**	**27871.**	**18.880**	**21.631**	**147.70**	^ *****	**1801.8**	**3.2206**
Stddev	.1461	671.	1.414	.014	1.62	-----	43.0	.0574
%RSD	1.7929	2.4064	7.4895	.06361	1.0943	-----	2.3858	1.7828
#1	8.0439	28345.	17.880	21.641	148.84	^ -----	1832.2	3.1800
#2	8.2504	27397.	19.880	21.622	146.55	^ -----	1771.4	3.2612

Elem	Co	Cr	Cu2199	Cu2218	Cu3273	Fe	K	Mg2802
Units	ppb	ppb	ppb	Cts/S	Cts/S	ppb	ppb	ppb
Avg	**127.62**	**202.19**	**189.9**	z *****	z *****	**94516.**	**673.59**	**1700.**
Stddev	.36	1.76	1.2	-----	-----	2294.	49.47	42.
%RSD	.28350	.87065	.6060	-----	-----	2.4276	7.3444	2.498
#1	127.36	203.43	190.7	z 1113.	z 733.3	96138.	708.58	1730.
#2	127.88	200.94	189.1	z 1113.	z 724.6	92893.	638.61	1670.

Elem	Mg2852	Mn	Mo	Na	Ni	Pb	Sb	Se
Units	Cts/S	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	z *****	**4396.1**	**-.07378**	**67.326**	**173.07**	**8.8245**	**-1.1446**	**-11.249**
Stddev	-----	80.5	.19293	.415	.79	.5942	.9727	.145
%RSD	-----	1.8304	261.49	.61582	.45623	6.7330	84.986	1.2876
#1	z 2399.	4453.0	-.21021	67.619	173.63	9.2447	-1.8324	-11.352
#2	z 2343.	4339.2	.06264	67.033	172.51	8.4044	-.45675	-11.147

Elem	Si	Sn	Sr	Te	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**501.44**	**-.58118**	**33.890**	**24.663**	**7155.7**	**5.3881**	**276.02**	**90.547**
Stddev	4.94	.54620	.319	1.915	112.2	1.3667	2.08	.270
%RSD	.98519	93.981	.94249	7.7639	1.5674	25.366	.75467	.29812
#1	504.93	-.96740	34.116	26.017	7235.1	4.4217	277.49	90.356
#2	497.94	-.19496	33.664	23.309	7076.4	6.3545	274.55	90.738

Sample Name: S 711009-033-033-1/1 Acquired: 12/5/2007 4:26:20 Type: Unk
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	42576.	21695.	548310.
Stddev	77.	193.	3276.
%RSD	.18072	.89021	.59755
#1	42630.	21558.	550630.
#2	42521.	21831.	545990.

Sample Name: S 711009-034-034-1/1 Acquired: 12/5/2007 4:29:49 Type: Unk
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.30681**	**29085.**	**22.933**	**8.0484**	**43.904**	^ *****	**1265.4**
Stddev	.24238	521.	1.836	.3636	.185	-----	30.6
%RSD	79.000	1.7928	8.0042	4.5176	.42139	-----	2.4195
#1	-.47820	29454.	24.231	7.7913	44.034	^ -----	1287.1
#2	-.13542	28716.	21.635	8.3055	43.773	^ -----	1243.8

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	Cts/S	Cts/S	ppb
Avg	**4.7840**	**19.052**	**448.55**	**154.8**	z *****	z *****	**130770.**
Stddev	.2778	.214	1.25	1.5	-----	-----	2366.
%RSD	5.8060	1.1207	.27818	.9696	-----	-----	1.8094
#1	4.5876	18.901	449.43	155.8	z 1122.	z 705.3	132440.
#2	4.9804	19.203	447.67	153.7	z 1120.	z 704.1	129100.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	Cts/S	ppb	ppb	ppb	ppb
Avg	**717.48**	**1317.**	z *****	**989.93**	**.38752**	**64.532**	**109.59**
Stddev	14.87	23.	-----	3.52	.06712	15.834	.10
%RSD	2.0720	1.712	-----	.35601	17.320	24.538	.08749
#1	727.99	1333.	z 1845.	992.42	.34006	53.335	109.52
#2	706.96	1301.	z 1832.	987.43	.43499	75.728	109.66

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**9.2950**	**-.31401**	**-7.2231**	**819.73**	**-1.4030**	**25.736**	**35.402**
Stddev	.2562	.83321	.1757	2.48	.6355	.098	2.179
%RSD	2.7562	265.34	2.4324	.30224	45.297	.38020	6.1553
#1	9.1138	.27515	-7.3473	821.48	-1.8523	25.806	36.943
#2	9.4761	-.90318	-7.0988	817.97	-.95359	25.667	33.861

Sample Name: S 711009-034-034-1/1 Acquired: 12/5/2007 4:29:49 Type: Unk
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**9387.2**	**3.4305**	**396.27**	**85.393**
Stddev	132.0	2.2731	1.19	.395
%RSD	1.4058	66.261	.29929	.46301
#1	9480.5	1.8232	397.11	85.113
#2	9293.9	5.0378	395.43	85.672

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	41979.	21103.	537170.
Stddev	88.	260.	2101.
%RSD	.21027	1.2342	.39107
#1	41916.	20919.	535690.
#2	42041.	21287.	538660.

Sample Name: S 711009-035-035-1/1 Acquired: 12/5/2007 4:33:12 Type: Unk
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**2.5197**	**30849.**	**18.663**	**11.865**	**98.650**	^ *****	**1309.7**
Stddev	.0124	369.	1.037	.515	.513	-----	9.0
%RSD	.49248	1.1967	5.5584	4.3426	.52053	-----	.68852
#1	2.5110	30588.	17.930	12.229	99.013	^ -----	1303.3
#2	2.5285	31110.	19.397	11.501	98.287	^ -----	1316.1

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	Cts/S	Cts/S	ppb
Avg	**3.9686**	**100.30**	**271.91**	**181.3**	z *****	z *****	**104310.**
Stddev	.1774	.20	1.91	2.4	-----	-----	694.
%RSD	4.4687	.19760	.70377	1.322	-----	-----	.66547
#1	4.0940	100.16	273.27	183.0	z 1140.	z 715.7	103820.
#2	3.8432	100.44	270.56	179.6	z 1140.	z 717.8	104800.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	Cts/S	ppb	ppb	ppb	ppb
Avg	**416.65**	**1325.**	z *****	**2166.6**	**.05140**	**99.600**	**142.67**
Stddev	51.14	10.	-----	12.6	.09298	9.173	.16
%RSD	12.275	.7192	-----	.57992	180.90	9.2102	.10907
#1	452.81	1319.	z 1905.	2175.5	-.01435	93.114	142.78
#2	380.49	1332.	z 1920.	2157.7	.11715	106.09	142.56

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**6.1315**	**-1.0451**	**-8.9182**	**703.16**	**-.23560**	**39.171**	**29.607**
Stddev	.9403	.0280	1.0013	4.47	.12500	.213	.222
%RSD	15.336	2.6841	11.227	.63588	53.056	.54491	.74888
#1	5.4666	-1.0649	-9.6262	706.33	-.32399	39.322	29.764
#2	6.7964	-1.0252	-8.2101	700.00	-.14721	39.020	29.450

Sample Name: S 711009-035-035-1/1 Acquired: 12/5/2007 4:33:12 Type: Unk
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**7508.3**	**3.6456**	**313.97**	**80.739**
Stddev	28.0	.6424	2.14	.363
%RSD	.37330	17.623	.68088	.44922
#1	7528.1	4.0999	315.48	80.995
#2	7488.5	3.1914	312.46	80.482

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	42705.	21728.	546150.
Stddev	85.	133.	4003.
%RSD	.19872	.61411	.73298
#1	42645.	21822.	543320.
#2	42765.	21633.	548980.

Sample Name: CCV Acquired: 12/5/2007 4:36:34 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**536.51**	**52412.**	**534.77**	**528.25**	**521.25**	**53.961**	**103580.**
Stddev	3.08	816.	.49	2.58	6.35	.250	1746.
%RSD	.57385	1.5576	.09208	.48851	1.2180	.46376	1.6854
#1	534.33	51834.	535.12	530.08	516.76	53.784	102350.
#2	538.68	52989.	534.42	526.43	525.74	54.138	104820.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	Cts/S	Cts/S	ppb
Avg	**525.00**	**516.48**	**532.89**	**526.7**	zF *****	zF *****	**50804.**
Stddev	3.70	2.92	3.15	5.4	-----	-----	783.
%RSD	.70437	.56574	.59131	1.027	-----	-----	1.5408
#1	527.62	518.55	530.66	530.5	z 1752.	z 901.5	50250.
#2	522.39	514.42	535.12	522.8	z 1755.	z 898.7	51357.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass
Value					500.0	500.0	
Range					-10.00%	-10.00%	

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	Cts/S	ppb	ppb	ppb	ppb
Avg	**27046.**	F **99100.**	zF *****	**533.06**	**534.64**	**110000.**	**521.95**
Stddev	484.	2151.	-----	3.68	3.35	1505.	3.75
%RSD	1.7904	2.170	-----	.69106	.62605	1.3684	.71937
#1	26704.	97580.	z 116200.	530.45	537.01	108930.	524.60
#2	27388.	100600.	z 116200.	535.66	532.28	111060.	519.29
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value		500.0	500.0				
Range		10.00%	-10.00%				

Sample Name: CCV Acquired: 12/5/2007 4:36:34 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**520.98**	**530.77**	**525.97**	**545.07**	**529.26**	**523.59**	**529.71**
Stddev	1.76	4.48	2.02	2.79	2.89	3.22	.99
%RSD	.33697	.84466	.38407	.51169	.54652	.61444	.18721
#1	522.23	533.94	527.40	543.10	531.31	521.31	530.41
#2	519.74	527.60	524.54	547.04	527.22	525.86	529.00
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**541.41**	**507.52**	**531.44**	F **634.34**
Stddev	2.42	2.46	4.00	4.10
%RSD	.44736	.48416	.75206	.64666
#1	539.70	509.26	528.61	637.24
#2	543.12	505.79	534.26	631.43
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value				500.00
Range				10.000%

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	41970.	22150.	542690.
Stddev	211.	371.	3651.
%RSD	.50244	1.6729	.67268
#1	41821.	22412.	545270.
#2	42119.	21888.	540100.

Sample Name: CCB Acquired: 12/5/2007 4:40:04 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca	Cd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.51669**	**6.1792**	**-.01238**	**-1.0792**	**.01856**	**-.02625**	**-11.132**	**.08356**
Stddev	.03227	20.571	1.8188	.2148	.00288	.00164	1.494	.10931
%RSD	6.2453	332.90	14694.	19.898	15.512	6.2596	13.419	130.81
#1	-.53951	20.725	1.2737	-1.2311	.02060	-.02508	-10.076	.00627
#2	-.49387	-8.3664	-1.2985	-.92740	.01653	-.02741	-12.188	.16086
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co	Cr	Cu2199	Cu2218	Cu3273	Fe	K	Mg2802
Units	ppb	ppb	ppb	Cts/S	Cts/S	ppb	ppb	ppb
Avg	**-.32945**	**-.17270**	**-.1813**	z *****	z *****	**6.4752**	**194.00**	**2.365**
Stddev	.02497	.21834	1.351	-----	-----	1.2199	9.25	.001
%RSD	7.5789	126.43	745.1	-----	-----	18.840	4.7664	.0570
#1	-.31179	-.32709	.7742	z 664.9	z 632.3	5.6126	200.54	2.364
#2	-.34710	-.01831	-1.137	z 665.7	z 632.0	7.3378	187.46	2.366
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mg2852	Mn	Mo	Na	Ni	Pb	Sb	Se
Units	Cts/S	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	z *****	**.14230**	**.00437**	**147.39**	**-.01141**	**-.98576**	**-.84734**	**1.3200**
Stddev	-----	.00054	.11979	19.64	.05141	1.2452	.12694	1.5127
%RSD	-----	.38234	2742.4	13.328	450.52	126.32	14.981	114.59
#1	z 239.1	.14191	-.08033	161.28	-.04777	-1.8662	-.93710	.25041
#2	z 244.3	.14268	.08907	133.50	.02494	-.10527	-.75758	2.3897
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB Acquired: 12/5/2007 4:40:04 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si	Sn	Sr	Te	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-4.0298**	**.46062**	**.00594**	**-.22338**	**.39148**	**1.8318**	**.05533**	**-.34763**
Stddev	.2057	.12249	.02479	1.1279	.07775	1.6709	.04427	.14079
%RSD	5.1049	26.592	417.07	504.91	19.861	91.214	80.009	40.500
#1	-3.8844	.54724	-.01159	.57415	.33650	.65033	.08664	-.24807
#2	-4.1753	.37401	.02347	-1.0209	.44646	3.0133	.02403	-.44718
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	42806.	22019.	554040.
Stddev	50.	276.	4331.
%RSD	.11770	1.2537	.78173
#1	42771.	21824.	550980.
#2	42842.	22214.	557110.

Sample Name: S 711009-036-036-1/1 Acquired: 12/5/2007 4:43:25 Type: Unk
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca	Cd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.51831**	**29194.**	**19.741**	**8.0456**	**26.565**	^ *****	**631.10**	**3.4471**
Stddev	.17231	322.	.747	.2682	.074	-----	2.69	.1132
%RSD	33.246	1.1034	3.7857	3.3336	.28027	-----	.42598	3.2846
#1	.64015	28966.	19.212	7.8559	26.512	^ -----	629.19	3.5272
#2	.39646	29421.	20.269	8.2352	26.618	^ -----	633.00	3.3671

Elem	Co	Cr	Cu2199	Cu2218	Cu3273	Fe	K	Mg2802
Units	ppb	ppb	ppb	Cts/S	Cts/S	ppb	ppb	ppb
Avg	**17.924**	**333.24**	**86.81**	z *****	z *****	**95925.**	**526.55**	**1388.**
Stddev	.250	2.03	.02	-----	-----	1321.	41.32	17.
%RSD	1.3965	.60836	.0213	-----	-----	1.3773	7.8473	1.250
#1	17.747	331.80	86.83	z 971.8	z 671.9	94990.	555.77	1376.
#2	18.101	334.67	86.80	z 972.1	z 674.2	96859.	497.34	1400.

Elem	Mg2852	Mn	Mo	Na	Ni	Pb	Sb	Se
Units	Cts/S	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	z *****	**1076.3**	**.42445**	**68.036**	**63.720**	**2.8477**	**-.84875**	**-5.4261**
Stddev	-----	5.7	.00939	10.516	.065	1.6268	.92781	1.8215
%RSD	-----	.53173	2.2131	15.456	.10187	57.128	109.31	33.569
#1	z 1965.	1072.3	.41780	75.472	63.674	1.6973	-1.5048	-6.7141
#2	z 1948.	1080.4	.43109	60.601	63.766	3.9981	-.19269	-4.1381

Elem	Si	Sn	Sr	Te	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**629.70**	**-2.0627**	**7.4598**	**26.397**	**7671.8**	**1.5557**	**285.92**	**49.005**
Stddev	3.48	.1311	.0548	.477	42.7	.5548	1.25	.128
%RSD	.55299	6.3542	.73399	1.8073	.55717	35.662	.43810	.26138
#1	627.24	-2.1554	7.4211	26.734	7641.6	1.9480	285.03	49.095
#2	632.16	-1.9701	7.4985	26.059	7702.1	1.1634	286.80	48.914

Sample Name: S 711009-036-036-1/1 Acquired: 12/5/2007 4:43:25 Type: Unk
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	42691.	21541.	546390.
Stddev	91.	422.	1784.
%RSD	.21234	1.9594	.32648
#1	42627.	21839.	547650.
#2	42755.	21242.	545130.

Sample Name: S 711009-037-037-1/1 Acquired: 12/5/2007 4:46:48 Type: Unk
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**3.7073**	**27990.**	**26.872**	**18.831**	**89.444**	^ *****	**2173.1**
Stddev	.3576	72.	1.298	.448	.779	-----	5.7
%RSD	9.6464	.25562	4.8302	2.3777	.87114	-----	.26074
#1	3.9602	28040.	27.790	18.515	89.995	^ -----	2177.1
#2	3.4544	27939.	25.954	19.148	88.893	^ -----	2169.1

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	Cts/S	Cts/S	ppb
Avg	**5.5714**	**69.991**	**392.76**	**190.6**	z *****	z *****	**142710.**
Stddev	.0770	.235	1.41	.0	-----	-----	544.
%RSD	1.3824	.33523	.35823	.0212	-----	-----	.38107
#1	5.5170	69.825	393.76	190.6	z 1175.	z 729.7	143090.
#2	5.6259	70.157	391.77	190.5	z 1176.	z 725.9	142320.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	Cts/S	ppb	ppb	ppb	ppb
Avg	**838.79**	**3584.**	z *****	**2955.9**	**-.12709**	**88.184**	**184.43**
Stddev	25.75	17.	-----	20.0	.03487	3.391	.24
%RSD	3.0703	.4656	-----	.67607	27.439	3.8449	.12846
#1	820.58	3596.	z 4820.	2970.0	-.15175	90.581	184.60
#2	857.01	3572.	z 4753.	2941.8	-.10243	85.786	184.26

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**6.3575**	**-.69314**	**-10.668**	**622.47**	**-3.7638**	**21.344**	**40.400**
Stddev	1.2782	3.2337	2.873	4.55	.7277	.156	3.953
%RSD	20.105	466.53	26.933	.73056	19.335	.73286	9.7845
#1	7.2613	1.5934	-12.700	625.68	-3.2493	21.454	37.604
#2	5.4537	-2.9797	-8.6363	619.25	-4.2784	21.233	43.195

Sample Name: S 711009-037-037-1/1 Acquired: 12/5/2007 4:46:48 Type: Unk
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**12897.**	**5.6873**	**446.38**	**128.16**
Stddev	70.	.2902	2.86	.05
%RSD	.54374	5.1022	.63996	.04262
#1	12947.	5.8925	448.40	128.20
#2	12848.	5.4821	444.36	128.12

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	42543.	22036.	550910.
Stddev	124.	101.	268.
%RSD	.29216	.45724	.04869
#1	42631.	22107.	550720.
#2	42455.	21965.	551090.

Sample Name: S 711009-038-038-1/1 Acquired: 12/5/2007 4:50:10 Type: Unk
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca	Cd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**5.0975**	**25526.**	**19.911**	**17.431**	**158.94**	^ *****	**2578.5**	**4.0365**
Stddev	.0393	102.	1.919	.497	.69	-----	6.3	.0382
%RSD	.77070	.40016	9.6385	2.8522	.43254	-----	.24310	.94688
#1	5.1252	25454.	18.554	17.079	158.45	^ -----	2574.1	4.0095
#2	5.0697	25598.	21.268	17.782	159.42	^ -----	2582.9	4.0636

Elem	Co	Cr	Cu2199	Cu2218	Cu3273	Fe	K	Mg2802
Units	ppb	ppb	ppb	Cts/S	Cts/S	ppb	ppb	ppb
Avg	**76.376**	**306.78**	**157.1**	z *****	z *****	**97268.**	**280.75**	**3130.**
Stddev	.179	1.67	.9	-----	-----	27.	43.54	10.
%RSD	.23384	.54504	.5676	-----	-----	.02780	15.507	.3346
#1	76.503	305.60	157.8	z 1079.	z 707.1	97287.	311.53	3123.
#2	76.250	307.96	156.5	z 1081.	z 708.3	97249.	249.97	3138.

Elem	Mg2852	Mn	Mo	Na	Ni	Pb	Sb	Se
Units	Cts/S	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	z *****	**3163.3**	**-.42254**	**83.032**	**206.72**	**4.0103**	**.36830**	**-8.3710**
Stddev	-----	10.0	.27873	10.758	.12	.5775	1.1244	2.1461
%RSD	-----	.31523	65.965	12.956	.05601	14.399	305.29	25.638
#1	z 4178.	3156.2	-.61963	75.425	206.64	3.6020	-.42675	-6.8535
#2	z 4195.	3170.3	-.22545	90.639	206.80	4.4186	1.1633	-9.8885

Elem	Si	Sn	Sr	Te	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**550.05**	**-1.8869**	**40.226**	**27.671**	**8017.5**	**2.9550**	**295.32**	**98.506**
Stddev	1.14	.0767	.145	3.745	14.9	1.1221	1.01	.237
%RSD	.20641	4.0667	.36062	13.533	.18554	37.974	.34300	.24040
#1	549.25	-1.8326	40.123	30.318	8007.0	2.1615	294.61	98.339
#2	550.86	-1.9411	40.328	25.023	8028.1	3.7485	296.04	98.673

Sample Name: S 711009-038-038-1/1 Acquired: 12/5/2007 4:50:10 Type: Unk
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	42600.	21828.	545750.
Stddev	106.	82.	2279.
%RSD	.24876	.37686	.41758
#1	42675.	21886.	547360.
#2	42525.	21770.	544140.

Sample Name: S 711009-039-039-1/1 Acquired: 12/5/2007 4:53:32 Type: Unk
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.71414**	**37131.**	**19.910**	**8.4838**	**91.633**	^ *****	**1127.4**
Stddev	.37640	336.	.784	.0514	.329	-----	.3
%RSD	52.707	.90531	3.9400	.60572	.35864	-----	.02970
#1	.44798	36893.	19.356	8.4475	91.400	^ -----	1127.6
#2	.98029	37368.	20.465	8.5201	91.865	^ -----	1127.2

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	Cts/S	Cts/S	ppb
Avg	**4.3935**	**44.716**	**297.45**	**174.0**	z *****	z *****	**110320.**
Stddev	.1938	.054	1.48	2.2	-----	-----	1043.
%RSD	4.4109	.12065	.49712	1.264	-----	-----	.94535
#1	4.5305	44.677	296.40	172.4	z 1148.	z 714.4	109580.
#2	4.2565	44.754	298.49	175.5	z 1147.	z 712.1	111060.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	Cts/S	ppb	ppb	ppb	ppb
Avg	**246.44**	**1921.**	z *****	**1376.8**	**-.23413**	**148.03**	**142.12**
Stddev	2.16	15.	-----	4.5	.10722	19.16	.43
%RSD	.87613	.8018	-----	.32447	45.794	12.944	.30401
#1	247.97	1910.	z 2684.	1373.7	-.15831	134.49	141.81
#2	244.92	1932.	z 2679.	1380.0	-.30994	161.58	142.42

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**4.5915**	**-.50243**	**-4.7295**	**766.65**	**-1.6504**	**31.490**	**29.768**
Stddev	.8359	.90530	1.0301	3.60	.5987	.101	.349
%RSD	18.206	180.18	21.779	.46959	36.274	.31930	1.1729
#1	5.1825	-1.1426	-4.0011	764.11	-2.0738	31.418	30.015
#2	4.0004	.13771	-5.4578	769.20	-1.2271	31.561	29.522

Sample Name: S 711009-039-039-1/1 Acquired: 12/5/2007 4:53:32 Type: Unk
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**9070.2**	**3.9036**	**333.15**	**74.995**
Stddev	7.3	1.3444	1.01	.025
%RSD	.08076	34.441	.30171	.03368
#1	9075.4	2.9529	332.44	74.978
#2	9065.0	4.8542	333.86	75.013

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	42485.	21978.	551990.
Stddev	92.	246.	1881.
%RSD	.21616	1.1195	.34074
#1	42550.	22152.	553320.
#2	42421.	21804.	550660.

Sample Name: S 711009-040-040-1/1 Acquired: 12/5/2007 4:56:55 Type: Unk
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**3.1500**	**32678.**	**23.793**	**17.482**	**98.954**	^ *****	**2912.2**
Stddev	.1479	561.	.426	.683	.248	-----	35.7
%RSD	4.6943	1.7166	1.7907	3.9044	.25107	-----	1.2272
#1	3.2545	33074.	23.492	16.999	99.130	^ -----	2937.5
#2	3.0454	32281.	24.094	17.964	98.779	^ -----	2886.9

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	Cts/S	Cts/S	ppb
Avg	**5.0987**	**66.420**	**362.27**	**176.1**	z *****	z *****	**131710.**
Stddev	.0670	.230	.01	.4	-----	-----	1973.
%RSD	1.3147	.34574	.00161	.2212	-----	-----	1.4978
#1	5.0513	66.582	362.26	175.8	z 1150.	z 716.5	133100.
#2	5.1461	66.257	362.27	176.4	z 1150.	z 716.6	130310.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	Cts/S	ppb	ppb	ppb	ppb
Avg	**1358.1**	**7443.**	z *****	**2548.4**	**-.34529**	**40.875**	**212.93**
Stddev	29.1	121.	-----	8.6	.43756	13.505	.39
%RSD	2.1433	1.626	-----	.33674	126.72	33.040	.18081
#1	1378.7	7528.	z 9461.	2554.5	-.65470	31.326	213.20
#2	1337.5	7357.	z 9403.	2542.3	-.03589	50.425	212.66

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**7.5583**	**-.17572**	**-7.9649**	**664.09**	**-2.6787**	**36.307**	**36.993**
Stddev	1.1419	1.5262	3.0344	2.32	.0380	.108	1.630
%RSD	15.108	868.58	38.098	.34887	1.4187	.29649	4.4052
#1	6.7509	-1.2549	-10.111	665.73	-2.7056	36.383	35.840
#2	8.3658	.90349	-5.8192	662.46	-2.6518	36.231	38.145

Sample Name: S 711009-040-040-1/1 Acquired: 12/5/2007 4:56:55 Type: Unk
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**11814.**	**6.2258**	**439.17**	**134.41**
Stddev	107.	.9719	.63	.16
%RSD	.90163	15.611	.14379	.11944
#1	11739.	6.9130	439.62	134.52
#2	11889.	5.5385	438.73	134.29

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	42396.	21405.	544170.
Stddev	39.	272.	448.
%RSD	.09276	1.2696	.08232
#1	42368.	21213.	544490.
#2	42424.	21597.	543850.

Sample Name: ICSA Acquired: 12/5/2007 5:00:17 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	kF **-3.6423**	k **553190.**	kF **-72.081**	k **2.5238**	k **.48309**	k **-.07666**
Stddev	.2776	1958.	3.424	.3984	.00017	.00394
%RSD	7.6204	.35390	4.7507	15.785	.03469	5.1432
#1	k -3.8386	k 554570.	k -74.502	k 2.2421	k .48297	k -.07945
#2	k -3.4460	k 551800.	k -69.659	k 2.8055	k .48320	k -.07387
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit	3.0000		20.000			
Low Limit	-3.0000		-20.000			

Elem	Ca	Cd	Co	Cr	Cu2199	Cu2218
Units	ppb	ppb	ppb	ppb	ppb	Cts/S
Avg	**503480.**	kF **7.5740**	k **3.0584**	k **2.7539**	kF **-187.9**	z *****
Stddev	395.	.0434	.4892	.0532	2.7	-----
%RSD	.07849	.57282	15.996	1.9319	1.422	-----
#1	503210.	k 7.6047	k 3.4043	k 2.7163	k -186.0	z 1146.
#2	503760.	k 7.5434	k 2.7124	k 2.7915	k -189.7	z 1150.
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit		6.0000			3.000	
Low Limit		-6.0000			-3.000	

Elem	Cu3273	Fe	K	Mg2802	Mg2852	Mn
Units	Cts/S	ppb	ppb	ppb	Cts/S	ppb
Avg	z *****	**198180.**	k **40.559**	C **.0000**	z *****	kF **17.585**
Stddev	-----	202.	56.433	.0000	-----	.069
%RSD	-----	.10175	139.14	.0000	-----	.39178
#1	z 622.4	198040.	k 80.463	C .0000	z 422700.	k 17.634
#2	z 624.0	198330.	k .65455	C .0000	z 415600.	k 17.536
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						5.0000
Low Limit						-5.0000

Sample Name: ICSA Acquired: 12/5/2007 5:00:17 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mo	Na	Ni	Pb	Sb	Se
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	k **-1.4465**	k **1.2324**	k **5.5336**	kF **153.53**	k **1.8231**	k **-8.0734**
Stddev	.1500	28.861	.0738	.88	2.8563	.2421
%RSD	10.370	2341.9	1.3331	.57594	156.67	2.9989
#1	k -1.5526	k 21.640	k 5.4815	k 154.15	k -.19663	k -7.9022
#2	k -1.3404	k -19.175	k 5.5858	k 152.90	k 3.8429	k -8.2446
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit				6.0000		
Low Limit				-6.0000		

Elem	Si	Sn	Sr	Te	Ti	Tl
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-14.255**	**-1.1584**	F **6.9431**	k **35.844**	k **14.056**	k **1.8471**
Stddev	.290	2.1254	.0297	1.632	.076	.0333
%RSD	2.0319	183.49	.42744	4.5533	.54242	1.8047
#1	-14.050	.34455	6.9641	k 36.998	k 14.110	k 1.8706
#2	-14.459	-2.6613	6.9221	k 34.690	k 14.002	k 1.8235
Check ?	Chk Pass	Chk Pass	Chk Fail	None	Chk Pass	Chk Pass
High Limit			5.0000			
Low Limit			-5.0000			

Elem	V	Zn
Units	ppb	ppb
Avg	k **.41731**	k **1.6004**
Stddev	.07781	.1438
%RSD	18.646	8.9863
#1	k .47233	k 1.4987
#2	k .36229	k 1.7021
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Sample Name: ICSA Acquired: 12/5/2007 5:00:17 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	39284.	20968.	500840.
Stddev	108.	1.	1910.
%RSD	.27574	.00413	.38143
#1	39360.	20968.	499490.
#2	39207.	20967.	502190.

Sample Name: ICSAB Acquired: 12/5/2007 5:03:47 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	k **222.39**	k **548570.**	kF **27.729**	k **1073.4**	k **527.46**	k **542.33**	**497700.**
Stddev	.51	651.	1.529	.5	2.23	6.57	1642.
%RSD	.23078	.11861	5.5156	.04694	.42304	1.2120	.32993
#1	k 222.75	k 548110.	k 28.811	k 1073.1	k 529.04	k 546.98	498860.
#2	k 222.03	k 549030.	k 26.648	k 1073.8	k 525.88	k 537.68	496530.
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			100.00				
Range			-20.000%				

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	Cts/S	Cts/S	ppb
Avg	k **1003.6**	k **486.32**	k **532.84**	kF **299.9**	zF *****	zF *****	**196290.**
Stddev	2.8	.64	2.11	1.9	-----	-----	514.
%RSD	.28010	.13152	.39594	.6184	-----	-----	.26190
#1	k 1001.6	k 485.87	k 534.33	k 298.6	z 2113.	z 889.5	195920.
#2	k 1005.6	k 486.77	k 531.34	k 301.2	z 2109.	z 891.0	196650.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Pass
Value				200.0	200.0	200.0	
Range				20.00%	-20.00%	-20.00%	

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	Cts/S	ppb	ppb	ppb	ppb
Avg	k **5821.5**	CF **.0000**	zF *****	k **540.81**	k **1052.8**	k **11357.**	k **986.50**
Stddev	25.2	.0000	-----	1.91	2.6	51.	1.99
%RSD	.43284	.0000	-----	.35257	.25110	.44861	.20166
#1	k 5803.7	C .0000	z 411500.	k 542.15	k 1051.0	k 11321.	k 985.10
#2	k 5839.4	C .0000	z 416100.	k 539.46	k 1054.7	k 11393.	k 987.91
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value		200.0	200.0				
Range		-20.00%	-20.00%				

Sample Name: ICSAB Acquired: 12/5/2007 5:03:47 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	kF **202.24**	k **638.30**	k **45.279**	F **1313.3**	**1020.9**	**531.17**	kF **146.22**
Stddev	2.63	2.25	1.293	6.4	2.5	3.85	.39
%RSD	1.3014	.35197	2.8545	.48660	.24703	.72391	.26836
#1	k 200.38	k 636.71	k 44.365	1317.8	1019.2	533.89	k 146.50
#2	k 204.10	k 639.89	k 46.193	1308.8	1022.7	528.45	k 145.95
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail
Value	50.000			1000.0			200.00
Range	20.000%			20.000%			-20.000%

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	k **1084.0**	k **80.418**	k **516.03**	k **1077.1**
Stddev	5.5	.503	1.95	2.8
%RSD	.51176	.62529	.37822	.26309
#1	k 1087.9	k 80.063	k 517.41	k 1075.1
#2	k 1080.1	k 80.774	k 514.65	k 1079.1
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				
Range				

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	39381.	20995.	501800.
Stddev	141.	52.	2377.
%RSD	.35858	.24607	.47371
#1	39481.	21031.	500120.
#2	39281.	20958.	503480.

Sample Name: CCV Acquired: 12/5/2007 5:07:36 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**545.64**	**53746.**	**529.63**	**519.90**	**518.15**	F **55.623**
Stddev	5.62	309.	14.04	16.03	3.28	.586
%RSD	1.0307	.57411	2.6510	3.0836	.63249	1.0542
#1	549.61	53528.	539.56	531.23	520.46	56.038
#2	541.66	53964.	519.70	508.56	515.83	55.209
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value						50.000
Range						10.000%

Elem	Ca	Cd	Co	Cr	Cu2199	Cu2218
Units	ppb	ppb	ppb	ppb	ppb	Cts/S
Avg	**105480.**	**521.22**	**506.06**	**549.68**	**521.6**	zF *****
Stddev	438.	15.43	13.98	6.76	13.9	-----
%RSD	.41516	2.9602	2.7628	1.2305	2.658	-----
#1	105170.	532.13	515.95	554.47	531.4	z 1727.
#2	105790.	510.31	496.18	544.90	511.8	z 1724.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value						500.0
Range						-10.00%

Elem	Cu3273	Fe	K	Mg2802	Mg2852	Mn
Units	Cts/S	ppb	ppb	ppb	Cts/S	ppb
Avg	zF *****	**51577.**	F **27856.**	F **100400.**	zF *****	**538.98**
Stddev	-----	203.	208.	156.	-----	4.15
%RSD	-----	.39341	.74723	.1551	-----	.77035
#1	z 892.9	51434.	27709.	100500.	z 114900.	541.92
#2	z 887.7	51721.	28003.	100300.	z 115200.	536.04
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Pass
Value	500.0		25000.	500.0	500.0	
Range	-10.00%		10.000%	10.00%	-10.00%	

Sample Name: CCV Acquired: 12/5/2007 5:07:36 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mo	Na	Ni	Pb	Sb	Se
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**535.29**	**109720.**	**514.85**	**518.03**	**524.61**	**511.21**
Stddev	15.80	218.	16.01	17.03	13.81	14.52
%RSD	2.9519	.19901	3.1097	3.2875	2.6327	2.8401
#1	546.47	109570.	526.17	530.07	534.38	521.47
#2	524.12	109880.	503.53	505.98	514.85	500.94
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Si	Sn	Sr	Te	Ti	Tl
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F **554.29**	**526.97**	**525.70**	**527.68**	F **555.78**	**495.78**
Stddev	6.15	16.70	4.39	11.52	6.65	10.38
%RSD	1.1088	3.1690	.83592	2.1825	1.1960	2.0932
#1	558.64	538.78	528.80	535.82	560.48	503.12
#2	549.95	515.16	522.59	519.54	551.08	488.44
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value	500.00				500.00	
Range	10.000%				10.000%	

Elem	V	Zn
Units	ppb	ppb
Avg	**538.49**	F **629.23**
Stddev	5.11	18.78
%RSD	.94979	2.9840
#1	542.11	642.51
#2	534.88	615.96
Check ?	Chk Pass	Chk Fail
Value		500.00
Range		10.000%

Sample Name: CCV Acquired: 12/5/2007 5:07:36 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	41959.	21393.	526070.
Stddev	1011.	80.	3750.
%RSD	2.4089	.37359	.71286
#1	41245.	21449.	523420.
#2	42674.	21336.	528720.

Sample Name: CCB Acquired: 12/5/2007 5:11:06 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca	Cd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.17805**	**11.503**	**1.3140**	**-.53444**	**.00094**	**-.03444**	**1.1602**	**.03211**
Stddev	.49313	15.576	.0411	.09020	.00491	.00032	11.437	.04950
%RSD	276.96	135.40	3.1245	16.877	521.35	.93413	985.81	154.16
#1	.17064	22.517	1.2850	-.47066	.00442	-.03467	9.2476	-.00289
#2	-.52674	.48979	1.3431	-.59822	-.00253	-.03421	-6.9272	.06711
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co	Cr	Cu2199	Cu2218	Cu3273	Fe	K	Mg2802
Units	ppb	ppb	ppb	Cts/S	Cts/S	ppb	ppb	ppb
Avg	**-.30767**	**-.18642**	**-1.633**	z *****	z *****	**11.092**	**181.22**	F **14.26**
Stddev	.14457	.16106	.566	-----	-----	1.979	89.32	2.64
%RSD	46.990	86.396	34.64	-----	-----	17.842	49.288	18.50
#1	-.40990	-.30031	-2.034	z 659.2	z 622.7	12.492	244.38	16.12
#2	-.20544	-.07253	-1.233	z 661.2	z 628.2	9.6928	118.06	12.39
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit								3.000
Low Limit								-3.000

Elem	Mg2852	Mn	Mo	Na	Ni	Pb	Sb	Se
Units	Cts/S	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	z *****	**.06806**	**.21801**	**63.729**	**.01626**	**-.40748**	**.44971**	**-1.3746**
Stddev	-----	.00675	.19893	39.929	.07140	.53249	.46985	.9364
%RSD	-----	9.9152	91.248	62.655	439.08	130.68	104.48	68.125
#1	z 262.1	.06329	.35867	91.963	-.03423	-.78401	.11748	-.71242
#2	z 254.0	.07284	.07734	35.495	.06675	-.03095	.78194	-2.0367
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB Acquired: 12/5/2007 5:11:06 Type: QC
Method: TRACE(v3) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si	Sn	Sr	Te	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-4.0837**	**.04476**	**-.00474**	**1.6067**	**.08608**	**-.26592**	**.10269**	**-.34130**
Stddev	.3831	.35614	.00628	1.9484	.00723	1.4456	.26447	.02558
%RSD	9.3809	795.69	132.55	121.27	8.3983	543.61	257.56	7.4947
#1	-4.3546	.29659	-.00030	.22894	.08097	.75626	-.08433	-.35939
#2	-3.8128	-.20707	-.00918	2.9845	.09119	-1.2881	.28970	-.32321
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	43037.	21532.	547180.
Stddev	4.	273.	611.
%RSD	.00829	1.2661	.11169
#1	43040.	21339.	546740.
#2	43035.	21725.	547610.

Metals Preparation & Sample Description Log

Prep: 200.7 / 3005A / 3020A / 3050B/ 3010A/ ILC03.1 / ILM04.1 / ILM05.3 / ILM05.4

Date: 11-5-07 Batch No.: 202065

Analyst: MH Comments: HOT BLOCK DIGESTION (5.0)

Reviewed by: RA Date: 12-14-07 Spike Witness: Pep. Seq: 161714

	GPL Work Order No.	Sample	Frac	Size mL (g)	Final Vol. (mL)	Matrix S, W Other	Color Before (R, Bl, Y, G, O, V, W, Colorless, Br, Grey, Bk.)	Color After	Clarity Before or Soil Texture	Clarity After Clear, Cloudy, Opaque	Soil Artifacts or Water pH
1	BLK	065		1.00	100	S				Clear	✓
2	BKS	065		1.00							✓
3	711009	001	-001-i	1.14		Soil	Brown	Yellow	Medium		✓
4		MS		1.17							
5		MSD		1.20							
6		002	-002-i	1.12							
7		003	-003-i	1.18							
8		004	-004-i	1.10							
9		005	-005-i	1.14							
10		006	-006-i	1.15							
11		007	-007-i	1.21							
12		008	-008-i	1.16							
13		009	-009-i	1.23							
14		010	-010-i	1.10							
15		011	-011-i	1.10							
16		012	-012-i	1.13							
17		013	-013-i	1.12							
18		014	-014-i	1.10							
19		015	-015-i	1.25							
20		016	-016-i	1.14							
21		017	-017-i	1.12							
22		018	-018-i	1.09							
23		019	-019-i	1.22							
24		020	-020-i	1.20						MH-11-05T-07	

LCS ID/ Amt. Added (ml ,g): 0.2 ml (41862, 41863, 41864)

Spiking ID / Amt. Added (ml): 0.2 ml (41862, 41863, 41864)

Temperature C: 90°C

HNO3(1+1) ID: GP 057-164-01

HNO3(conc) ID: GP 129-11-01

HCl(conc) ID: GP 129-11-01

HCl(1+1) ID:

Peroxide ID: GP 129-16-12

Metals Preparation & Sample Description Log

Prep: 200.7 / 3005A / 3020A / (3050B) / 3010A/ ILC03.1 / ILM04.1 / ILM05.3 / ILM05.4

Date: 11-5-07 Batch No.: 202066

Analyst: MIL Comments: MOD BLOCK DIGESTION (Soil)

Reviewed by: RA Date: 12-14-07 Spike Witness: Pep. Seq: 101664

	GPL Work Order No.	Sample	Frac	Size mL (g)	Final Vol. (mL)	Matrix S, W Other	Color Before	Color After	Clarity Before or Soil Texture	Clarity After Clear, Cloudy, Opaque	Soil Artifacts or Water pH
							R, Bl, Y, G, O, V, W, Colorless, Br, Grey, Bk.				
1	BLK	066		1.00	100	S				Clear	
2	BKS	066		1.00							
3	711069	021	-021-1	1.16		Soil	Brown	Yellow	Medium		
4		MS		1.19							
5		MSD		1.22							
6		022	-022-1	1.16							
7		023	-023-1	1.21							
8		024	-024-1	1.13							
9		025	-025-1	1.21							
10		026	-026-1	1.11							
11		027	-027-1	1.17							
12		028	-028-1	1.18							
13		029	-029-1	1.19							
14		030	-030-1	1.21							
15		031	-031-1	1.15							
16		032	-032-1	1.18							
17		033	-033-1	1.19							
18		034	-034-1	1.19							
19		035	-035-1	1.12							
20		036	-036-1	1.11							
21		037	-037-1	1.21							
22		038	-038-1	1.22							
23		039	-039-1	1.20							
24		040	-040	1.24					MIL	11-05-07	

LCS ID/ Amt. Added (ml ,g): 0.2 ml (41862, 41863, 41864)

Spiking ID / Amt. Added (ml): 0.2 ml (41862, 41863, 41864)

Temperature C: 94°C

HNO3(1+1) ID: GP-057-164-05

HNO3(conc) ID: GP-129-11-08

HCl(conc) ID: GP-129-11-06

HCl(1+1) ID:

Peroxide ID: GP-129-10-12