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

TABLE OF CONTENTS

Section Title	Page Number
GEL Data Package	1 - 319
GPL Laboratories Data Package	
Analytical Results	1-23
Trace Metals	1-211

Case Narrative
for
Sanford Cohen and Associates, Inc.
SDG: 198681

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 December 04, 2007 for analysis. All sample containers arrived without any visible signs of tampering or breakage. 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
198681001	SB-CZ-SS-2097-BA
198681002	SB-CZ-SS-2098-BA
198681003	SB-CZ-SS-2099-BA
198681004	SB-CZ-SS-2101-BA
198681005	SB-CZ-SS-2102-BA
198681006	SB-CZ-SS-2103-BA
198681007	SB-CZ-SS-2104-BA
198681008	SB-CZ-SS-2105-BA
198681009	SB-CZ-SS-2106-BA
198681010	SB-CZ-SS-2107-BA
198681011	SB-CZ-SS-2108-BA
198681012	SB-CZ-SS-2109-BA
198681013	SB-CZ-SS-2110-BA
198681014	SB-CZ-SS-2097-BD
198681015	SB-CZ-SS-2098-BD
198681016	SB-CZ-SS-2099-BD
198681017	SB-CZ-SS-2101-BD
198681018	SB-CZ-SS-2102-BD
198681019	SB-CZ-SS-2103-BD
198681020	SB-CZ-SS-2104-BD
198681021	SB-CZ-SS-2105-BD
198681022	SB-CZ-SS-2106-BD
198681023	SB-CZ-SS-2107-BD
198681024	SB-CZ-SS-2108-BD
198681025	SB-CZ-SS-2109-BD
198681026	SB-CZ-SS-2110-BD
198681027	SB-CZ-SS-2111-BA
198681028	SB-CZ-SS-2112-BA
198681029	SB-CZ-SS-2113-BA

198681030	SB-CZ-SS-2114-BA
198681031	SB-CZ-SS-2111-BD
198681032	SB-CZ-SS-2112-BD
198681033	SB-CZ-SS-2113-BD
198681034	SB-CZ-SS-2114-BD

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

198681

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# 41

Laboratory Prefix

Study I.D.

Pg 1 of 3

Item No.	Date	Time	Matrix	Sample I.D.	# of CONTAINERS		Lead					SH2017	8030	Laboratory	Comments
1	10/18/2007		Soil	SB-CZ-SS-2097-BA	1		X						01		
2	10/18/2007		Soil	SB-CZ-SS-2098-BA	1		X						02		
3	10/18/2007		Soil	SB-CZ-SS-2099-BA	1		X						03		
4	~~10/18/2007~~		~~Soil~~	~~SB-CZ-SS-2100-BA~~	1		X								
5	10/18/2007		Soil	SB-CZ-SS-2101-BA	1		X						04		
6	10/18/2007		Soil	SB-CZ-SS-2102-BA	1		X						05		
7	10/18/2007		Soil	SB-CZ-SS-2103-BA	1		X						06		
8	10/18/2007		Soil	SB-CZ-SS-2104-BA	1		X						07		
9	10/18/2007		Soil	SB-CZ-SS-2105-BA	1		X						08		
10	10/18/2007		Soil	SB-CZ-SS-2106-BA	1		X						09		
11	10/18/2007		Soil	SB-CZ-SS-2107-BA	1		X						10		
12	10/18/2007		Soil	SB-CZ-SS-2108-BA	1		X						11		
13	10/18/2007		Soil	SB-CZ-SS-2109-BA	1		X						12		
14	10/18/2007		Soil	SB-CZ-SS-2110-BA	1		X						13		

Sampled by and Title Alfred Craig FSP	Date/Time 10-18-07	Relinquished by: Alfred Craig FSP	Date/Time	QC Level 1 2 3	
Received by: [signature]	Date/Time 10/22/07 8:10	Relinquished by:	Date/Time	COC	ICE
Received by: [signature]	Date/Time 10-24-07 950	Relinquished by: [signature]	Date/Time 10/24/07	ANA REQ	TEMP
Sample SB-CZ-SS-2100-BA and BD not sent. Received client was contacted on site. Was informed not worry about. They had already left job site		Sample shipped via	Air Bill #	Cust Seal	pH
		UPS FED-EX HAND OTHER		Sample	

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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# 41

Laboratory Prefix

Study I.D.

Pg 2 of 3

Item No.	Date	Time	Matrix	Sample I.D.	# of CONTAINERS		Lead					DH207	8031	Laboratory	Comments
1	10/18/2007		Soil	SB-CZ-SS-2097-BD	1		X						01		
2	10/18/2007		Soil	SB-CZ-SS-2098-BD	1		X						02		
3	10/18/2007		Soil	SB-CZ-SS-2099-BD	1		X						03		
4	~~10/18/2007~~		~~Soil~~	~~SB-CZ-SS-2100-BD~~	1		X								
5	10/18/2007		Soil	SB-CZ-SS-2101-BD	1		X						04		
6	10/18/2007		Soil	SB-CZ-SS-2102-BD	1		X						05		
7	10/18/2007		Soil	SB-CZ-SS-2103-BD	1		X						06		
8	10/18/2007		Soil	SB-CZ-SS-2104-BD	1		X						07		
9	10/18/2007		Soil	SB-CZ-SS-2105-BD	1		X						08		
10	10/18/2007		Soil	SB-CZ-SS-2106-BD	1		X						09		
11	10/18/2007		Soil	SB-CZ-SS-2107-BD	1		X						10		
12	10/18/2007		Soil	SB-CZ-SS-2108-BD	1		X						11		
13	10/18/2007		Soil	SB-CZ-SS-2109-BD	1		X						12		
14	10/18/2007		Soil	SB-CZ-SS-2110-BD	1		X						13		

Sampled by and Title Alfred Craig FSP	Date/Time 10-18-07	Relinquished by: Alfred Craig FSP	Date/Time	QC Level 1 2 3	
Received by: C. Quinn - SC&A	Date/Time 12/4/07 8:40	Relinquished by: C. Quinn - SC&A	Date/Time 12/4/07 1530	COC	ICE
Received by: Tiffany Adams	Date/Time 12-04-07 950	Relinquished by:	Date/Time	ANA REQ	TEMP
		Sample shipped via UPS FED-EX HAND OTHER	Air Bill #	Cust Seal	pH
				Sample	

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# 41

Laboratory Prefix

Study I.D.

Pg 7 of 3

Item No.	Date	Time	Matrix	Sample I.D.	# of CONTAINERS		Lead					01H251	8032	Laboratory	Comments
1	10/18/2007		Soil	SB-CZ-SS-2111-BA	1		X						01		
2	10/18/2007		Soil	SB-CZ-SS-2112-BA	1		X						02		
3	10/18/2007		Soil	SB-CZ-SS-2113-BA	1		X						03		
4	10/18/2007		Soil	SB-CZ-SS-2114-BA	1		X						04		
5	10/18/2007		Soil	SB-CZ-SS-2111-BD	1		X					01H207	8033-01		
6	10/18/2007		Soil	SB-CZ-SS-2112-BD	1		X						02		
7	10/18/2007		Soil	SB-CZ-SS-2113-BD	1		X						03		
8	10/18/2007		Soil	SB-CZ-SS-2114-BD	1		X						04		
9															
10															
11															
12															
13															
14															

Sampled by and Title Alfred Craig FSP	Date/Time 10-18-07	Relinquished by: Alfred Craig FSP	Date/Time	QC Level 1 2 3	
Received by: C. Clarke SCA	Date/Time 10/19/07 8:40	Relinquished by: C. Clarke SCA	Date/Time 10/19/07 15:00	COC	ICE
Received by: Jeffery Adams	Date/Time 10-04-07 950	Relinquished by:	Date/Time	ANA REQ	TEMP
		Sample shipped via UPS FED-EX HAND OTHER	Air Bill #	Cust Seal	pH
				Sample	

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: SCAN	**SDG/ARCOC/Work Order:** 198681, 198683, 198686, 198688
Received By: Ricky Albee	**Date Received:** 12/4/07

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*: 80CPM
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) 17°, 18°
3	Chain of custody documents included with shipment?	✓			
4	Sample containers intact and sealed?	✓			Circle Applicable: seals broken damaged container leaking container other (describe)
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 times on chain or samples
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:
8416 9069 7819-18°
7830-17°

PM (or PMA) review: Initials RAA Date 12/4

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

Radiochemistry Case Narrative
Sanford Cohen and Associates, Inc. (SCAN)
SDG 198681

Method/Analysis Information

Product:	**Gammaspec, Gamma, Solid**
Analytical Method:	EML HASL 300, 4.5.2.3
Prep Method:	Dry Soil Prep
Analytical Batch Number:	708121
Prep Batch Number:	707910

Sample ID	Client ID
198681001	SB-CZ-SS-2097-BA
198681002	SB-CZ-SS-2098-BA
198681003	SB-CZ-SS-2099-BA
198681004	SB-CZ-SS-2101-BA
198681005	SB-CZ-SS-2102-BA
198681006	SB-CZ-SS-2103-BA
198681007	SB-CZ-SS-2104-BA
198681008	SB-CZ-SS-2105-BA
198681009	SB-CZ-SS-2106-BA
198681010	SB-CZ-SS-2107-BA
198681011	SB-CZ-SS-2108-BA
198681012	SB-CZ-SS-2109-BA
198681013	SB-CZ-SS-2110-BA
198681014	SB-CZ-SS-2097-BD
198681015	SB-CZ-SS-2098-BD
198681016	SB-CZ-SS-2099-BD
198681017	SB-CZ-SS-2101-BD
198681018	SB-CZ-SS-2102-BD
198681019	SB-CZ-SS-2103-BD
198681020	SB-CZ-SS-2104-BD
1201473811	Method Blank (MB)
1201473812	198681001(SB-CZ-SS-2097-BA) Sample Duplicate (DUP)
1201473813	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: 198681001 (SB-CZ-SS-2097-BA).

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, 1201473812 (SB-CZ-SS-2097-BA) and 198681001 (SB-CZ-SS-2097-BA), did not meet the relative percent difference requirements for Bi-214 and Cs-137, however they do meet the relative error ratio requirement with values of 2.77 and 1.84, respectively.

Qualifier information

Qualifier	Reason	Analyte	Sample
UI	Data rejected due to a high counting uncertainty.	Protactinium-234m	198681006
UI	Data rejected due to high peak-width.	Cesium-137	198681020
		Neptunium-236	198681018
		Polonium-209	198681011
UI	Data rejected due to interference.	Americium-243	198681001
			198681002
			198681003
			198681004
			198681005
			198681006
			198681007
			198681008
			198681009
			198681010
			198681011
			198681012
			198681013
			198681014
			198681015
			198681016
			198681017
			198681018
			198681019
			198681020
			1201473812
		Curium-243	198681010
			198681011

Europium-155	198681010
	198681011
Neptunium-236	198681003
	198681005
	198681014
Neptunium-237	198681001
	198681002
	198681003
	198681005
	198681006
	198681007
	198681008
	198681009
	198681010
	198681011
	198681012
	198681013
	198681014
	198681015
	198681016
	198681017
	198681018
	198681019
	198681020
	1201473812
Radium-223	198681001
	198681002
	198681003
	198681004
	198681005

			198681006
			198681007
			198681008
			198681009
			198681010
			198681011
			198681012
			198681013
			198681014
			198681015
			198681016
			198681017
			198681018
			198681019
			198681020
			1201473812
UI	Data rejected due to low abundance.	Bismuth-214	198681018
			198681019
		Thorium-234	198681008
UI	Data rejected due to no valid peak.	Protactinium-234m	198681008
		Uranium-235	198681002
			198681003
			198681006
			198681014

Method/Analysis Information

Product:	**Gammaspec, Gamma, Solid**
Analytical Method:	EML HASL 300, 4.5.2.3
Prep Method:	Dry Soil Prep
Analytical Batch Number:	708123
Prep Batch Number:	707913

Sample ID	Client ID
198681021	SB-CZ-SS-2105-BD
198681022	SB-CZ-SS-2106-BD
198681023	SB-CZ-SS-2107-BD
198681024	SB-CZ-SS-2108-BD
198681025	SB-CZ-SS-2109-BD
198681026	SB-CZ-SS-2110-BD
198681027	SB-CZ-SS-2111-BA
198681028	SB-CZ-SS-2112-BA
198681029	SB-CZ-SS-2113-BA
198681030	SB-CZ-SS-2114-BA
198681031	SB-CZ-SS-2111-BD
198681032	SB-CZ-SS-2112-BD
198681033	SB-CZ-SS-2113-BD
198681034	SB-CZ-SS-2114-BD
1201473818	Method Blank (MB)
1201473819	198681021(SB-CZ-SS-2105-BD) Sample Duplicate (DUP)
1201473820	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: 198681021 (SB-CZ-SS-2105-BD).

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
Sample 198681026 (SB-CZ-SS-2110-BD) was recounted due to a peak shift.

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, 1201473819 (SB-CZ-SS-2105-BD) and 198681021 (SB-CZ-SS-2105-BD), did not meet the relative percent difference requirement for Th-234, however they do meet the relative error ratio requirement with value of 2.76

Qualifier information

Qualifier	Reason	Analyte	Sample
UI	Data rejected due to high peak-width.	Polonium-209	198681033
		Protactinium-234m	198681029
UI	Data rejected due to interference.	Americium-243	198681021
			198681022
			198681023
			198681024
			198681025

	198681026
	198681027
	198681028
	198681029
	198681030
	198681031
	198681032
	198681033
	198681034
	1201473819
Americium-246	198681025
Curium-243	198681021
	198681022
	198681024
Europium-155	198681021
	198681022
	198681024
Neptunium-236	1201473819
Neptunium-237	198681021
	198681022
	198681023
	198681024
	198681025
	198681026
	198681027
	198681028
	198681029
	198681030
	198681031
	198681032

			198681033
			198681034
			1201473819
		Radium-223	198681021
			198681022
			198681023
			198681024
			198681025
			198681026
			198681027
			198681028
			198681029
			198681030
			198681031
			198681032
			198681033
			198681034
			1201473819
UI	Data rejected due to no valid peak.	Protactinium-234m	198681024

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:_____ 12/17/07 _____

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: 198681 GEL Work Order: 198681

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 17, 2007

Client Sample ID: SB−CZ−SS−2097−BA
Sample ID: 198681001
Matrix: Soil
Collect Date: 18−OCT−07
Receive Date: 04−DEC−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		0.850	+/−0.140	0.0853	+/−0.140	0.800	pCi/g		MJH1	12/14/07	1907	708121	1
Americium−241	U	0.0682	+/−0.0646	0.102	+/−0.0646	0.200	pCi/g						
Americium−243	UI	0.138	+/−0.0298	0.033	+/−0.0298		pCi/g						
Americium−246	U	−0.0271	+/−0.0516	0.0833	+/−0.0516		pCi/g						
Antimony−125	U	−0.00776	+/−0.0393	0.0663	+/−0.0393	0.200	pCi/g						
Bismuth−211	U	0.405	+/−0.447	0.699	+/−0.447		pCi/g						
Bismuth−212		0.687	+/−0.189	0.172	+/−0.189	0.500	pCi/g						
Bismuth−214		0.459	+/−0.0682	0.0454	+/−0.0682	0.200	pCi/g						
Californium−249	U	0.0155	+/−0.0163	0.0288	+/−0.0163		pCi/g						
Cesium−137		0.175	+/−0.0367	0.0237	+/−0.0367	0.100	pCi/g						
Cobalt−60	U	0.00132	+/−0.0156	0.0261	+/−0.0156	0.100	pCi/g						
Curium−243	U	0.0244	+/−0.0359	0.066	+/−0.0359		pCi/g						
Europium−155	U	0.0161	+/−0.0394	0.0722	+/−0.0394	0.500	pCi/g						
Lead−212		0.837	+/−0.0713	0.0387	+/−0.0713	0.100	pCi/g						
Lead−214		0.545	+/−0.0661	0.0475	+/−0.0661	0.100	pCi/g						
Neptunium−236	U	0.023	+/−0.0252	0.041	+/−0.0252		pCi/g						
Neptunium−237	UI	0.392	+/−0.105	0.142	+/−0.105		pCi/g						
Neptunium−239	U	0.0509	+/−0.0921	0.160	+/−0.0921	2.00	pCi/g						
Polonium−209	U	2.49	+/−2.59	4.64	+/−2.59		pCi/g						
Potassium−40		4.72	+/−0.491	0.195	+/−0.491	1.00	pCi/g						
Protactinium−233	U	0.0186	+/−0.0258	0.0455	+/−0.0258		pCi/g						
Protactinium−234m	U	0.822	+/−1.59	2.76	+/−1.59		pCi/g						
Radium−223	UI	0.237	+/−0.109	0.119	+/−0.109		pCi/g						
Rhodium−101	U	−0.00141	+/−0.0156	0.024	+/−0.0156		pCi/g						
Thallium−208		0.268	+/−0.0355	0.0218	+/−0.0355	0.080	pCi/g						
Thorium−234		1.05	+/−0.296	0.306	+/−0.296	0.500	pCi/g						
Uranium−235	U	0.0744	+/−0.0771	0.138	+/−0.0771	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 17, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2097−BA Project: SCAN00101
Sample ID: 198681001 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 17, 2007

Client Sample ID: SB−CZ−SS−2098−BA
Sample ID: 198681002
Matrix: Soil
Collect Date: 18−OCT−07
Receive Date: 04−DEC−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		0.938	+/−0.139	0.083	+/−0.139	0.800	pCi/g		MJH1	12/14/07	1907	708121	1
Americium−241	U	0.0159	+/−0.0742	0.120	+/−0.0742	0.200	pCi/g						
Americium−243	UI	0.159	+/−0.036	0.0341	+/−0.036		pCi/g						
Americium−246	U	0.0344	+/−0.0526	0.0934	+/−0.0526		pCi/g						
Antimony−125	U	0.00547	+/−0.0398	0.0672	+/−0.0398	0.200	pCi/g						
Bismuth−211	U	−0.381	+/−0.440	0.695	+/−0.440		pCi/g						
Bismuth−212		0.627	+/−0.189	0.169	+/−0.189	0.500	pCi/g						
Bismuth−214		0.663	+/−0.0785	0.0454	+/−0.0785	0.200	pCi/g						
Californium−249	U	0.0131	+/−0.0161	0.0281	+/−0.0161		pCi/g						
Cesium−137		0.146	+/−0.0326	0.0251	+/−0.0326	0.100	pCi/g						
Cobalt−60	U	−0.00144	+/−0.0161	0.027	+/−0.0161	0.100	pCi/g						
Curium−243	U	0.0334	+/−0.0467	0.0619	+/−0.0467		pCi/g						
Europium−155	U	0.0369	+/−0.0516	0.0695	+/−0.0516	0.500	pCi/g						
Lead−212		0.831	+/−0.0682	0.0374	+/−0.0682	0.100	pCi/g						
Lead−214		0.752	+/−0.0771	0.0465	+/−0.0771	0.100	pCi/g						
Neptunium−236	U	0.0144	+/−0.0308	0.0427	+/−0.0308		pCi/g						
Neptunium−237	UI	0.286	+/−0.130	0.145	+/−0.130		pCi/g						
Neptunium−239	U	−0.0577	+/−0.0881	0.141	+/−0.0881	2.00	pCi/g						
Polonium−209	U	1.81	+/−3.13	5.37	+/−3.13		pCi/g						
Potassium−40		4.97	+/−0.557	0.242	+/−0.557	1.00	pCi/g						
Protactinium−233	U	−0.0152	+/−0.0258	0.0434	+/−0.0258		pCi/g						
Protactinium−234m	U	−0.881	+/−2.50	3.55	+/−2.50		pCi/g						
Radium−223	UI	0.304	+/−0.104	0.122	+/−0.104		pCi/g						
Rhodium−101	U	0.002	+/−0.0154	0.0226	+/−0.0154		pCi/g						
Thallium−208		0.247	+/−0.0403	0.0235	+/−0.0403	0.080	pCi/g						
Thorium−234		0.888	+/−0.326	0.309	+/−0.326	0.500	pCi/g						
Uranium−235	UI	0.241	+/−0.127	0.125	+/−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 17, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2098−BA Project: SCAN00101
Sample ID: 198681002 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 17, 2007

Client Sample ID: SB−CZ−SS−2099−BA
Sample ID: 198681003
Matrix: Soil
Collect Date: 18−OCT−07
Receive Date: 04−DEC−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		0.913	+/−0.159	0.095	+/−0.159	0.800	pCi/g		MJH1	12/14/07	1908	708121	1
Americium−241	U	−0.0165	+/−0.0705	0.111	+/−0.0705	0.200	pCi/g						
Americium−243	UI	0.148	+/−0.031	0.0354	+/−0.031		pCi/g						
Americium−246	U	0.0546	+/−0.0532	0.0971	+/−0.0532		pCi/g						
Antimony−125	U	0.0374	+/−0.0484	0.0741	+/−0.0484	0.200	pCi/g						
Bismuth−211	U	0.0481	+/−0.526	0.767	+/−0.526		pCi/g						
Bismuth−212		0.843	+/−0.214	0.190	+/−0.214	0.500	pCi/g						
Bismuth−214		0.677	+/−0.0915	0.0492	+/−0.0915	0.200	pCi/g						
Californium−249	U	−0.0169	+/−0.0177	0.0287	+/−0.0177		pCi/g						
Cesium−137		0.182	+/−0.0318	0.0264	+/−0.0318	0.100	pCi/g						
Cobalt−60	U	−0.0223	+/−0.0206	0.0278	+/−0.0206	0.100	pCi/g						
Curium−243	U	0.0203	+/−0.0398	0.0693	+/−0.0398		pCi/g						
Europium−155	U	0.0278	+/−0.0444	0.0775	+/−0.0444	0.500	pCi/g						
Lead−212		0.948	+/−0.0777	0.0423	+/−0.0777	0.100	pCi/g						
Lead−214		0.793	+/−0.0921	0.0542	+/−0.0921	0.100	pCi/g						
Neptunium−236	UI	0.0464	+/−0.035	0.0404	+/−0.035		pCi/g						
Neptunium−237	UI	0.531	+/−0.126	0.147	+/−0.126		pCi/g						
Neptunium−239	U	−0.00208	+/−0.0953	0.167	+/−0.0953	2.00	pCi/g						
Polonium−209	U	−1.37	+/−3.19	5.14	+/−3.19		pCi/g						
Potassium−40		4.06	+/−0.550	0.252	+/−0.550	1.00	pCi/g						
Protactinium−233	U	0.0215	+/−0.0292	0.0513	+/−0.0292		pCi/g						
Protactinium−234m	U	1.94	+/−3.23	3.17	+/−3.23		pCi/g						
Radium−223	UI	0.364	+/−0.128	0.136	+/−0.128		pCi/g						
Rhodium−101	U	0.0108	+/−0.015	0.0269	+/−0.015		pCi/g						
Thallium−208		0.273	+/−0.0401	0.0262	+/−0.0401	0.080	pCi/g						
Thorium−234		1.33	+/−0.369	0.316	+/−0.369	0.500	pCi/g						
Uranium−235	UI	0.286	+/−0.147	0.141	+/−0.147	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 17, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2099−BA Project: SCAN00101
Sample ID: 198681003 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 17, 2007

Client Sample ID: SB−CZ−SS−2101−BA
Sample ID: 198681004
Matrix: Soil
Collect Date: 18−OCT−07
Receive Date: 04−DEC−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		1.12	+/−0.143	0.0791	+/−0.143	0.800	pCi/g		MJH1	12/14/07	1908	708121	1
Americium−241	U	0.0158	+/−0.0348	0.0571	+/−0.0348	0.200	pCi/g						
Americium−243	UI	0.198	+/−0.0238	0.0251	+/−0.0238		pCi/g						
Americium−246	U	0.0298	+/−0.049	0.0874	+/−0.049		pCi/g						
Antimony−125	U	0.0153	+/−0.0344	0.0594	+/−0.0344	0.200	pCi/g						
Bismuth−211	U	0.275	+/−0.417	0.642	+/−0.417		pCi/g						
Bismuth−212		0.895	+/−0.193	0.154	+/−0.193	0.500	pCi/g						
Bismuth−214		0.787	+/−0.0838	0.0434	+/−0.0838	0.200	pCi/g						
Californium−249	U	0.00544	+/−0.0173	0.0269	+/−0.0173		pCi/g						
Cesium−137		0.197	+/−0.0277	0.023	+/−0.0277	0.100	pCi/g						
Cobalt−60	U	−0.0129	+/−0.0221	0.0255	+/−0.0221	0.100	pCi/g						
Curium−243	U	0.013	+/−0.0438	0.0547	+/−0.0438		pCi/g						
Europium−155	U	0.0512	+/−0.0545	0.0608	+/−0.0545	0.500	pCi/g						
Lead−212		1.05	+/−0.076	0.0345	+/−0.076	0.100	pCi/g						
Lead−214		0.965	+/−0.0833	0.0417	+/−0.0833	0.100	pCi/g						
Neptunium−236	U	0.0216	+/−0.0229	0.0325	+/−0.0229		pCi/g						
Neptunium−237	U	0.0565	+/−0.0822	0.114	+/−0.0822		pCi/g						
Neptunium−239	U	−0.0168	+/−0.0795	0.141	+/−0.0795	2.00	pCi/g						
Polonium−209	U	0.0735	+/−2.68	4.50	+/−2.68		pCi/g						
Potassium−40		7.58	+/−0.646	0.198	+/−0.646	1.00	pCi/g						
Protactinium−233	U	−0.00619	+/−0.023	0.0398	+/−0.023		pCi/g						
Protactinium−234m	U	0.117	+/−1.59	2.65	+/−1.59		pCi/g						
Radium−223	UI	0.379	+/−0.0991	0.103	+/−0.0991		pCi/g						
Rhodium−101	U	0.00481	+/−0.0138	0.0223	+/−0.0138		pCi/g						
Thallium−208		0.326	+/−0.038	0.0217	+/−0.038	0.080	pCi/g						
Thorium−234		1.48	+/−0.283	0.255	+/−0.283	0.500	pCi/g						
Uranium−235	U	−0.00931	+/−0.0818	0.127	+/−0.0818	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 17, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2101−BA Project: SCAN00101
Sample ID: 198681004 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 17, 2007

Client Sample ID: SB−CZ−SS−2102−BA
Sample ID: 198681005
Matrix: Soil
Collect Date: 18−OCT−07
Receive Date: 04−DEC−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		1.04	+/−0.165	0.121	+/−0.165	0.800	pCi/g		MJH1	12/14/07	1908	708121	1
Americium−241	U	0.0222	+/−0.0238	0.0371	+/−0.0238	0.200	pCi/g						
Americium−243	UI	0.193	+/−0.0246	0.020	+/−0.0246		pCi/g						
Americium−246	U	0.0752	+/−0.0687	0.124	+/−0.0687		pCi/g						
Antimony−125	U	0.0202	+/−0.0458	0.079	+/−0.0458	0.200	pCi/g						
Bismuth−211	U	0.692	+/−0.527	0.962	+/−0.527		pCi/g						
Bismuth−212		0.555	+/−0.210	0.230	+/−0.210	0.500	pCi/g						
Bismuth−214		0.632	+/−0.0924	0.0579	+/−0.0924	0.200	pCi/g						
Californium−249	U	0.00593	+/−0.0191	0.0328	+/−0.0191		pCi/g						
Cesium−137		0.125	+/−0.0347	0.033	+/−0.0347	0.100	pCi/g						
Cobalt−60	U	0.013	+/−0.0219	0.038	+/−0.0219	0.100	pCi/g						
Curium−243	U	0.0395	+/−0.0414	0.0548	+/−0.0414		pCi/g						
Europium−155	U	0.0436	+/−0.0458	0.0611	+/−0.0458	0.500	pCi/g						
Lead−212		1.02	+/−0.0795	0.0416	+/−0.0795	0.100	pCi/g						
Lead−214		0.661	+/−0.0721	0.0558	+/−0.0721	0.100	pCi/g						
Neptunium−236	UI	0.0361	+/−0.0246	0.0337	+/−0.0246		pCi/g						
Neptunium−237	UI	0.507	+/−0.102	0.106	+/−0.102		pCi/g						
Neptunium−239	U	−0.0107	+/−0.0929	0.162	+/−0.0929	2.00	pCi/g						
Polonium−209	U	3.10	+/−3.65	6.53	+/−3.65		pCi/g						
Potassium−40		4.31	+/−0.643	0.333	+/−0.643	1.00	pCi/g						
Protactinium−233	U	0.0108	+/−0.0289	0.0504	+/−0.0289		pCi/g						
Protactinium−234m	U	2.14	+/−1.79	3.94	+/−1.79		pCi/g						
Radium−223	UI	0.277	+/−0.141	0.134	+/−0.141		pCi/g						
Rhodium−101	U	0.0116	+/−0.0174	0.0236	+/−0.0174		pCi/g						
Thallium−208		0.321	+/−0.0422	0.0302	+/−0.0422	0.080	pCi/g						
Thorium−234		1.10	+/−0.214	0.246	+/−0.214	0.500	pCi/g						
Uranium−235	U	0.0976	+/−0.0806	0.139	+/−0.0806	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 17, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2102−BA Project: SCAN00101
Sample ID: 198681005 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 17, 2007

Client Sample ID: SB−CZ−SS−2103−BA
Sample ID: 198681006
Matrix: Soil
Collect Date: 18−OCT−07
Receive Date: 04−DEC−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		0.933	+/−0.142	0.0719	+/−0.142	0.800	pCi/g		MJH1	12/14/07	1909	708121	1
Americium−241	U	0.0245	+/−0.0532	0.0795	+/−0.0532	0.200	pCi/g						
Americium−243	UI	0.173	+/−0.0285	0.0288	+/−0.0285		pCi/g						
Americium−246	U	0.00653	+/−0.0432	0.0723	+/−0.0432		pCi/g						
Antimony−125	U	−0.00322	+/−0.033	0.0545	+/−0.033	0.200	pCi/g						
Bismuth−211	U	0.150	+/−0.397	0.610	+/−0.397		pCi/g						
Bismuth−212		0.457	+/−0.130	0.170	+/−0.130	0.500	pCi/g						
Bismuth−214		0.746	+/−0.082	0.0406	+/−0.082	0.200	pCi/g						
Californium−249	U	0.0073	+/−0.0149	0.0251	+/−0.0149		pCi/g						
Cesium−137		0.145	+/−0.0257	0.0238	+/−0.0257	0.100	pCi/g						
Cobalt−60	U	0.00503	+/−0.0134	0.0224	+/−0.0134	0.100	pCi/g						
Curium−243	U	0.0484	+/−0.0439	0.0578	+/−0.0439		pCi/g						
Europium−155	U	0.0535	+/−0.0485	0.067	+/−0.0485	0.500	pCi/g						
Lead−212		1.04	+/−0.0756	0.0349	+/−0.0756	0.100	pCi/g						
Lead−214		0.857	+/−0.073	0.0416	+/−0.073	0.100	pCi/g						
Neptunium−236	U	0.0192	+/−0.0286	0.0357	+/−0.0286		pCi/g						
Neptunium−237	UI	0.606	+/−0.127	0.129	+/−0.127		pCi/g						
Neptunium−239	U	−0.0172	+/−0.104	0.145	+/−0.104	2.00	pCi/g						
Polonium−209	U	1.21	+/−2.44	4.20	+/−2.44		pCi/g						
Potassium−40		2.36	+/−0.357	0.202	+/−0.357	1.00	pCi/g						
Protactinium−233	U	0.0104	+/−0.0234	0.0401	+/−0.0234		pCi/g						
Protactinium−234m	UI	2.77	+/−2.88	2.26	+/−2.88		pCi/g						
Radium−223	UI	0.355	+/−0.124	0.109	+/−0.124		pCi/g						
Rhodium−101	U	−0.00516	+/−0.0169	0.0231	+/−0.0169		pCi/g						
Thallium−208		0.289	+/−0.0387	0.0202	+/−0.0387	0.080	pCi/g						
Thorium−234		0.923	+/−0.292	0.282	+/−0.292	0.500	pCi/g						
Uranium−235	UI	0.202	+/−0.146	0.129	+/−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 17, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2103−BA Project: SCAN00101
Sample ID: 198681006 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 Report Date: December 17, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID:	SB−CZ−SS−2104−BA	Project:	SCAN00101
Sample ID:	198681007	Client ID:	SCAN001
Matrix:	Soil		
Collect Date:	18−OCT−07		
Receive Date:	04−DEC−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		1.06	+/−0.159	0.102	+/−0.159	0.800	pCi/g		MJH1	12/14/07	1909	708121	1
Americium−241	U	−0.0158	+/−0.0663	0.111	+/−0.0663	0.200	pCi/g						
Americium−243	UI	0.237	+/−0.0324	0.0339	+/−0.0324		pCi/g						
Americium−246	U	−0.00345	+/−0.0572	0.0973	+/−0.0572		pCi/g						
Antimony−125	U	0.017	+/−0.0427	0.0737	+/−0.0427	0.200	pCi/g						
Bismuth−211	U	0.206	+/−0.572	0.851	+/−0.572		pCi/g						
Bismuth−212		0.753	+/−0.217	0.229	+/−0.217	0.500	pCi/g						
Bismuth−214		0.876	+/−0.0813	0.051	+/−0.0813	0.200	pCi/g						
Californium−249	U	0.0194	+/−0.0222	0.0306	+/−0.0222		pCi/g						
Cesium−137		0.171	+/−0.0308	0.0267	+/−0.0308	0.100	pCi/g						
Cobalt−60	U	0.0158	+/−0.0184	0.0307	+/−0.0184	0.100	pCi/g						
Curium−243	U	0.0569	+/−0.048	0.0607	+/−0.048		pCi/g						
Europium−155	U	0.0629	+/−0.053	0.0671	+/−0.053	0.500	pCi/g						
Lead−212		1.11	+/−0.0786	0.0402	+/−0.0786	0.100	pCi/g						
Lead−214		0.969	+/−0.0894	0.0506	+/−0.0894	0.100	pCi/g						
Neptunium−236	U	0.0177	+/−0.0197	0.0382	+/−0.0197		pCi/g						
Neptunium−237	UI	0.668	+/−0.122	0.140	+/−0.122		pCi/g						
Neptunium−239	U	0.0433	+/−0.0969	0.165	+/−0.0969	2.00	pCi/g						
Polonium−209	U	0.629	+/−3.40	5.71	+/−3.40		pCi/g						
Potassium−40		6.36	+/−0.647	0.223	+/−0.647	1.00	pCi/g						
Protactinium−233	U	−0.00277	+/−0.0278	0.0485	+/−0.0278		pCi/g						
Protactinium−234m	U	0.591	+/−2.78	3.01	+/−2.78		pCi/g						
Radium−223	UI	0.390	+/−0.162	0.130	+/−0.162		pCi/g						
Rhodium−101	U	0.0117	+/−0.0197	0.0236	+/−0.0197		pCi/g						
Thallium−208		0.358	+/−0.0427	0.0272	+/−0.0427	0.080	pCi/g						
Thorium−234		1.16	+/−0.316	0.299	+/−0.316	0.500	pCi/g						
Uranium−235	U	0.00369	+/−0.111	0.134	+/−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 17, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2104−BA Project: SCAN00101
Sample ID: 198681007 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 17, 2007

Client Sample ID: SB−CZ−SS−2105−BA
Sample ID: 198681008
Matrix: Soil
Collect Date: 18−OCT−07
Receive Date: 04−DEC−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		1.14	+/−0.219	0.133	+/−0.219	0.800	pCi/g		MJH1	12/15/07	0631	708121	1
Americium−241	U	−0.0187	+/−0.110	0.184	+/−0.110	0.200	pCi/g						
Americium−243	UI	0.292	+/−0.0678	0.0565	+/−0.0678		pCi/g						
Americium−246	U	0.0563	+/−0.0882	0.155	+/−0.0882		pCi/g						
Antimony−125	U	0.0185	+/−0.0588	0.112	+/−0.0588	0.200	pCi/g						
Bismuth−211	U	−0.40	+/−0.727	1.17	+/−0.727		pCi/g						
Bismuth−212		0.861	+/−0.326	0.313	+/−0.326	0.500	pCi/g						
Bismuth−214		0.783	+/−0.129	0.0844	+/−0.129	0.200	pCi/g						
Californium−249	U	0.00394	+/−0.029	0.0488	+/−0.029		pCi/g						
Cesium−137		0.206	+/−0.0653	0.045	+/−0.0653	0.100	pCi/g						
Cobalt−60	U	−0.00198	+/−0.0279	0.0457	+/−0.0279	0.100	pCi/g						
Curium−243	U	0.0544	+/−0.0652	0.113	+/−0.0652		pCi/g						
Europium−155	U	0.0602	+/−0.0721	0.125	+/−0.0721	0.500	pCi/g						
Lead−212		0.984	+/−0.102	0.0666	+/−0.102	0.100	pCi/g						
Lead−214		1.09	+/−0.119	0.0794	+/−0.119	0.100	pCi/g						
Neptunium−236	U	0.0339	+/−0.0441	0.0696	+/−0.0441		pCi/g						
Neptunium−237	UI	0.605	+/−0.187	0.240	+/−0.187		pCi/g						
Neptunium−239	U	−0.0195	+/−0.159	0.271	+/−0.159	2.00	pCi/g						
Polonium−209	U	0.449	+/−5.26	8.87	+/−5.26		pCi/g						
Potassium−40		7.41	+/−0.839	0.368	+/−0.839	1.00	pCi/g						
Protactinium−233	U	−0.0312	+/−0.0454	0.074	+/−0.0454		pCi/g						
Protactinium−234m	UI	4.50	+/−4.16	4.49	+/−4.16		pCi/g						
Radium−223	UI	0.360	+/−0.201	0.215	+/−0.201		pCi/g						
Rhodium−101	U	0.00231	+/−0.0253	0.0408	+/−0.0253		pCi/g						
Thallium−208		0.295	+/−0.0492	0.0399	+/−0.0492	0.080	pCi/g						
Thorium−234	UI	1.36	+/−0.525	0.701	+/−0.525	0.500	pCi/g						
Uranium−235	U	0.0862	+/−0.143	0.252	+/−0.143	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 17, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2105−BA Project: SCAN00101
Sample ID: 198681008 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 17, 2007

Client Sample ID: SB−CZ−SS−2106−BA
Sample ID: 198681009
Matrix: Soil
Collect Date: 18−OCT−07
Receive Date: 04−DEC−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		0.942	+/−0.170	0.143	+/−0.170	0.800	pCi/g		MJH1	12/15/07	0631	708121	1
Americium−241	U	0.0748	+/−0.103	0.173	+/−0.103	0.200	pCi/g						
Americium−243	UI	0.126	+/−0.0402	0.0525	+/−0.0402		pCi/g						
Americium−246	U	0.0365	+/−0.0755	0.135	+/−0.0755		pCi/g						
Antimony−125	U	0.0159	+/−0.0539	0.0924	+/−0.0539	0.200	pCi/g						
Bismuth−211	U	0.0406	+/−0.661	1.08	+/−0.661		pCi/g						
Bismuth−212		0.838	+/−0.229	0.252	+/−0.229	0.500	pCi/g						
Bismuth−214		0.815	+/−0.102	0.0638	+/−0.102	0.200	pCi/g						
Californium−249	U	0.0253	+/−0.0235	0.0423	+/−0.0235		pCi/g						
Cesium−137		0.179	+/−0.0361	0.0362	+/−0.0361	0.100	pCi/g						
Cobalt−60	U	−0.00169	+/−0.0253	0.0426	+/−0.0253	0.100	pCi/g						
Curium−243	U	−0.0382	+/−0.058	0.0874	+/−0.058		pCi/g						
Europium−155	U	0.0491	+/−0.066	0.0914	+/−0.066	0.500	pCi/g						
Lead−212		0.856	+/−0.0798	0.053	+/−0.0798	0.100	pCi/g						
Lead−214		0.969	+/−0.114	0.0633	+/−0.114	0.100	pCi/g						
Neptunium−236	U	0.0144	+/−0.0415	0.0627	+/−0.0415		pCi/g						
Neptunium−237	UI	0.461	+/−0.175	0.217	+/−0.175		pCi/g						
Neptunium−239	U	0.0572	+/−0.132	0.222	+/−0.132	2.00	pCi/g						
Polonium−209	U	3.62	+/−4.09	7.34	+/−4.09		pCi/g						
Potassium−40		5.13	+/−0.686	0.281	+/−0.686	1.00	pCi/g						
Protactinium−233	U	0.0207	+/−0.035	0.0623	+/−0.035		pCi/g						
Protactinium−234m	U	2.47	+/−4.94	4.38	+/−4.94		pCi/g						
Radium−223	UI	0.328	+/−0.161	0.167	+/−0.161		pCi/g						
Rhodium−101	U	−0.0041	+/−0.0207	0.0323	+/−0.0207		pCi/g						
Thallium−208		0.254	+/−0.0485	0.0346	+/−0.0485	0.080	pCi/g						
Thorium−234		1.15	+/−0.451	0.463	+/−0.451	0.500	pCi/g						
Uranium−235	U	−0.0475	+/−0.127	0.200	+/−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 17, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2106−BA Project: SCAN00101
Sample ID: 198681009 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 17, 2007

Client Sample ID: SB−CZ−SS−2107−BA
Sample ID: 198681010
Matrix: Soil
Collect Date: 18−OCT−07
Receive Date: 04−DEC−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		0.827	+/−0.173	0.125	+/−0.173	0.800	pCi/g		MJH1	12/15/07	0632	708121	1
Americium−241	U	0.0432	+/−0.132	0.209	+/−0.132	0.200	pCi/g						
Americium−243	UI	0.139	+/−0.0501	0.0544	+/−0.0501		pCi/g						
Americium−246	U	0.0202	+/−0.0689	0.120	+/−0.0689		pCi/g						
Antimony−125	U	−0.0148	+/−0.0514	0.0887	+/−0.0514	0.200	pCi/g						
Bismuth−211	U	−0.448	+/−0.555	0.846	+/−0.555		pCi/g						
Bismuth−212		0.508	+/−0.308	0.239	+/−0.308	0.500	pCi/g						
Bismuth−214		0.645	+/−0.0924	0.0608	+/−0.0924	0.200	pCi/g						
Californium−249	U	−0.00966	+/−0.0253	0.0414	+/−0.0253		pCi/g						
Cesium−137		0.215	+/−0.0503	0.0344	+/−0.0503	0.100	pCi/g						
Cobalt−60	U	0.013	+/−0.0229	0.0391	+/−0.0229	0.100	pCi/g						
Curium−243	UI	0.0994	+/−0.0727	0.0962	+/−0.0727		pCi/g						
Europium−155	UI	0.110	+/−0.0803	0.110	+/−0.0803	0.500	pCi/g						
Lead−212		0.841	+/−0.107	0.0557	+/−0.107	0.100	pCi/g						
Lead−214		0.701	+/−0.106	0.0647	+/−0.106	0.100	pCi/g						
Neptunium−236	U	−0.00641	+/−0.0392	0.0588	+/−0.0392		pCi/g						
Neptunium−237	UI	0.341	+/−0.192	0.251	+/−0.192		pCi/g						
Neptunium−239	U	−0.0194	+/−0.142	0.228	+/−0.142	2.00	pCi/g						
Polonium−209	U	1.03	+/−3.96	6.11	+/−3.96		pCi/g						
Potassium−40		5.15	+/−0.635	0.315	+/−0.635	1.00	pCi/g						
Protactinium−233	U	−0.0228	+/−0.0356	0.0582	+/−0.0356		pCi/g						
Protactinium−234m	U	0.144	+/−3.40	1.84	+/−3.40		pCi/g						
Radium−223	UI	0.316	+/−0.188	0.175	+/−0.188		pCi/g						
Rhodium−101	U	0.0175	+/−0.0234	0.0361	+/−0.0234		pCi/g						
Thallium−208		0.258	+/−0.048	0.0302	+/−0.048	0.080	pCi/g						
Thorium−234		0.790	+/−0.454	0.494	+/−0.454	0.500	pCi/g						
Uranium−235	U	0.0495	+/−0.121	0.207	+/−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 17, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2107−BA Project: SCAN00101
Sample ID: 198681010 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 17, 2007

Client Sample ID:	SB−CZ−SS−2108−BA	Project:	SCAN00101
Sample ID:	198681011	Client ID:	SCAN001
Matrix:	Soil		
Collect Date:	18−OCT−07		
Receive Date:	04−DEC−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		1.16	+/−0.288	0.201	+/−0.288	0.800	pCi/g		MJH1	12/15/07	0633	708121	1
Americium−241	U	0.0558	+/−0.0431	0.0698	+/−0.0431	0.200	pCi/g						
Americium−243	UI	0.260	+/−0.0407	0.0398	+/−0.0407		pCi/g						
Americium−246	U	0.0232	+/−0.114	0.197	+/−0.114		pCi/g						
Antimony−125	U	−0.0372	+/−0.0791	0.129	+/−0.0791	0.200	pCi/g						
Bismuth−211	U	−0.0153	+/−0.891	1.48	+/−0.891		pCi/g						
Bismuth−212		1.19	+/−0.357	0.379	+/−0.357	0.500	pCi/g						
Bismuth−214		1.20	+/−0.158	0.0999	+/−0.158	0.200	pCi/g						
Californium−249	U	0.0322	+/−0.0341	0.0598	+/−0.0341		pCi/g						
Cesium−137		0.144	+/−0.056	0.0556	+/−0.056	0.100	pCi/g						
Cobalt−60	U	−0.0194	+/−0.0326	0.0521	+/−0.0326	0.100	pCi/g						
Curium−243	UI	0.118	+/−0.102	0.0968	+/−0.102		pCi/g						
Europium−155	UI	0.131	+/−0.113	0.117	+/−0.113	0.500	pCi/g						
Lead−212		1.28	+/−0.136	0.0785	+/−0.136	0.100	pCi/g						
Lead−214		1.26	+/−0.153	0.0907	+/−0.153	0.100	pCi/g						
Neptunium−236	U	0.0555	+/−0.0517	0.063	+/−0.0517		pCi/g						
Neptunium−237	UI	0.913	+/−0.192	0.212	+/−0.192		pCi/g						
Neptunium−239	U	0.0557	+/−0.188	0.311	+/−0.188	2.00	pCi/g						
Polonium−209	UI	12.0	+/−9.99	9.68	+/−9.99		pCi/g						
Potassium−40		8.75	+/−1.13	0.460	+/−1.13	1.00	pCi/g						
Protactinium−233	U	0.0171	+/−0.0488	0.0844	+/−0.0488		pCi/g						
Protactinium−234m	U	2.78	+/−3.71	6.45	+/−3.71		pCi/g						
Radium−223	UI	0.444	+/−0.202	0.230	+/−0.202		pCi/g						
Rhodium−101	U	0.0443	+/−0.0314	0.050	+/−0.0314		pCi/g						
Thallium−208		0.343	+/−0.0667	0.0478	+/−0.0667	0.080	pCi/g						
Thorium−234		1.94	+/−0.491	0.495	+/−0.491	0.500	pCi/g						
Uranium−235	U	0.101	+/−0.245	0.246	+/−0.245	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 17, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2108−BA Project: SCAN00101
Sample ID: 198681011 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 17, 2007

Client Sample ID: SB−CZ−SS−2109−BA
Sample ID: 198681012
Matrix: Soil
Collect Date: 18−OCT−07
Receive Date: 04−DEC−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		1.04	+/−0.228	0.147	+/−0.228	0.800	pCi/g		MJH1	12/15/07	0634	708121	1
Americium−241	U	0.0907	+/−0.104	0.172	+/−0.104	0.200	pCi/g						
Americium−243	UI	0.160	+/−0.046	0.0533	+/−0.046		pCi/g						
Americium−246	U	0.0988	+/−0.0847	0.159	+/−0.0847		pCi/g						
Antimony−125	U	0.0408	+/−0.0605	0.106	+/−0.0605	0.200	pCi/g						
Bismuth−211	U	−0.549	+/−0.731	1.15	+/−0.731		pCi/g						
Bismuth−212		0.795	+/−0.315	0.301	+/−0.315	0.500	pCi/g						
Bismuth−214		0.732	+/−0.110	0.0666	+/−0.110	0.200	pCi/g						
Californium−249	U	0.0196	+/−0.0258	0.0455	+/−0.0258		pCi/g						
Cesium−137		0.127	+/−0.039	0.0413	+/−0.039	0.100	pCi/g						
Cobalt−60	U	−0.0027	+/−0.0291	0.0475	+/−0.0291	0.100	pCi/g						
Curium−243	U	0.0322	+/−0.0572	0.101	+/−0.0572		pCi/g						
Europium−155	U	0.0352	+/−0.0638	0.112	+/−0.0638	0.500	pCi/g						
Lead−212		1.03	+/−0.0945	0.0635	+/−0.0945	0.100	pCi/g						
Lead−214		0.771	+/−0.114	0.079	+/−0.114	0.100	pCi/g						
Neptunium−236	U	0.0334	+/−0.0391	0.065	+/−0.0391		pCi/g						
Neptunium−237	UI	0.599	+/−0.191	0.207	+/−0.191		pCi/g						
Neptunium−239	U	−0.0137	+/−0.139	0.244	+/−0.139	2.00	pCi/g						
Polonium−209	U	−5.22	+/−5.04	7.54	+/−5.04		pCi/g						
Potassium−40		5.73	+/−0.854	0.367	+/−0.854	1.00	pCi/g						
Protactinium−233	U	0.0227	+/−0.0422	0.0745	+/−0.0422		pCi/g						
Protactinium−234m	U	2.33	+/−3.30	5.26	+/−3.30		pCi/g						
Radium−223	UI	0.326	+/−0.168	0.192	+/−0.168		pCi/g						
Rhodium−101	U	0.0146	+/−0.0213	0.0386	+/−0.0213		pCi/g						
Thallium−208		0.297	+/−0.0491	0.039	+/−0.0491	0.080	pCi/g						
Thorium−234		1.19	+/−0.451	0.447	+/−0.451	0.500	pCi/g						
Uranium−235	U	0.0257	+/−0.127	0.217	+/−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 :

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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 17, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2109−BA Project: SCAN00101
Sample ID: 198681012 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 17, 2007

Client Sample ID: SB−CZ−SS−2110−BA
Sample ID: 198681013
Matrix: Soil
Collect Date: 18−OCT−07
Receive Date: 04−DEC−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		0.664	+/−0.146	0.108	+/−0.146	0.800	pCi/g		MJH1	12/15/07	0635	708121	1
Americium−241	U	−0.00311	+/−0.0455	0.0719	+/−0.0455	0.200	pCi/g						
Americium−243	UI	0.108	+/−0.0257	0.0319	+/−0.0257		pCi/g						
Americium−246	U	0.00981	+/−0.0597	0.104	+/−0.0597		pCi/g						
Antimony−125	U	−0.0349	+/−0.0477	0.0759	+/−0.0477	0.200	pCi/g						
Bismuth−211	U	0.0962	+/−0.492	0.841	+/−0.492		pCi/g						
Bismuth−212		0.712	+/−0.219	0.205	+/−0.219	0.500	pCi/g						
Bismuth−214		0.395	+/−0.0797	0.0626	+/−0.0797	0.200	pCi/g						
Californium−249	U	−0.0231	+/−0.0223	0.0328	+/−0.0223		pCi/g						
Cesium−137		0.152	+/−0.0372	0.0363	+/−0.0372	0.100	pCi/g						
Cobalt−60	U	−0.0143	+/−0.0248	0.0294	+/−0.0248	0.100	pCi/g						
Curium−243	U	0.0316	+/−0.0592	0.069	+/−0.0592		pCi/g						
Europium−155	U	0.0349	+/−0.0655	0.0765	+/−0.0655	0.500	pCi/g						
Lead−212		0.678	+/−0.0687	0.0449	+/−0.0687	0.100	pCi/g						
Lead−214		0.398	+/−0.0757	0.0597	+/−0.0757	0.100	pCi/g						
Neptunium−236	U	0.0227	+/−0.0277	0.0446	+/−0.0277		pCi/g						
Neptunium−237	UI	0.558	+/−0.142	0.143	+/−0.142		pCi/g						
Neptunium−239	U	−0.0288	+/−0.103	0.179	+/−0.103	2.00	pCi/g						
Polonium−209	U	−3.52	+/−4.51	5.76	+/−4.51		pCi/g						
Potassium−40		3.56	+/−0.578	0.307	+/−0.578	1.00	pCi/g						
Protactinium−233	U	0.0184	+/−0.0312	0.0554	+/−0.0312		pCi/g						
Protactinium−234m	U	1.61	+/−2.16	3.83	+/−2.16		pCi/g						
Radium−223	UI	0.208	+/−0.106	0.135	+/−0.106		pCi/g						
Rhodium−101	U	−0.0122	+/−0.0172	0.0271	+/−0.0172		pCi/g						
Thallium−208		0.225	+/−0.0412	0.0301	+/−0.0412	0.080	pCi/g						
Thorium−234		1.08	+/−0.362	0.321	+/−0.362	0.500	pCi/g						
Uranium−235	U	−0.0113	+/−0.104	0.166	+/−0.104	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 17, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2110−BA Project: SCAN00101
Sample ID: 198681013 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 17, 2007

Client Sample ID: SB−CZ−SS−2097−BD
Sample ID: 198681014
Matrix: Soil
Collect Date: 18−OCT−07
Receive Date: 04−DEC−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		0.933	+/−0.156	0.082	+/−0.156	0.800	pCi/g		MJH1	12/15/07	0635	708121	1
Americium−241	U	−0.02	+/−0.050	0.0764	+/−0.050	0.200	pCi/g						
Americium−243	UI	0.146	+/−0.0271	0.0313	+/−0.0271		pCi/g						
Americium−246	U	0.000454	+/−0.0541	0.092	+/−0.0541		pCi/g						
Antimony−125	U	0.0114	+/−0.0371	0.0664	+/−0.0371	0.200	pCi/g						
Bismuth−211	U	0.474	+/−0.475	0.802	+/−0.475		pCi/g						
Bismuth−212		0.475	+/−0.239	0.185	+/−0.239	0.500	pCi/g						
Bismuth−214		0.507	+/−0.082	0.0465	+/−0.082	0.200	pCi/g						
Californium−249	U	0.00668	+/−0.0166	0.030	+/−0.0166		pCi/g						
Cesium−137		0.0716	+/−0.0261	0.0296	+/−0.0261	0.100	pCi/g						
Cobalt−60	U	0.00124	+/−0.0154	0.0262	+/−0.0154	0.100	pCi/g						
Curium−243	U	0.0202	+/−0.0527	0.059	+/−0.0527		pCi/g						
Europium−155	U	0.0224	+/−0.0582	0.072	+/−0.0582	0.500	pCi/g						
Lead−212		0.881	+/−0.0725	0.0389	+/−0.0725	0.100	pCi/g						
Lead−214		0.552	+/−0.0699	0.0496	+/−0.0699	0.100	pCi/g						
Neptunium−236	UI	0.0601	+/−0.0424	0.039	+/−0.0424		pCi/g						
Neptunium−237	UI	0.561	+/−0.128	0.128	+/−0.128		pCi/g						
Neptunium−239	U	0.0234	+/−0.0919	0.160	+/−0.0919	2.00	pCi/g						
Polonium−209	U	1.64	+/−3.49	5.65	+/−3.49		pCi/g						
Potassium−40		4.20	+/−0.546	0.254	+/−0.546	1.00	pCi/g						
Protactinium−233	U	0.000156	+/−0.0284	0.0477	+/−0.0284		pCi/g						
Protactinium−234m	U	0.586	+/−2.07	3.53	+/−2.07		pCi/g						
Radium−223	UI	0.311	+/−0.124	0.119	+/−0.124		pCi/g						
Rhodium−101	U	0.00958	+/−0.0147	0.0252	+/−0.0147		pCi/g						
Thallium−208		0.229	+/−0.0377	0.0252	+/−0.0377	0.080	pCi/g						
Thorium−234		1.06	+/−0.299	0.282	+/−0.299	0.500	pCi/g						
Uranium−235	UI	0.154	+/−0.0847	0.135	+/−0.0847	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 17, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2097−BD Project: SCAN00101
Sample ID: 198681014 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 17, 2007

Client Sample ID: SB−CZ−SS−2098−BD
Sample ID: 198681015
Matrix: Soil
Collect Date: 18−OCT−07
Receive Date: 04−DEC−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		0.898	+/−0.237	0.178	+/−0.237	0.800	pCi/g		MJH1	12/15/07	0636	708121	1
Americium−241	U	0.00366	+/−0.033	0.0522	+/−0.033	0.200	pCi/g						
Americium−243	UI	0.143	+/−0.0266	0.0303	+/−0.0266		pCi/g						
Americium−246	U	0.0586	+/−0.0977	0.173	+/−0.0977		pCi/g						
Antimony−125	U	−0.0368	+/−0.0616	0.101	+/−0.0616	0.200	pCi/g						
Bismuth−211	U	1.13	+/−0.778	1.29	+/−0.778		pCi/g						
Bismuth−212		0.545	+/−0.379	0.365	+/−0.379	0.500	pCi/g						
Bismuth−214		0.570	+/−0.113	0.081	+/−0.113	0.200	pCi/g						
Californium−249	U	−0.00643	+/−0.0271	0.0459	+/−0.0271		pCi/g						
Cesium−137	U	0.00469	+/−0.0293	0.0505	+/−0.0293	0.100	pCi/g						
Cobalt−60	U	0.00711	+/−0.0287	0.0491	+/−0.0287	0.100	pCi/g						
Curium−243	U	−0.0407	+/−0.0499	0.0835	+/−0.0499		pCi/g						
Europium−155	U	0.0757	+/−0.0539	0.101	+/−0.0539	0.500	pCi/g						
Lead−212		0.869	+/−0.0858	0.0601	+/−0.0858	0.100	pCi/g						
Lead−214		0.587	+/−0.0941	0.0875	+/−0.0941	0.100	pCi/g						
Neptunium−236	U	0.0317	+/−0.0444	0.0473	+/−0.0444		pCi/g						
Neptunium−237	UI	0.475	+/−0.135	0.176	+/−0.135		pCi/g						
Neptunium−239	U	−0.0256	+/−0.151	0.224	+/−0.151	2.00	pCi/g						
Polonium−209	U	−0.118	+/−5.69	9.40	+/−5.69		pCi/g						
Potassium−40		6.37	+/−0.785	0.382	+/−0.785	1.00	pCi/g						
Protactinium−233	U	0.00419	+/−0.0393	0.0692	+/−0.0393		pCi/g						
Protactinium−234m	U	3.65	+/−4.60	5.67	+/−4.60		pCi/g						
Radium−223	UI	0.473	+/−0.204	0.183	+/−0.204		pCi/g						
Rhodium−101	U	0.00209	+/−0.0277	0.0334	+/−0.0277		pCi/g						
Thallium−208		0.288	+/−0.0597	0.0401	+/−0.0597	0.080	pCi/g						
Thorium−234		0.800	+/−0.397	0.410	+/−0.397	0.500	pCi/g						
Uranium−235	U	0.0623	+/−0.173	0.195	+/−0.173	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 17, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2098−BD Project: SCAN00101
Sample ID: 198681015 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 17, 2007

Client Sample ID: SB−CZ−SS−2099−BD
Sample ID: 198681016
Matrix: Soil
Collect Date: 18−OCT−07
Receive Date: 04−DEC−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		1.07	+/−0.206	0.119	+/−0.206	0.800	pCi/g		MJH1	12/15/07	0637	708121	1
Americium−241	U	0.0101	+/−0.0732	0.114	+/−0.0732	0.200	pCi/g						
Americium−243	UI	0.205	+/−0.049	0.0448	+/−0.049		pCi/g						
Americium−246	U	−0.00596	+/−0.0692	0.115	+/−0.0692		pCi/g						
Antimony−125	U	0.0156	+/−0.0503	0.087	+/−0.0503	0.200	pCi/g						
Bismuth−211	U	−0.29	+/−0.681	0.957	+/−0.681		pCi/g						
Bismuth−212		0.747	+/−0.324	0.249	+/−0.324	0.500	pCi/g						
Bismuth−214		0.720	+/−0.111	0.0651	+/−0.111	0.200	pCi/g						
Californium−249	U	−0.000942	+/−0.0233	0.0398	+/−0.0233		pCi/g						
Cesium−137	U	0.0356	+/−0.0334	0.0358	+/−0.0334	0.100	pCi/g						
Cobalt−60	U	0.0103	+/−0.0224	0.039	+/−0.0224	0.100	pCi/g						
Curium−243	U	0.0403	+/−0.0594	0.091	+/−0.0594		pCi/g						
Europium−155	U	0.0445	+/−0.0656	0.103	+/−0.0656	0.500	pCi/g						
Lead−212		1.08	+/−0.0875	0.0543	+/−0.0875	0.100	pCi/g						
Lead−214		0.878	+/−0.0985	0.0633	+/−0.0985	0.100	pCi/g						
Neptunium−236	U	0.0263	+/−0.0383	0.0579	+/−0.0383		pCi/g						
Neptunium−237	UI	0.782	+/−0.170	0.202	+/−0.170		pCi/g						
Neptunium−239	U	0.0211	+/−0.129	0.216	+/−0.129	2.00	pCi/g						
Polonium−209	U	−1.46	+/−4.00	6.59	+/−4.00		pCi/g						
Potassium−40		5.10	+/−0.661	0.258	+/−0.661	1.00	pCi/g						
Protactinium−233	U	0.00355	+/−0.0357	0.062	+/−0.0357		pCi/g						
Protactinium−234m	U	1.90	+/−4.02	3.83	+/−4.02		pCi/g						
Radium−223	UI	0.399	+/−0.142	0.175	+/−0.142		pCi/g						
Rhodium−101	U	−0.0132	+/−0.0207	0.0318	+/−0.0207		pCi/g						
Thallium−208		0.354	+/−0.0572	0.0332	+/−0.0572	0.080	pCi/g						
Thorium−234		1.46	+/−0.417	0.443	+/−0.417	0.500	pCi/g						
Uranium−235	U	0.0875	+/−0.157	0.190	+/−0.157	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 17, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2099−BD Project: SCAN00101
Sample ID: 198681016 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 17, 2007

Client Sample ID: SB−CZ−SS−2101−BD
Sample ID: 198681017
Matrix: Soil
Collect Date: 18−OCT−07
Receive Date: 04−DEC−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		1.14	+/−0.232	0.187	+/−0.232	0.800	pCi/g		MJH1	12/15/07	0638	708121	1
Americium−241	U	−0.00168	+/−0.0367	0.0588	+/−0.0367	0.200	pCi/g						
Americium−243	UI	0.191	+/−0.0304	0.0362	+/−0.0304		pCi/g						
Americium−246	U	0.0581	+/−0.112	0.194	+/−0.112		pCi/g						
Antimony−125	U	−0.0932	+/−0.0691	0.107	+/−0.0691	0.200	pCi/g						
Bismuth−211	U	0.188	+/−0.851	1.29	+/−0.851		pCi/g						
Bismuth−212		0.855	+/−0.409	0.341	+/−0.409	0.500	pCi/g						
Bismuth−214		0.820	+/−0.131	0.089	+/−0.131	0.200	pCi/g						
Californium−249	U	0.0153	+/−0.0279	0.0492	+/−0.0279		pCi/g						
Cesium−137	U	0.011	+/−0.0345	0.0543	+/−0.0345	0.100	pCi/g						
Cobalt−60	U	−0.0207	+/−0.0308	0.0471	+/−0.0308	0.100	pCi/g						
Curium−243	U	0.0414	+/−0.0718	0.0871	+/−0.0718		pCi/g						
Europium−155	U	0.0457	+/−0.0793	0.0962	+/−0.0793	0.500	pCi/g						
Lead−212		1.19	+/−0.121	0.0612	+/−0.121	0.100	pCi/g						
Lead−214		0.910	+/−0.115	0.0766	+/−0.115	0.100	pCi/g						
Neptunium−236	U	0.0279	+/−0.0383	0.0583	+/−0.0383		pCi/g						
Neptunium−237	UI	0.416	+/−0.147	0.196	+/−0.147		pCi/g						
Neptunium−239	U	0.0188	+/−0.147	0.244	+/−0.147	2.00	pCi/g						
Polonium−209	U	−0.631	+/−5.79	9.70	+/−5.79		pCi/g						
Potassium−40		5.97	+/−1.02	0.432	+/−1.02	1.00	pCi/g						
Protactinium−233	U	−0.00857	+/−0.040	0.0687	+/−0.040		pCi/g						
Protactinium−234m	U	2.37	+/−4.74	5.86	+/−4.74		pCi/g						
Radium−223	UI	0.558	+/−0.247	0.187	+/−0.247		pCi/g						
Rhodium−101	U	−0.00564	+/−0.0233	0.0359	+/−0.0233		pCi/g						
Thallium−208		0.394	+/−0.0633	0.0491	+/−0.0633	0.080	pCi/g						
Thorium−234		1.82	+/−0.511	0.408	+/−0.511	0.500	pCi/g						
Uranium−235	U	0.123	+/−0.169	0.212	+/−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 17, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2101−BD Project: SCAN00101
Sample ID: 198681017 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 17, 2007

Client Sample ID: SB−CZ−SS−2102−BD
Sample ID: 198681018
Matrix: Soil
Collect Date: 18−OCT−07
Receive Date: 04−DEC−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		1.19	+/−0.225	0.155	+/−0.225	0.800	pCi/g		MJH1	12/15/07	0638	708121	1
Americium−241	U	0.061	+/−0.114	0.170	+/−0.114	0.200	pCi/g						
Americium−243	UI	0.222	+/−0.0599	0.0581	+/−0.0599		pCi/g						
Americium−246	U	−0.0252	+/−0.0921	0.150	+/−0.0921		pCi/g						
Antimony−125	U	−0.00287	+/−0.0686	0.114	+/−0.0686	0.200	pCi/g						
Bismuth−211	U	−0.818	+/−0.766	1.10	+/−0.766		pCi/g						
Bismuth−212		0.807	+/−0.373	0.303	+/−0.373	0.500	pCi/g						
Bismuth−214	UI	0.364	+/−0.110	0.157	+/−0.110	0.200	pCi/g						
Californium−249	U	0.0237	+/−0.0289	0.0506	+/−0.0289		pCi/g						
Cesium−137	U	0.0402	+/−0.0279	0.0505	+/−0.0279	0.100	pCi/g						
Cobalt−60	U	−0.0105	+/−0.0279	0.0447	+/−0.0279	0.100	pCi/g						
Curium−243	U	0.0184	+/−0.0716	0.105	+/−0.0716		pCi/g						
Europium−155	U	−0.00866	+/−0.0828	0.118	+/−0.0828	0.500	pCi/g						
Lead−212		1.09	+/−0.113	0.0666	+/−0.113	0.100	pCi/g						
Lead−214		0.381	+/−0.0958	0.0828	+/−0.0958	0.100	pCi/g						
Neptunium−236	UI	0.103	+/−0.0711	0.058	+/−0.0711		pCi/g						
Neptunium−237	UI	0.418	+/−0.178	0.248	+/−0.178		pCi/g						
Neptunium−239	U	−0.00195	+/−0.161	0.259	+/−0.161	2.00	pCi/g						
Polonium−209	U	3.64	+/−5.66	9.70	+/−5.66		pCi/g						
Potassium−40		2.27	+/−0.541	0.406	+/−0.541	1.00	pCi/g						
Protactinium−233	U	−0.0717	+/−0.0503	0.0726	+/−0.0503		pCi/g						
Protactinium−234m	U	1.14	+/−3.74	5.36	+/−3.74		pCi/g						
Radium−223	UI	0.378	+/−0.137	0.218	+/−0.137		pCi/g						
Rhodium−101	U	−0.015	+/−0.0277	0.040	+/−0.0277		pCi/g						
Thallium−208		0.361	+/−0.0664	0.0425	+/−0.0664	0.080	pCi/g						
Thorium−234		2.50	+/−0.665	0.696	+/−0.665	0.500	pCi/g						
Uranium−235	U	−0.0701	+/−0.157	0.230	+/−0.157	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 17, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2102−BD Project: SCAN00101
Sample ID: 198681018 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 17, 2007

Client Sample ID: SB−CZ−SS−2103−BD
Sample ID: 198681019
Matrix: Soil
Collect Date: 18−OCT−07
Receive Date: 04−DEC−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		1.11	+/−0.206	0.109	+/−0.206	0.800	pCi/g		MJH1	12/15/07	0639	708121	1
Americium−241	U	0.0304	+/−0.0701	0.105	+/−0.0701	0.200	pCi/g						
Americium−243	UI	0.181	+/−0.0394	0.0409	+/−0.0394		pCi/g						
Americium−246	U	0.00804	+/−0.067	0.112	+/−0.067		pCi/g						
Antimony−125	U	−0.0214	+/−0.0505	0.0805	+/−0.0505	0.200	pCi/g						
Bismuth−211	U	−0.031	+/−0.595	0.993	+/−0.595		pCi/g						
Bismuth−212		0.671	+/−0.279	0.229	+/−0.279	0.500	pCi/g						
Bismuth−214	UI	0.354	+/−0.0873	0.123	+/−0.0873	0.200	pCi/g						
Californium−249	U	−0.00172	+/−0.0225	0.0371	+/−0.0225		pCi/g						
Cesium−137	U	0.0233	+/−0.0305	0.0297	+/−0.0305	0.100	pCi/g						
Cobalt−60	U	−0.00633	+/−0.0186	0.0291	+/−0.0186	0.100	pCi/g						
Curium−243	U	0.0745	+/−0.0499	0.0908	+/−0.0499		pCi/g						
Europium−155	U	0.0594	+/−0.0562	0.101	+/−0.0562	0.500	pCi/g						
Lead−212		1.12	+/−0.096	0.0546	+/−0.096	0.100	pCi/g						
Lead−214		0.408	+/−0.0815	0.0556	+/−0.0815	0.100	pCi/g						
Neptunium−236	U	0.0521	+/−0.0365	0.0549	+/−0.0365		pCi/g						
Neptunium−237	UI	0.505	+/−0.166	0.177	+/−0.166		pCi/g						
Neptunium−239	U	0.0753	+/−0.140	0.215	+/−0.140	2.00	pCi/g						
Polonium−209	U	0.732	+/−3.73	6.34	+/−3.73		pCi/g						
Potassium−40		1.86	+/−0.472	0.323	+/−0.472	1.00	pCi/g						
Protactinium−233	U	−0.021	+/−0.0358	0.0579	+/−0.0358		pCi/g						
Protactinium−234m	U	1.69	+/−3.91	2.94	+/−3.91		pCi/g						
Radium−223	UI	0.376	+/−0.175	0.169	+/−0.175		pCi/g						
Rhodium−101	U	−0.00983	+/−0.020	0.0316	+/−0.020		pCi/g						
Thallium−208		0.318	+/−0.0534	0.0324	+/−0.0534	0.080	pCi/g						
Thorium−234		1.53	+/−0.423	0.391	+/−0.423	0.500	pCi/g						
Uranium−235	U	−0.105	+/−0.121	0.189	+/−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 17, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2103−BD Project: SCAN00101
Sample ID: 198681019 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 17, 2007

Client Sample ID: SB−CZ−SS−2104−BD
Sample ID: 198681020
Matrix: Soil
Collect Date: 18−OCT−07
Receive Date: 04−DEC−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		1.16	+/−0.179	0.104	+/−0.179	0.800	pCi/g		MJH1	12/15/07	0639	708121	1
Americium−241	U	0.0908	+/−0.0715	0.113	+/−0.0715	0.200	pCi/g						
Americium−243	UI	0.201	+/−0.0394	0.0396	+/−0.0394		pCi/g						
Americium−246	U	0.0786	+/−0.0931	0.0956	+/−0.0931		pCi/g						
Antimony−125	U	0.0243	+/−0.0451	0.0773	+/−0.0451	0.200	pCi/g						
Bismuth−211	U	0.479	+/−0.546	0.857	+/−0.546		pCi/g						
Bismuth−212		0.887	+/−0.248	0.219	+/−0.248	0.500	pCi/g						
Bismuth−214		0.656	+/−0.0898	0.0564	+/−0.0898	0.200	pCi/g						
Californium−249	U	−0.00689	+/−0.0196	0.0326	+/−0.0196		pCi/g						
Cesium−137	UI	0.0332	+/−0.0239	0.0322	+/−0.0239	0.100	pCi/g						
Cobalt−60	U	0.0044	+/−0.0347	0.0294	+/−0.0347	0.100	pCi/g						
Curium−243	U	−0.0224	+/−0.0472	0.0819	+/−0.0472		pCi/g						
Europium−155	U	0.054	+/−0.0528	0.0951	+/−0.0528	0.500	pCi/g						
Lead−212		1.17	+/−0.0905	0.0487	+/−0.0905	0.100	pCi/g						
Lead−214		0.771	+/−0.0911	0.0517	+/−0.0911	0.100	pCi/g						
Neptunium−236	U	0.0372	+/−0.0334	0.0547	+/−0.0334		pCi/g						
Neptunium−237	UI	0.685	+/−0.155	0.169	+/−0.155		pCi/g						
Neptunium−239	U	0.0931	+/−0.126	0.200	+/−0.126	2.00	pCi/g						
Polonium−209	U	−0.0794	+/−3.28	5.57	+/−3.28		pCi/g						
Potassium−40		5.56	+/−0.577	0.226	+/−0.577	1.00	pCi/g						
Protactinium−233	U	0.00675	+/−0.0304	0.0527	+/−0.0304		pCi/g						
Protactinium−234m	U	2.00	+/−2.82	3.94	+/−2.82		pCi/g						
Radium−223	UI	0.500	+/−0.150	0.149	+/−0.150		pCi/g						
Rhodium−101	U	−0.00908	+/−0.0204	0.0313	+/−0.0204		pCi/g						
Thallium−208		0.332	+/−0.0484	0.0287	+/−0.0484	0.080	pCi/g						
Thorium−234		1.29	+/−0.371	0.370	+/−0.371	0.500	pCi/g						
Uranium−235	U	0.0378	+/−0.135	0.185	+/−0.135	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 17, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2104−BD Project: SCAN00101
Sample ID: 198681020 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 17, 2007

Client Sample ID:	SB−CZ−SS−2105−BD	Project:	SCAN00101
Sample ID:	198681021	Client ID:	SCAN001
Matrix:	Soil		
Collect Date:	18−OCT−07		
Receive Date:	04−DEC−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		1.01	+/−0.180	0.0933	+/−0.180	0.800	pCi/g		MJH1	12/14/07	1023	708123	1
Americium−241	U	0.0402	+/−0.0517	0.0839	+/−0.0517	0.200	pCi/g						
Americium−243	UI	0.152	+/−0.0274	0.0341	+/−0.0274		pCi/g						
Americium−246	U	0.0241	+/−0.0568	0.100	+/−0.0568		pCi/g						
Antimony−125	U	0.0235	+/−0.0387	0.0703	+/−0.0387	0.200	pCi/g						
Bismuth−211	U	0.109	+/−0.451	0.799	+/−0.451		pCi/g						
Bismuth−212		0.743	+/−0.230	0.204	+/−0.230	0.500	pCi/g						
Bismuth−214		0.627	+/−0.0864	0.0519	+/−0.0864	0.200	pCi/g						
Californium−249	U	0.0138	+/−0.0164	0.0303	+/−0.0164		pCi/g						
Cesium−137		0.0784	+/−0.0245	0.0309	+/−0.0245	0.100	pCi/g						
Cobalt−60	U	−0.00741	+/−0.0183	0.0295	+/−0.0183	0.100	pCi/g						
Curium−243	UI	0.0935	+/−0.0621	0.0689	+/−0.0621		pCi/g						
Europium−155	UI	0.103	+/−0.0686	0.0753	+/−0.0686	0.500	pCi/g						
Lead−212		0.990	+/−0.0798	0.0435	+/−0.0798	0.100	pCi/g						
Lead−214		0.671	+/−0.0687	0.0517	+/−0.0687	0.100	pCi/g						
Neptunium−236	U	0.0123	+/−0.0275	0.0438	+/−0.0275		pCi/g						
Neptunium−237	UI	0.534	+/−0.135	0.148	+/−0.135		pCi/g						
Neptunium−239	U	−0.0162	+/−0.0926	0.157	+/−0.0926	2.00	pCi/g						
Polonium−209	U	0.919	+/−3.43	5.39	+/−3.43		pCi/g						
Potassium−40		6.84	+/−0.738	0.283	+/−0.738	1.00	pCi/g						
Protactinium−233	U	0.0164	+/−0.0279	0.0482	+/−0.0279		pCi/g						
Protactinium−234m	U	1.06	+/−2.18	3.78	+/−2.18		pCi/g						
Radium−223	UI	0.273	+/−0.131	0.135	+/−0.131		pCi/g						
Rhodium−101	U	0.00848	+/−0.0156	0.0265	+/−0.0156		pCi/g						
Thallium−208		0.292	+/−0.0444	0.0246	+/−0.0444	0.080	pCi/g						
Thorium−234		0.858	+/−0.306	0.326	+/−0.306	0.500	pCi/g						
Uranium−235	U	0.0907	+/−0.123	0.147	+/−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 17, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2105−BD Project: SCAN00101
Sample ID: 198681021 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 17, 2007

Client Sample ID: SB−CZ−SS−2106−BD
Sample ID: 198681022
Matrix: Soil
Collect Date: 18−OCT−07
Receive Date: 04−DEC−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		1.07	+/−0.200	0.140	+/−0.200	0.800	pCi/g		MJH1	12/14/07	1046	708123	1
Americium−241	U	0.0418	+/−0.0317	0.054	+/−0.0317	0.200	pCi/g						
Americium−243	UI	0.185	+/−0.0316	0.0332	+/−0.0316		pCi/g						
Americium−246	U	0.0327	+/−0.0967	0.148	+/−0.0967		pCi/g						
Antimony−125	U	−0.0263	+/−0.0622	0.101	+/−0.0622	0.200	pCi/g						
Bismuth−211	U	0.266	+/−0.709	1.08	+/−0.709		pCi/g						
Bismuth−212		0.737	+/−0.334	0.332	+/−0.334	0.500	pCi/g						
Bismuth−214		0.683	+/−0.113	0.074	+/−0.113	0.200	pCi/g						
Californium−249	U	0.00475	+/−0.0263	0.0457	+/−0.0263		pCi/g						
Cesium−137		0.0853	+/−0.0325	0.0412	+/−0.0325	0.100	pCi/g						
Cobalt−60	U	0.0144	+/−0.0245	0.0439	+/−0.0245	0.100	pCi/g						
Curium−243	UI	0.0947	+/−0.0626	0.0881	+/−0.0626		pCi/g						
Europium−155	UI	0.105	+/−0.0692	0.0959	+/−0.0692	0.500	pCi/g						
Lead−212		0.983	+/−0.112	0.0723	+/−0.112	0.100	pCi/g						
Lead−214		0.738	+/−0.101	0.0762	+/−0.101	0.100	pCi/g						
Neptunium−236	U	0.0526	+/−0.0341	0.0566	+/−0.0341		pCi/g						
Neptunium−237	UI	0.624	+/−0.154	0.164	+/−0.154		pCi/g						
Neptunium−239	U	−0.022	+/−0.146	0.247	+/−0.146	2.00	pCi/g						
Polonium−209	U	0.986	+/−5.13	8.75	+/−5.13		pCi/g						
Potassium−40		4.86	+/−0.764	0.312	+/−0.764	1.00	pCi/g						
Protactinium−233	U	−0.0472	+/−0.0406	0.0672	+/−0.0406		pCi/g						
Protactinium−234m	U	3.15	+/−2.75	4.51	+/−2.75		pCi/g						
Radium−223	UI	0.331	+/−0.199	0.205	+/−0.199		pCi/g						
Rhodium−101	U	0.00405	+/−0.0237	0.0374	+/−0.0237		pCi/g						
Thallium−208		0.336	+/−0.0588	0.0399	+/−0.0588	0.080	pCi/g						
Thorium−234		1.39	+/−0.351	0.382	+/−0.351	0.500	pCi/g						
Uranium−235	U	0.0635	+/−0.154	0.215	+/−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 17, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2106−BD Project: SCAN00101
Sample ID: 198681022 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 17, 2007

Client Sample ID: SB−CZ−SS−2107−BD
Sample ID: 198681023
Matrix: Soil
Collect Date: 18−OCT−07
Receive Date: 04−DEC−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		0.872	+/−0.177	0.135	+/−0.177	0.800	pCi/g		MJH1	12/14/07	1047	708123	1
Americium−241	U	−0.0445	+/−0.0901	0.137	+/−0.0901	0.200	pCi/g						
Americium−243	UI	0.146	+/−0.0332	0.044	+/−0.0332		pCi/g						
Americium−246	U	0.00304	+/−0.072	0.124	+/−0.072		pCi/g						
Antimony−125	U	0.0388	+/−0.0528	0.0942	+/−0.0528	0.200	pCi/g						
Bismuth−211	U	0.360	+/−0.638	1.12	+/−0.638		pCi/g						
Bismuth−212		0.563	+/−0.333	0.281	+/−0.333	0.500	pCi/g						
Bismuth−214		0.474	+/−0.0845	0.0655	+/−0.0845	0.200	pCi/g						
Californium−249	U	0.0084	+/−0.0233	0.041	+/−0.0233		pCi/g						
Cesium−137	U	0.0226	+/−0.0338	0.037	+/−0.0338	0.100	pCi/g						
Cobalt−60	U	0.00562	+/−0.0205	0.0357	+/−0.0205	0.100	pCi/g						
Curium−243	U	0.0579	+/−0.0628	0.0794	+/−0.0628		pCi/g						
Europium−155	U	0.064	+/−0.0694	0.0914	+/−0.0694	0.500	pCi/g						
Lead−212		0.911	+/−0.0808	0.0554	+/−0.0808	0.100	pCi/g						
Lead−214		0.539	+/−0.0881	0.0663	+/−0.0881	0.100	pCi/g						
Neptunium−236	U	0.0177	+/−0.0313	0.0526	+/−0.0313		pCi/g						
Neptunium−237	UI	0.306	+/−0.162	0.165	+/−0.162		pCi/g						
Neptunium−239	U	−0.00762	+/−0.119	0.201	+/−0.119	2.00	pCi/g						
Polonium−209	U	0.369	+/−4.23	7.12	+/−4.23		pCi/g						
Potassium−40		4.14	+/−0.572	0.273	+/−0.572	1.00	pCi/g						
Protactinium−233	U	0.00368	+/−0.0361	0.0639	+/−0.0361		pCi/g						
Protactinium−234m	U	0.141	+/−2.78	4.26	+/−2.78		pCi/g						
Radium−223	UI	0.327	+/−0.160	0.169	+/−0.160		pCi/g						
Rhodium−101	U	0.0197	+/−0.025	0.0304	+/−0.025		pCi/g						
Thallium−208		0.266	+/−0.047	0.039	+/−0.047	0.080	pCi/g						
Thorium−234		0.967	+/−0.457	0.381	+/−0.457	0.500	pCi/g						
Uranium−235	U	−0.0667	+/−0.119	0.178	+/−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 17, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2107−BD Project: SCAN00101
Sample ID: 198681023 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 17, 2007

Client Sample ID: SB−CZ−SS−2108−BD
Sample ID: 198681024
Matrix: Soil
Collect Date: 18−OCT−07
Receive Date: 04−DEC−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		1.40	+/−0.215	0.125	+/−0.215	0.800	pCi/g		MJH1	12/14/07	1051	708123	1
Americium−241	U	0.0243	+/−0.0569	0.0905	+/−0.0569	0.200	pCi/g						
Americium−243	UI	0.230	+/−0.0389	0.0406	+/−0.0389		pCi/g						
Americium−246	U	0.100	+/−0.0689	0.133	+/−0.0689		pCi/g						
Antimony−125	U	0.0374	+/−0.0565	0.0977	+/−0.0565	0.200	pCi/g						
Bismuth−211	U	−0.0812	+/−0.683	1.13	+/−0.683		pCi/g						
Bismuth−212		0.860	+/−0.291	0.288	+/−0.291	0.500	pCi/g						
Bismuth−214		0.744	+/−0.106	0.0711	+/−0.106	0.200	pCi/g						
Californium−249	U	0.0115	+/−0.0247	0.0399	+/−0.0247		pCi/g						
Cesium−137	U	−0.0143	+/−0.0245	0.0374	+/−0.0245	0.100	pCi/g						
Cobalt−60	U	−0.0185	+/−0.0307	0.040	+/−0.0307	0.100	pCi/g						
Curium−243	UI	0.0921	+/−0.0783	0.0853	+/−0.0783		pCi/g						
Europium−155	UI	0.102	+/−0.0865	0.0921	+/−0.0865	0.500	pCi/g						
Lead−212		1.28	+/−0.105	0.053	+/−0.105	0.100	pCi/g						
Lead−214		0.730	+/−0.096	0.0704	+/−0.096	0.100	pCi/g						
Neptunium−236	U	0.0134	+/−0.0353	0.0545	+/−0.0353		pCi/g						
Neptunium−237	UI	0.885	+/−0.175	0.176	+/−0.175		pCi/g						
Neptunium−239	U	−0.0672	+/−0.126	0.214	+/−0.126	2.00	pCi/g						
Polonium−209	U	1.81	+/−4.57	7.83	+/−4.57		pCi/g						
Potassium−40		6.66	+/−0.826	0.344	+/−0.826	1.00	pCi/g						
Protactinium−233	U	−0.00441	+/−0.038	0.0644	+/−0.038		pCi/g						
Protactinium−234m	UI	5.12	+/−3.18	3.60	+/−3.18		pCi/g						
Radium−223	UI	0.440	+/−0.155	0.178	+/−0.155		pCi/g						
Rhodium−101	U	−0.0124	+/−0.0204	0.0326	+/−0.0204		pCi/g						
Thallium−208		0.378	+/−0.0588	0.0342	+/−0.0588	0.080	pCi/g						
Thorium−234		1.68	+/−0.407	0.395	+/−0.407	0.500	pCi/g						
Uranium−235	U	0.0432	+/−0.155	0.188	+/−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 17, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2108−BD Project: SCAN00101
Sample ID: 198681024 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 17, 2007

Client Sample ID: SB−CZ−SS−2109−BD
Sample ID: 198681025
Matrix: Soil
Collect Date: 18−OCT−07
Receive Date: 04−DEC−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		1.33	+/−0.215	0.122	+/−0.215	0.800	pCi/g		MJH1	12/14/07	1051	708123	1
Americium−241	U	0.0945	+/−0.093	0.150	+/−0.093	0.200	pCi/g						
Americium−243	UI	0.177	+/−0.0392	0.0532	+/−0.0392		pCi/g						
Americium−246	UI	0.166	+/−0.112	0.121	+/−0.112		pCi/g						
Antimony−125	U	0.0149	+/−0.0548	0.093	+/−0.0548	0.200	pCi/g						
Bismuth−211	U	−0.507	+/−0.657	1.04	+/−0.657		pCi/g						
Bismuth−212		0.911	+/−0.295	0.231	+/−0.295	0.500	pCi/g						
Bismuth−214		0.791	+/−0.116	0.0687	+/−0.116	0.200	pCi/g						
Californium−249	U	−0.0123	+/−0.0237	0.0388	+/−0.0237		pCi/g						
Cesium−137	U	−0.0187	+/−0.0242	0.0366	+/−0.0242	0.100	pCi/g						
Cobalt−60	U	−0.000443	+/−0.0228	0.039	+/−0.0228	0.100	pCi/g						
Curium−243	U	−0.0264	+/−0.0595	0.0988	+/−0.0595		pCi/g						
Europium−155	U	0.00215	+/−0.0623	0.113	+/−0.0623	0.500	pCi/g						
Lead−212		1.17	+/−0.0986	0.0594	+/−0.0986	0.100	pCi/g						
Lead−214		0.840	+/−0.101	0.073	+/−0.101	0.100	pCi/g						
Neptunium−236	U	0.0458	+/−0.0409	0.0646	+/−0.0409		pCi/g						
Neptunium−237	UI	0.760	+/−0.201	0.219	+/−0.201		pCi/g						
Neptunium−239	U	0.0201	+/−0.131	0.229	+/−0.131	2.00	pCi/g						
Polonium−209	U	1.63	+/−6.60	6.73	+/−6.60		pCi/g						
Potassium−40		7.14	+/−0.840	0.283	+/−0.840	1.00	pCi/g						
Protactinium−233	U	0.0148	+/−0.038	0.0661	+/−0.038		pCi/g						
Protactinium−234m	U	1.17	+/−3.48	3.78	+/−3.48		pCi/g						
Radium−223	UI	0.526	+/−0.197	0.182	+/−0.197		pCi/g						
Rhodium−101	U	0.00213	+/−0.0211	0.0364	+/−0.0211		pCi/g						
Thallium−208		0.381	+/−0.0602	0.0332	+/−0.0602	0.080	pCi/g						
Thorium−234		1.38	+/−0.446	0.473	+/−0.446	0.500	pCi/g						
Uranium−235	U	0.111	+/−0.134	0.206	+/−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 17, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2109−BD Project: SCAN00101
Sample ID: 198681025 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 17, 2007

Client Sample ID: SB−CZ−SS−2110−BD
Sample ID: 198681026
Matrix: Soil
Collect Date: 18−OCT−07
Receive Date: 04−DEC−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		0.996	+/−0.236	0.150	+/−0.236	0.800	pCi/g		MJH1	12/17/07	1009	708123	1
Americium−241	U	0.00377	+/−0.0328	0.0513	+/−0.0328	0.200	pCi/g						
Americium−243	UI	0.112	+/−0.0235	0.030	+/−0.0235		pCi/g						
Americium−246	U	−0.0588	+/−0.0966	0.155	+/−0.0966		pCi/g						
Antimony−125	U	0.000883	+/−0.0609	0.103	+/−0.0609	0.200	pCi/g						
Bismuth−211	U	−0.333	+/−0.806	1.30	+/−0.806		pCi/g						
Bismuth−212		0.500	+/−0.338	0.346	+/−0.338	0.500	pCi/g						
Bismuth−214		0.321	+/−0.103	0.088	+/−0.103	0.200	pCi/g						
Californium−249	U	−0.00313	+/−0.0274	0.0465	+/−0.0274		pCi/g						
Cesium−137		0.0672	+/−0.0542	0.0465	+/−0.0542	0.100	pCi/g						
Cobalt−60	U	0.0113	+/−0.0303	0.0522	+/−0.0303	0.100	pCi/g						
Curium−243	U	−0.0326	+/−0.0473	0.0784	+/−0.0473		pCi/g						
Europium−155	U	0.0346	+/−0.051	0.0929	+/−0.051	0.500	pCi/g						
Lead−212		0.739	+/−0.0811	0.0576	+/−0.0811	0.100	pCi/g						
Lead−214		0.333	+/−0.0863	0.0849	+/−0.0863	0.100	pCi/g						
Neptunium−236	U	0.0486	+/−0.0443	0.0487	+/−0.0443		pCi/g						
Neptunium−237	UI	0.384	+/−0.126	0.159	+/−0.126		pCi/g						
Neptunium−239	U	−0.0598	+/−0.135	0.221	+/−0.135	2.00	pCi/g						
Polonium−209	U	−1.8	+/−5.73	9.22	+/−5.73		pCi/g						
Potassium−40		3.20	+/−0.572	0.339	+/−0.572	1.00	pCi/g						
Protactinium−233	U	0.029	+/−0.0405	0.0727	+/−0.0405		pCi/g						
Protactinium−234m	U	0.329	+/−4.93	5.57	+/−4.93		pCi/g						
Radium−223	UI	0.389	+/−0.158	0.179	+/−0.158		pCi/g						
Rhodium−101	U	0.00064	+/−0.0221	0.0348	+/−0.0221		pCi/g						
Thallium−208		0.253	+/−0.0555	0.0422	+/−0.0555	0.080	pCi/g						
Thorium−234	U	0.283	+/−0.542	0.413	+/−0.542	0.500	pCi/g						
Uranium−235	U	0.0485	+/−0.189	0.182	+/−0.189	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 17, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2110−BD Project: SCAN00101
Sample ID: 198681026 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 17, 2007

Client Sample ID: SB−CZ−SS−2111−BA
Sample ID: 198681027
Matrix: Soil
Collect Date: 18−OCT−07
Receive Date: 04−DEC−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		0.664	+/−0.137	0.094	+/−0.137	0.800	pCi/g		MJH1	12/14/07	1135	708123	1
Americium−241	U	0.061	+/−0.0667	0.115	+/−0.0667	0.200	pCi/g						
Americium−243	UI	0.113	+/−0.0324	0.0374	+/−0.0324		pCi/g						
Americium−246	U	0.0272	+/−0.0557	0.101	+/−0.0557		pCi/g						
Antimony−125	U	−0.00637	+/−0.0416	0.0736	+/−0.0416	0.200	pCi/g						
Bismuth−211	U	−0.529	+/−0.460	0.698	+/−0.460		pCi/g						
Bismuth−212		0.379	+/−0.215	0.189	+/−0.215	0.500	pCi/g						
Bismuth−214		0.502	+/−0.0815	0.0533	+/−0.0815	0.200	pCi/g						
Californium−249	U	0.00934	+/−0.0176	0.0325	+/−0.0176		pCi/g						
Cesium−137		0.239	+/−0.0393	0.0289	+/−0.0393	0.100	pCi/g						
Cobalt−60	U	0.0141	+/−0.0166	0.0308	+/−0.0166	0.100	pCi/g						
Curium−243	U	−0.0174	+/−0.0421	0.0763	+/−0.0421		pCi/g						
Europium−155	U	−0.00324	+/−0.0463	0.0848	+/−0.0463	0.500	pCi/g						
Lead−212		0.667	+/−0.0655	0.0452	+/−0.0655	0.100	pCi/g						
Lead−214		0.592	+/−0.0759	0.0558	+/−0.0759	0.100	pCi/g						
Neptunium−236	U	−0.0251	+/−0.0315	0.0472	+/−0.0315		pCi/g						
Neptunium−237	UI	0.220	+/−0.123	0.185	+/−0.123		pCi/g						
Neptunium−239	U	0.0488	+/−0.102	0.183	+/−0.102	2.00	pCi/g						
Polonium−209	U	−2.18	+/−3.29	5.20	+/−3.29		pCi/g						
Potassium−40		4.68	+/−0.560	0.247	+/−0.560	1.00	pCi/g						
Protactinium−233	U	−0.0135	+/−0.0293	0.0493	+/−0.0293		pCi/g						
Protactinium−234m	U	1.60	+/−2.37	3.76	+/−2.37		pCi/g						
Radium−223	UI	0.242	+/−0.144	0.147	+/−0.144		pCi/g						
Rhodium−101	U	−0.0186	+/−0.0166	0.0264	+/−0.0166		pCi/g						
Thallium−208		0.210	+/−0.0376	0.0275	+/−0.0376	0.080	pCi/g						
Thorium−234		0.875	+/−0.336	0.362	+/−0.336	0.500	pCi/g						
Uranium−235	U	0.102	+/−0.100	0.166	+/−0.100	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 17, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2111−BA Project: SCAN00101
Sample ID: 198681027 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 17, 2007

Client Sample ID: SB−CZ−SS−2112−BA
Sample ID: 198681028
Matrix: Soil
Collect Date: 18−OCT−07
Receive Date: 04−DEC−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		0.660	+/−0.169	0.112	+/−0.169	0.800	pCi/g		MJH1	12/14/07	1137	708123	1
Americium−241	U	0.0619	+/−0.0588	0.0938	+/−0.0588	0.200	pCi/g						
Americium−243	UI	0.135	+/−0.036	0.0364	+/−0.036		pCi/g						
Americium−246	U	0.0318	+/−0.0567	0.100	+/−0.0567		pCi/g						
Antimony−125	U	0.021	+/−0.0471	0.0809	+/−0.0471	0.200	pCi/g						
Bismuth−211	U	0.293	+/−0.526	0.825	+/−0.526		pCi/g						
Bismuth−212		0.614	+/−0.217	0.214	+/−0.217	0.500	pCi/g						
Bismuth−214		0.518	+/−0.0857	0.0533	+/−0.0857	0.200	pCi/g						
Californium−249	U	−0.000102	+/−0.020	0.0336	+/−0.020		pCi/g						
Cesium−137		0.156	+/−0.0325	0.0296	+/−0.0325	0.100	pCi/g						
Cobalt−60	U	−0.000789	+/−0.0193	0.0316	+/−0.0193	0.100	pCi/g						
Curium−243	U	−0.0226	+/−0.0423	0.0744	+/−0.0423		pCi/g						
Europium−155	U	0.0119	+/−0.0471	0.0851	+/−0.0471	0.500	pCi/g						
Lead−212		0.751	+/−0.0726	0.0463	+/−0.0726	0.100	pCi/g						
Lead−214		0.569	+/−0.0824	0.0586	+/−0.0824	0.100	pCi/g						
Neptunium−236	U	0.0133	+/−0.0332	0.0491	+/−0.0332		pCi/g						
Neptunium−237	UI	0.484	+/−0.140	0.160	+/−0.140		pCi/g						
Neptunium−239	U	0.0558	+/−0.110	0.194	+/−0.110	2.00	pCi/g						
Polonium−209	U	0.394	+/−3.22	5.48	+/−3.22		pCi/g						
Potassium−40		4.38	+/−0.629	0.192	+/−0.629	1.00	pCi/g						
Protactinium−233	U	−0.0166	+/−0.0357	0.0515	+/−0.0357		pCi/g						
Protactinium−234m	U	−0.582	+/−2.26	3.49	+/−2.26		pCi/g						
Radium−223	UI	0.301	+/−0.136	0.162	+/−0.136		pCi/g						
Rhodium−101	U	0.00874	+/−0.0213	0.0273	+/−0.0213		pCi/g						
Thallium−208		0.237	+/−0.0384	0.0271	+/−0.0384	0.080	pCi/g						
Thorium−234		0.944	+/−0.378	0.354	+/−0.378	0.500	pCi/g						
Uranium−235	U	−0.0176	+/−0.105	0.173	+/−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 17, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2112−BA Project: SCAN00101
Sample ID: 198681028 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
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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 17, 2007

Client Sample ID: SB−CZ−SS−2113−BA
Sample ID: 198681029
Matrix: Soil
Collect Date: 18−OCT−07
Receive Date: 04−DEC−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		0.857	+/−0.160	0.0965	+/−0.160	0.800	pCi/g		MJH1	12/14/07	1208	708123	1
Americium−241	U	0.0835	+/−0.063	0.102	+/−0.063	0.200	pCi/g						
Americium−243	UI	0.156	+/−0.0348	0.0382	+/−0.0348		pCi/g						
Americium−246	U	0.0126	+/−0.0539	0.0919	+/−0.0539		pCi/g						
Antimony−125	U	−0.00202	+/−0.0409	0.0687	+/−0.0409	0.200	pCi/g						
Bismuth−211	U	0.403	+/−0.490	0.771	+/−0.490		pCi/g						
Bismuth−212		0.622	+/−0.209	0.189	+/−0.209	0.500	pCi/g						
Bismuth−214		0.584	+/−0.0848	0.0559	+/−0.0848	0.200	pCi/g						
Californium−249	U	0.0117	+/−0.017	0.0298	+/−0.017		pCi/g						
Cesium−137		0.221	+/−0.0327	0.0266	+/−0.0327	0.100	pCi/g						
Cobalt−60	U	0.0162	+/−0.0174	0.0308	+/−0.0174	0.100	pCi/g						
Curium−243	U	0.0618	+/−0.0522	0.0751	+/−0.0522		pCi/g						
Europium−155	U	0.0683	+/−0.0577	0.0827	+/−0.0577	0.500	pCi/g						
Lead−212		0.786	+/−0.0681	0.0457	+/−0.0681	0.100	pCi/g						
Lead−214		0.578	+/−0.0751	0.0513	+/−0.0751	0.100	pCi/g						
Neptunium−236	U	0.0316	+/−0.0323	0.0498	+/−0.0323		pCi/g						
Neptunium−237	UI	0.612	+/−0.151	0.168	+/−0.151		pCi/g						
Neptunium−239	U	0.0774	+/−0.114	0.177	+/−0.114	2.00	pCi/g						
Polonium−209	U	0.638	+/−3.18	5.50	+/−3.18		pCi/g						
Potassium−40		6.51	+/−0.633	0.243	+/−0.633	1.00	pCi/g						
Protactinium−233	U	0.0218	+/−0.0305	0.0515	+/−0.0305		pCi/g						
Protactinium−234m	UI	4.57	+/−2.97	3.12	+/−2.97		pCi/g						
Radium−223	UI	0.213	+/−0.121	0.142	+/−0.121		pCi/g						
Rhodium−101	U	−0.00421	+/−0.0185	0.0289	+/−0.0185		pCi/g						
Thallium−208		0.227	+/−0.0421	0.0256	+/−0.0421	0.080	pCi/g						
Thorium−234		0.659	+/−0.324	0.369	+/−0.324	0.500	pCi/g						
Uranium−235	U	0.106	+/−0.128	0.155	+/−0.128	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 17, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2113−BA Project: SCAN00101
Sample ID: 198681029 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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M M if above MDC and less than LLD
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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 17, 2007

Client Sample ID: SB−CZ−SS−2114−BA
Sample ID: 198681030
Matrix: Soil
Collect Date: 18−OCT−07
Receive Date: 04−DEC−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		0.746	+/−0.155	0.111	+/−0.155	0.800	pCi/g		MJH1	12/14/07	1213	708123	1
Americium−241	U	0.0247	+/−0.085	0.143	+/−0.085	0.200	pCi/g						
Americium−243	UI	0.0625	+/−0.0355	0.0437	+/−0.0355		pCi/g						
Americium−246	U	−0.0611	+/−0.0648	0.100	+/−0.0648		pCi/g						
Antimony−125	U	−0.0105	+/−0.0506	0.0853	+/−0.0506	0.200	pCi/g						
Bismuth−211	U	−0.25	+/−0.546	0.859	+/−0.546		pCi/g						
Bismuth−212		0.424	+/−0.207	0.260	+/−0.207	0.500	pCi/g						
Bismuth−214		0.456	+/−0.0904	0.0634	+/−0.0904	0.200	pCi/g						
Californium−249	U	0.00281	+/−0.0224	0.0389	+/−0.0224		pCi/g						
Cesium−137		0.129	+/−0.0396	0.0375	+/−0.0396	0.100	pCi/g						
Cobalt−60	U	−0.00821	+/−0.0248	0.0398	+/−0.0248	0.100	pCi/g						
Curium−243	U	0.0761	+/−0.064	0.0801	+/−0.064		pCi/g						
Europium−155	U	0.0841	+/−0.0707	0.0956	+/−0.0707	0.500	pCi/g						
Lead−212		0.710	+/−0.0716	0.0517	+/−0.0716	0.100	pCi/g						
Lead−214		0.613	+/−0.0978	0.0652	+/−0.0978	0.100	pCi/g						
Neptunium−236	U	0.0189	+/−0.0303	0.0536	+/−0.0303		pCi/g						
Neptunium−237	UI	0.263	+/−0.142	0.178	+/−0.142		pCi/g						
Neptunium−239	U	0.0966	+/−0.131	0.188	+/−0.131	2.00	pCi/g						
Polonium−209	U	−0.85	+/−3.72	6.11	+/−3.72		pCi/g						
Potassium−40		4.89	+/−0.654	0.335	+/−0.654	1.00	pCi/g						
Protactinium−233	U	−0.0124	+/−0.0343	0.0591	+/−0.0343		pCi/g						
Protactinium−234m	U	0.242	+/−2.68	4.02	+/−2.68		pCi/g						
Radium−223	UI	0.255	+/−0.151	0.180	+/−0.151		pCi/g						
Rhodium−101	U	0.0105	+/−0.0176	0.0327	+/−0.0176		pCi/g						
Thallium−208		0.233	+/−0.038	0.0328	+/−0.038	0.080	pCi/g						
Thorium−234		0.480	+/−0.456	0.420	+/−0.456	0.500	pCi/g						
Uranium−235	U	0.0797	+/−0.103	0.184	+/−0.103	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 17, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2114−BA Project: SCAN00101
Sample ID: 198681030 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 17, 2007

Client Sample ID:	SB−CZ−SS−2111−BD	Project:	SCAN00101
Sample ID:	198681031	Client ID:	SCAN001
Matrix:	Soil		
Collect Date:	18−OCT−07		
Receive Date:	04−DEC−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		0.849	+/−0.173	0.139	+/−0.173	0.800	pCi/g		MJH1	12/14/07	1224	708123	1
Americium−241	U	0.0288	+/−0.0279	0.0488	+/−0.0279	0.200	pCi/g						
Americium−243	UI	0.0985	+/−0.0213	0.028	+/−0.0213		pCi/g						
Americium−246	U	−0.0107	+/−0.0777	0.129	+/−0.0777		pCi/g						
Antimony−125	U	0.0321	+/−0.0502	0.0907	+/−0.0502	0.200	pCi/g						
Bismuth−211	U	−0.107	+/−0.671	1.14	+/−0.671		pCi/g						
Bismuth−212		0.730	+/−0.316	0.278	+/−0.316	0.500	pCi/g						
Bismuth−214		0.533	+/−0.103	0.0769	+/−0.103	0.200	pCi/g						
Californium−249	U	−0.00506	+/−0.0228	0.0395	+/−0.0228		pCi/g						
Cesium−137		0.0491	+/−0.0382	0.0365	+/−0.0382	0.100	pCi/g						
Cobalt−60	U	−0.0085	+/−0.0243	0.0389	+/−0.0243	0.100	pCi/g						
Curium−243	U	0.0284	+/−0.0562	0.0743	+/−0.0562		pCi/g						
Europium−155	U	0.0313	+/−0.062	0.0805	+/−0.062	0.500	pCi/g						
Lead−212		0.674	+/−0.0796	0.0592	+/−0.0796	0.100	pCi/g						
Lead−214		0.527	+/−0.089	0.0632	+/−0.089	0.100	pCi/g						
Neptunium−236	U	−0.00132	+/−0.028	0.0447	+/−0.028		pCi/g						
Neptunium−237	UI	0.424	+/−0.121	0.137	+/−0.121		pCi/g						
Neptunium−239	U	−0.085	+/−0.109	0.176	+/−0.109	2.00	pCi/g						
Polonium−209	U	0.111	+/−4.30	7.39	+/−4.30		pCi/g						
Potassium−40		4.46	+/−0.648	0.343	+/−0.648	1.00	pCi/g						
Protactinium−233	U	−0.0046	+/−0.032	0.0565	+/−0.032		pCi/g						
Protactinium−234m	U	0.752	+/−4.37	4.60	+/−4.37		pCi/g						
Radium−223	UI	0.326	+/−0.144	0.164	+/−0.144		pCi/g						
Rhodium−101	U	0.0017	+/−0.0191	0.0308	+/−0.0191		pCi/g						
Thallium−208		0.260	+/−0.0488	0.0327	+/−0.0488	0.080	pCi/g						
Thorium−234		0.829	+/−0.327	0.317	+/−0.327	0.500	pCi/g						
Uranium−235	U	0.0529	+/−0.119	0.169	+/−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 :

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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 17, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2111−BD Project: SCAN00101
Sample ID: 198681031 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.
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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
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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.
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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 17, 2007

Client Sample ID: SB−CZ−SS−2112−BD
Sample ID: 198681032
Matrix: Soil
Collect Date: 18−OCT−07
Receive Date: 04−DEC−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		0.849	+/−0.174	0.111	+/−0.174	0.800	pCi/g		MJH1	12/14/07	1302	708123	1
Americium−241	U	0.0788	+/−0.0686	0.103	+/−0.0686	0.200	pCi/g						
Americium−243	UI	0.141	+/−0.0353	0.0375	+/−0.0353		pCi/g						
Americium−246	U	0.0291	+/−0.0732	0.126	+/−0.0732		pCi/g						
Antimony−125	U	0.0314	+/−0.0476	0.0841	+/−0.0476	0.200	pCi/g						
Bismuth−211	U	−0.528	+/−0.488	0.754	+/−0.488		pCi/g						
Bismuth−212		0.374	+/−0.271	0.234	+/−0.271	0.500	pCi/g						
Bismuth−214		0.379	+/−0.0774	0.0607	+/−0.0774	0.200	pCi/g						
Californium−249	U	0.00601	+/−0.0219	0.0347	+/−0.0219		pCi/g						
Cesium−137		0.0477	+/−0.0281	0.0331	+/−0.0281	0.100	pCi/g						
Cobalt−60	U	−0.00535	+/−0.0205	0.032	+/−0.0205	0.100	pCi/g						
Curium−243	U	0.0387	+/−0.0521	0.0786	+/−0.0521		pCi/g						
Europium−155	U	0.0428	+/−0.0575	0.0843	+/−0.0575	0.500	pCi/g						
Lead−212		0.744	+/−0.0754	0.0495	+/−0.0754	0.100	pCi/g						
Lead−214		0.412	+/−0.0773	0.058	+/−0.0773	0.100	pCi/g						
Neptunium−236	U	0.0439	+/−0.0314	0.050	+/−0.0314		pCi/g						
Neptunium−237	UI	0.475	+/−0.203	0.169	+/−0.203		pCi/g						
Neptunium−239	U	−0.0307	+/−0.112	0.194	+/−0.112	2.00	pCi/g						
Polonium−209	U	−0.254	+/−3.47	5.89	+/−3.47		pCi/g						
Potassium−40		3.60	+/−0.613	0.333	+/−0.613	1.00	pCi/g						
Protactinium−233	U	0.0133	+/−0.0337	0.0562	+/−0.0337		pCi/g						
Protactinium−234m	U	0.413	+/−2.99	3.73	+/−2.99		pCi/g						
Radium−223	UI	0.232	+/−0.153	0.148	+/−0.153		pCi/g						
Rhodium−101	U	0.0113	+/−0.0165	0.0298	+/−0.0165		pCi/g						
Thallium−208		0.212	+/−0.0437	0.0301	+/−0.0437	0.080	pCi/g						
Thorium−234		1.29	+/−0.467	0.372	+/−0.467	0.500	pCi/g						
Uranium−235	U	−0.0469	+/−0.113	0.171	+/−0.113	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 17, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2112−BD Project: SCAN00101
Sample ID: 198681032 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 17, 2007

Client Sample ID: SB−CZ−SS−2113−BD
Sample ID: 198681033
Matrix: Soil
Collect Date: 18−OCT−07
Receive Date: 04−DEC−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		1.12	+/−0.232	0.178	+/−0.232	0.800	pCi/g		MJH1	12/14/07	1354	708123	1
Americium−241	U	0.0169	+/−0.0272	0.0538	+/−0.0272	0.200	pCi/g						
Americium−243	UI	0.155	+/−0.0279	0.0316	+/−0.0279		pCi/g						
Americium−246	U	0.0633	+/−0.102	0.181	+/−0.102		pCi/g						
Antimony−125	U	0.0104	+/−0.0648	0.111	+/−0.0648	0.200	pCi/g						
Bismuth−211	U	0.263	+/−0.784	1.38	+/−0.784		pCi/g						
Bismuth−212		0.510	+/−0.325	0.384	+/−0.325	0.500	pCi/g						
Bismuth−214		0.730	+/−0.117	0.0812	+/−0.117	0.200	pCi/g						
Californium−249	U	0.0102	+/−0.0273	0.0475	+/−0.0273		pCi/g						
Cesium−137	U	0.0374	+/−0.0412	0.0529	+/−0.0412	0.100	pCi/g						
Cobalt−60	U	0.0203	+/−0.0296	0.053	+/−0.0296	0.100	pCi/g						
Curium−243	U	−0.00398	+/−0.0539	0.0801	+/−0.0539		pCi/g						
Europium−155	U	0.0265	+/−0.0678	0.0872	+/−0.0678	0.500	pCi/g						
Lead−212		0.907	+/−0.0865	0.059	+/−0.0865	0.100	pCi/g						
Lead−214		0.724	+/−0.109	0.0788	+/−0.109	0.100	pCi/g						
Neptunium−236	U	0.0246	+/−0.0311	0.0482	+/−0.0311		pCi/g						
Neptunium−237	UI	0.572	+/−0.141	0.144	+/−0.141		pCi/g						
Neptunium−239	U	0.110	+/−0.140	0.251	+/−0.140	2.00	pCi/g						
Polonium−209	UI	20.7	+/−16.6	9.30	+/−16.6		pCi/g						
Potassium−40		5.20	+/−0.879	0.328	+/−0.879	1.00	pCi/g						
Protactinium−233	U	0.0208	+/−0.0402	0.0711	+/−0.0402		pCi/g						
Protactinium−234m	U	1.71	+/−2.86	5.13	+/−2.86		pCi/g						
Radium−223	UI	0.255	+/−0.168	0.199	+/−0.168		pCi/g						
Rhodium−101	U	0.00711	+/−0.0212	0.0354	+/−0.0212		pCi/g						
Thallium−208		0.315	+/−0.055	0.0416	+/−0.055	0.080	pCi/g						
Thorium−234		1.19	+/−0.309	0.336	+/−0.309	0.500	pCi/g						
Uranium−235	U	−0.0118	+/−0.120	0.201	+/−0.120	0.500	pCi/g						

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

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Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117 Report Date: December 17, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2113−BD Project: SCAN00101
Sample ID: 198681033 Client ID: SCAN001

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

** Analyte is a surrogate compound
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A The TIC is a suspected aldol−condensation product
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N/A RPD or %Recovery limits do not apply.
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NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
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X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
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^ RPD of sample and duplicate evaluated using +/−RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
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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 17, 2007

Client Sample ID: SB−CZ−SS−2114−BD
Sample ID: 198681034
Matrix: Soil
Collect Date: 18−OCT−07
Receive Date: 04−DEC−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		0.878	+/−0.167	0.119	+/−0.167	0.800	pCi/g		MJH1	12/14/07	1426	708123	1
Americium−241	U	0.0299	+/−0.0903	0.141	+/−0.0903	0.200	pCi/g						
Americium−243	UI	0.122	+/−0.0414	0.0479	+/−0.0414		pCi/g						
Americium−246	U	0.0494	+/−0.0759	0.134	+/−0.0759		pCi/g						
Antimony−125	U	−0.0154	+/−0.057	0.0952	+/−0.057	0.200	pCi/g						
Bismuth−211	U	−0.288	+/−0.595	0.974	+/−0.595		pCi/g						
Bismuth−212		0.654	+/−0.287	0.249	+/−0.287	0.500	pCi/g						
Bismuth−214		0.578	+/−0.0997	0.065	+/−0.0997	0.200	pCi/g						
Californium−249	U	0.0276	+/−0.0323	0.0358	+/−0.0323		pCi/g						
Cesium−137		0.0477	+/−0.0315	0.0306	+/−0.0315	0.100	pCi/g						
Cobalt−60	U	−0.0112	+/−0.0237	0.0376	+/−0.0237	0.100	pCi/g						
Curium−243	U	0.0612	+/−0.0643	0.0929	+/−0.0643		pCi/g						
Europium−155	U	0.0676	+/−0.071	0.103	+/−0.071	0.500	pCi/g						
Lead−212		0.689	+/−0.0732	0.0539	+/−0.0732	0.100	pCi/g						
Lead−214		0.556	+/−0.0924	0.0643	+/−0.0924	0.100	pCi/g						
Neptunium−236	U	0.0335	+/−0.040	0.0583	+/−0.040		pCi/g						
Neptunium−237	UI	0.533	+/−0.185	0.206	+/−0.185		pCi/g						
Neptunium−239	U	0.0377	+/−0.126	0.223	+/−0.126	2.00	pCi/g						
Polonium−209	U	2.13	+/−4.55	7.00	+/−4.55		pCi/g						
Potassium−40		6.81	+/−0.798	0.286	+/−0.798	1.00	pCi/g						
Protactinium−233	U	−0.000262	+/−0.0371	0.0639	+/−0.0371		pCi/g						
Protactinium−234m	U	2.27	+/−2.46	4.45	+/−2.46		pCi/g						
Radium−223	UI	0.234	+/−0.154	0.170	+/−0.154		pCi/g						
Rhodium−101	U	0.0287	+/−0.0272	0.0328	+/−0.0272		pCi/g						
Thallium−208		0.233	+/−0.0487	0.0335	+/−0.0487	0.080	pCi/g						
Thorium−234		1.19	+/−0.423	0.444	+/−0.423	0.500	pCi/g						
Uranium−235	U	0.105	+/−0.112	0.206	+/−0.112	0.500	pCi/g						

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

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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 17, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2114−BD Project: SCAN00101
Sample ID: 198681034 Client ID: SCAN001

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

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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 17, 2007

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

Montgomery, Alabama
Contact: **Cindy White**

Workorder: **198681**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 708121										
QC1201473812 198681001 DUP										
Actinium-228		0.850		0.726	pCi/g	16		(0% - 100%)	MJH1	12/15/0706:43
	Uncert:	+/-0.140		+/-0.183						
	TPU:	+/-0.140		+/-0.183						
Americium-241	U	0.0682	U	0.0462	pCi/g	38		N/A		
	Uncert:	+/-0.0646		+/-0.0302						
	TPU:	+/-0.0646		+/-0.0302						
Americium-243	UI	0.138	UI	0.150	pCi/g	8		(0% - 100%)		
	Uncert:	+/-0.0298		+/-0.0265						
	TPU:	+/-0.0298		+/-0.0265						
Americium-246	U	-0.0271	U	-0.0202	pCi/g	29		N/A		
	Uncert:	+/-0.0516		+/-0.0956						
	TPU:	+/-0.0516		+/-0.0956						
Antimony-125	U	-0.00776	U	0.057	pCi/g	263		N/A		
	Uncert:	+/-0.0393		+/-0.0571						
	TPU:	+/-0.0393		+/-0.0571						
Bismuth-211	U	0.405	U	-0.415	pCi/g	16700		N/A		
	Uncert:	+/-0.447		+/-0.685						
	TPU:	+/-0.447		+/-0.685						
Bismuth-212		0.687		0.475	pCi/g	37		(0% - 100%)		
	Uncert:	+/-0.189		+/-0.354						
	TPU:	+/-0.189		+/-0.354						
Bismuth-214		0.459		0.637	pCi/g	33*		(0% - 20%)		
	Uncert:	+/-0.0682		+/-0.106						
	TPU:	+/-0.0682		+/-0.106						
Californium-249	U	0.0155	U	-0.0209	pCi/g	1340		N/A		
	Uncert:	+/-0.0163		+/-0.0244						
	TPU:	+/-0.0163		+/-0.0244						
Cesium-137		0.175		0.230	pCi/g	27*		(0% - 20%)		
	Uncert:	+/-0.0367		+/-0.0459						
	TPU:	+/-0.0367		+/-0.0459						
Cobalt-60	U	0.00132	U	-0.00202	pCi/g	948		N/A		
	Uncert:	+/-0.0156		+/-0.0256						
	TPU:	+/-0.0156		+/-0.0256						
Curium-243	U	0.0244	U	-0.00518	pCi/g	308		N/A		
	Uncert:	+/-0.0359		+/-0.0432						
	TPU:	+/-0.0359		+/-0.0432						
Europium-155	U	0.0161	U	0.054	pCi/g	108		N/A		
	Uncert:	+/-0.0394		+/-0.047						
	TPU:	+/-0.0394		+/-0.047						
Lead-212		0.837		0.812	pCi/g	3		(0% - 20%)		
	Uncert:	+/-0.0713		+/-0.0773						
	TPU:	+/-0.0713		+/-0.0773						

QC Summary

Workorder: 198681

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 708121										
Lead-214		0.545		0.577	pCi/g	6		(0% - 20%)		
	Uncert:	+/-0.0661		+/-0.104						
	TPU:	+/-0.0661		+/-0.104						
Neptunium-236	U	0.023	U	0.011	pCi/g	70		N/A		
	Uncert:	+/-0.0252		+/-0.0281						
	TPU:	+/-0.0252		+/-0.0281						
Neptunium-237	UI	0.392	UI	0.443	pCi/g	12		(0% - 100%)		
	Uncert:	+/-0.105		+/-0.125						
	TPU:	+/-0.105		+/-0.125						
Neptunium-239	U	0.0509	U	0.0993	pCi/g	65		N/A		
	Uncert:	+/-0.0921		+/-0.117						
	TPU:	+/-0.0921		+/-0.117						
Polonium-209	U	2.49	U	-2.15	pCi/g	2710		N/A		
	Uncert:	+/-2.59		+/-4.81						
	TPU:	+/-2.59		+/-4.81						
Potassium-40		4.72		4.83	pCi/g	2		(0% - 20%)		
	Uncert:	+/-0.491		+/-0.790						
	TPU:	+/-0.491		+/-0.790						
Protactinium-233	U	0.0186	U	0.0312	pCi/g	51		N/A		
	Uncert:	+/-0.0258		+/-0.036						
	TPU:	+/-0.0258		+/-0.036						
Protactinium-234m	U	0.822	U	2.81	pCi/g	109		N/A		
	Uncert:	+/-1.59		+/-3.07						
	TPU:	+/-1.59		+/-3.07						
Radium-223	UI	0.237	UI	0.280	pCi/g	17		(0% - 100%)		
	Uncert:	+/-0.109		+/-0.173						
	TPU:	+/-0.109		+/-0.173						
Rhodium-101	U	-0.00141	U	0.0127	pCi/g	250		N/A		
	Uncert:	+/-0.0156		+/-0.0215						
	TPU:	+/-0.0156		+/-0.0215						
Thallium-208		0.268		0.278	pCi/g	4		(0% - 20%)		
	Uncert:	+/-0.0355		+/-0.0514						
	TPU:	+/-0.0355		+/-0.0514						
Thorium-234		1.05		0.988	pCi/g	6		(0% - 100%)		
	Uncert:	+/-0.296		+/-0.293						
	TPU:	+/-0.296		+/-0.293						
Uranium-235	U	0.0744	U	0.0512	pCi/g	37		N/A		
	Uncert:	+/-0.0771		+/-0.104						
	TPU:	+/-0.0771		+/-0.104						
QC1201473813 LCS										
Actinium-228				1.76	pCi/g					12/14/0716:41
	Uncert:			+/-0.510						
	TPU:			+/-0.510						
Americium-241	16.4			14.7	pCi/g		90	(75%-125%)		
	Uncert:			+/-1.30						
	TPU:			+/-1.30						
Americium-243				0.276	pCi/g					
	Uncert:			+/-0.116						

QC Summary

Workorder: 198681

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 708121											
	TPU:			+/-0.116							
Americium-246			U	-0.0589	pCi/g						
	Uncert:			+/-0.340							
	TPU:			+/-0.340							
Antimony-125			U	-0.0346	pCi/g						
	Uncert:			+/-0.162							
	TPU:			+/-0.162							
Bismuth-211			U	-1.02	pCi/g						
	Uncert:			+/-1.89							
	TPU:			+/-1.89							
Bismuth-212				0.832	pCi/g						
	Uncert:			+/-0.858							
	TPU:			+/-0.858							
Bismuth-214				0.831	pCi/g						
	Uncert:			+/-0.207							
	TPU:			+/-0.207							
Californium-249			U	0.0539	pCi/g						
	Uncert:			+/-0.0801							
	TPU:			+/-0.0801							
Cesium-137	6.25			6.31	pCi/g		101	(75%-125%)			
	Uncert:			+/-0.591							
	TPU:			+/-0.591							
Cobalt-60	8.73			9.04	pCi/g		104	(75%-125%)			
	Uncert:			+/-0.638							
	TPU:			+/-0.638							
Curium-243			U	0.132	pCi/g						
	Uncert:			+/-0.160							
	TPU:			+/-0.160							
Europium-155			U	0.0832	pCi/g						
	Uncert:			+/-0.176							
	TPU:			+/-0.176							
Lead-212				1.49	pCi/g						
	Uncert:			+/-0.166							
	TPU:			+/-0.166							
Lead-214				0.941	pCi/g						
	Uncert:			+/-0.244							
	TPU:			+/-0.244							
Neptunium-236			U	0.00824	pCi/g						
	Uncert:			+/-0.0945							
	TPU:			+/-0.0945							
Neptunium-237				32.5	pCi/g						
	Uncert:			+/-3.02							
	TPU:			+/-3.02							
Neptunium-239			U	0.00194	pCi/g						
	Uncert:			+/-0.386							
	TPU:			+/-0.386							
Polonium-209				253	pCi/g						
	Uncert:			+/-40.9							

QC Summary

Workorder: 198681

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 708121										
	TPU:			+/-40.9						
Potassium-40				1.63	pCi/g					
	Uncert:			+/-0.806						
	TPU:			+/-0.806						
Protactinium-233			U	-0.0373	pCi/g					
	Uncert:			+/-0.122						
	TPU:			+/-0.122						
Protactinium-234m			U	0.441	pCi/g					
	Uncert:			+/-9.22						
	TPU:			+/-9.22						
Radium-223				0.715	pCi/g					
	Uncert:			+/-0.351						
	TPU:			+/-0.351						
Rhodium-101			U	0.00871	pCi/g					
	Uncert:			+/-0.0524						
	TPU:			+/-0.0524						
Thallium-208				0.469	pCi/g					
	Uncert:			+/-0.121						
	TPU:			+/-0.121						
Thorium-234			U	1.18	pCi/g					
	Uncert:			+/-0.997						
	TPU:			+/-0.997						
Uranium-235			U	-0.138	pCi/g					
	Uncert:			+/-0.306						
	TPU:			+/-0.306						
QC1201473811 MB										
Actinium-228			U	-0.0114	pCi/g					12/15/0706:40
	Uncert:			+/-0.0732						
	TPU:			+/-0.0732						
Americium-241			U	0.0165	pCi/g					
	Uncert:			+/-0.0509						
	TPU:			+/-0.0509						
Americium-243			U	0.00825	pCi/g					
	Uncert:			+/-0.017						
	TPU:			+/-0.017						
Americium-246			U	0.0636	pCi/g					
	Uncert:			+/-0.0832						
	TPU:			+/-0.0832						
Antimony-125			U	-0.0168	pCi/g					
	Uncert:			+/-0.0442						
	TPU:			+/-0.0442						
Bismuth-211			U	0.00955	pCi/g					
	Uncert:			+/-0.501						
	TPU:			+/-0.501						
Bismuth-212			U	-0.0332	pCi/g					
	Uncert:			+/-0.129						
	TPU:			+/-0.129						
Bismuth-214			U	-0.0493	pCi/g					

QC Summary

Workorder: 198681

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 708121											
	Uncert:			+/-0.039							
	TPU:			+/-0.039							
Californium-249			U	-0.00433	pCi/g						
	Uncert:			+/-0.017							
	TPU:			+/-0.017							
Cesium-137			U	-0.0105	pCi/g						
	Uncert:			+/-0.0175							
	TPU:			+/-0.0175							
Cobalt-60			U	0.00154	pCi/g						
	Uncert:			+/-0.0138							
	TPU:			+/-0.0138							
Curium-243			U	-0.00843	pCi/g						
	Uncert:			+/-0.0283							
	TPU:			+/-0.0283							
Europium-155			U	-0.00407	pCi/g						
	Uncert:			+/-0.031							
	TPU:			+/-0.031							
Lead-212			U	0.025	pCi/g						
	Uncert:			+/-0.0387							
	TPU:			+/-0.0387							
Lead-214			U	-0.00876	pCi/g						
	Uncert:			+/-0.0347							
	TPU:			+/-0.0347							
Neptunium-236			U	0.00715	pCi/g						
	Uncert:			+/-0.0168							
	TPU:			+/-0.0168							
Neptunium-237			U	0.00706	pCi/g						
	Uncert:			+/-0.0638							
	TPU:			+/-0.0638							
Neptunium-239			U	-0.0445	pCi/g						
	Uncert:			+/-0.0811							
	TPU:			+/-0.0811							
Polonium-209			U	0.605	pCi/g						
	Uncert:			+/-3.20							
	TPU:			+/-3.20							
Potassium-40			U	-0.201	pCi/g						
	Uncert:			+/-0.187							
	TPU:			+/-0.187							
Protactinium-233			U	-0.00621	pCi/g						
	Uncert:			+/-0.0243							
	TPU:			+/-0.0243							
Protactinium-234m			U	-1.35	pCi/g						
	Uncert:			+/-2.27							
	TPU:			+/-2.27							
Radium-223			U	0.0266	pCi/g						
	Uncert:			+/-0.0719							
	TPU:			+/-0.0719							
Rhodium-101			U	1.60E-05	pCi/g						

QC Summary

Workorder: 198681

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 708121										
	Uncert:			+/-0.0153						
	TPU:			+/-0.0153						
Thallium-208			U	-0.0128	pCi/g					
	Uncert:			+/-0.0204						
	TPU:			+/-0.0204						
Thorium-234			U	-0.159	pCi/g					
	Uncert:			+/-0.202						
	TPU:			+/-0.202						
Uranium-235			U	0.0218	pCi/g					
	Uncert:			+/-0.105						
	TPU:			+/-0.105						
Batch 708123										
QC1201473819 198681021 DUP										
Actinium-228		1.01		1.06	pCi/g	4		(0% - 20%)	MJH1	12/14/0716:37
	Uncert:	+/-0.180		+/-0.154						
	TPU:	+/-0.180		+/-0.154						
Americium-241	U	0.0402	U	0.0193	pCi/g	70		N/A		
	Uncert:	+/-0.0517		+/-0.0212						
	TPU:	+/-0.0517		+/-0.0212						
Americium-243	UI	0.152	UI	0.154	pCi/g	1		(0% - 100%)		
	Uncert:	+/-0.0274		+/-0.0192						
	TPU:	+/-0.0274		+/-0.0192						
Americium-246	U	0.0241	U	0.00631	pCi/g	117		N/A		
	Uncert:	+/-0.0568		+/-0.0598						
	TPU:	+/-0.0568		+/-0.0598						
Antimony-125	U	0.0235	U	-0.00725	pCi/g	379		N/A		
	Uncert:	+/-0.0387		+/-0.0394						
	TPU:	+/-0.0387		+/-0.0394						
Bismuth-211	U	0.109	U	-0.131	pCi/g	2180		N/A		
	Uncert:	+/-0.451		+/-0.467						
	TPU:	+/-0.451		+/-0.467						
Bismuth-212		0.743		0.854	pCi/g	14		(0% - 100%)		
	Uncert:	+/-0.230		+/-0.222						
	TPU:	+/-0.230		+/-0.222						
Bismuth-214		0.627		0.604	pCi/g	4		(0% - 20%)		
	Uncert:	+/-0.0864		+/-0.0838						
	TPU:	+/-0.0864		+/-0.0838						
Californium-249	U	0.0138	U	0.0038	pCi/g	114		N/A		
	Uncert:	+/-0.0164		+/-0.0163						
	TPU:	+/-0.0164		+/-0.0163						
Cesium-137		0.0784		0.084	pCi/g	7		(0% - 100%)		
	Uncert:	+/-0.0245		+/-0.030						
	TPU:	+/-0.0245		+/-0.030						
Cobalt-60	U	-0.00741	U	-0.00185	pCi/g	120		N/A		
	Uncert:	+/-0.0183		+/-0.0194						
	TPU:	+/-0.0183		+/-0.0194						
Curium-243	UI	0.0935	U	0.0296	pCi/g	104*		(0% - 100%)		
	Uncert:	+/-0.0621		+/-0.0399						

QC Summary

Workorder: 198681

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 708123										
	TPU:	+/-0.0621		+/-0.0399						
Europium-155	UI	0.103	U	0.0327	pCi/g	104*		(0% - 100%)		
	Uncert:	+/-0.0686		+/-0.0441						
	TPU:	+/-0.0686		+/-0.0441						
Lead-212		0.990		0.957	pCi/g	3		(0% - 20%)		
	Uncert:	+/-0.0798		+/-0.0879						
	TPU:	+/-0.0798		+/-0.0879						
Lead-214		0.671		0.586	pCi/g	14		(0% - 20%)		
	Uncert:	+/-0.0687		+/-0.0795						
	TPU:	+/-0.0687		+/-0.0795						
Neptunium-236	U	0.0123	UI	0.0427	pCi/g	110*		(0% - 100%)		
	Uncert:	+/-0.0275		+/-0.0287						
	TPU:	+/-0.0275		+/-0.0287						
Neptunium-237	UI	0.534	UI	0.513	pCi/g	4		(0% - 100%)		
	Uncert:	+/-0.135		+/-0.0966						
	TPU:	+/-0.135		+/-0.0966						
Neptunium-239	U	-0.0162	U	0.0152	pCi/g	6350		N/A		
	Uncert:	+/-0.0926		+/-0.0834						
	TPU:	+/-0.0926		+/-0.0834						
Polonium-209	U	0.919	U	-1.43	pCi/g	915		N/A		
	Uncert:	+/-3.43		+/-3.45						
	TPU:	+/-3.43		+/-3.45						
Potassium-40		6.84		6.85	pCi/g	0		(0% - 20%)		
	Uncert:	+/-0.738		+/-0.623						
	TPU:	+/-0.738		+/-0.623						
Protactinium-233	U	0.0164	U	0.00164	pCi/g	164		N/A		
	Uncert:	+/-0.0279		+/-0.0243						
	TPU:	+/-0.0279		+/-0.0243						
Protactinium-234m	U	1.06	U	0.956	pCi/g	11		N/A		
	Uncert:	+/-2.18		+/-2.84						
	TPU:	+/-2.18		+/-2.84						
Radium-223	UI	0.273	UI	0.343	pCi/g	23		(0% - 100%)		
	Uncert:	+/-0.131		+/-0.102						
	TPU:	+/-0.131		+/-0.102						
Rhodium-101	U	0.00848	U	0.00224	pCi/g	117		N/A		
	Uncert:	+/-0.0156		+/-0.017						
	TPU:	+/-0.0156		+/-0.017						
Thallium-208		0.292		0.311	pCi/g	7		(0% - 20%)		
	Uncert:	+/-0.0444		+/-0.0393						
	TPU:	+/-0.0444		+/-0.0393						
Thorium-234		0.858		1.44	pCi/g	50		(0% - 100%)		
	Uncert:	+/-0.306		+/-0.275						
	TPU:	+/-0.306		+/-0.275						
Uranium-235	U	0.0907	U	0.0128	pCi/g	151		N/A		
	Uncert:	+/-0.123		+/-0.106						
	TPU:	+/-0.123		+/-0.106						
QC1201473820 LCS										
Actinium-228				1.15	pCi/g					12/14/0716:00

QC Summary

Workorder: 198681

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 708123											
	Uncert:			+/-0.526							
	TPU:			+/-0.526							
Americium-241	16.0			14.3	pCi/g		89	(75%-125%)			
	Uncert:			+/-1.41							
	TPU:			+/-1.41							
Americium-243			U	0.170	pCi/g						
	Uncert:			+/-0.130							
	TPU:			+/-0.130							
Americium-246			U	0.0248	pCi/g						
	Uncert:			+/-0.361							
	TPU:			+/-0.361							
Antimony-125			U	-0.133	pCi/g						
	Uncert:			+/-0.195							
	TPU:			+/-0.195							
Bismuth-211			U	-0.728	pCi/g						
	Uncert:			+/-2.64							
	TPU:			+/-2.64							
Bismuth-212			U	0.191	pCi/g						
	Uncert:			+/-0.747							
	TPU:			+/-0.747							
Bismuth-214				0.521	pCi/g						
	Uncert:			+/-0.262							
	TPU:			+/-0.262							
Californium-249			U	0.0633	pCi/g						
	Uncert:			+/-0.0887							
	TPU:			+/-0.0887							
Cesium-137	6.10			5.64	pCi/g		93	(75%-125%)			
	Uncert:			+/-0.442							
	TPU:			+/-0.442							
Cobalt-60	8.52			8.55	pCi/g		100	(75%-125%)			
	Uncert:			+/-0.622							
	TPU:			+/-0.622							
Curium-243			U	0.063	pCi/g						
	Uncert:			+/-0.152							
	TPU:			+/-0.152							
Europium-155			U	0.0189	pCi/g						
	Uncert:			+/-0.163							
	TPU:			+/-0.163							
Lead-212				0.995	pCi/g						
	Uncert:			+/-0.155							
	TPU:			+/-0.155							
Lead-214				0.657	pCi/g						
	Uncert:			+/-0.288							
	TPU:			+/-0.288							
Neptunium-236			U	0.0968	pCi/g						
	Uncert:			+/-0.0962							
	TPU:			+/-0.0962							
Neptunium-237				30.6	pCi/g						

QC Summary

Workorder: 198681

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 708123										
	Uncert:			+/-2.46						
	TPU:			+/-2.46						
Neptunium-239			U	-0.43	pCi/g					
	Uncert:			+/-0.411						
	TPU:			+/-0.411						
Polonium-209				239	pCi/g					
	Uncert:			+/-46.3						
	TPU:			+/-46.3						
Potassium-40			U	0.563	pCi/g					
	Uncert:			+/-0.630						
	TPU:			+/-0.630						
Protactinium-233			U	0.0634	pCi/g					
	Uncert:			+/-0.121						
	TPU:			+/-0.121						
Protactinium-234m			U	-3.56	pCi/g					
	Uncert:			+/-12.5						
	TPU:			+/-12.5						
Radium-223			U	0.0092	pCi/g					
	Uncert:			+/-0.352						
	TPU:			+/-0.352						
Rhodium-101			U	0.0104	pCi/g					
	Uncert:			+/-0.0529						
	TPU:			+/-0.0529						
Thallium-208				0.370	pCi/g					
	Uncert:			+/-0.118						
	TPU:			+/-0.118						
Thorium-234			U	1.50	pCi/g					
	Uncert:			+/-1.02						
	TPU:			+/-1.02						
Uranium-235			U	-0.12	pCi/g					
	Uncert:			+/-0.307						
	TPU:			+/-0.307						
QC1201473818 MB										
Actinium-228			U	0.0497	pCi/g					12/14/0716:36
	Uncert:			+/-0.0969						
	TPU:			+/-0.0969						
Americium-241			U	0.00117	pCi/g					
	Uncert:			+/-0.0159						
	TPU:			+/-0.0159						
Americium-243			U	0.000616	pCi/g					
	Uncert:			+/-0.00854						
	TPU:			+/-0.00854						
Americium-246			U	0.0241	pCi/g					
	Uncert:			+/-0.0511						
	TPU:			+/-0.0511						
Antimony-125			U	0.0386	pCi/g					
	Uncert:			+/-0.0327						
	TPU:			+/-0.0327						

QC Summary

Workorder: 198681

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 708123											
Bismuth-211			U	-0.164	pCi/g						
	Uncert:			+/-0.426							
	TPU:			+/-0.426							
Bismuth-212			U	-0.0374	pCi/g						
	Uncert:			+/-0.135							
	TPU:			+/-0.135							
Bismuth-214			U	0.00568	pCi/g						
	Uncert:			+/-0.0387							
	TPU:			+/-0.0387							
Californium-249			U	0.00331	pCi/g						
	Uncert:			+/-0.0142							
	TPU:			+/-0.0142							
Cesium-137			U	0.0147	pCi/g						
	Uncert:			+/-0.0146							
	TPU:			+/-0.0146							
Cobalt-60			U	0.00511	pCi/g						
	Uncert:			+/-0.0162							
	TPU:			+/-0.0162							
Curium-243			U	-0.00836	pCi/g						
	Uncert:			+/-0.0216							
	TPU:			+/-0.0216							
Europium-155			U	0.00539	pCi/g						
	Uncert:			+/-0.0238							
	TPU:			+/-0.0238							
Lead-212			U	0.00386	pCi/g						
	Uncert:			+/-0.0319							
	TPU:			+/-0.0319							
Lead-214			U	-0.00584	pCi/g						
	Uncert:			+/-0.0316							
	TPU:			+/-0.0316							
Neptunium-236			U	-0.00708	pCi/g						
	Uncert:			+/-0.0186							
	TPU:			+/-0.0186							
Neptunium-237			U	-0.152	pCi/g						
	Uncert:			+/-0.0491							
	TPU:			+/-0.0491							
Neptunium-239			U	0.0964	pCi/g						
	Uncert:			+/-0.0731							
	TPU:			+/-0.0731							
Polonium-209			U	1.09	pCi/g						
	Uncert:			+/-2.94							
	TPU:			+/-2.94							
Potassium-40			U	0.123	pCi/g						
	Uncert:			+/-0.169							
	TPU:			+/-0.169							
Protactinium-233			U	-0.00456	pCi/g						
	Uncert:			+/-0.0211							
	TPU:			+/-0.0211							

QC Summary

Workorder: 198681

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 708123											
Protactinium-234m			U	0.518	pCi/g						
	Uncert:			+/-2.51							
	TPU:			+/-2.51							
Radium-223			U	0.0498	pCi/g						
	Uncert:			+/-0.0553							
	TPU:			+/-0.0553							
Rhodium-101			U	0.000824	pCi/g						
	Uncert:			+/-0.0162							
	TPU:			+/-0.0162							
Thallium-208			U	-0.0199	pCi/g						
	Uncert:			+/-0.0192							
	TPU:			+/-0.0192							
Thorium-234			U	0.0136	pCi/g						
	Uncert:			+/-0.209							
	TPU:			+/-0.209							
Uranium-235			U	0.00936	pCi/g						
	Uncert:			+/-0.0823							
	TPU:			+/-0.0823							

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: 198681

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# 708121 Product: γS SCAN Date: 12/15/07

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 Narative
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.			NA
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: S. Eulano 12/15/07

Secondary Review Performed By: Kath Bellatt 12/17/07

Gamma Spec Que Sheet

12/05/2007

Batch #:708121 Analyst: MJH1 First Client DueDate:12/18/2007 Internal Due Date: 12/09/2007

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: 12/3/08 Vol: 1.0mL Nominal Concentration: Am241-16.35 Cs137-6.252 Co60-8.728

Initials: MGH Prep Date: 12/5/07 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)
198681001-1	SB-CZ-SS-2097-BA	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	140.33	1	
198681002-1	SB-CZ-SS-2098-BA	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	117.38	2	
198681003-1	SB-CZ-SS-2099-BA	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	122.16	6	
198681004-1	SB-CZ-SS-2101-BA	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	137.84	7	
198681005-1	SB-CZ-SS-2102-BA	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	123.57	21 11 MGH 12/10/07	
198681006-1	SB-CZ-SS-2103-BA	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	107.57	22 12	
198681007-1	SB-CZ-SS-2104-BA	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	123.37	23 14	
198681008-1	SB-CZ-SS-2105-BA	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	116.33	1 21	
198681009-1	SB-CZ-SS-2106-BA	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	121.28	2 22	
198681010-1	SB-CZ-SS-2107-BA	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	129.15	4 23	
198681011-1	SB-CZ-SS-2108-BA	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	108.92	5	
198681012-1	SB-CZ-SS-2109-BA	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	123.71	6	
198681013-1	SB-CZ-SS-2110-BA	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	124.54	7	
198681014-1	SB-CZ-SS-2097-BD	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	139.18	11	
198681015-1	SB-CZ-SS-2098-BD	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	130.82	13	
198681016-1	SB-CZ-SS-2099-BD	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	113.48	16	
198681017-1	SB-CZ-SS-2101-BD	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	112.67	17	
198681018-1	SB-CZ-SS-2102-BD	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	81.87	19	
198681019-1	SB-CZ-SS-2103-BD	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	106.19	20	
198681020-1	SB-CZ-SS-2104-BD	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	120.13	22	
1201473811-1	MB for batch 708121	MB		.08 pCi/g	QC ACCOUNT	SOIL	12/5/07	141.23	23	
1201473812-1	SB-CZ-SS-2097-BA(198681001DUP	DUP		.08 pCi/g	QC ACCOUNT	SOIL	18-OCT-07 00:00:00	141.23	21	
1201473813-1	LCS for batch 708121	LCS		.08 pCi/g	QC ACCOUNT	SOIL	12/5/07	151.73	22	

MGH 12/10/07

GEL Laboratories LLC, Radiochemistry Division

Data Reviewed By: S. Eulano 12/15/07

12/17/07

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	Parmname	Result	MDA	RDL
708121	198681001	SAMPLE	14-DEC-07				
708121	198681002	SAMPLE	14-DEC-07				
708121	198681003	SAMPLE	14-DEC-07				
708121	198681004	SAMPLE	14-DEC-07				
708121	198681005	SAMPLE	14-DEC-07				
708121	198681006	SAMPLE	14-DEC-07				
708121	198681007	SAMPLE	14-DEC-07				
708121	198681008	SAMPLE	15-DEC-07				
708121	198681009	SAMPLE	15-DEC-07				
708121	198681010	SAMPLE	15-DEC-07				
708121	198681011	SAMPLE	15-DEC-07				
708121	198681012	SAMPLE	15-DEC-07				
708121	198681013	SAMPLE	15-DEC-07				
708121	198681014	SAMPLE	15-DEC-07				
708121	198681015	SAMPLE	15-DEC-07				
708121	198681016	SAMPLE	15-DEC-07				
708121	198681017	SAMPLE	15-DEC-07				
708121	198681018	SAMPLE	15-DEC-07				
708121	198681019	SAMPLE	15-DEC-07				
708121	198681020	SAMPLE	15-DEC-07				
708121	1201473811	MB	15-DEC-07				
708121	1201473812	DUP	15-DEC-07				
708121	1201473813	LCS	14-DEC-07	Antimony-125	-0.03463	0.2758	0.200
				Thorium-234	1.181	1.262	0.500
				Uranium-235	-0.1382	0.5407	0.500

GEL QUALS

Batch ID: 708121

Report run on: December 15, 2007 1:55 PM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
198681001-1 14-DEC-2007 19:07	Americium-243	UI	UI	UI	Data rejected due to interference.		.1378			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.3916			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.2369			
198681002-1 14-DEC-2007 19:07	Americium-243	UI	UI	UI	Data rejected due to interference.		.1594			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.2859			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.3035			
	Uranium-235	UI	UI	UI	Data rejected due to no valid peak.		.2406		.5	.5
198681003-1 14-DEC-2007 19:08	Americium-243	UI	UI	UI	Data rejected due to interference.		.1479			
	Neptunium-236	UI	UI	UI	Data rejected due to interference.		.04642			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.5313			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.3642			
	Uranium-235	UI	UI	UI	Data rejected due to no valid peak.		.2855		.5	.5
198681004-1 14-DEC-2007 19:08	Americium-243	UI	UI	UI	Data rejected due to interference.		.1976			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.3793			
198681005-1 14-DEC-2007 19:08	Americium-243	UI	UI	UI	Data rejected due to interference.		.1929			
	Neptunium-236	UI	UI	UI	Data rejected due to interference.		.03612			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.5074			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.277			
198681006-1 14-DEC-2007 19:09	Americium-243	UI	UI	UI	Data rejected due to interference.		.1729			

GEL QUALS

Batch ID: 708121

Report run on: December 15, 2007 1:55 PM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
198681006-1 14-DEC-2007 19:09	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.6056			
	Protactinium-234m	UI	UI	UI	Data rejected due to a high counting uncertainty.		2.77			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.355			
	Uranium-235	UI	UI	UI	Data rejected due to no valid peak.		.2024		.5	.5
198681007-1 14-DEC-2007 19:09	Americium-243	UI	UI	UI	Data rejected due to interference.		.2369			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.668			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.3899			
198681008-1 15-DEC-2007 06:31	Americium-243	UI	UI	UI	Data rejected due to interference.		.2921			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.6054			
	Protactinium-234m	UI	UI	UI	Data rejected due to no valid peak.		4.503			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.3599			
	Thorium-234	UI	UI	UI	Data rejected due to low abundance.		1.364		.5	.5
198681009-1 15-DEC-2007 06:31	Americium-243	UI	UI	UI	Data rejected due to interference.		.1255			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.4612			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.3283			
198681010-1 15-DEC-2007 06:32	Americium-243	UI	UI	UI	Data rejected due to interference.		.1389			
	Curium-243	UI	UI	UI	Data rejected due to interference.		.09941			
	Europium-155	UI	UI	UI	Data rejected due to interference.		.1098		.5	.5
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.3414			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.3157			

GEL QUALS

Batch ID: 708121

Report run on: December 15, 2007 1:55 PM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
198681011-1 15-DEC-2007 06:33	Americium-243	UI	UI	UI	Data rejected due to interference.		.2598			
	Curium-243	UI	UI	UI	Data rejected due to interference.		.1184			
	Europium-155	UI	UI	UI	Data rejected due to interference.		.1308		.5	.5
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.9133			
	Polonium-209	UI	UI	UI	Data rejected due to high peak-width.		12			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.4439			
198681012-1 15-DEC-2007 06:34	Americium-243	UI	UI	UI	Data rejected due to interference.		.1596			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.5985			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.3259			
198681013-1 15-DEC-2007 06:35	Americium-243	UI	UI	UI	Data rejected due to interference.		.1075			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.5584			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.2076			
198681014-1 15-DEC-2007 06:35	Americium-243	UI	UI	UI	Data rejected due to interference.		.146			
	Neptunium-236	UI	UI	UI	Data rejected due to interference.		.06014			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.5608			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.3111			
	Uranium-235	UI	UI	UI	Data rejected due to no valid peak.		.1539		.5	.5
198681015-1 15-DEC-2007 06:36	Americium-243	UI	UI	UI	Data rejected due to interference.		.1428			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.4752			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.4728			

GEL QUALS

Batch ID: 708121

Report run on: December 15, 2007 1:55 PM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
198681016-1 15-DEC-2007 06:37	Americium-243	UI	UI	UI	Data rejected due to interference.		.2054			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.782			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.399			
198681017-1 15-DEC-2007 06:38	Americium-243	UI	UI	UI	Data rejected due to interference.		.1905			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.416			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.5582			
198681018-1 15-DEC-2007 06:38	Americium-243	UI	UI	UI	Data rejected due to interference.		.2222			
	Bismuth-214	UI	UI	UI	Data rejected due to low abundance.		.3639		.2	.2
	Neptunium-236	UI	UI	UI	Data rejected due to high peak-width.		.1031			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.4181			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.3775			
198681019-1 15-DEC-2007 06:39	Americium-243	UI	UI	UI	Data rejected due to interference.		.1805			
	Bismuth-214	UI	UI	UI	Data rejected due to low abundance.		.3539		.2	.2
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.5051			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.3761			
198681020-1 15-DEC-2007 06:39	Americium-243	UI	UI	UI	Data rejected due to interference.		.2011			
	Cesium-137	UI	UI	UI	Data rejected due to high peak-width.		.0332		.1	.1
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.6847			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.5003			

GEL QUALS

Batch ID: 708121

Report run on: December 15, 2007 1:55 PM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
1201473812-1 DUP 15-DEC-2007 06:43	Americium-243	UI	UI	UI	Data rejected due to interference.		.1499			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.4433			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.2799			

Gamma Review Report based on Result > MDA for Batch:708121

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198681001	18-OCT-07 00:00	14-DEC-07 19:07	57.8	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 ✓	0.8503	0.14	pCi/g	0.08527	0.800	911.4	1	1.647	IDENTIFIED	6.873	☐	
Americium-243 INT	0.1378	0.02979	pCi/g	0.03302	Y	74.62	1	1.627	IDENTIFIED	10.29	☑ UI	
Bismuth-212 ✓	0.6868	0.1891	pCi/g	0.1716	0.500	727.1	1	2.299	IDENTIFIED	13.44	☐	
Bismuth-214 ✓	0.4591	0.06817	pCi/g	0.04538	0.200	609.5	1	1.591	IDENTIFIED	6.639	☐	
Cesium-137 ✓	0.1749	0.0367	pCi/g	0.02374	0.100	661.9	1	1.829	IDENTIFIED	10.01	☐	
Lead-212 ✓	0.8373	0.07134	pCi/g	0.03874	0.100	238.7	1	1.389	IDENTIFIED	2.651	☐	
Lead-214 ✓	0.5453	0.06605	pCi/g	0.04749	0.100	351.8	1	1.48	IDENTIFIED	5.317	☐	
Neptunium-237 INT	0.3916	0.1046	pCi/g	0.1421	Y	87.23	1	1.389	IDENTIFIED	12.97	☑ UI	
Potassium-40 ✓	4.718	0.4911	pCi/g	0.1951	1.00	1461	1	2.305	IDENTIFIED	4.445	☐	
Radium-223 INT	0.2369	0.1094	pCi/g	0.1193	Y	269.8	1	1.361	IDENTIFIED	23.31	☑ UI	
Thallium-208 ✓	0.2677	0.03545	pCi/g	0.02178	0.080	583.4	1	1.688	IDENTIFIED	5.736	☐	
Thorium-234 ✓	1.047	0.2961	pCi/g	0.3062	0.500	92.88	1	1.605	IDENTIFIED	13.89	☐	

*** = 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
198681002	18-OCT-07 00:00	14-DEC-07 19:07	57.8	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 ✓	0.9378	0.139	pCi/g	0.08297	0.800	911.1	1	1.737	IDENTIFIED	6.484	☐	
Americium-243 INT	0.1594	0.03596	pCi/g	0.03411	Y	74.82	1	1.097	IDENTIFIED	10.74	☑ UI	
Bismuth-212 ✓	0.6272	0.1887	pCi/g	0.1686	0.500	727.1	1	1.204	IDENTIFIED	14.99	☐	
Bismuth-214 ✓	0.6629	0.07852	pCi/g	0.04538	0.200	609.3	1	1.469	IDENTIFIED	5.238	☐	
Cesium-137 ✓	0.1459	0.03255	pCi/g	0.02508	0.100	661.4	1	1.341	IDENTIFIED	10.96	☐	
Lead-212 ✓	0.831	0.06824	pCi/g	0.0374	0.100	238.6	1	1.097	IDENTIFIED	2.829	☐	
Lead-214 ✓	0.7522	0.0771	pCi/g	0.04647	0.100	351.8	1	1.242	IDENTIFIED	4.317	☐	
Neptunium-237 INT	0.2859	0.1301	pCi/g	0.1451	Y	87.05	1	1.339	IDENTIFIED	22.8	☑ UI	
Potassium-40 ✓	4.965	0.557	pCi/g	0.242	1.00	1460	1	2.024	IDENTIFIED	4.681	☐	
Radium-223 INT	0.3035	0.1035	pCi/g	0.1217	Y	270.3	1	1.726	IDENTIFIED	17.07	☑ UI	
Thallium-208 ✓	0.2465	0.04025	pCi/g	0.02352	0.080	583.2	1	1.455	IDENTIFIED	7.781	☐	
Thorium-234 ✓	0.888	0.326	pCi/g	0.3091	0.500	92.67	1	1.175	IDENTIFIED	18.29	☐	
Uranium-235 NVP	0.2406	0.1272	pCi/g	0.1253	0.500	143.9	1	0.845	IDENTIFIED	26.84	☑ UI	

*** = 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
198681003	18-OCT-07 00:00	14-DEC-07 19:08	57.8	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 ✓	0.9128	0.1586	pCi/g	0.09495	0.800	910.9	1	1.494	IDENTIFIED	7.267	☐	
Americium-243 INT	0.1479	0.031	pCi/g	0.03539	Y	74.41	1	1.021	IDENTIFIED	9.867	☑ UI	
Bismuth-212 ✓	0.8434	0.214	pCi/g	0.1896	0.500	727.3	1	1.871	IDENTIFIED	12.37	☐	
Bismuth-214 ✓	0.6773	0.09153	pCi/g	0.04922	0.200	608.9	1	1.378	IDENTIFIED	6.023	☐	
Cesium-137 ✓	0.1817	0.03181	pCi/g	0.02639	0.100	661.2	1	1.552	IDENTIFIED	8.272	☐	
Lead-212 ✓	0.9478	0.07765	pCi/g	0.04226	0.100	238.3	1	1.099	IDENTIFIED	2.779	☐	
Lead-214 ✓	0.7934	0.0921	pCi/g	0.05418	0.100	351.6	1	1.255	IDENTIFIED	5.03	☐	
Neptunium-237 INT	0.04642	0.03499	pCi/g	0.04042	Y	98.41	1	2.40	IDENTIFIED	38.3	☑ UI	
Neptunium-237 INT	0.5313	0.1262	pCi/g	0.1466	Y	86.87	1	1.134	IDENTIFIED	11.3	☑ UI	
Potassium-40 ✓	4.063	0.55	pCi/g	0.252	1.00	1460	1	2.055	IDENTIFIED	6.119	☐	
Radium-223 INT	0.3642	0.1284	pCi/g	0.1356	Y	270.1	1	1.922	IDENTIFIED	17.7	☑ UI	
Thallium-208 ✓	0.2732	0.04012	pCi/g	0.02622	0.080	582.9	1	1.453	IDENTIFIED	6.707	☐	
Thorium-234 ✓	1.328	0.3685	pCi/g	0.3161	0.500	92.37	1	1.434	IDENTIFIED	13.54	☐	
Uranium-235 NVP	0.2855	0.1472	pCi/g	0.1406	0.500	143.9	1	1.758	IDENTIFIED	26.14	☑ UI	

*** = 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
198681004	18-OCT-07 00:00	14-DEC-07 19:08	57.8	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 ✓	1.121	0.1428	pCi/g	0.07913	0.800	911.4	1	1.567	IDENTIFIED	5.546	☐	
Americium-243 INT	0.1976	0.02384	pCi/g	0.02508	Y	75.01	1	1.062	IDENTIFIED	5.128	☑ UI	
Bismuth-212 ✓	0.8951	0.1928	pCi/g	0.1542	0.500	727.6	1	1.357	IDENTIFIED	10.36	☐	
Bismuth-214 ✓	0.7867	0.08383	pCi/g	0.04339	0.200	609.6	1	1.428	IDENTIFIED	4.199	☐	
Cesium-137 ✓	0.1971	0.02772	pCi/g	0.02301	0.100	661.9	1	1.54	IDENTIFIED	6.173	☐	
Lead-212 ✓	1.046	0.07596	pCi/g	0.03447	0.100	238.9	1	1.135	IDENTIFIED	2.186	☐	
Lead-214 ✓	0.9654	0.08332	pCi/g	0.04172	0.100	352.1	1	1.276	IDENTIFIED	3.394	☐	
Potassium-40 ✓	7.579	0.6456	pCi/g	0.1981	1.00	1461	1	2.043	IDENTIFIED	3.39	☐	
Radium-223 INT	0.3793	0.09909	pCi/g	0.1034	Y	270.5	1	1.626	IDENTIFIED	12.97	☑ UI	
Thallium-208 ✓	0.3255	0.03804	pCi/g	0.02166	0.080	583.5	1	1.32	IDENTIFIED	4.935	☐	
Thorium-234 ✓	1.48	0.2827	pCi/g	0.2546	0.500	92.95	1	1.435	IDENTIFIED	8.968	☐	

*** = 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
198681005	18-OCT-07 00:00	14-DEC-07 19:08	57.8	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 ✓	1.037	0.1646	pCi/g	0.1212	0.800	911.4	1	1.814	IDENTIFIED	7.358	☐	
Americium-243 INT	0.1929	0.0246	pCi/g	0.02003	Y	75.01	1	1.647	IDENTIFIED	5.505	☑ UI	
Bismuth-212 ✓	0.5547	0.2104	pCi/g	0.2301	0.500	727.5	1	2.346	IDENTIFIED	18.93	☐	
Bismuth-214 ✓	0.6317	0.09235	pCi/g	0.05793	0.200	609.5	1	1.833	IDENTIFIED	6.421	☐	
Cesium-137 ✓	0.1253	0.03469	pCi/g	0.03297	0.100	661.5	1	2.047	IDENTIFIED	13.52	☐	
Lead-212 ✓	1.024	0.07951	pCi/g	0.04162	0.100	238.7	1	1.469	IDENTIFIED	2.514	☐	
Lead-214 ✓	0.6606	0.0721	pCi/g	0.05577	0.100	352	1	1.561	IDENTIFIED	4.928	☐	
Neptunium-236 INT	0.03612	0.02455	pCi/g	0.03365	Y	99.99	1	2.237	IDENTIFIED	34.45	☑ UI	
Neptunium-237 INT	0.5074	0.1022	pCi/g	0.1058	Y	87.24	1	1.683	IDENTIFIED	9.6	☑ UI	
Potassium-40 ✓	4.308	0.6433	pCi/g	0.3326	1.00	1461	1	2.445	IDENTIFIED	7.1	☐	
Radium-223 INT	0.277	0.1405	pCi/g	0.1338	Y	270.7	1	1.339	IDENTIFIED	25.73	☑ UI	
Thallium-208 ✓	0.3213	0.04219	pCi/g	0.03015	0.080	583.3	1	1.755	IDENTIFIED	5.619	☐	
Thorium-234 ✓	1.098	0.2142	pCi/g	0.2462	0.500	93.01	1	1.349	IDENTIFIED	9.207	☐	

*** = 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
198681006	18-OCT-07 00:00	14-DEC-07 19:09	57.8	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 ✓	0.9329	0.1418	pCi/g	0.07193	0.800	910.7	1	2.052	IDENTIFIED	5.966	☐	
Americium-243 INT	0.1729	0.02847	pCi/g	0.02882	Y	74.69	1	1.216	IDENTIFIED	7.424	☑ UI	
Bismuth-212 ✓	0.4567	0.1295	pCi/g	0.1699	0.500	726.9	1	1.773	IDENTIFIED	13.73	☐	
Bismuth-214 ✓	0.7464	0.08197	pCi/g	0.04061	0.200	608.9	1	1.748	IDENTIFIED	3.884	☐	
Cesium-137 ✓	0.1454	0.02565	pCi/g	0.02376	0.100	661.3	1	1.596	IDENTIFIED	7.859	☐	
Lead-212 ✓	1.038	0.0756	pCi/g	0.03491	0.100	238.4	1	1.274	IDENTIFIED	2.206	☐	
Lead-214 ✓	0.8573	0.07296	pCi/g	0.04161	0.100	351.6	1	1.489	IDENTIFIED	3.257	☐	
Neptunium-237 INT	0.6056	0.127	pCi/g	0.1286	Y	87.13	1	1.445	IDENTIFIED	9.775	☑ UI	
Potassium-40 ✓	2.361	0.3568	pCi/g	0.2015	1.00	1460	1	2.919	IDENTIFIED	7.126	☐	
Protactinium-234m MUNC	2.77	2.881	pCi/g	2.263	Y	1000	1	0.9447	IDENTIFIED	52.88	☑ UI	
Radium-223 INT	0.355	0.1243	pCi/g	0.1091	Y	269.8	1	1.953	IDENTIFIED	17.61	☑ UI	
Thallium-208 ✓	0.2894	0.03874	pCi/g	0.02019	0.080	582.8	1	1.66	IDENTIFIED	5.627	☐	
Thorium-234 ✓	0.9232	0.2924	pCi/g	0.2823	0.500	92.49	1	1.285	IDENTIFIED	15.62	☐	
Uranium-235 NUP	0.2024	0.1459	pCi/g	0.1286	0.500	143.6	1	1.943	IDENTIFIED	36.65	☑ UI	

*** = 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

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198681007	18-OCT-07 00:00	14-DEC-07 19:09	57.8	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 ✓	1.057	0.1586	pCi/g	0.1021	0.800	910.9	1	1.868	IDENTIFIED	6.532	☐	
Americium-243 INT	0.2369	0.03239	pCi/g	0.03393	Y	74.95	1	1.016	IDENTIFIED	6.008	☑ UI	
Bismuth-212 ✓	0.7529	0.217	pCi/g	0.2288	0.500	727	1	2.079	IDENTIFIED	14.34	☐	
Bismuth-214 ✓	0.8756	0.08125	pCi/g	0.05096	0.200	609.2	1	1.385	IDENTIFIED	3.751	☐	
Cesium-137 ✓	0.1713	0.03082	pCi/g	0.02672	0.100	661.5	1	1.324	IDENTIFIED	8.69	☐	
Lead-212 ✓	1.106	0.0786	pCi/g	0.04015	0.100	238.7	1	0.9944	IDENTIFIED	2.278	☐	
Lead-214 ✓	0.969	0.08938	pCi/g	0.05062	0.100	351.9	1	1.231	IDENTIFIED	3.857	☐	
Neptunium-237 INT	0.668	0.1216	pCi/g	0.1402	Y	87.27	1	1.07	IDENTIFIED	8.517	☑ UI	
Potassium-40 ✓	6.36	0.647	pCi/g	0.223	1.00	1460	1	2.165	IDENTIFIED	3.77	☐	
Radium-223 INT	0.3899	0.1622	pCi/g	0.13	Y	269.8	1	1.218	IDENTIFIED	21.02	☑ UI	
Thallium-208 ✓	0.3579	0.04272	pCi/g	0.02723	0.080	583.1	1	1.317	IDENTIFIED	5.382	☐	
Thorium-234 ✓	1.163	0.3162	pCi/g	0.2994	0.500	92.92	1	1.237	IDENTIFIED	13.39	☐	

*** = 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
198681008	18-OCT-07 00:00	15-DEC-07 06:31	58.3	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 ✓	1.142	0.2191	pCi/g	0.1331	0.800	911.3	1	2.144	IDENTIFIED	8.515	☐	
Americium-243 INT	0.2921	0.06776	pCi/g	0.05653	Y	74.87	1	2.165	IDENTIFIED	11.15	☑ UI	
Bismuth-212 ✓	0.8609	0.3255	pCi/g	0.3129	0.500	727.1	1	1.452	IDENTIFIED	18.85	☐	
Bismuth-214 ✓	0.7826	0.1289	pCi/g	0.08439	0.200	609.5	1	1.544	IDENTIFIED	7.57	☐	
Cesium-137 ✓	0.2061	0.06531	pCi/g	0.04495	0.100	661.6	1	1.415	IDENTIFIED	15.72	☐	
Gross Gamma	5.786	1.257	pCi/g	2.95	N		0				☐	
Lead-212 ✓	0.984	0.1018	pCi/g	0.06661	0.100	238.7	1	1.465	IDENTIFIED	4	☐	
Lead-214 ✓	1.089	0.1189	pCi/g	0.07935	0.100	351.9	1	1.504	IDENTIFIED	4.601	☐	
Neptunium-237 INT	0.6054	0.1871	pCi/g	0.2403	Y	87.24	1	1.305	IDENTIFIED	15.21	☑ UI	
Potassium-40 ✓	7.409	0.8389	pCi/g	0.3683	1.00	1461	1	2.047	IDENTIFIED	4.992	☐	
Protactinium-234m NVP	4.503	4.159	pCi/g	4.493	Y	1001	1	1.286	IDENTIFIED	46.92	☑ UI	
Radium-223 INT	0.3599	0.2013	pCi/g	0.2146	Y	270.3	1	2.556	IDENTIFIED	28.33	☑ UI	
Thallium-208 ✓	0.295	0.04919	pCi/g	0.03985	0.080	583.4	1	1.463	IDENTIFIED	7.721	☐	
Thorium-234 L4	1.364	0.5249	pCi/g	0.7006	0.500	92.97	1	1.821	FAIL_ABUND	19.24	☑ 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
198681009	18-OCT-07 00:00	15-DEC-07 06:31	58.3	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 ✓	0.9416	0.1703	pCi/g	0.1425	0.800	910.9	1	1.868	IDENTIFIED	8.371	☐	
Americium-243 INT	0.1255	0.04024	pCi/g	0.0525	Y	74.83	1	0.8558	IDENTIFIED	15.82	☑ UI	
Bismuth-212 ✓	0.8377	0.2287	pCi/g	0.2522	0.500	727.1	1	1.988	IDENTIFIED	13.53	☐	
Bismuth-214 ✓	0.8149	0.1016	pCi/g	0.06379	0.200	609.2	1	1.512	IDENTIFIED	5.601	☐	
Cesium-137 ✓	0.1787	0.03611	pCi/g	0.03616	0.100	661.6	1	1.67	IDENTIFIED	9.837	☐	
Gross Gamma	5.061	1.402	pCi/g	2.308	N		0				☐	
Lead-212 ✓	0.8559	0.07975	pCi/g	0.053	0.100	238.6	1	1.084	IDENTIFIED	3.613	☐	
Lead-214 ✓	0.9689	0.1142	pCi/g	0.06325	0.100	351.9	1	1.288	IDENTIFIED	5.239	☐	
Neptunium-237 INT	0.4612	0.1745	pCi/g	0.2174	Y	87.25	1	1.244	IDENTIFIED	18.82	☑ UI	
Potassium-40 ✓	5.133	0.6857	pCi/g	0.281	1.00	1460	1	2.164	IDENTIFIED	5.966	☐	
Radium-223 INT	0.3283	0.1607	pCi/g	0.1671	Y	270.4	1	1.659	IDENTIFIED	24.75	☑ UI	
Thallium-208 ✓	0.2535	0.04854	pCi/g	0.03456	0.080	583.2	1	1.492	IDENTIFIED	9.307	☐	
Thorium-234 ✓	1.149	0.4505	pCi/g	0.4631	0.500	92.66	1	1.16	IDENTIFIED	19.6	☐	

*** = 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
198681010	18-OCT-07 00:00	15-DEC-07 06:32	58.3	SAMPLE	LOAD	1	SCAN	SCAN00101\GEL	N	RGSP

EXE1
12/15/07

SKE 12/15/07

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	0.827	0	pCi/g	0.1235	0.800	911.3	1	1.573	IDENTIFIED	9.49		
Americium-243	0.1389	0	pCi/g	0.05194	Y	74.81	1	1.292	IDENTIFIED	17.77		
Bismuth-212	0.5081	0	pCi/g	0.236	0.500	727.9	1	1.825	IDENTIFIED	30.68		
Bismuth-214	0.6448	0	pCi/g	0.05993	0.200	609.3	1	1.475	IDENTIFIED	6.515		
Cesium-137	0.2151	0	pCi/g	0.03392	0.100	661.6	1	1.376	IDENTIFIED	11.45		
Curium-243	0.09941	0	pCi/g	0.09227	Y	105.4	2	2.086	IDENTIFIED	37.04		
Europium-155	0.1098	0	pCi/g	0.1054	0.500	105.4	2	2.086	IDENTIFIED	37.04		
Lead-212	0.8414	0	pCi/g	0.05409	0.100	238.6	1	1.295	IDENTIFIED	3.988		
Lead-214	0.7011	0	pCi/g	0.06319	0.100	351.8	1	1.453	IDENTIFIED	6.78		
Neptunium-237	0.3414	0	pCi/g	0.2401	Y	87.16	1	1.285	IDENTIFIED	28.37		
Potassium-40	5.154	0	pCi/g	0.315	1.00	1461	1	1.818	IDENTIFIED	5.465		
Radium-223	0.3157	0	pCi/g	0.1701	Y	270.5	1	1.808	IDENTIFIED	30.02		
Thallium-208	0.2583	0	pCi/g	0.02974	0.080	583.2	1	1.399	IDENTIFIED	8.894		
Thorium-234	0.7898	0	pCi/g	0.4732	0.500	92.78	1	1.265	IDENTIFIED	28.98		

*** = 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
198681011	18-OCT-07 00:00	15-DEC-07 06:33	58.3	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 ✓	1.159	0.2881	pCi/g	0.2007	0.800	911.9	1	1.788	IDENTIFIED	11.82		
Americium-243 INT	0.2598	0.04068	pCi/g	0.03979	Y	74.7	1	1.148	IDENTIFIED	6.876	☑ UI	
Bismuth-212 ✓	1.193	0.3572	pCi/g	0.3785	0.500	727.7	1	2.526	IDENTIFIED	14.66		
Bismuth-214 ✓	1.2	0.1576	pCi/g	0.09985	0.200	609.5	1	1.579	IDENTIFIED	5.555		
Cesium-137 ✓	0.1444	0.05598	pCi/g	0.05559	0.100	661.7	1	1.361	IDENTIFIED	19.36		
Curium-243 INT	0.1184	0.102	pCi/g	0.09679	Y	105.1	2	2.253	IDENTIFIED	43.72	☑ UI	
Europium-155 INT	0.1308	0.1127	pCi/g	0.1165	0.500	105.1	2	2.253	IDENTIFIED	43.72	☑ UI	
Lead-212 ✓	1.279	0.1363	pCi/g	0.07854	0.100	238.7	1	1.157	IDENTIFIED	3.435		
Lead-214 ✓	1.264	0.1528	pCi/g	0.09065	0.100	352.1	1	1.36	IDENTIFIED	5.497		
Neptunium-237 INT	0.9133	0.1923	pCi/g	0.2124	Y	87.09	1	1.276	IDENTIFIED	9.81	☑ UI	
Polonium-209 ↑PW	12	9.986	pCi/g	9.684	Y	896.8	1	5.424	IDENTIFIED	42.21	☑ UI	Data rejected due to high peak-width.
Potassium-40 ✓	8.752	1.126	pCi/g	0.4601	1.00	1462	1	2.117	IDENTIFIED	5.223		
Radium-223 INT	0.4439	0.2016	pCi/g	0.2304	Y	270.6	1	1.259	IDENTIFIED	22.91	☑ UI	
Thallium-208 ✓	0.3425	0.06671	pCi/g	0.04783	0.080	583.6	1	1.362	IDENTIFIED	9.266		
Thorium-234 ✓	1.936	0.4909	pCi/g	0.4954	0.500	92.68	1	1.478	IDENTIFIED	12.14		

*** = 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
198681012	18-OCT-07 00:00	15-DEC-07 06:34	58.3	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 ✓	1.041	0.2275	pCi/g	0.1472	0.800	910.9	1	1.623	IDENTIFIED	9.923		
Americium-243 INT	0.1596	0.04596	pCi/g	0.05327	Y	74.42	1	1.175	IDENTIFIED	14.1	☑ UI	
Bismuth-212 ✓	0.7951	0.3151	pCi/g	0.3012	0.500	726.8	1	1.515	IDENTIFIED	19.85		
Bismuth-214 ✓	0.7316	0.1099	pCi/g	0.06663	0.200	608.8	1	1.48	IDENTIFIED	6.89		
Cesium-137 ✓	0.1273	0.03895	pCi/g	0.04127	0.100	661.5	1	1.505	IDENTIFIED	15.24		
Gross Gamma	5.069	1.208	pCi/g	2.57	N		0					
Lead-212 ✓	1.032	0.09448	pCi/g	0.06347	0.100	238.3	1	1.066	IDENTIFIED	3.476		
Lead-214 ✓	0.7708	0.1142	pCi/g	0.07904	0.100	351.6	1	1.215	IDENTIFIED	6.884		
Neptunium-237 INT	0.5985	0.1912	pCi/g	0.2073	Y	86.89	1	1.319	IDENTIFIED	15.69	☑ UI	
Potassium-40 ✓	5.733	0.8538	pCi/g	0.3667	1.00	1460	1	1.81	IDENTIFIED	6.89		
Radium-223 INT	0.3259	0.1681	pCi/g	0.1921	Y	270	1	1.383	IDENTIFIED	26.12	☑ UI	
Thallium-208 ✓	0.297	0.04905	pCi/g	0.039	0.080	582.9	1	1.555	IDENTIFIED	7.736		
Thorium-234 ✓	1.186	0.4507	pCi/g	0.447	0.500	92.27	1	1.332	IDENTIFIED	18.94		

*** = 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

SXE1 12/15/07

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198681007	18-OCT-07 00:00	14-DEC-07 19:09	57.8	SAMPLE	LOAD	1	SCAN	SCAN00101IGEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	1.057	0.1586	pCi/g	0.1021	0.800	910.9	1	1.868	IDENTIFIED	6.532		
Americium-243	0.2369	0.03239	pCi/g	0.03393	Y	74.95	1	1.016	IDENTIFIED	6.008		
Bismuth-212	0.7529	0.217	pCi/g	0.2288	0.500	727	1	2.079	IDENTIFIED	14.34		
Bismuth-214	0.8756	0.08125	pCi/g	0.05096	0.200	609.2	1	1.385	IDENTIFIED	3.751		
Cesium-137	0.1713	0.03082	pCi/g	0.02672	0.100	661.5	1	1.324	IDENTIFIED	8.69		
Lead-212	1.106	0.0786	pCi/g	0.04015	0.100	238.7	1	0.9944	IDENTIFIED	2.278		
Lead-214	0.969	0.08938	pCi/g	0.05062	0.100	351.9	1	1.231	IDENTIFIED	3.857		
Neptunium-237	0.668	0.1216	pCi/g	0.1402	Y	87.27	1	1.07	IDENTIFIED	8.517		
Potassium-40	6.36	0.647	pCi/g	0.223	1.00	1460	1	2.165	IDENTIFIED	3.77		
Radium-223	0.3899	0.1622	pCi/g	0.13	Y	269.8	1	1.218	IDENTIFIED	21.02		
Thallium-208	0.3579	0.04272	pCi/g	0.02723	0.080	583.1	1	1.317	IDENTIFIED	5.382		
Thorium-234	1.163	0.3162	pCi/g	0.2994	0.500	92.92	1	1.237	IDENTIFIED	13.39		

*** = 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
198681008	18-OCT-07 00:00	15-DEC-07 06:31	58.3	SAMPLE	LOAD	1	SCAN	SCAN00101IGEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	1.142	0.2191	pCi/g	0.1331	0.800	911.3	1	2.144	IDENTIFIED	8.515		
Americium-243	0.2921	0.06776	pCi/g	0.05653	Y	74.87	1	2.165	IDENTIFIED	11.15		
Bismuth-212	0.8609	0.3255	pCi/g	0.3129	0.500	727.1	1	1.452	IDENTIFIED	18.85		
Bismuth-214	0.7826	0.1289	pCi/g	0.08439	0.200	609.5	1	1.544	IDENTIFIED	7.57		
Cesium-137	0.2061	0.06531	pCi/g	0.04495	0.100	661.6	1	1.415	IDENTIFIED	15.72		
Gross Gamma	5.786	1.257	pCi/g	2.95	N		0					
Lead-212	0.984	0.1018	pCi/g	0.06661	0.100	238.7	1	1.465	IDENTIFIED	4		
Lead-214	1.089	0.1189	pCi/g	0.07935	0.100	351.9	1	1.504	IDENTIFIED	4.601		
Neptunium-237	0.6054	0.1871	pCi/g	0.2403	Y	87.24	1	1.305	IDENTIFIED	15.21		
Potassium-40	7.409	0.8389	pCi/g	0.3683	1.00	1461	1	2.047	IDENTIFIED	4.992		
Protactinium-234m	4.503	4.159	pCi/g	4.493	Y	1001	1	1.286	IDENTIFIED	46.92		
Radium-223	0.3599	0.2013	pCi/g	0.2146	Y	270.3	1	2.556	IDENTIFIED	28.33		
Thallium-208	0.295	0.04919	pCi/g	0.03985	0.080	583.4	1	1.463	IDENTIFIED	7.721		
Thorium-234	1.364	0.5249	pCi/g	0.7006	0.500	92.97	1	1.821	FAIL_ABUND	19.24	☑ 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
198681009	18-OCT-07 00:00	15-DEC-07 06:31	58.3	SAMPLE	LOAD	1	SCAN	SCAN00101IGEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	0.9416	0.1703	pCi/g	0.1425	0.800	910.9	1	1.868	IDENTIFIED	8.371		
Americium-243	0.1255	0.04024	pCi/g	0.0525	Y	74.83	1	0.8558	IDENTIFIED	15.82		
Bismuth-212	0.8377	0.2287	pCi/g	0.2522	0.500	727.1	1	1.988	IDENTIFIED	13.53		
Bismuth-214	0.8149	0.1016	pCi/g	0.06379	0.200	609.2	1	1.512	IDENTIFIED	5.601		
Cesium-137	0.1787	0.03611	pCi/g	0.03616	0.100	661.6	1	1.67	IDENTIFIED	9.837		
Gross Gamma	5.061	1.402	pCi/g	2.308	N		0					
Lead-212	0.8559	0.07975	pCi/g	0.053	0.100	238.6	1	1.084	IDENTIFIED	3.613		
Lead-214	0.9689	0.1142	pCi/g	0.06325	0.100	351.9	1	1.288	IDENTIFIED	5.239		
Neptunium-237	0.4612	0.1745	pCi/g	0.2174	Y	87.25	1	1.244	IDENTIFIED	18.82		
Potassium-40	5.133	0.6857	pCi/g	0.281	1.00	1460	1	2.164	IDENTIFIED	5.966		
Radium-223	0.3283	0.1607	pCi/g	0.1671	Y	270.4	1	1.659	IDENTIFIED	24.75		
Thallium-208	0.2535	0.04854	pCi/g	0.03456	0.080	583.2	1	1.492	IDENTIFIED	9.307		
Thorium-234	1.149	0.4505	pCi/g	0.4631	0.500	92.66	1	1.16	IDENTIFIED	19.6		

*** = 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
198681010	18-OCT-07 00:00	15-DEC-07 06:32	58.3	SAMPLE	LOAD	1	SCAN	SCAN00101IGEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓	0.827	0.1734	pCi/g	0.1245	0.800	911.3	1	1.573	IDENTIFIED	9.49	☐	
Americium-243 INT	0.1389	0.05006	pCi/g	0.05443	Y	74.81	1	1.292	IDENTIFIED	17.77	☑ UI	
Bismuth-212 ✓	0.5081	0.3079	pCi/g	0.2387	0.500	727.9	1	1.825	IDENTIFIED	30.68	☐	
Bismuth-214 ✓	0.6448	0.09239	pCi/g	0.06081	0.200	609.3	1	1.475	IDENTIFIED	6.515	☐	
Cesium-137 ✓	0.2151	0.05031	pCi/g	0.03437	0.100	661.6	1	1.376	IDENTIFIED	11.45	☐	
Curium-243 INT	0.09941	0.07271	pCi/g	0.09621	Y	105.4	2	2.086	IDENTIFIED	37.04	☑ UI	
Europium-155 INT	0.1098	0.08034	pCi/g	0.1098	0.500	105.4	2	2.086	IDENTIFIED	37.04	☑ UI	
Lead-212 ✓	0.8414	0.1068	pCi/g	0.05569	0.100	238.6	1	1.295	IDENTIFIED	3.988	☐	
Lead-214 ✓	0.7011	0.1062	pCi/g	0.06467	0.100	351.8	1	1.453	IDENTIFIED	6.78	☐	
Neptunium-237 INT	0.3414	0.1923	pCi/g	0.2511	Y	87.16	1	1.285	IDENTIFIED	28.37	☑ UI	
Potassium-40 ✓	5.154	0.6352	pCi/g	0.3151	1.00	1461	1	1.818	IDENTIFIED	5.465	☐	
Radium-223 INT	0.3157	0.1881	pCi/g	0.1748	Y	270.5	1	1.808	IDENTIFIED	30.02	☑ UI	
Thallium-208 ✓	0.2583	0.048	pCi/g	0.0302	0.080	583.2	1	1.399	IDENTIFIED	8.894	☐	
Thorium-234 ✓	0.7898	0.4541	pCi/g	0.4942	0.500	92.78	1	1.265	IDENTIFIED	28.98	☐	

*** = 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
198681011	18-OCT-07 00:00	15-DEC-07 06:33	58.3	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	1.159	0.2881	pCi/g	0.2007	0.800	911.9	1	1.788	IDENTIFIED	11.82	☐	
Americium-243	0.2598	0.04068	pCi/g	0.03979	Y	74.7	1	1.148	IDENTIFIED	6.876	☐	
Bismuth-212	1.193	0.3572	pCi/g	0.3785	0.500	727.7	1	2.526	IDENTIFIED	14.66	☐	
Bismuth-214	1.2	0.1576	pCi/g	0.09985	0.200	609.5	1	1.579	IDENTIFIED	5.555	☐	
Cesium-137	0.1444	0.05598	pCi/g	0.05559	0.100	661.7	1	1.361	IDENTIFIED	19.36	☐	
Curium-243	0.1184	0.102	pCi/g	0.09679	Y	105.1	2	2.253	IDENTIFIED	43.72	☐	
Europium-155	0.1308	0.1127	pCi/g	0.1165	0.500	105.1	2	2.253	IDENTIFIED	43.72	☐	
Lead-212	1.279	0.1363	pCi/g	0.07854	0.100	238.7	1	1.157	IDENTIFIED	3.435	☐	
Lead-214	1.264	0.1528	pCi/g	0.09065	0.100	352.1	1	1.36	IDENTIFIED	5.497	☐	
Neptunium-237	0.9133	0.1923	pCi/g	0.2124	Y	87.09	1	1.276	IDENTIFIED	9.81	☐	
Polonium-209	12	9.986	pCi/g	9.684	Y	896.8	1	5.424	IDENTIFIED	42.21	☑ UI	Data rejected due to high peak-width.
Potassium-40	8.752	1.126	pCi/g	0.4601	1.00	1462	1	2.117	IDENTIFIED	5.223	☐	
Radium-223	0.4439	0.2016	pCi/g	0.2304	Y	270.6	1	1.259	IDENTIFIED	22.91	☐	
Thallium-208	0.3425	0.06671	pCi/g	0.04783	0.080	583.6	1	1.362	IDENTIFIED	9.266	☐	
Thorium-234	1.936	0.4909	pCi/g	0.4954	0.500	92.68	1	1.478	IDENTIFIED	12.14	☐	

*** = 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
198681012	18-OCT-07 00:00	15-DEC-07 06:34	58.3	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	1.041	0.2275	pCi/g	0.1472	0.800	910.9	1	1.623	IDENTIFIED	9.923	☐	
Americium-243	0.1596	0.04596	pCi/g	0.05327	Y	74.42	1	1.175	IDENTIFIED	14.1	☐	
Bismuth-212	0.7951	0.3151	pCi/g	0.3012	0.500	726.8	1	1.515	IDENTIFIED	19.85	☐	
Bismuth-214	0.7316	0.1099	pCi/g	0.06663	0.200	608.8	1	1.48	IDENTIFIED	6.89	☐	
Cesium-137	0.1273	0.03895	pCi/g	0.04127	0.100	661.5	1	1.505	IDENTIFIED	15.24	☐	
Gross Gamma	5.069	1.208	pCi/g	2.57	N		0				☐	
Lead-212	1.032	0.09448	pCi/g	0.06347	0.100	238.3	1	1.066	IDENTIFIED	3.476	☐	
Lead-214	0.7708	0.1142	pCi/g	0.07904	0.100	351.6	1	1.215	IDENTIFIED	6.884	☐	
Neptunium-237	0.5985	0.1912	pCi/g	0.2073	Y	86.89	1	1.319	IDENTIFIED	15.69	☐	
Potassium-40	5.733	0.8558	pCi/g	0.3667	1.00	1460	1	1.81	IDENTIFIED	6.89	☐	
Radium-223	0.3259	0.1681	pCi/g	0.1921	Y	270	1	1.383	IDENTIFIED	26.12	☐	
Thallium-208	0.297	0.04905	pCi/g	0.039	0.080	582.9	1	1.555	IDENTIFIED	7.736	☐	
Thorium-234	1.186	0.4507	pCi/g	0.447	0.500	92.27	1	1.332	IDENTIFIED	18.94	☐	

*** = 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

SKEI 12/15/07

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198681013	18-OCT-07 00:00	15-DEC-07 06:35	58.3	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 ✓	0.6637	0.1459	pCi/g	0.1082	0.800	911.7	1	1.609	IDENTIFIED	10.69	☐	
Americium-243 INT	0.1075	0.02572	pCi/g	0.0319	Y	75	1	0.9469	IDENTIFIED	11.72	☑ UI	
Bismuth-212 ✓	0.712	0.2193	pCi/g	0.2054	0.500	727.9	1	1.911	IDENTIFIED	15.29	☐	
Bismuth-214 ✓	0.3949	0.07972	pCi/g	0.06264	0.200	609.6	1	1.465	IDENTIFIED	9.703	☐	
Cesium-137 ✓	0.1516	0.03723	pCi/g	0.03627	0.100	662.1	1	1.215	IDENTIFIED	11.99	☐	
Lead-212 ✓	0.6779	0.06873	pCi/g	0.04485	0.100	238.8	1	1.165	IDENTIFIED	4.221	☐	
Lead-214 ✓	0.3977	0.07569	pCi/g	0.05972	0.100	352.1	1	1.187	IDENTIFIED	9.295	☐	
Neptunium-237 INT	0.5584	0.1416	pCi/g	0.1429	Y	87.29	1	1.5	IDENTIFIED	12.33	☑ UI	
Potassium-40 ✓	3.556	0.5783	pCi/g	0.307	1.00	1461	1	1.738	IDENTIFIED	7.838	☐	
Radium-223 INT	0.2076	0.1055	pCi/g	0.1345	Y	270.4	1	1.852	IDENTIFIED	25.74	☑ UI	
Thallium-208 ✓	0.2254	0.04115	pCi/g	0.03013	0.080	583.4	1	1.341	IDENTIFIED	8.691	☐	
Thorium-234 ✓	1.075	0.3622	pCi/g	0.3207	0.500	92.85	1	1.726	IDENTIFIED	16.77	☐	

*** = 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
198681014	18-OCT-07 00:00	15-DEC-07 06:35	58.3	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 ✓	0.9333	0.1556	pCi/g	0.082	0.800	911.3	1	1.607	IDENTIFIED	7.289	☐	
Americium-243 INT	0.146	0.02713	pCi/g	0.03129	Y	74.81	1	0.9829	IDENTIFIED	8.886	☑ UI	
Bismuth-212 ✓	0.4749	0.2385	pCi/g	0.1845	0.500	727.5	1	1.106	IDENTIFIED	25.31	☐	
Bismuth-214 ✓	0.5069	0.08198	pCi/g	0.04648	0.200	609.4	1	1.416	IDENTIFIED	7.45	☐	
Cesium-137 ✓	0.07161	0.02606	pCi/g	0.02956	0.100	661.8	1	1.32	IDENTIFIED	18.17	☐	
Lead-212 ✓	0.8814	0.07252	pCi/g	0.03889	0.100	238.6	1	0.9442	IDENTIFIED	2.997	☐	
Lead-214 ✓	0.5524	0.06987	pCi/g	0.04962	0.100	351.9	1	1.123	IDENTIFIED	5.835	☐	
Neptunium-236 INT	0.06014	0.04235	pCi/g	0.03896	Y	98.85	1	2.1	IDENTIFIED	35.78	☑ UI	
Neptunium-237 INT	0.5608	0.1283	pCi/g	0.128	Y	87.14	1	1.348	IDENTIFIED	11.08	☑ UI	
Potassium-40 ✓	4.201	0.5456	pCi/g	0.2536	1.00	1461	1	1.589	IDENTIFIED	5.619	☐	
Radium-223 INT	0.3111	0.1241	pCi/g	0.1189	Y	270.3	1	1.267	IDENTIFIED	20.12	☑ UI	
Thallium-208 ✓	0.229	0.03774	pCi/g	0.02519	0.080	583.2	1	1.274	IDENTIFIED	7.684	☐	
Thorium-234 ✓	1.057	0.2993	pCi/g	0.2824	0.500	92.66	1	1.409	IDENTIFIED	14.01	☐	
Uranium-235 NVP	0.1539	0.08471	pCi/g	0.1351	0.500	143.1	1	1.855	IDENTIFIED	27.94	☑ UI	

*** = 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
198681015	18-OCT-07 00:00	15-DEC-07 06:36	58.3	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 ✓	0.8981	0.2369	pCi/g	0.1782	0.800	911.3	1	1.661	IDENTIFIED	13.1	☐	
Americium-243 INT	0.1428	0.02662	pCi/g	0.03029	Y	74.97	1	0.9654	IDENTIFIED	8.657	☑ UI	
Bismuth-212 ✓	0.5454	0.3788	pCi/g	0.365	0.500	727.4	1	1.693	IDENTIFIED	35.22	☐	
Bismuth-214 ✓	0.5703	0.1132	pCi/g	0.08099	0.200	609.5	1	1.577	IDENTIFIED	9.41	☐	
Lead-212 ✓	0.8685	0.08581	pCi/g	0.06007	0.100	238.8	1	0.9709	IDENTIFIED	3.769	☐	
Lead-214 ✓	0.5872	0.09407	pCi/g	0.08754	0.100	351.9	1	1.275	IDENTIFIED	7.74	☐	
Neptunium-237 INT	0.4752	0.135	pCi/g	0.1755	Y	87.38	1	1.12	IDENTIFIED	13.94	☑ UI	
Potassium-40 ✓	6.371	0.7848	pCi/g	0.3824	1.00	1461	1	1.951	IDENTIFIED	5.635	☐	
Radium-223 INT	0.4728	0.2039	pCi/g	0.1834	Y	270.1	1	1.975	IDENTIFIED	21.82	☑ UI	
Thallium-208 ✓	0.2881	0.05966	pCi/g	0.04014	0.080	583	1	1.33	IDENTIFIED	9.935	☐	
Thorium-234 ✓	0.7995	0.3973	pCi/g	0.4098	0.500	92.81	1	1.138	IDENTIFIED	25.02	☐	

*** = 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
198681016	18-OCT-07 00:00	15-DEC-07 06:37	58.3	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 ✓	1.07	0.2058	pCi/g	0.1189	0.800	911.1	1	1.679	IDENTIFIED	8.886	☐	
Americium-243 INT	0.2054	0.04901	pCi/g	0.04477	Y	74.75	1	1.638	IDENTIFIED	11.71	☑ UI	

Bismuth-212 ✓	**0.7469**	0.3244	pCi/g	**0.2492**	**0.500**	727.5	1	1.833	IDENTIFIED	21.74	☐	
Bismuth-214 ✓	**0.7196**	0.1105	pCi/g	**0.06505**	**0.200**	609.4	1	1.485	IDENTIFIED	6.82	☐	
Gross Gamma	**5.302**	1.375	pCi/g	**2.201**	**N**		0				☐	
Lead-212 ✓	**1.084**	0.08747	pCi/g	**0.05432**	**0.100**	238.7	1	1.063	IDENTIFIED	3.016	☐	
Lead-214 ✓	**0.8779**	0.09854	pCi/g	**0.0633**	**0.100**	351.8	1	1.198	IDENTIFIED	5.097	☐	
Neptunium-237 INT	**0.782**	0.1697	pCi/g	**0.2016**	**Y**	87.23	1	1.405	IDENTIFIED	10.44	☑ UI	
Potassium-40 ✓	**5.099**	0.661	pCi/g	**0.2577**	**1.00**	1460	1	1.645	IDENTIFIED	5.878	☐	
Radium-223 INT	**0.399**	0.1418	pCi/g	**0.1751**	**Y**	269.9	1	1.143	IDENTIFIED	17.93	☑ UI	
Thallium-208 ✓	**0.3537**	0.05724	pCi/g	**0.03315**	**0.080**	583.3	1	1.314	IDENTIFIED	7.397	☐	
Thorium-234 ✓	**1.456**	0.417	pCi/g	**0.4432**	**0.500**	92.8	1	1.484	IDENTIFIED	14.16	☐	

*** = 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
198681017	18-OCT-07 00:00	15-DEC-07 06:38	58.3	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 ✓	**1.135**	0.2319	pCi/g	**0.1868**	**0.800**	911.3	1	1.847	IDENTIFIED	9.876	☐	
Americium-243 INT	**0.1905**	0.03036	pCi/g	**0.03623**	**Y**	74.92	1	0.864	IDENTIFIED	7.455	☑ UI	
Bismuth-212 ✓	**0.8547**	0.4092	pCi/g	**0.3414**	**0.500**	727.7	1	1.346	IDENTIFIED	24.15	☐	
Bismuth-214 ✓	**0.8202**	0.1313	pCi/g	**0.08895**	**0.200**	609.4	1	1.141	IDENTIFIED	7.351	☐	
Lead-212 ✓	**1.193**	0.1205	pCi/g	**0.06115**	**0.100**	238.7	1	1.006	IDENTIFIED	3.279	☐	
Lead-214 ✓	**0.91**	0.1154	pCi/g	**0.0766**	**0.100**	352	1	1.235	IDENTIFIED	5.576	☐	
Neptunium-237 INT	**0.416**	0.1466	pCi/g	**0.1956**	**Y**	87.3	1	1.005	IDENTIFIED	17.66	☑ UI	
Potassium-40 ✓	**5.969**	1.016	pCi/g	**0.4316**	**1.00**	1461	1	1.883	IDENTIFIED	8.251	☐	
Radium-223 INT	**0.5582**	0.247	pCi/g	**0.1872**	**Y**	270	1	1.497	IDENTIFIED	22.24	☑ UI	
Thallium-208 ✓	**0.3944**	0.06333	pCi/g	**0.04907**	**0.080**	583.4	1	1.323	IDENTIFIED	7.415	☐	
Thorium-234 ✓	**1.818**	0.5112	pCi/g	**0.4077**	**0.500**	92.93	1	1.287	IDENTIFIED	13.88	☐	

*** = 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
198681018	18-OCT-07 00:00	15-DEC-07 06:38	58.3	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 ✓	**1.188**	0.225	pCi/g	**0.1551**	**0.800**	911.7	1	1.915	IDENTIFIED	8.14	☐	
Americium-243 INT	**0.2222**	0.05994	pCi/g	**0.05807**	**Y**	74.97	1	1.521	IDENTIFIED	13.39	☑ UI	
Bismuth-212 ✓	**0.8073**	0.3727	pCi/g	**0.3028**	**0.500**	728	1	1.822	IDENTIFIED	23.14	☐	
Bismuth-214 NA	**0.3639**	0.1102	pCi/g	**0.1574**	**0.200**	609.6	1	1.718	FAIL_ABUND	14.97	☑ UI	Data rejected due to low abundance.
Lead-212 ✓	**1.088**	0.1128	pCi/g	**0.06657**	**0.100**	238.7	1	1.262	IDENTIFIED	4.249	☐	
Lead-214 ✓	**0.3812**	0.09583	pCi/g	**0.08283**	**0.100**	352	1	1.433	IDENTIFIED	12.47	☐	
Neptunium-236 TPW	**0.1031**	0.07105	pCi/g	**0.05795**	**Y**	99.62	1	4.378	IDENTIFIED	35	☑ UI	Data rejected due to high peak-width.
Neptunium-237 INT	**0.4181**	0.1778	pCi/g	**0.2484**	**Y**	87.34	1	1.697	IDENTIFIED	21.42	☑ UI	
Potassium-40 ✓	**2.269**	0.5408	pCi/g	**0.4062**	**1.00**	1462	1	2.389	IDENTIFIED	11.75	☐	
Radium-223 INT	**0.3775**	0.1373	pCi/g	**0.2182**	**Y**	270	1	2.178	IDENTIFIED	18.29	☑ UI	
Thallium-208 ✓	**0.3611**	0.06641	pCi/g	**0.04253**	**0.080**	583.4	1	1.399	IDENTIFIED	8.624	☐	
Thorium-234 ✓	**2.498**	0.6648	pCi/g	**0.6955**	**0.500**	93.17	1	1.576	IDENTIFIED	13.17	☐	

*** = 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
198681019	18-OCT-07 00:00	15-DEC-07 06:39	58.3	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 ✓	**1.112**	0.2064	pCi/g	**0.1091**	**0.800**	911.6	1	1.423	IDENTIFIED	8.228	☐	
Americium-243 INT	**0.1805**	0.03938	pCi/g	**0.04086**	**Y**	74.95	1	1.117	IDENTIFIED	9.713	☑ UI	
Bismuth-212 ✓	**0.6714**	0.279	pCi/g	**0.2293**	**0.500**	727.6	1	1.395	IDENTIFIED	20.86	☐	
Bismuth-214 NA	**0.3539**	0.08726	pCi/g	**0.1231**	**0.200**	609.7	1	1.461	FAIL_ABUND	12.15	☑ UI	Data rejected due to low abundance.
Lead-212 ✓	**1.12**	0.09604	pCi/g	**0.05455**	**0.100**	238.7	1	1.097	IDENTIFIED	3.262	☐	
Lead-214 ✓	**0.4078**	0.08154	pCi/g	**0.0556**	**0.100**	352	1	1.43	IDENTIFIED	9.817	☐	
Neptunium-237 INT	**0.5051**	0.1656	pCi/g	**0.1769**	**Y**	87.27	1	1.302	IDENTIFIED	15.65	☑ UI	
Potassium-40 ✓	**1.862**	0.4723	pCi/g	**0.3229**	**1.00**	1462	1	1.919	IDENTIFIED	12.24	☐	

Radium-223 INT	**0.3761**	0.1751	pCi/g	**0.169**	**Y**	270.6	1	1.351	IDENTIFIED	23.56	☑ UI
Thallium-208 ✓	**0.3179**	0.05341	pCi/g	**0.0324**	**0.080**	583.5	1	1.355	IDENTIFIED	7.966	☐
Thorium-234 ✓	**1.532**	0.4225	pCi/g	**0.391**	**0.500**	92.91	1	1.349	IDENTIFIED	13.01	☐

*** = 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
198681020	18-OCT-07 00:00	15-DEC-07 06:39	58.3	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 ✓	**1.158**	0.1791	pCi/g	**0.1043**	**0.800**	910.7	1	2.103	IDENTIFIED	6.14	☐	
Americium-243 INT	**0.2011**	0.03937	pCi/g	**0.03964**	**Y**	74.67	1	1.268	IDENTIFIED	9.185	☑ UI	
Bismuth-212 ✓	**0.8874**	0.2481	pCi/g	**0.2187**	**0.500**	726.9	1	2.064	IDENTIFIED	13.51	☐	
Bismuth-214 ✓	**0.6563**	0.08979	pCi/g	**0.05643**	**0.200**	609	1	1.592	IDENTIFIED	5.694	☐	
Cesium-137 ↑PW	**0.0332**	0.02388	pCi/g	**0.03223**	**0.100**	660.1	1	3.171	IDENTIFIED	36.44	☑ UI	Data rejected due to high peak-width.
Gross Gamma	**5.008**	1.173	pCi/g	**1.899**	**N**		0				☐	
Lead-212 ✓	**1.171**	0.09054	pCi/g	**0.04872**	**0.100**	238.4	1	1.359	IDENTIFIED	2.572	☐	
Lead-214 ✓	**0.7709**	0.09112	pCi/g	**0.05169**	**0.100**	351.6	1	1.494	IDENTIFIED	5.302	☐	
Neptunium-237 INT	**0.6847**	0.1552	pCi/g	**0.1688**	**Y**	87.03	1	1.364	IDENTIFIED	10.72	☑ UI	
Potassium-40 ✓	**5.563**	0.5769	pCi/g	**0.226**	**1.00**	1460	1	2.65	IDENTIFIED	4.4	☐	
Radium-223 INT	**0.5003**	0.1497	pCi/g	**0.1491**	**Y**	270.2	1	1.912	IDENTIFIED	14.97	☑ UI
Thallium-208 ✓	**0.3321**	0.04835	pCi/g	**0.02869**	**0.080**	582.9	1	1.591	IDENTIFIED	6.339	☐
Thorium-234 ✓	**1.285**	0.3713	pCi/g	**0.3704**	**0.500**	92.54	1	1.39	IDENTIFIED	14.14	☐

*** = 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
1201473811		15-DEC-07 06:40	0	MB	LOAD	1		GEL	N	RGSP

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1201473812	18-OCT-07 00:00	15-DEC-07 06:43	58.3	DUP	LOAD	1		SCAN00101|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓	**0.7257**	0.1833	pCi/g	**0.1826**	**0.800**	911.5	1	1.304	IDENTIFIED	12.43	☐	
Americium-243 INT	**0.1499**	0.0265	pCi/g	**0.02767**	**Y**	75.07	1	1.471	IDENTIFIED	8.33	☑ UI	
Bismuth-212 ✓	**0.475**	0.3537	pCi/g	**0.3068**	**0.500**	728.1	1	2.72	IDENTIFIED	37.78	☐	
Bismuth-214 ✓	**0.637**	0.106	pCi/g	**0.07147**	**0.200**	609.3	1	1.356	IDENTIFIED	7.594	☐	
Cesium-137 ✓	**0.2301**	0.04591	pCi/g	**0.04521**	**0.100**	661.9	1	1.922	IDENTIFIED	9.32	☐	
Lead-212 ✓	**0.8121**	0.07733	pCi/g	**0.054**	**0.100**	238.7	1	1.404	IDENTIFIED	3.772	☐	
Lead-214 ✓	**0.5768**	0.1042	pCi/g	**0.06485**	**0.100**	352.2	1	1.427	IDENTIFIED	8.847	☐	
Neptunium-237 INT	**0.4433**	0.1247	pCi/g	**0.132**	**Y**	87.36	1	1.714	IDENTIFIED	13.87	☑ UI	
Potassium-40 ✓	**4.826**	0.7903	pCi/g	**0.3821**	**1.00**	1461	1	1.965	IDENTIFIED	7.883	☐	
Radium-223 INT	**0.2799**	0.1726	pCi/g	**0.1747**	**Y**	270	1	1.974	IDENTIFIED	31.34	☑ UI	
Thallium-208 ✓	**0.2775**	0.0514	pCi/g	**0.03914**	**0.080**	583.4	1	1.615	IDENTIFIED	8.717	☐	
Thorium-234 ✓	**0.9884**	0.293	pCi/g	**0.3069**	**0.500**	92.99	1	1.723	IDENTIFIED	14.64	☐	

*** = 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
1201473813		14-DEC-07 16:41	0	LCS	LOAD	1		GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	**1.76**	0.5095	pCi/g	**0.5049**	**0.800**	910.8	1	2.286	IDENTIFIED	13.91	☐	
Americium-241	**14.65**	1.3	pCi/g	**0.5369**	**0.200**	59.28	1	1.188	IDENTIFIED	2.356	☐	
Americium-243	**0.2761**	0.1159	pCi/g	**0.1687**	**Y**	74.81	1	1.137	IDENTIFIED	21.05	☐	
Bismuth-212	**0.8316**	0.8575	pCi/g	**0.8213**	**0.500**	727.9	1	1.775	IDENTIFIED	52.41	☐	
Bismuth-214	**0.831**	0.207	pCi/g	**0.2018**	**0.200**	609.2	1	1.435	IDENTIFIED	12.05	☐	
Cesium-137	**6.308**	0.5905	pCi/g	**0.1108**	**0.100**	661.2	1	1.769	IDENTIFIED	1.888	☐	
Cobalt-60	**9.043**	0.6378	pCi/g	**0.109**	**0.100**	1173	1	2.387	IDENTIFIED	1.764	☐	
Gross Gamma	**44.33**	6.378	pCi/g	**6.85**	**N**		0				☐	
Lead-212	**1.494**	0.1663	pCi/g	**0.158**	**0.100**	238.4	1	1.354	IDENTIFIED	4.827	☐	
Lead-214	**0.9414**	0.2442	pCi/g	**0.1985**	**0.100**	351.4	1	1.326	IDENTIFIED	12.92	☐	

Neptunium-237	**32.47**	3.018	pCi/g	**0.8522**	**Y**	87.89	1	1.171	IDENTIFIED	1.794	☐
Polonium-209	**252.6**	40.9	pCi/g	**26.98**	**Y**	897.7	1	2.141	IDENTIFIED	6.567	☐
Potassium-40	**1.629**	0.8058	pCi/g	**0.731**	**1.00**	1461	1	2.459	IDENTIFIED	25.07	☐
Radium-223	**0.7146**	0.3507	pCi/g	**0.5098**	**Y**	269.8	1	1.397	IDENTIFIED	24.86	☐
Thallium-208	**0.4686**	0.1213	pCi/g	**0.1084**	**0.080**	582.8	1	1.705	IDENTIFIED	12.63	☐

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

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 03:28:20.23

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681001.CNF;1
Sample date       : 18-OCT-2007 00:00:00 Acquisition date : 14-DEC-2007 19:07:21
Sample ID         : G198681001           Sample quantity  : 1.40330E+02 GRAM
Detector name     : GAM01                Detector geometry: CAN
Elapsed live time: 0 08:20:00.00         Elapsed real time: 0 08:20:03.64  0.0%
Energy tolerance : 2.00000 keV           Analyst Initials : MJH1
Abundance limit  : 75.00000              Sensitivity      : 3.00000
Batch ID          : 708121               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	63.28*	140	873	1.07	126.61	123	8	4.68E-03	42.9	
2	1	74.62	685	1116	1.63	149.30	142	19	2.28E-02	10.3	9.73E+00
3	1	77.32	1219	1016	1.53	154.70	142	19	4.06E-02	5.7	
4	2	84.21	173	726	1.34	168.48	165	27	5.78E-03	25.4	6.29E-01
5	2	87.23	442	952	1.39	174.53	165	27	1.47E-02	13.0	
6	2	89.89	249	935	1.36	179.84	165	27	8.31E-03	22.6	
7	2	92.88*	546	1145	1.61	185.82	165	27	1.82E-02	13.9	
8	0	128.45	133	1049	2.98	256.99	253	10	4.44E-03	46.1	
9	0	143.76	83	678	1.13	287.61	285	7	2.78E-03	52.8	
10	0	186.04*	392	1203	1.32	372.20	365	13	1.31E-02	20.5	
11	0	210.07	241	973	1.34	420.26	413	12	8.04E-03	26.7	
12	0	221.67	48	595	0.71	443.48	440	8	1.61E-03	88.9	
13	3	238.71*	2746	507	1.39	477.57	469	20	9.15E-02	2.7	1.82E+00
14	3	241.69*	574	617	1.88	483.54	469	20	1.91E-02	12.0	
15	0	269.81	224	630	1.36	539.78	535	12	7.47E-03	23.3	
16	0	276.83	130	597	1.49	553.83	549	11	4.35E-03	37.3	
17	0	295.43*	695	564	1.49	591.04	586	11	2.32E-02	8.7	
18	0	300.55	188	445	1.17	601.28	597	10	6.28E-03	22.2	
19	0	327.81*	94	516	1.44	655.80	651	11	3.12E-03	53.0	
20	0	338.49	713	591	1.86	677.17	670	16	2.38E-02	8.5	
21	0	351.81*	1147	469	1.48	703.82	696	14	3.82E-02	5.3	
22	0	454.64	68	383	4.55	909.53	904	14	2.28E-03	62.1	
23	0	463.07	156	282	1.74	926.38	922	10	5.19E-03	21.7	
24	0	511.12*	263	486	2.25	1022.50	1014	21	8.75E-03	26.9	
25	0	549.14	54	234	4.60	1098.56	1092	13	1.82E-03	59.8	
26	0	583.43*	831	243	1.69	1167.15	1161	14	2.77E-02	5.7	
27	0	609.47*	748	317	1.59	1219.24	1213	14	2.49E-02	6.6	
28	0	652.71	44	184	0.75	1305.73	1299	12	1.46E-03	63.8	
29	0	661.90*	488	301	1.83	1324.12	1317	17	1.63E-02	10.0	
30	0	720.24	60	151	2.87	1440.81	1433	13	2.01E-03	44.4	
31	0	727.12	245	169	2.30	1454.58	1447	16	8.17E-03	13.4	
32	3	768.65	119	138	2.62	1537.65	1531	22	3.97E-03	23.5	1.21E+00
33	3	772.32	66	143	2.39	1544.99	1531	22	2.21E-03	42.4	
34	0	786.20	59	87	1.16	1572.75	1569	9	1.96E-03	31.5	
35	0	795.10	66	142	0.80	1590.55	1585	12	2.21E-03	37.9	
36	0	837.83	89	253	6.08	1676.02	1666	22	2.97E-03	47.2	
37	0	860.84	127	153	2.20	1722.06	1714	15	4.22E-03	23.1	
38	0	871.12	41	126	5.90	1742.61	1731	15	1.37E-03	61.7	

Sample ID : G198681001 Acquisition date : 14-DEC-2007 19:07:21

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	911.40*	540	143	1.65	1823.18	1817	15	1.80E-02	6.9	
40	1	964.90	87	90	2.26	1930.19	1925	23	2.89E-03	22.5	8.72E-01
41	1	969.20*	281	91	1.96	1938.79	1925	23	9.35E-03	10.1	
42	0	1067.62	13	70	0.46	2135.64	2130	9	4.34E-04	121.4	
43	1	1120.68*	182	68	2.24	2241.76	2235	20	6.07E-03	13.7	3.49E+00
44	1	1124.51	47	65	2.33	2249.42	2235	20	1.56E-03	40.1	
45	0	1159.29*	43	177	9.73	2318.98	2306	25	1.43E-03	92.4	
46	2	1234.80	42	90	2.16	2470.00	2460	22	1.39E-03	48.5	4.38E+00
47	2	1238.35	62	53	2.02	2477.10	2460	22	2.06E-03	27.4	
48	0	1335.83	55	48	3.93	2672.06	2663	18	1.82E-03	33.1	
49	0	1349.00	25	41	4.42	2698.41	2691	14	8.24E-04	59.0	
50	0	1378.34	67	62	2.10	2757.09	2750	15	2.22E-03	29.3	
51	0	1402.44	32	27	3.44	2805.27	2801	10	1.07E-03	35.3	
52	0	1408.27*	19	43	2.01	2816.94	2811	13	6.48E-04	84.9	
53	0	1461.18*	820	51	2.30	2922.75	2914	21	2.73E-02	4.4	
54	1	1534.81	34	27	2.26	3070.00	3062	33	1.14E-03	33.6	5.34E+00
55	1	1537.81	26	22	2.26	3076.00	3062	33	8.65E-04	43.5	
56	0	1562.22	41	31	6.36	3124.82	3117	20	1.36E-03	36.5	
57	0	1591.34	90	66	6.38	3183.05	3172	25	3.00E-03	26.8	
58	0	1631.72	52	40	6.05	3263.80	3253	21	1.74E-03	33.9	
59	0	1730.28	38	27	2.26	3460.90	3452	14	1.26E-03	33.7	
60	0	1765.05*	115	56	1.96	3530.44	3520	17	3.82E-03	20.1	
61	1	1836.84	21	6	2.36	3674.00	3670	16	7.13E-04	25.2	2.94E+00
62	1	1839.84*	17	4	2.36	3680.00	3670	16	5.53E-04	53.2	
63	0	1848.96	67	26	4.07	3698.22	3686	31	2.24E-03	24.6	
64	0	1973.52	41	20	8.73	3947.30	3933	27	1.36E-03	34.4	
65	0	2022.52	18	12	1.57	4045.28	4039	12	6.00E-04	45.1	

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]G198681001       *
* Acquisition date : 14-DEC-2007 19:07:21 Detector SN#    :                 *
* Detector ID      : GAM01                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 08:20:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 08:20:03.64     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681001           Analyst initials: MJH1            *
* Batch Number     : 708121               Sample Quantity : 1.4033E+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    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	4.718E+00	4.911E-01	1.951E-01	0.000E+00
CS-137	1.749E-01	3.670E-02	2.374E-02	0.000E+00
TL-208	2.677E-01	3.545E-02	2.178E-02	0.000E+00
BI-212	6.868E-01	1.891E-01	1.716E-01	0.000E+00
PB-212	8.373E-01	7.134E-02	3.874E-02	0.000E+00
BI-214	4.591E-01	6.817E-02	4.538E-02	0.000E+00
PB-214	5.453E-01	6.605E-02	4.749E-02	0.000E+00
RA-223	2.369E-01	1.094E-01	1.193E-01	0.000E+00
AC-228	8.503E-01	1.400E-01	8.527E-02	0.000E+00
TH-234	1.047E+00	2.961E-01	3.062E-01	0.000E+00
U-235	7.444E-02	7.711E-02	1.379E-01	0.000E+00
NP-237	3.916E-01	1.046E-01	1.421E-01	0.000E+00
AM-243	1.378E-01	2.979E-02	3.302E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	1.316E-03		1.559E-02	2.608E-02	0.000E+00	NOT IDENT.
RH-101	-1.406E-03		1.562E-02	2.396E-02	0.000E+00	NOT IDENT.
SB-125	-7.763E-03		3.934E-02	6.625E-02	0.000E+00	NOT IDENT.
EU-155	1.605E-02		3.941E-02	7.216E-02	0.000E+00	NOT IDENT.
PO-209	2.491E+00		2.594E+00	4.644E+00	0.000E+00	NOT IDENT.
BI-211	4.049E-01		4.466E-01	6.991E-01	0.000E+00	NOT IDENT.
PA-233	1.858E-02		2.576E-02	4.546E-02	0.000E+00	NOT IDENT.
PA-234M	8.223E-01		1.591E+00	2.764E+00	0.000E+00	NOT IDENT.
NP-236	2.298E-02		2.519E-02	4.099E-02	0.000E+00	NOT IDENT.
NP-239	5.087E-02		9.205E-02	1.595E-01	0.000E+00	NOT IDENT.
AM-241	6.816E-02		6.463E-02	1.023E-01	0.000E+00	NOT IDENT.
CM-243	2.440E-02		3.586E-02	6.603E-02	0.000E+00	NOT IDENT.
AM-246	-2.706E-02		5.162E-02	8.326E-02	0.000E+00	NOT IDENT.
CF-249	1.549E-02		1.631E-02	2.876E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 03:28:21.23

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681001.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 14-DEC-2007 19:07:21
Sample ID        : G198681001           Sample quantity  : 1.40330E+02 GRAM
Detector name    : GAM01                Detector geometry: CAN
Elapsed live time: 0 08:20:00.00        Elapsed real time: 0 08:20:03.64  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708121               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	820	10.66*	1.047E+00	4.718E+00	4.718E+00	10.62
CS-137	661.66	488	85.10*	2.112E+00	1.742E-01	1.749E-01	21.42
TL-208	277.36	130	6.31	4.344E+00	3.053E-01	3.053E-01	74.86
	510.77	263	22.60	2.640E+00	2.826E-01	2.826E-01	54.30
	583.19	831	84.50*	2.358E+00	2.677E-01	2.677E-01	13.51
	763.13	------	1.81	1.860E+00	------	Line Not Found	------
	860.56	127	12.42	1.667E+00	3.924E-01	3.924E-01	47.22
BI-212	727.33	245	11.80*	1.943E+00	6.868E-01	6.868E-01	28.10
	785.37	59	1.10	1.810E+00	1.894E+00	1.894E+00	63.69
	1620.50	------	1.49	9.727E-01	------	Line Not Found	------
PB-212	74.81	685	10.40	4.677E+00	9.038E-01	9.038E-01	22.06
	77.11	1219	17.50	4.975E+00	8.988E-01	8.988E-01	13.98
	87.30	442	7.81	5.841E+00	6.218E-01	6.218E-01	27.25
	238.63	2746	43.30*	4.863E+00	8.373E-01	8.373E-01	8.69
	300.09	188	3.28	4.072E+00	9.052E-01	9.052E-01	44.96
BI-214	609.31	748	46.10*	2.271E+00	4.590E-01	4.591E-01	15.15
	768.36	119	4.94	1.848E+00	8.374E-01	8.375E-01	47.81
	806.17	------	1.22	1.770E+00	------	Line Not Found	------
	934.06	------	3.03	1.546E+00	------	Line Not Found	------
	1120.29	182	15.10	1.309E+00	5.914E-01	5.915E-01	28.30
	1155.19	------	1.63	1.274E+00	------	Line Not Found	------
	1238.11	62	5.79	1.199E+00	5.705E-01	5.705E-01	55.15
	1280.96	------	1.43	1.164E+00	------	Line Not Found	------
	1377.67	67	4.00	1.096E+00	9.769E-01	9.769E-01	58.90
	1401.50	32	1.27	1.081E+00	1.496E+00	1.497E+00	70.90
	1407.98	19	2.15	1.077E+00	5.390E-01	5.391E-01	169.87
	1509.23	------	2.11	1.022E+00	------	Line Not Found	------
	1729.60	38	2.92	9.347E-01	8.920E-01	8.921E-01	67.58
	1764.49	115	15.40	9.245E-01	5.172E-01	5.172E-01	40.61
PB-214	74.81	685	6.44	4.677E+00	1.460E+00	1.460E+00	22.06
	77.11	1219	10.80	4.975E+00	1.456E+00	1.456E+00	13.98
	87.30	442	4.84	5.841E+00	1.003E+00	1.003E+00	27.25

Sample ID : G198681001 Acquisition date : 14-DEC-2007 19:07:21

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	242.00	574	7.43	4.818E+00	1.030E+00	1.030E+00	25.00
	295.22	695	19.30	4.128E+00	5.602E-01	5.602E-01	18.63
	351.93	1147	37.60*	3.591E+00	5.453E-01	5.453E-01	12.36
RA-223	269.46	224	13.70*	4.431E+00	2.369E-01	2.369E-01	47.13
AC-228	129.07	133	2.42	6.755E+00	5.234E-01	5.234E-01	92.50
	209.25	241	3.89	5.333E+00	7.461E-01	7.461E-01	53.92
	270.25	224	3.46	4.431E+00	9.379E-01	9.379E-01	47.13
	338.32	713	11.27	3.704E+00	1.096E+00	1.096E+00	18.19
	409.46	------	1.92	3.174E+00	------ Line Not Found		------
	463.00	156	4.40	2.868E+00	7.926E-01	7.926E-01	43.88
	794.95	66	4.25	1.792E+00	5.580E-01	5.580E-01	76.41
	911.20	540	25.80*	1.582E+00	8.503E-01	8.503E-01	16.80
	964.77	87	4.99	1.501E+00	7.434E-01	7.434E-01	46.01
	968.97	281	15.80	1.495E+00	7.628E-01	7.628E-01	22.16
	1588.20	------	3.22	9.858E-01	------ Line Not Found		------
TH-234	63.29	140	4.80	3.175E+00	5.909E-01	5.909E-01	86.29
	92.58	546	5.41*	6.187E+00	1.047E+00	1.047E+00	28.87
U-235	143.76	83	10.96*	6.570E+00	7.444E-02	7.444E-02	105.70
NP-237	86.48	442	12.40*	5.841E+00	3.916E-01	3.916E-01	27.25
AM-243	74.66	685	68.20*	4.677E+00	1.378E-01	1.378E-01	22.06

Flag: "*" = Keyline

Sample ID : G198681001 Acquisition date : 14-DEC-2007 19:07:21

Total number of lines in spectrum 65
Number of unidentified lines 28
Number of lines tentatively identified by NID 37 56.92%

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	4.718E+00	4.718E+00	0.501E+00	10.62	
CS-137	9.47E+08S	1.00	1.742E-01	1.749E-01	0.374E-01	21.42	
TL-208	4.43E+17S	1.00	2.677E-01	2.677E-01	0.362E-01	13.51	
BI-212	4.43E+17S	1.00	6.868E-01	6.868E-01	1.930E-01	28.10	
PB-212	4.43E+17S	1.00	8.373E-01	8.373E-01	0.728E-01	8.69	
BI-214	5.05E+10S	1.00	4.590E-01	4.591E-01	0.696E-01	15.15	
PB-214	5.05E+10S	1.00	5.453E-01	5.453E-01	0.674E-01	12.36	
RA-223	1.04E+12S	1.00	2.369E-01	2.369E-01	1.116E-01	47.13	
AC-228	4.43E+17S	1.00	8.503E-01	8.503E-01	1.428E-01	16.80	
TH-234	1.41E+17S	1.00	1.047E+00	1.047E+00	0.302E+00	28.87	
U-235	2.22E+16S	1.00	7.444E-02	7.444E-02	7.868E-02	105.70	
NP-237	6.75E+13S	1.00	3.916E-01	3.916E-01	1.067E-01	27.25	
AM-243	2.33E+11S	1.00	1.378E-01	1.378E-01	0.304E-01	22.06	
			---	---			
		Total Activity :	1.043E+01	1.043E+01			

Grand Total Activity : 1.043E+01 1.043E+01

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

Sample ID : G198681001 Acquisition date : 14-DEC-2007 19:07:21

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
2	84.21	173	726	1.34	168.48	165	27	5.78E-03	50.9	5.61E+00	
2	89.89	249	935	1.36	179.84	165	27	8.31E-03	45.2	6.02E+00	
0	186.04	392	1203	1.32	372.20	365	13	1.31E-02	41.0	5.78E+00	
0	221.67	48	595	0.71	443.48	440	8	1.61E-03	****	5.13E+00	
0	327.81	94	516	1.44	655.80	651	11	3.12E-03	****	3.80E+00	
0	454.64	68	383	4.55	909.53	904	14	2.28E-03	****	2.91E+00	
0	549.14	54	234	4.60	1098.56	1092	13	1.82E-03	****	2.48E+00	
0	652.71	44	184	0.75	1305.73	1299	12	1.46E-03	****	2.14E+00	
0	720.24	60	151	2.87	1440.81	1433	13	2.01E-03	88.7	1.96E+00	
3	772.32	66	143	2.39	1544.99	1531	22	2.21E-03	84.9	1.84E+00	
0	837.83	89	253	6.08	1676.02	1666	22	2.97E-03	94.4	1.71E+00	
0	871.12	41	126	5.90	1742.61	1731	15	1.37E-03	****	1.65E+00	
0	1067.62	13	70	0.46	2135.64	2130	9	4.34E-04	****	1.37E+00	
1	1124.51	47	65	2.33	2249.42	2235	20	1.56E-03	80.2	1.31E+00	
0	1159.29	43	177	9.73	2318.98	2306	25	1.43E-03	****	1.27E+00	
2	1234.80	42	90	2.16	2470.00	2460	22	1.39E-03	97.0	1.20E+00	
0	1335.83	55	48	3.93	2672.06	2663	18	1.82E-03	66.2	1.12E+00	
0	1349.00	25	41	4.42	2698.41	2691	14	8.24E-04	****	1.12E+00	
1	1534.81	34	27	2.26	3070.00	3062	33	1.14E-03	67.2	1.01E+00	
1	1537.81	26	22	2.26	3076.00	3062	33	8.65E-04	87.0	1.01E+00	
0	1562.22	41	31	6.36	3124.82	3117	20	1.36E-03	73.0	9.97E-01	
0	1591.34	90	66	6.38	3183.05	3172	25	3.00E-03	53.7	9.85E-01	
0	1631.72	52	40	6.05	3263.80	3253	21	1.74E-03	67.7	9.68E-01	
1	1836.84	21	6	2.36	3674.00	3670	16	7.13E-04	50.4	9.06E-01	
1	1839.84	17	4	2.36	3680.00	3670	16	5.53E-04	****	9.06E-01	
0	1848.96	67	26	4.07	3698.22	3686	31	2.24E-03	49.2	9.04E-01	
0	1973.52	41	20	8.73	3947.30	3933	27	1.36E-03	68.8	8.81E-01	
0	2022.52	18	12	1.57	4045.28	4039	12	6.00E-04	90.3	8.74E-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]G198681001            *
* Acquisition date : 14-DEC-2007 19:07:21 Detector SN#    :                 *
* Detector ID      : GAM01                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 08:20:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 08:20:03.64     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681001           Analyst initials: MJH1            *
* Batch Number     : 708121               Sample Quantity : 1.4033E+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	4.718E+00	4.911E-01	9.761E-02	4.911E-01
CS-137	1.749E-01	3.670E-02	1.188E-02	3.670E-02
TL-208	2.677E-01	3.545E-02	1.090E-02	3.545E-02
BI-212	6.868E-01	1.891E-01	8.585E-02	1.891E-01
PB-212	8.373E-01	7.134E-02	1.938E-02	7.134E-02
BI-214	4.591E-01	6.817E-02	2.270E-02	6.817E-02
PB-214	5.453E-01	6.605E-02	2.376E-02	6.605E-02
RA-223	2.369E-01	1.094E-01	5.970E-02	1.094E-01
AC-228	8.503E-01	1.400E-01	4.266E-02	1.400E-01
TH-234	1.047E+00	2.961E-01	1.532E-01	2.961E-01
U-235	7.444E-02	7.711E-02	6.897E-02	7.711E-02
NP-237	3.916E-01	1.046E-01	7.109E-02	1.046E-01
AM-243	1.378E-01	2.979E-02	1.652E-02	2.979E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	1.316E-03	1.559E-02	1.305E-02	1.559E-02	NOT IDENT.
RH-101	-1.406E-03	1.562E-02	1.199E-02	1.562E-02	NOT IDENT.
SB-125	-7.763E-03	3.934E-02	3.315E-02	3.934E-02	NOT IDENT.
EU-155	1.605E-02	3.941E-02	3.610E-02	3.941E-02	NOT IDENT.
PO-209	2.491E+00	2.594E+00	2.323E+00	2.594E+00	NOT IDENT.
BI-211	4.049E-01	4.466E-01	3.498E-01	4.466E-01	NOT IDENT.
PA-233	1.858E-02	2.576E-02	2.275E-02	2.576E-02	NOT IDENT.
PA-234M	8.223E-01	1.591E+00	1.383E+00	1.591E+00	NOT IDENT.
NP-236	2.298E-02	2.519E-02	2.051E-02	2.519E-02	NOT IDENT.
NP-239	5.087E-02	9.205E-02	7.981E-02	9.205E-02	NOT IDENT.
AM-241	6.816E-02	6.463E-02	5.118E-02	6.463E-02	NOT IDENT.
CM-243	2.440E-02	3.586E-02	3.303E-02	3.586E-02	NOT IDENT.
AM-246	-2.706E-02	5.162E-02	4.165E-02	5.162E-02	NOT IDENT.
CF-249	1.549E-02	1.631E-02	1.439E-02	1.631E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	807.2100
63.29	1009.9849
74.66	1097.6133
74.81	1097.7793
74.81	1097.7793
77.11	1100.2957
77.11	1100.2957
86.48	1032.7189
87.30	1033.4979
87.30	1033.4979
92.58	1040.4425
98.44	915.1746
103.76	939.9537
105.31	953.0259
129.07	977.8433
143.76	997.7510
198.00	872.4916
209.25	817.3349
228.18	725.2952
238.63	688.0216
242.00	588.4094
269.46	545.8588
270.25	557.3383
277.36	549.5347
295.22	528.4697
300.09	480.2124
312.17	458.0701
338.32	459.9370
351.93	431.1242
387.59	365.0759
409.46	375.4566
427.87	367.1616
463.00	329.9944
510.77	264.7441
583.19	201.9168
609.31	242.1823
661.66	194.7523
727.33	167.2084
763.13	151.7871
768.36	166.4694
785.37	155.2656
794.95	140.7404
806.17	148.0603
831.80	135.3542
860.56	134.2741
896.60	104.4019
911.20	132.1741
934.06	120.5448
964.77	116.3057
968.97	108.0270
1001.03	108.7170
1078.86	124.0066
1120.29	94.2438
1155.19	107.7771
1173.23	111.1729
1238.11	96.3610
1280.96	96.1206
1332.51	87.2831
1377.67	77.9585
1401.50	63.2645
1407.98	51.6616
1460.80	52.7979
1509.23	59.9479
1588.20	56.4750
1620.50	41.2603
1729.60	33.1526
1764.49	43.0720

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198681001

Total Uranium Activity	3.4443E-02	ug/g
Total Uranium Counting Unc.	3.5679E-02	ug/g
Total Uranium Tpu	3.5679E-08	ug/g
Total Uranium Mda	3.1912E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 03:29:02.53

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681002.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 14-DEC-2007 19:07:44
Sample ID        : G198681002           Sample quantity  : 1.17380E+02 GRAM
Detector name    : GAM02                Detector geometry: CAN
Elapsed live time: 0 08:20:00.00        Elapsed real time: 0 08:20:08.25  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708121               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.27*	32	645	0.90	126.07	123	6	1.06E-03	166.1	
2	2	74.82*	588	792	1.10	149.16	142	16	1.96E-02	10.7	2.50E+00
3	2	77.12*	1041	662	0.99	153.76	142	16	3.47E-02	5.5	
4	10	84.11*	250	811	1.46	167.72	164	29	8.33E-03	22.7	6.94E+00
5	10	87.05	249	916	1.34	173.59	164	29	8.29E-03	22.8	
6	10	89.95	340	908	1.32	179.39	164	29	1.13E-02	16.5	
7	10	92.67*	362	784	1.17	184.82	164	29	1.21E-02	18.3	
8	0	105.28	63	721	1.33	210.02	207	7	2.11E-03	71.4	
9	0	115.28	83	592	0.94	230.01	228	6	2.77E-03	47.8	
10	0	121.23	132	693	1.96	241.90	238	8	4.41E-03	35.6	
11	0	128.79	78	789	0.71	257.01	255	7	2.61E-03	60.3	
12	0	143.88*	222	788	0.84	287.16	283	9	7.40E-03	26.8	
13	0	154.55	86	734	1.29	308.48	305	8	2.87E-03	55.5	
14	0	185.86*	345	917	1.27	371.03	366	11	1.15E-02	21.3	
15	0	205.87	118	599	2.40	411.02	407	8	3.92E-03	37.3	
16	5	209.18	151	290	1.07	417.64	415	10	5.03E-03	17.5	1.70E+00
17	5	210.60	66	722	1.67	420.48	415	10	2.22E-03	78.5	
18	0	221.81	68	435	0.73	442.88	440	7	2.27E-03	52.3	
19	5	238.63*	2280	431	1.10	476.48	469	20	7.60E-02	2.8	1.42E+00
20	5	241.72*	637	633	1.91	482.65	469	20	2.12E-02	10.6	
21	0	270.30	240	447	1.73	539.77	536	9	8.01E-03	17.1	
22	0	277.49	149	438	1.49	554.14	550	9	4.96E-03	26.8	
23	0	295.18*	911	493	1.19	589.49	584	11	3.04E-02	6.2	
24	0	300.16	191	487	1.43	599.44	595	11	6.35E-03	23.6	
25	0	328.14	80	399	1.42	655.34	651	9	2.67E-03	46.3	
26	2	333.12	46	264	1.56	665.30	662	20	1.55E-03	59.3	7.67E-01
27	2	338.31	506	269	1.23	675.66	662	20	1.69E-02	7.0	
28	0	351.78*	1339	401	1.24	702.59	696	12	4.46E-02	4.3	
29	0	409.78	46	367	1.55	818.49	812	11	1.52E-03	82.6	
30	0	441.10	47	160	1.36	881.07	878	6	1.57E-03	45.2	
31	0	462.70	98	253	1.72	924.24	920	9	3.26E-03	31.0	
32	0	510.89*	273	404	1.78	1020.54	1013	18	9.09E-03	23.4	
33	0	562.98	39	138	0.71	1124.64	1121	8	1.31E-03	54.5	
34	0	583.20*	659	267	1.46	1165.04	1158	13	2.20E-02	7.8	
35	0	609.28*	932	252	1.47	1217.17	1211	14	3.11E-02	5.2	
36	0	661.44	352	251	1.34	1321.40	1315	14	1.17E-02	11.0	
37	0	727.11	194	152	1.20	1452.64	1447	13	6.45E-03	15.0	
38	0	767.69*	79	192	2.21	1533.74	1527	13	2.64E-03	40.5	

Sample ID : G198681002 Acquisition date : 14-DEC-2007 19:07:44

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	772.54	32	122	0.84	1543.44	1540	10	1.07E-03	67.7	
40	0	785.51	47	140	2.30	1569.34	1563	12	1.55E-03	53.0	
41	0	795.18	92	105	1.59	1588.68	1584	10	3.07E-03	23.5	
42	0	818.53	27	68	1.59	1635.35	1631	8	9.00E-04	56.3	
43	0	911.12	515	120	1.74	1820.39	1814	16	1.72E-02	6.5	
44	0	934.14	47	81	0.74	1866.40	1863	8	1.57E-03	36.3	
45	7	963.80	103	77	3.32	1925.67	1919	23	3.43E-03	22.0	8.64E-01
46	7	968.72*	284	76	1.79	1935.51	1919	23	9.47E-03	9.2	
47	0	984.21	41	60	1.57	1966.47	1960	12	1.38E-03	40.6	
48	0	991.47	42	103	4.98	1980.97	1972	17	1.42E-03	56.6	
49	0	1120.19	201	128	2.07	2238.24	2230	16	6.69E-03	14.4	
50	0	1216.68	33	38	0.86	2431.09	2428	7	1.10E-03	36.4	
51	0	1238.86	44	106	1.58	2475.42	2467	12	1.47E-03	49.4	
52	0	1299.03	21	29	0.62	2595.68	2591	9	7.04E-04	51.0	
53	0	1377.50	54	56	1.46	2752.54	2747	12	1.80E-03	31.6	
54	0	1406.12	45	117	6.49	2809.73	2793	26	1.51E-03	66.9	
55	0	1418.39	27	44	3.81	2834.27	2822	17	8.88E-04	61.6	
56	0	1428.94	21	27	1.62	2855.35	2848	10	6.88E-04	52.4	
57	0	1460.38*	735	63	2.02	2918.20	2909	17	2.45E-02	4.7	
58	0	1588.17	34	35	2.47	3173.63	3168	10	1.13E-03	36.8	
59	0	1592.90	25	41	1.79	3183.09	3177	11	8.49E-04	52.6	
60	0	1631.31	24	39	1.44	3259.88	3255	13	8.00E-04	57.4	
61	0	1661.04	23	25	0.59	3319.29	3314	12	7.54E-04	48.4	
62	0	1721.94	14	25	1.56	3441.02	3433	14	4.71E-04	82.8	
63	1	1728.43	59	8	2.23	3454.00	3447	18	1.96E-03	17.7	8.12E-01
64	1	1731.43	23	2	2.23	3460.00	3447	18	7.62E-04	39.9	
65	0	1738.92	20	9	1.18	3474.98	3470	13	6.70E-04	38.8	
66	0	1764.08*	218	17	2.23	3525.26	3515	22	7.26E-03	9.9	
67	0	1848.47	44	26	3.20	3693.97	3685	22	1.45E-03	34.1	
68	0	1911.33	24	8	2.22	3819.62	3813	12	7.84E-04	32.7	
69	0	1994.53	22	9	1.11	3985.95	3981	13	7.37E-04	35.8	
70	0	2015.31	23	25	5.30	4027.48	4018	17	7.69E-04	54.2	

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]G198681002       *
* Acquisition date : 14-DEC-2007 19:07:44 Detector SN#    :                 *
* Detector ID      : GAM02                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 08:20:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 08:20:08.25     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681002           Analyst initials: MJH1            *
* Batch Number     : 708121               Sample Quantity : 1.1738E+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	4.965E+00	5.570E-01	2.420E-01	0.000E+00
CS-137	1.459E-01	3.255E-02	2.508E-02	0.000E+00
EU-155	3.686E-02	5.162E-02	6.945E-02	0.000E+00
TL-208	2.465E-01	4.025E-02	2.352E-02	0.000E+00
BI-212	6.272E-01	1.887E-01	1.686E-01	0.000E+00
PB-212	8.310E-01	6.824E-02	3.740E-02	0.000E+00
BI-214	6.629E-01	7.852E-02	4.538E-02	0.000E+00
PB-214	7.522E-01	7.710E-02	4.647E-02	0.000E+00
RA-223	3.035E-01	1.035E-01	1.217E-01	0.000E+00
AC-228	9.378E-01	1.390E-01	8.297E-02	0.000E+00
TH-234	8.880E-01	3.260E-01	3.091E-01	0.000E+00
U-235	2.406E-01	1.272E-01	1.253E-01	0.000E+00
NP-237	2.859E-01	1.301E-01	1.451E-01	0.000E+00
AM-243	1.594E-01	3.596E-02	3.411E-02	0.000E+00
CM-243	3.336E-02	4.672E-02	6.191E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
CO-60	-1.440E-03	1.608E-02	2.700E-02	0.000E+00	NOT IDENT.
RH-101	1.999E-03	1.544E-02	2.259E-02	0.000E+00	NOT IDENT.
SB-125	5.470E-03	3.983E-02	6.718E-02	0.000E+00	NOT IDENT.
PO-209	1.809E+00	3.129E+00	5.370E+00	0.000E+00	NOT IDENT.
BI-211	-3.805E-01	4.398E-01	6.945E-01	0.000E+00	NOT IDENT.
PA-233	-1.524E-02	2.578E-02	4.340E-02	0.000E+00	NOT IDENT.
PA-234M	-8.809E-01	2.501E+00	3.550E+00	0.000E+00	NOT IDENT.
NP-236	1.439E-02	3.084E-02	4.272E-02	0.000E+00	NOT IDENT.
NP-239	-5.772E-02	8.810E-02	1.408E-01	0.000E+00	NOT IDENT.
AM-241	1.588E-02	7.415E-02	1.204E-01	0.000E+00	NOT IDENT.
AM-246	3.442E-02	5.256E-02	9.338E-02	0.000E+00	NOT IDENT.
CF-249	1.312E-02	1.612E-02	2.814E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 03:29:03.60

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681002.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 14-DEC-2007 19:07:44
Sample ID        : G198681002           Sample quantity  : 1.17380E+02 GRAM
Detector name    : GAM02                Detector geometry: CAN
Elapsed live time: 0 08:20:00.00        Elapsed real time: 0 08:20:08.25  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708121               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	735	10.66*	1.065E+00	4.965E+00	4.965E+00	11.45
CS-137	661.66	352	85.10*	2.182E+00	1.453E-01	1.459E-01	22.77
EU-155	105.31	63	21.20*	6.354E+00	3.605E-02	3.686E-02	142.91
TL-208	277.36	149	6.31	4.352E+00	4.160E-01	4.160E-01	54.00
	510.77	273	22.60	2.710E+00	3.418E-01	3.418E-01	47.10
	583.19	659	84.50*	2.429E+00	2.465E-01	2.465E-01	16.66
	763.13	------	1.81	1.923E+00	------	Line Not Found	------
	860.56	------	12.42	1.723E+00	------	Line Not Found	------
BI-212	727.33	194	11.80*	2.008E+00	6.272E-01	6.272E-01	30.71
	785.37	47	1.10	1.873E+00	1.736E+00	1.736E+00	106.25
	1620.50	------	1.49	9.857E-01	------	Line Not Found	------
PB-212	74.81	588	10.40	4.148E+00	1.045E+00	1.045E+00	23.01
	77.11	1041	17.50	4.419E+00	1.033E+00	1.033E+00	13.72
	87.30	249	7.81	5.384E+00	4.540E-01	4.540E-01	46.42
	238.63	2280	43.30*	4.862E+00	8.310E-01	8.310E-01	8.38
	300.09	191	3.28	4.103E+00	1.087E+00	1.087E+00	47.67
BI-214	609.31	932	46.10*	2.341E+00	6.629E-01	6.629E-01	12.09
	768.36	79	4.94	1.912E+00	6.434E-01	6.435E-01	81.39
	806.17	------	1.22	1.829E+00	------	Line Not Found	------
	934.06	47	3.03	1.596E+00	7.465E-01	7.465E-01	73.07
	1120.29	201	15.10	1.346E+00	7.580E-01	7.581E-01	29.53
	1155.19	------	1.63	1.308E+00	------	Line Not Found	------
	1238.11	44	5.79	1.227E+00	4.765E-01	4.765E-01	98.92
	1280.96	------	1.43	1.191E+00	------	Line Not Found	------
	1377.67	54	4.00	1.118E+00	9.263E-01	9.264E-01	63.46
	1401.50	------	1.27	1.102E+00	------	Line Not Found	------
	1407.98	45	2.15	1.099E+00	1.476E+00	1.476E+00	133.92
	1509.23	------	2.11	1.038E+00	------	Line Not Found	------
	1729.60	59	2.92	9.459E-01	1.630E+00	1.630E+00	35.98
	1764.49	218	15.40	9.348E-01	1.161E+00	1.161E+00	20.65
PB-214	74.81	588	6.44	4.148E+00	1.688E+00	1.688E+00	23.01
	77.11	1041	10.80	4.419E+00	1.674E+00	1.675E+00	13.72

Sample ID : G198681002 Acquisition date : 14-DEC-2007 19:07:44

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	249	4.84	5.384E+00	7.326E-01	7.326E-01	46.42
	242.00	637	7.43	4.817E+00	1.366E+00	1.366E+00	22.03
	295.22	911	19.30	4.155E+00	8.721E-01	8.722E-01	14.04
	351.93	1339	37.60*	3.635E+00	7.522E-01	7.522E-01	10.46
RA-223	269.46	240	13.70*	4.439E+00	3.035E-01	3.035E-01	34.79
AC-228	129.07	78	2.42	6.597E+00	3.764E-01	3.764E-01	120.67
	209.25	151	3.89	5.328E+00	5.594E-01	5.594E-01	35.52
	270.25	240	3.46	4.439E+00	1.202E+00	1.202E+00	34.79
	338.32	506	11.27	3.745E+00	9.195E-01	9.195E-01	15.24
	409.46	46	1.92	3.229E+00	5.662E-01	5.662E-01	165.23
	463.00	98	4.40	2.934E+00	5.820E-01	5.820E-01	62.14
	794.95	92	4.25	1.852E+00	8.972E-01	8.972E-01	47.44
	911.20	515	25.80*	1.634E+00	9.378E-01	9.378E-01	15.12
	964.77	103	4.99	1.550E+00	1.021E+00	1.021E+00	44.61
	968.97	284	15.80	1.542E+00	8.951E-01	8.951E-01	19.76
	1588.20	34	3.22	9.997E-01	8.107E-01	8.107E-01	73.87
TH-234	63.29	32	4.80	2.597E+00	1.964E-01	1.964E-01	332.31
	92.58	362	5.41*	5.784E+00	8.880E-01	8.880E-01	37.46
U-235	143.76	222	10.96*	6.461E+00	2.406E-01	2.406E-01	53.96
NP-237	86.48	249	12.40*	5.384E+00	2.859E-01	2.859E-01	46.42
AM-243	74.66	588	68.20*	4.148E+00	1.594E-01	1.594E-01	23.01
CM-243	103.76	63	23.00*	6.354E+00	3.323E-02	3.336E-02	142.91

Flag: "*" = Keyline

Sample ID : G198681002 Acquisition date : 14-DEC-2007 19:07:44

Total number of lines in spectrum 70
Number of unidentified lines 31
Number of lines tentatively identified by NID 39 55.71%

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	4.965E+00	4.965E+00	0.568E+00	11.45	
CS-137	9.47E+08S	1.00	1.453E-01	1.459E-01	0.332E-01	22.77	
EU-155	1.57E+08S	1.02	3.605E-02	3.686E-02	5.268E-02	142.91	
TL-208	4.43E+17S	1.00	2.465E-01	2.465E-01	0.411E-01	16.66	
BI-212	4.43E+17S	1.00	6.272E-01	6.272E-01	1.926E-01	30.71	
PB-212	4.43E+17S	1.00	8.310E-01	8.310E-01	0.696E-01	8.38	
BI-214	5.05E+10S	1.00	6.629E-01	6.629E-01	0.801E-01	12.09	
PB-214	5.05E+10S	1.00	7.522E-01	7.522E-01	0.787E-01	10.46	
RA-223	1.04E+12S	1.00	3.035E-01	3.035E-01	1.056E-01	34.79	
AC-228	4.43E+17S	1.00	9.378E-01	9.378E-01	1.418E-01	15.12	
TH-234	1.41E+17S	1.00	8.880E-01	8.880E-01	3.326E-01	37.46	
U-235	2.22E+16S	1.00	2.406E-01	2.406E-01	1.298E-01	53.96	
NP-237	6.75E+13S	1.00	2.859E-01	2.859E-01	1.327E-01	46.42	
AM-243	2.33E+11S	1.00	1.594E-01	1.594E-01	0.367E-01	23.01	
CM-243	8.99E+08S	1.00	3.323E-02	3.336E-02	4.768E-02	142.91	
			---	---			
	Total Activity :		1.111E+01	1.112E+01			

Grand Total Activity : 1.111E+01 1.112E+01

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

Sample ID : G198681002 Acquisition date : 14-DEC-2007 19:07:44

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
10	84.11	250	811	1.46	167.72	164	29	8.33E-03	45.3	5.13E+00	
10	89.95	340	908	1.32	179.39	164	29	1.13E-02	33.0	5.60E+00	
0	115.28	83	592	0.94	230.01	228	6	2.77E-03	95.6	6.56E+00	
0	121.23	132	693	1.96	241.90	238	8	4.41E-03	71.2	6.60E+00	
0	154.55	86	734	1.29	308.48	305	8	2.87E-03	****	6.30E+00	
0	185.86	345	917	1.27	371.03	366	11	1.15E-02	42.7	5.74E+00	
0	205.87	118	599	2.40	411.02	407	8	3.92E-03	74.6	5.38E+00	
5	210.60	66	722	1.67	420.48	415	10	2.22E-03	****	5.30E+00	
0	221.81	68	435	0.73	442.88	440	7	2.27E-03	****	5.12E+00	
0	328.14	80	399	1.42	655.34	651	9	2.67E-03	92.6	3.83E+00	
2	333.12	46	264	1.56	665.30	662	20	1.55E-03	****	3.79E+00	
0	441.10	47	160	1.36	881.07	878	6	1.57E-03	90.3	3.05E+00	
0	562.98	39	138	0.71	1124.64	1121	8	1.31E-03	****	2.50E+00	
0	772.54	32	122	0.84	1543.44	1540	10	1.07E-03	****	1.90E+00	
0	818.53	27	68	1.59	1635.35	1631	8	9.00E-04	****	1.80E+00	
0	984.21	41	60	1.57	1966.47	1960	12	1.38E-03	81.2	1.52E+00	
0	991.47	42	103	4.98	1980.97	1972	17	1.42E-03	****	1.51E+00	
0	1216.68	33	38	0.86	2431.09	2428	7	1.10E-03	72.7	1.25E+00	
0	1299.03	21	29	0.62	2595.68	2591	9	7.04E-04	****	1.18E+00	
0	1418.39	27	44	3.81	2834.27	2822	17	8.88E-04	****	1.09E+00	
0	1428.94	21	27	1.62	2855.35	2848	10	6.88E-04	****	1.08E+00	
0	1592.90	25	41	1.79	3183.09	3177	11	8.49E-04	****	9.98E-01	
0	1631.31	24	39	1.44	3259.88	3255	13	8.00E-04	****	9.81E-01	
0	1661.04	23	25	0.59	3319.29	3314	12	7.54E-04	96.8	9.70E-01	
0	1721.94	14	25	1.56	3441.02	3433	14	4.71E-04	****	9.48E-01	
1	1731.43	23	2	2.23	3460.00	3447	18	7.62E-04	79.7	9.45E-01	
0	1738.92	20	9	1.18	3474.98	3470	13	6.70E-04	77.6	9.42E-01	
0	1848.47	44	26	3.20	3693.97	3685	22	1.45E-03	68.3	9.13E-01	
0	1911.33	24	8	2.22	3819.62	3813	12	7.84E-04	65.3	8.99E-01	
0	1994.53	22	9	1.11	3985.95	3981	13	7.37E-04	71.7	8.86E-01	
0	2015.31	23	25	5.30	4027.48	4018	17	7.69E-04	****	8.83E-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]G198681002            *
* Acquisition date : 14-DEC-2007 19:07:44 Detector SN#    :                 *
* Detector ID      : GAM02                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 08:20:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 08:20:08.25     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681002           Analyst initials: MJH1            *
* Batch Number     : 708121               Sample Quantity : 1.1738E+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	4.965E+00	5.570E-01	1.211E-01	5.570E-01
CS-137	1.459E-01	3.255E-02	1.255E-02	3.255E-02
EU-155	3.686E-02	5.162E-02	3.474E-02	5.162E-02
TL-208	2.465E-01	4.025E-02	1.177E-02	4.025E-02
BI-212	6.272E-01	1.887E-01	8.434E-02	1.887E-01
PB-212	8.310E-01	6.824E-02	1.871E-02	6.824E-02
BI-214	6.629E-01	7.852E-02	2.270E-02	7.852E-02
PB-214	7.522E-01	7.710E-02	2.325E-02	7.710E-02
RA-223	3.035E-01	1.035E-01	6.089E-02	1.035E-01
AC-228	9.378E-01	1.390E-01	4.151E-02	1.390E-01
TH-234	8.880E-01	3.260E-01	1.547E-01	3.260E-01
U-235	2.406E-01	1.272E-01	6.270E-02	1.272E-01
NP-237	2.859E-01	1.301E-01	7.261E-02	1.301E-01
AM-243	1.594E-01	3.596E-02	1.706E-02	3.596E-02
CM-243	3.336E-02	4.672E-02	3.097E-02	4.672E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	-1.440E-03	1.608E-02	1.351E-02	1.608E-02	NOT IDENT.
RH-101	1.999E-03	1.544E-02	1.130E-02	1.544E-02	NOT IDENT.
SB-125	5.470E-03	3.983E-02	3.361E-02	3.983E-02	NOT IDENT.
PO-209	1.809E+00	3.129E+00	2.687E+00	3.129E+00	NOT IDENT.
BI-211	-3.805E-01	4.398E-01	3.475E-01	4.398E-01	NOT IDENT.
PA-233	-1.524E-02	2.578E-02	2.172E-02	2.578E-02	NOT IDENT.
PA-234M	-8.809E-01	2.501E+00	1.776E+00	2.501E+00	NOT IDENT.
NP-236	1.439E-02	3.084E-02	2.137E-02	3.084E-02	NOT IDENT.
NP-239	-5.772E-02	8.810E-02	7.046E-02	8.810E-02	NOT IDENT.
AM-241	1.588E-02	7.415E-02	6.021E-02	7.415E-02	NOT IDENT.
AM-246	3.442E-02	5.256E-02	4.672E-02	5.256E-02	NOT IDENT.
CF-249	1.312E-02	1.612E-02	1.408E-02	1.612E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	575.8103
63.29	627.8443
74.66	684.6482
74.81	684.9135
74.81	684.9135
77.11	688.9202
77.11	688.9202
86.48	686.9490
87.30	688.2498
87.30	688.2498
92.58	696.4891
98.44	625.9284
103.76	598.0432
105.31	626.1331
129.07	647.4999
143.76	592.8918
198.00	543.8993
209.25	581.1896
228.18	480.1050
238.63	471.3198
242.00	473.0684
269.46	419.4432
270.25	403.1419
277.36	408.7570
295.22	353.6313
300.09	325.1338
312.17	370.9570
338.32	342.5039
351.93	308.9931
387.59	263.1183
409.46	253.0118
427.87	270.9338
463.00	271.4801
510.77	208.9533
583.19	180.6763
609.31	186.0059
661.66	167.1344
727.33	124.1205
763.13	141.7946
768.36	155.4919
785.37	131.3679
794.95	145.0912
806.17	142.7173
831.80	158.6508
860.56	105.2535
896.60	118.3574
911.20	95.6360
934.06	127.5328
964.77	108.3691
968.97	108.5327
1001.03	103.1774
1078.86	85.4421
1120.29	95.1497
1155.19	92.3398
1173.23	93.8188
1238.11	82.8208
1280.96	81.8432
1332.51	67.8315
1377.67	75.8277
1401.50	53.6187
1407.98	55.7754
1460.80	59.6719
1509.23	44.4985
1588.20	74.0318
1620.50	47.5492
1729.60	20.0610
1764.49	25.0243

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198681002

Total Uranium Activity	1.1133E-01	ug/g
Total Uranium Counting Unc.	5.8873E-02	ug/g
Total Uranium Tpu	5.8873E-08	ug/g
Total Uranium Mda	2.9013E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 03:29:40.98

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681003.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 14-DEC-2007 19:08:06
Sample ID        : G198681003           Sample quantity  : 1.22160E+02 GRAM
Detector name    : GAM06                Detector geometry: CAN
Elapsed live time: 0 08:20:00.00        Elapsed real time: 0 08:20:03.46  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708121               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	62.90*	39	851	0.76	125.84	123	7	1.30E-03	143.1	
2	3	74.41*	563	853	1.02	148.83	144	14	1.88E-02	9.9	1.28E+00
3	3	76.74*	1034	673	0.91	153.49	144	14	3.45E-02	5.2	
4	4	83.96*	191	1094	1.44	167.91	163	28	6.37E-03	33.5	1.48E+00
5	4	86.87	464	829	1.13	173.72	163	28	1.55E-02	11.3	
6	4	89.54	306	806	1.21	179.07	163	28	1.02E-02	16.7	
7	4	92.37*	537	998	1.43	184.73	163	28	1.79E-02	13.5	
8	0	98.41*	138	778	2.40	196.78	193	8	4.59E-03	38.3	
9	0	128.60*	128	869	0.72	257.11	254	8	4.26E-03	43.7	
10	0	143.85	250	1072	1.76	287.59	283	11	8.33E-03	26.1	
11	0	153.78	95	668	1.51	307.43	304	7	3.16E-03	46.4	
12	0	185.70*	446	905	1.40	371.20	367	10	1.49E-02	15.4	
13	0	208.81	258	692	1.11	417.39	413	9	8.59E-03	19.5	
14	0	222.16	51	433	1.30	444.06	442	6	1.71E-03	65.6	
15	4	236.12	103	412	1.39	471.95	469	21	3.44E-03	32.7	2.84E+00
16	4	238.31*	2447	465	1.10	476.34	469	21	8.16E-02	2.8	
17	4	241.38	631	704	1.79	482.46	469	21	2.10E-02	10.6	
18	0	270.09	272	577	1.92	539.84	535	10	9.05E-03	17.7	
19	0	278.22	163	702	2.54	556.09	549	13	5.44E-03	34.7	
20	0	294.91*	785	626	1.22	589.43	584	11	2.62E-02	7.9	
21	0	299.55	146	550	1.00	598.71	595	10	4.87E-03	31.2	
22	0	320.90	61	247	1.41	641.38	639	6	2.03E-03	42.7	
23	0	328.15	198	495	1.22	655.87	651	11	6.60E-03	23.0	
24	0	337.92*	492	434	1.19	675.39	672	9	1.64E-02	9.6	
25	0	351.61*	1332	630	1.25	702.74	697	13	4.44E-02	5.0	
26	0	409.23	92	239	1.05	817.89	814	8	3.08E-03	30.9	
27	0	431.55	25	247	0.93	862.50	859	8	8.36E-04	110.5	
28	0	462.47	168	249	1.44	924.31	920	10	5.61E-03	19.1	
29	0	470.38	21	245	0.64	940.12	937	10	7.00E-04	141.1	
30	0	510.63*	297	412	2.12	1020.56	1012	19	9.90E-03	22.2	
31	0	569.94*	36	155	0.81	1139.10	1135	10	1.19E-03	80.8	
32	0	582.90*	689	287	1.45	1165.01	1158	13	2.30E-02	6.7	
33	0	608.89*	899	328	1.38	1216.95	1210	15	3.00E-02	6.0	
34	0	649.02	29	159	2.28	1297.16	1293	10	9.71E-04	82.8	
35	0	661.16	413	188	1.55	1321.44	1315	12	1.38E-02	8.3	
36	0	665.57	33	135	0.90	1330.24	1326	8	1.10E-03	64.0	
37	0	727.28	245	149	1.87	1453.60	1448	14	8.18E-03	12.4	
38	0	767.61	105	171	1.51	1534.22	1528	12	3.50E-03	26.7	

Sample ID : G198681003 Acquisition date : 14-DEC-2007 19:08:06

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	785.41	57	119	1.12	1569.81	1566	10	1.89E-03	38.8	
40	0	794.44	112	115	1.88	1587.85	1583	11	3.74E-03	20.8	
41	0	835.63	17	81	0.97	1670.20	1666	6	5.55E-04	89.5	
42	0	860.35	133	79	1.54	1719.62	1715	11	4.42E-03	15.7	
43	0	883.07	31	70	1.38	1765.04	1760	9	1.05E-03	51.1	
44	0	910.92*	472	113	1.49	1820.73	1814	15	1.57E-02	7.3	
45	0	928.07	25	54	0.87	1855.01	1851	7	8.17E-04	53.8	
46	0	933.75	53	77	1.44	1866.37	1862	9	1.76E-03	33.1	
47	0	942.19	47	83	0.96	1883.24	1877	13	1.58E-03	42.0	
48	0	950.48	43	81	3.78	1899.82	1894	12	1.44E-03	44.3	
49	2	964.11	84	127	2.18	1927.07	1922	20	2.81E-03	28.5	1.72E+00
50	2	968.67*	257	115	1.67	1936.18	1922	20	8.57E-03	10.8	
51	0	1000.64*	30	104	1.22	2000.12	1993	13	9.98E-04	84.5	
52	0	1014.97	22	90	1.07	2028.76	2024	11	7.26E-04	86.4	
53	0	1022.39	12	76	0.80	2043.60	2038	10	3.86E-04	144.8	
54	0	1058.45	52	65	3.79	2115.70	2110	12	1.75E-03	33.9	
55	0	1119.94*	176	124	1.87	2238.66	2233	12	5.87E-03	16.3	
56	0	1231.11	36	41	4.11	2460.95	2456	10	1.19E-03	39.3	
57	0	1237.45	126	94	1.14	2473.62	2466	19	4.19E-03	20.3	
58	0	1377.10	77	43	1.65	2752.91	2748	10	2.58E-03	19.4	
59	0	1407.05	37	46	2.65	2812.82	2806	11	1.24E-03	36.3	
60	0	1460.25*	564	81	2.06	2919.21	2908	18	1.88E-02	6.1	
61	0	1501.33	33	123	6.89	3001.39	2979	31	1.10E-03	101.3	
62	1	1584.68	25	5	1.92	3168.09	3166	19	8.40E-04	18.7	7.34E+00
63	1	1587.63	53	52	2.13	3174.00	3166	19	1.77E-03	31.9	
64	0	1620.35	25	63	1.72	3239.45	3230	19	8.48E-04	76.7	
65	5	1660.77	25	16	3.49	3320.31	3314	32	8.39E-04	41.6	1.38E+00
66	5	1671.61	19	17	2.17	3342.00	3314	32	6.21E-04	42.8	
67	0	1729.80	27	34	0.78	3458.41	3453	13	9.02E-04	49.2	
68	0	1764.27*	142	26	2.01	3527.35	3521	15	4.74E-03	14.1	
69	0	1838.77	20	20	5.85	3676.40	3667	16	6.66E-04	54.8	
70	0	1849.12	23	28	0.63	3697.11	3691	13	7.80E-04	53.5	

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]G198681003       *
* Acquisition date : 14-DEC-2007 19:08:06 Detector SN#    :                 *
* Detector ID      : GAM06                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 08:20:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 08:20:03.46     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681003           Analyst initials: MJH1            *
* Batch Number     : 708121               Sample Quantity : 1.2216E+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	4.063E+00	5.500E-01	2.520E-01	0.000E+00
CS-137	1.817E-01	3.181E-02	2.639E-02	0.000E+00
TL-208	2.732E-01	4.012E-02	2.622E-02	0.000E+00
BI-212	8.434E-01	2.140E-01	1.896E-01	0.000E+00
PB-212	9.478E-01	7.765E-02	4.226E-02	0.000E+00
BI-214	6.773E-01	9.153E-02	4.922E-02	0.000E+00
PB-214	7.934E-01	9.210E-02	5.418E-02	0.000E+00
RA-223	3.642E-01	1.284E-01	1.356E-01	0.000E+00
AC-228	9.128E-01	1.586E-01	9.495E-02	0.000E+00
PA-234M	1.944E+00	3.226E+00	3.169E+00	0.000E+00
TH-234	1.328E+00	3.685E-01	3.161E-01	0.000E+00
U-235	2.855E-01	1.472E-01	1.406E-01	0.000E+00
NP-236	4.642E-02	3.499E-02	4.042E-02	0.000E+00
NP-237	5.313E-01	1.262E-01	1.466E-01	0.000E+00
AM-243	1.479E-01	3.100E-02	3.539E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
CO-60	-2.233E-02	2.060E-02	2.780E-02	0.000E+00	NOT IDENT.
RH-101	1.080E-02	1.495E-02	2.694E-02	0.000E+00	NOT IDENT.
SB-125	3.737E-02	4.836E-02	7.406E-02	0.000E+00	NOT IDENT.
EU-155	2.782E-02	4.436E-02	7.753E-02	0.000E+00	NOT IDENT.
PO-209	-1.374E+00	3.189E+00	5.141E+00	0.000E+00	NOT IDENT.
BI-211	4.806E-02	5.257E-01	7.666E-01	0.000E+00	NOT IDENT.
PA-233	2.149E-02	2.915E-02	5.129E-02	0.000E+00	NOT IDENT.
NP-239	-2.076E-03	9.532E-02	1.674E-01	0.000E+00	NOT IDENT.
AM-241	-1.652E-02	7.048E-02	1.114E-01	0.000E+00	NOT IDENT.
CM-243	2.029E-02	3.975E-02	6.934E-02	0.000E+00	NOT IDENT.
AM-246	5.463E-02	5.322E-02	9.711E-02	0.000E+00	NOT IDENT.
CF-249	-1.691E-02	1.772E-02	2.870E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 03:29:41.94

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681003.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 14-DEC-2007 19:08:06
Sample ID        : G198681003           Sample quantity  : 1.22160E+02 GRAM
Detector name    : GAM06                Detector geometry: CAN
Elapsed live time: 0 08:20:00.00        Elapsed real time: 0 08:20:03.46  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708121               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	564	10.66*	9.605E-01	4.063E+00	4.063E+00	13.81
CS-137	661.66	413	85.10*	1.977E+00	1.811E-01	1.817E-01	17.86
TL-208	277.36	163	6.31	3.927E+00	4.853E-01	4.853E-01	69.67
	510.77	297	22.60	2.457E+00	3.946E-01	3.946E-01	44.88
	583.19	689	84.50*	2.202E+00	2.732E-01	2.732E-01	14.99
	763.13	------	1.81	1.741E+00	------	Line Not Found	------
	860.56	133	12.42	1.559E+00	5.053E-01	5.053E-01	32.76
BI-212	727.33	245	11.80*	1.818E+00	8.434E-01	8.434E-01	25.89
	785.37	57	1.10	1.696E+00	2.240E+00	2.240E+00	77.98
	1620.50	25	1.49	8.878E-01	1.419E+00	1.419E+00	153.56
PB-212	74.81	563	10.40	4.119E+00	9.697E-01	9.697E-01	21.39
	77.11	1034	17.50	4.359E+00	1.000E+00	1.000E+00	13.36
	87.30	464	7.81	5.191E+00	8.436E-01	8.436E-01	24.24
	238.63	2447	43.30*	4.397E+00	9.478E-01	9.478E-01	8.36
	300.09	146	3.28	3.717E+00	8.832E-01	8.832E-01	62.67
BI-214	609.31	899	46.10*	2.123E+00	6.772E-01	6.773E-01	13.79
	768.36	105	4.94	1.731E+00	9.064E-01	9.064E-01	54.07
	806.17	------	1.22	1.656E+00	------	Line Not Found	------
	934.06	53	3.03	1.444E+00	8.915E-01	8.915E-01	67.02
	1120.29	176	15.10	1.216E+00	7.071E-01	7.072E-01	33.44
	1155.19	------	1.63	1.181E+00	------	Line Not Found	------
	1238.11	126	5.79	1.109E+00	1.443E+00	1.443E+00	41.06
	1280.96	------	1.43	1.075E+00	------	Line Not Found	------
	1377.67	77	4.00	1.009E+00	1.415E+00	1.415E+00	39.40
	1401.50	------	1.27	9.936E-01	------	Line Not Found	------
	1407.98	37	2.15	9.903E-01	1.285E+00	1.286E+00	72.85
	1509.23	------	2.11	9.357E-01	------	Line Not Found	------
	1729.60	27	2.92	8.509E-01	8.031E-01	8.032E-01	98.58
	1764.49	142	15.40	8.411E-01	8.101E-01	8.101E-01	28.75
PB-214	74.81	563	6.44	4.119E+00	1.566E+00	1.566E+00	21.39
	77.11	1034	10.80	4.359E+00	1.620E+00	1.620E+00	13.36
	87.30	464	4.84	5.191E+00	1.361E+00	1.361E+00	24.24

Sample ID : G198681003 Acquisition date : 14-DEC-2007 19:08:06

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	242.00	631	7.43	4.357E+00	1.438E+00	1.438E+00	22.01
	295.22	785	19.30	3.761E+00	7.978E-01	7.978E-01	17.00
	351.93	1332	37.60*	3.292E+00	7.933E-01	7.934E-01	11.84
RA-223	269.46	272	13.70*	4.015E+00	3.642E-01	3.642E-01	35.97
AC-228	129.07	128	2.42	6.054E+00	6.427E-01	6.427E-01	87.68
	209.25	258	3.89	4.820E+00	1.013E+00	1.013E+00	39.40
	270.25	272	3.46	4.015E+00	1.442E+00	1.442E+00	35.97
	338.32	492	11.27	3.393E+00	9.486E-01	9.486E-01	20.16
	409.46	92	1.92	2.929E+00	1.210E+00	1.210E+00	62.17
	463.00	168	4.40	2.660E+00	1.060E+00	1.060E+00	38.79
	794.95	112	4.25	1.678E+00	1.159E+00	1.159E+00	42.51
	911.20	472	25.80*	1.478E+00	9.128E-01	9.128E-01	17.73
	964.77	84	4.99	1.401E+00	8.907E-01	8.907E-01	57.85
	968.97	257	15.80	1.395E+00	8.608E-01	8.608E-01	23.70
	1588.20	53	3.22	9.008E-01	1.350E+00	1.350E+00	64.04
PA-234M	1001.03	30	0.84*	1.352E+00	1.944E+00	1.944E+00	169.33
TH-234	63.29	39	4.80	2.713E+00	2.207E-01	2.207E-01	286.28
	92.58	537	5.41*	5.508E+00	1.328E+00	1.328E+00	28.31
U-235	143.76	250	10.96*	5.889E+00	2.855E-01	2.855E-01	52.61
NP-236	98.44	138	38.00*	5.761E+00	4.642E-02	4.642E-02	76.91
NP-237	86.48	464	12.40*	5.191E+00	5.313E-01	5.313E-01	24.24
AM-243	74.66	563	68.20*	4.119E+00	1.479E-01	1.479E-01	21.39

Flag: "*" = Keyline

Sample ID : G198681003 Acquisition date : 14-DEC-2007 19:08:06

Total number of lines in spectrum 70
Number of unidentified lines 28
Number of lines tentatively identified by NID 42 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	4.063E+00	4.063E+00	0.561E+00	13.81	
CS-137	9.47E+08S	1.00	1.811E-01	1.817E-01	0.325E-01	17.86	
TL-208	4.43E+17S	1.00	2.732E-01	2.732E-01	0.409E-01	14.99	
BI-212	4.43E+17S	1.00	8.434E-01	8.434E-01	2.184E-01	25.89	
PB-212	4.43E+17S	1.00	9.478E-01	9.478E-01	0.792E-01	8.36	
BI-214	5.05E+10S	1.00	6.772E-01	6.773E-01	0.934E-01	13.79	
PB-214	5.05E+10S	1.00	7.933E-01	7.934E-01	0.940E-01	11.84	
RA-223	1.04E+12S	1.00	3.642E-01	3.642E-01	1.310E-01	35.97	
AC-228	4.43E+17S	1.00	9.128E-01	9.128E-01	1.618E-01	17.73	
PA-234M	1.41E+17S	1.00	1.944E+00	1.944E+00	3.292E+00	169.33	
TH-234	1.41E+17S	1.00	1.328E+00	1.328E+00	0.376E+00	28.31	
U-235	2.22E+16S	1.00	2.855E-01	2.855E-01	1.502E-01	52.61	
NP-236	4.89E+12S	1.00	4.642E-02	4.642E-02	3.570E-02	76.91	
NP-237	6.75E+13S	1.00	5.313E-01	5.313E-01	1.288E-01	24.24	
AM-243	2.33E+11S	1.00	1.479E-01	1.479E-01	0.316E-01	21.39	
			---	---			
		Total Activity :	1.334E+01	1.334E+01			

Grand Total Activity : 1.334E+01 1.334E+01

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

Sample ID : G198681003 Acquisition date : 14-DEC-2007 19:08:06

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
4	83.96	191	1094	1.44	167.91	163	28	6.37E-03	67.0	4.99E+00	
4	89.54	306	806	1.21	179.07	163	28	1.02E-02	33.4	5.36E+00	
0	153.78	95	668	1.51	307.43	304	7	3.16E-03	92.8	5.74E+00	
0	185.70	446	905	1.40	371.20	367	10	1.49E-02	30.7	5.20E+00	
0	222.16	51	433	1.30	444.06	442	6	1.71E-03	****	4.62E+00	
4	236.12	103	412	1.39	471.95	469	21	3.44E-03	65.5	4.43E+00	
0	320.90	61	247	1.41	641.38	639	6	2.03E-03	85.3	3.53E+00	
0	328.15	198	495	1.22	655.87	651	11	6.60E-03	46.0	3.47E+00	
0	431.55	25	247	0.93	862.50	859	8	8.36E-04	****	2.81E+00	
0	470.38	21	245	0.64	940.12	937	10	7.00E-04	****	2.62E+00	
0	569.94	36	155	0.81	1139.10	1135	10	1.19E-03	****	2.24E+00	
0	649.02	29	159	2.28	1297.16	1293	10	9.71E-04	****	2.01E+00	
0	665.57	33	135	0.90	1330.24	1326	8	1.10E-03	****	1.97E+00	
0	835.63	17	81	0.97	1670.20	1666	6	5.55E-04	****	1.60E+00	
0	883.07	31	70	1.38	1765.04	1760	9	1.05E-03	****	1.52E+00	
0	928.07	25	54	0.87	1855.01	1851	7	8.17E-04	****	1.45E+00	
0	942.19	47	83	0.96	1883.24	1877	13	1.58E-03	84.0	1.43E+00	
0	950.48	43	81	3.78	1899.82	1894	12	1.44E-03	88.6	1.42E+00	
0	1014.97	22	90	1.07	2028.76	2024	11	7.26E-04	****	1.33E+00	
0	1022.39	12	76	0.80	2043.60	2038	10	3.86E-04	****	1.33E+00	
0	1058.45	52	65	3.79	2115.70	2110	12	1.75E-03	67.8	1.28E+00	
0	1231.11	36	41	4.11	2460.95	2456	10	1.19E-03	78.7	1.11E+00	
0	1501.33	33	123	6.89	3001.39	2979	31	1.10E-03	****	9.40E-01	
1	1584.68	25	5	1.92	3168.09	3166	19	8.40E-04	37.3	9.02E-01	
5	1660.77	25	16	3.49	3320.31	3314	32	8.39E-04	83.1	8.73E-01	
5	1671.61	19	17	2.17	3342.00	3314	32	6.21E-04	85.5	8.69E-01	
0	1838.77	20	20	5.85	3676.40	3667	16	6.66E-04	****	8.23E-01	
0	1849.12	23	28	0.63	3697.11	3691	13	7.80E-04	****	8.20E-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]G198681003            *
* Acquisition date : 14-DEC-2007 19:08:06 Detector SN#    :                 *
* Detector ID      : GAM06                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 08:20:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 08:20:03.46     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681003           Analyst initials: MJH1            *
* Batch Number     : 708121               Sample Quantity : 1.2216E+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	4.063E+00	5.500E-01	1.261E-01	5.500E-01
CS-137	1.817E-01	3.181E-02	1.320E-02	3.181E-02
TL-208	2.732E-01	4.012E-02	1.312E-02	4.012E-02
BI-212	8.434E-01	2.140E-01	9.483E-02	2.140E-01
PB-212	9.478E-01	7.765E-02	2.114E-02	7.765E-02
BI-214	6.773E-01	9.153E-02	2.462E-02	9.153E-02
PB-214	7.934E-01	9.210E-02	2.711E-02	9.210E-02
RA-223	3.642E-01	1.284E-01	6.786E-02	1.284E-01
AC-228	9.128E-01	1.586E-01	4.750E-02	1.586E-01
PA-234M	1.944E+00	3.226E+00	1.585E+00	3.226E+00
TH-234	1.328E+00	3.685E-01	1.581E-01	3.685E-01
U-235	2.855E-01	1.472E-01	7.032E-02	1.472E-01
NP-236	4.642E-02	3.499E-02	2.022E-02	3.499E-02
NP-237	5.313E-01	1.262E-01	7.332E-02	1.262E-01
AM-243	1.479E-01	3.100E-02	1.770E-02	3.100E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	-2.233E-02	2.060E-02	1.391E-02	2.060E-02	NOT IDENT.
RH-101	1.080E-02	1.495E-02	1.348E-02	1.495E-02	NOT IDENT.
SB-125	3.737E-02	4.836E-02	3.705E-02	4.836E-02	NOT IDENT.
EU-155	2.782E-02	4.436E-02	3.879E-02	4.436E-02	NOT IDENT.
PO-209	-1.374E+00	3.189E+00	2.572E+00	3.189E+00	NOT IDENT.
BI-211	4.806E-02	5.257E-01	3.835E-01	5.257E-01	NOT IDENT.
PA-233	2.149E-02	2.915E-02	2.566E-02	2.915E-02	NOT IDENT.
NP-239	-2.076E-03	9.532E-02	8.375E-02	9.532E-02	NOT IDENT.
AM-241	-1.652E-02	7.048E-02	5.571E-02	7.048E-02	NOT IDENT.
CM-243	2.029E-02	3.975E-02	3.469E-02	3.975E-02	NOT IDENT.
AM-246	5.463E-02	5.322E-02	4.858E-02	5.322E-02	NOT IDENT.
CF-249	-1.691E-02	1.772E-02	1.436E-02	1.772E-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	660.9337
63.29	707.6497
74.66	792.5162
74.81	792.7838
74.81	792.7838
77.11	796.8393
77.11	796.8393
86.48	700.0416
87.30	701.2048
87.30	701.2048
92.58	708.5726
98.44	624.2133
103.76	667.3050
105.31	683.5013
129.07	692.7756
143.76	662.3096
198.00	679.2605
209.25	565.8718
228.18	544.4097
238.63	526.4165
242.00	528.1743
269.46	456.4044
270.25	456.7375
277.36	422.6914
295.22	426.5976
300.09	436.0811
312.17	376.8000
338.32	399.5988
351.93	369.4864
387.59	322.2261
409.46	295.5716
427.87	256.2761
463.00	251.5056
510.77	205.0543
583.19	198.2269
609.31	193.2859
661.66	163.4673
727.33	138.5337
763.13	159.0021
768.36	194.5605
785.37	150.9644
794.95	110.1768
806.17	133.8113
831.80	135.8134
860.56	121.9816
896.60	123.5784
911.20	110.4137
934.06	104.3340
964.77	136.2406
968.97	144.3717
1001.03	109.4238
1078.86	71.9525
1120.29	94.0679
1155.19	89.8424
1173.23	91.2697
1238.11	90.5525
1280.96	68.2728
1332.51	71.1964
1377.67	60.8545
1401.50	52.4686
1407.98	78.8285
1460.80	56.7701
1509.23	44.8556
1588.20	61.7902
1620.50	46.1354
1729.60	33.8756
1764.49	31.2736

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198681003

Total Uranium Activity	1.3208E-01	ug/g
Total Uranium Counting Unc.	6.8095E-02	ug/g
Total Uranium Tpu	6.8095E-08	ug/g
Total Uranium Mda	3.2537E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 03:30:30.32

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681004.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 14-DEC-2007 19:08:27
Sample ID        : G198681004           Sample quantity  : 1.37840E+02 GRAM
Detector name    : GAM07                Detector geometry: CAN
Elapsed live time: 0 08:20:00.00        Elapsed real time: 0 08:20:57.72  0.2%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708121               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	46.86*	11	1092	1.03	93.23	89	8	3.64E-04	602.1	
2	0	63.34*	212	1251	1.05	126.18	123	8	7.05E-03	32.7	
3	3	75.01*	1332	1154	1.06	149.52	142	18	4.44E-02	5.1	2.08E+00
4	3	77.26*	2079	1108	1.01	154.01	142	18	6.93E-02	3.6	
5	5	84.27*	392	729	1.22	168.04	165	28	1.31E-02	12.8	3.81E+01
6	5	85.76*	76	858	1.01	171.00	165	28	2.52E-03	74.2	
7	5	90.09	594	942	1.17	179.67	165	28	1.98E-02	9.7	
8	5	92.95*	894	1157	1.43	185.39	165	28	2.98E-02	9.0	
9	0	100.01	93	878	1.11	199.50	196	7	3.09E-03	54.2	
10	0	105.97*	121	1140	1.93	211.42	207	9	4.03E-03	54.1	
11	0	112.84	157	829	1.61	225.15	222	7	5.23E-03	31.5	
12	0	129.42	278	1107	1.51	258.30	254	9	9.28E-03	22.4	
13	0	149.54	69	654	0.99	298.54	296	6	2.30E-03	59.9	
14	0	154.40	173	1022	1.68	308.25	304	9	5.76E-03	34.2	
15	0	186.16*	685	1258	1.35	371.75	367	11	2.28E-02	11.5	
16	0	209.49	335	787	1.29	418.39	414	9	1.12E-02	16.1	
17	3	236.46	106	548	1.64	472.32	469	19	3.53E-03	34.6	6.05E+00
18	3	238.88*	3600	576	1.13	477.16	469	19	1.20E-01	2.2	
19	3	241.71	912	733	1.64	482.82	469	19	3.04E-02	7.8	
20	0	266.51	64	363	1.13	532.41	530	6	2.13E-03	48.7	
21	0	270.47	378	577	1.63	540.32	536	10	1.26E-02	13.0	
22	0	277.87	167	545	0.97	555.12	551	9	5.57E-03	26.4	
23	0	295.49*	1253	676	1.26	590.35	585	12	4.18E-02	5.3	
24	0	300.20	170	458	1.00	599.76	596	8	5.66E-03	23.1	
25	0	328.57*	190	490	2.36	656.48	652	10	6.35E-03	24.3	
26	0	338.52*	550	567	1.25	676.39	672	10	1.83E-02	9.8	
27	0	352.08*	2168	624	1.28	703.51	697	13	7.23E-02	3.4	
28	0	409.62	125	391	1.41	818.55	814	10	4.16E-03	31.0	
29	0	447.84	38	211	0.88	894.98	893	7	1.27E-03	65.0	
30	0	463.14	220	332	1.81	925.57	921	10	7.34E-03	16.9	
31	0	511.33*	230	451	1.55	1021.92	1015	16	7.67E-03	28.7	
32	0	576.91	40	220	0.90	1153.04	1147	9	1.32E-03	70.1	
33	0	583.51*	1092	324	1.32	1166.24	1160	13	3.64E-02	4.9	
34	0	609.65*	1387	379	1.43	1218.51	1213	13	4.62E-02	4.2	
35	2	661.94*	596	173	1.54	1323.08	1316	20	1.99E-02	6.2	1.03E+00
36	2	665.77	75	194	1.93	1330.73	1316	20	2.51E-03	36.7	
37	0	727.57	347	209	1.36	1454.31	1448	14	1.16E-02	10.4	
38	0	749.65	24	143	1.00	1498.46	1496	8	8.15E-04	87.3	

Sample ID : G198681004 Acquisition date : 14-DEC-2007 19:08:27

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	3	768.33*	141	122	2.22	1535.80	1531	18	4.70E-03	18.9	1.82E+00
40	3	772.61	62	115	1.82	1544.36	1531	18	2.08E-03	33.7	
41	0	786.31	111	121	1.06	1571.77	1567	10	3.71E-03	20.8	
42	3	790.92	45	74	2.24	1580.97	1577	20	1.51E-03	35.3	1.06E+00
43	3	795.30	145	141	2.24	1589.73	1577	20	4.84E-03	19.1	
44	0	806.42	33	139	1.68	1611.97	1607	9	1.11E-03	66.2	
45	0	817.65	51	108	3.95	1634.42	1629	11	1.71E-03	41.5	
46	0	837.47	80	370	5.83	1674.05	1665	22	2.67E-03	62.2	
47	0	861.32*	73	290	0.91	1721.74	1715	17	2.44E-03	59.5	
48	0	911.41*	777	174	1.57	1821.91	1815	16	2.59E-02	5.5	
49	0	934.22	85	98	1.98	1867.53	1863	10	2.82E-03	24.4	
50	3	965.15*	95	124	2.38	1929.38	1922	24	3.15E-03	31.4	1.46E+00
51	3	969.39	457	107	1.81	1937.84	1922	24	1.52E-02	6.5	
52	0	1053.21	48	73	2.14	2105.45	2098	11	1.60E-03	37.6	
53	0	1120.80*	341	137	1.80	2240.61	2233	16	1.14E-02	9.9	
54	0	1187.92	23	70	1.16	2374.84	2371	8	7.75E-04	65.6	
55	0	1238.48	133	135	1.63	2475.94	2470	12	4.44E-03	19.5	
56	0	1281.83	50	75	2.52	2562.63	2557	12	1.66E-03	37.6	
57	0	1357.33	36	70	1.42	2713.59	2706	13	1.19E-03	51.7	
58	0	1378.48*	85	68	2.01	2755.90	2750	12	2.83E-03	24.4	
59	0	1408.51	46	75	2.87	2815.96	2809	13	1.55E-03	41.1	
60	0	1461.32*	1441	126	2.04	2921.55	2911	21	4.80E-02	3.4	
61	0	1497.26	26	47	2.02	2993.43	2988	10	8.76E-04	52.7	
62	0	1509.28	66	71	3.21	3017.46	3010	15	2.19E-03	30.6	
63	0	1520.47*	23	102	10.91	3039.84	3024	27	7.80E-04	131.8	
64	0	1588.76	69	47	1.26	3176.41	3171	11	2.29E-03	22.7	
65	0	1593.17	21	60	1.59	3185.23	3181	9	7.11E-04	68.4	
66	0	1631.61	35	25	3.33	3262.10	3257	10	1.18E-03	32.0	
67	0	1639.34	18	23	2.00	3277.55	3273	9	6.01E-04	53.1	
68	0	1730.64	73	49	1.52	3460.14	3454	15	2.42E-03	24.0	
69	0	1765.18*	261	71	2.32	3529.21	3519	23	8.69E-03	11.1	
70	0	1847.61	58	27	2.24	3694.05	3687	15	1.93E-03	23.4	
71	9	1942.18	18	14	4.17	3883.19	3880	23	6.09E-04	36.8	1.56E+00
72	9	1946.81	23	19	2.47	3892.45	3880	23	7.55E-04	49.4	
73	0	2001.84	11	24	1.28	4002.50	3992	14	3.54E-04	103.4	

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]G198681004       *
* Acquisition date : 14-DEC-2007 19:08:27 Detector SN#    :                 *
* Detector ID      : GAM07                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 08:20:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 08:20:57.72     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681004           Analyst initials: MJH1            *
* Batch Number     : 708121               Sample Quantity : 1.3784E+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	7.579E+00	6.456E-01	1.981E-01	0.000E+00
CS-137	1.971E-01	2.772E-02	2.301E-02	0.000E+00
EU-155	5.122E-02	5.446E-02	6.076E-02	0.000E+00
TL-208	3.255E-01	3.804E-02	2.166E-02	0.000E+00
BI-212	8.951E-01	1.928E-01	1.542E-01	0.000E+00
PB-212	1.046E+00	7.596E-02	3.447E-02	0.000E+00
BI-214	7.867E-01	8.383E-02	4.339E-02	0.000E+00
PB-214	9.654E-01	8.332E-02	4.172E-02	0.000E+00
RA-223	3.793E-01	9.909E-02	1.034E-01	0.000E+00
AC-228	1.121E+00	1.428E-01	7.913E-02	0.000E+00
TH-234	1.480E+00	2.827E-01	2.546E-01	0.000E+00
NP-236	2.155E-02	2.294E-02	3.245E-02	0.000E+00
NP-237	5.645E-02	8.223E-02	1.135E-01	0.000E+00
AM-243	1.976E-01	2.384E-02	2.508E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	-1.285E-02		2.206E-02	2.551E-02	0.000E+00	NOT IDENT.
RH-101	4.805E-03		1.384E-02	2.228E-02	0.000E+00	NOT IDENT.
SB-125	1.527E-02		3.435E-02	5.935E-02	0.000E+00	NOT IDENT.
PO-209	7.347E-02		2.676E+00	4.501E+00	0.000E+00	NOT IDENT.
BI-211	2.749E-01		4.174E-01	6.421E-01	0.000E+00	NOT IDENT.
PA-233	-6.193E-03		2.303E-02	3.976E-02	0.000E+00	NOT IDENT.
PA-234M	1.174E-01		1.587E+00	2.649E+00	0.000E+00	NOT IDENT.
U-235	-9.312E-03		8.178E-02	1.273E-01	0.000E+00	NOT IDENT.
NP-239	-1.682E-02		7.945E-02	1.410E-01	0.000E+00	NOT IDENT.
AM-241	1.582E-02		3.476E-02	5.710E-02	0.000E+00	NOT IDENT.
CM-243	1.297E-02		4.375E-02	5.471E-02	0.000E+00	NOT IDENT.
AM-246	2.979E-02		4.899E-02	8.736E-02	0.000E+00	NOT IDENT.
CF-249	5.443E-03		1.727E-02	2.691E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 03:30:31.45

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681004.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 14-DEC-2007 19:08:27
Sample ID        : G198681004           Sample quantity  : 1.37840E+02 GRAM
Detector name    : GAM07                Detector geometry: CAN
Elapsed live time: 0 08:20:00.00        Elapsed real time: 0 08:20:57.72  0.2%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708121               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	1441	10.66*	1.166E+00	7.579E+00	7.579E+00	8.69
CS-137	661.66	596	85.10*	2.329E+00	1.964E-01	1.971E-01	14.35
EU-155	105.31	121	21.20*	7.434E+00	5.010E-02	5.122E-02	108.51
TL-208	277.36	167	6.31	4.663E+00	3.710E-01	3.710E-01	53.13
	510.77	230	22.60	2.897E+00	2.296E-01	2.296E-01	57.78
	583.19	1092	84.50*	2.595E+00	3.255E-01	3.255E-01	11.93
	763.13	------	1.81	2.057E+00	------	Line Not Found	------
	860.56	73	12.42	1.847E+00	2.089E-01	2.089E-01	119.18
BI-212	727.33	347	11.80*	2.145E+00	8.951E-01	8.951E-01	21.98
	785.37	111	1.10	2.003E+00	3.302E+00	3.302E+00	42.31
	1620.50	------	1.49	1.077E+00	------	Line Not Found	------
PB-212	74.81	1332	10.40	6.458E+00	1.296E+00	1.296E+00	12.31
	77.11	2079	17.50	6.619E+00	1.173E+00	1.173E+00	10.04
	87.30	76	7.81	7.072E+00	8.963E-02	8.963E-02	148.62
	238.63	3600	43.30*	5.193E+00	1.046E+00	1.046E+00	7.41
	300.09	170	3.28	4.404E+00	7.681E-01	7.681E-01	46.63
BI-214	609.31	1387	46.10*	2.500E+00	7.867E-01	7.867E-01	10.87
	768.36	141	4.94	2.045E+00	9.117E-01	9.118E-01	38.54
	806.17	33	1.22	1.959E+00	9.105E-01	9.105E-01	132.62
	934.06	85	3.03	1.718E+00	1.063E+00	1.063E+00	49.29
	1120.29	341	15.10	1.460E+00	1.011E+00	1.011E+00	20.57
	1155.19	------	1.63	1.422E+00	------	Line Not Found	------
	1238.11	133	5.79	1.338E+00	1.123E+00	1.124E+00	39.34
	1280.96	50	1.43	1.299E+00	1.750E+00	1.750E+00	75.44
	1377.67	85	4.00	1.222E+00	1.137E+00	1.137E+00	49.15
	1401.50	------	1.27	1.206E+00	------	Line Not Found	------
	1407.98	46	2.15	1.201E+00	1.177E+00	1.177E+00	82.28
	1509.23	66	2.11	1.136E+00	1.793E+00	1.793E+00	61.36
	1729.60	73	2.92	1.029E+00	1.582E+00	1.582E+00	48.36
	1764.49	261	15.40	1.015E+00	1.089E+00	1.089E+00	22.80
PB-214	74.81	1332	6.44	6.458E+00	2.093E+00	2.093E+00	12.31
	77.11	2079	10.80	6.619E+00	1.900E+00	1.900E+00	10.04

Sample ID : G198681004 Acquisition date : 14-DEC-2007 19:08:27

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	76	4.84	7.072E+00	1.446E-01	1.446E-01	148.62
	242.00	912	7.43	5.151E+00	1.557E+00	1.558E+00	16.79
	295.22	1253	19.30	4.457E+00	9.521E-01	9.521E-01	12.28
	351.93	2168	37.60*	3.903E+00	9.654E-01	9.654E-01	8.81
RA-223	269.46	378	13.70*	4.755E+00	3.793E-01	3.793E-01	26.66
AC-228	129.07	278	2.42	7.220E+00	1.042E+00	1.042E+00	45.21
	209.25	335	3.89	5.672E+00	9.919E-01	9.919E-01	32.64
	270.25	378	3.46	4.755E+00	1.502E+00	1.502E+00	26.66
	338.32	550	11.27	4.022E+00	7.923E-01	7.923E-01	20.41
	409.46	125	1.92	3.467E+00	1.224E+00	1.224E+00	62.15
	463.00	220	4.40	3.142E+00	1.041E+00	1.041E+00	34.25
	794.95	145	4.25	1.983E+00	1.126E+00	1.126E+00	38.84
	911.20	777	25.80*	1.756E+00	1.121E+00	1.121E+00	13.00
	964.77	95	4.99	1.668E+00	7.428E-01	7.428E-01	63.08
	968.97	457	15.80	1.662E+00	1.139E+00	1.139E+00	14.54
	1588.20	69	3.22	1.093E+00	1.278E+00	1.278E+00	45.78
TH-234	63.29	212	4.80	5.279E+00	5.458E-01	5.458E-01	65.63
	92.58	894	5.41*	7.294E+00	1.480E+00	1.480E+00	19.49
NP-236	98.44	93	38.00*	7.404E+00	2.155E-02	2.155E-02	108.63
NP-237	86.48	76	12.40*	7.072E+00	5.645E-02	5.645E-02	148.62
AM-243	74.66	1332	68.20*	6.458E+00	1.976E-01	1.976E-01	12.31

Flag: "*" = Keyline

Sample ID : G198681004 Acquisition date : 14-DEC-2007 19:08:27

Total number of lines in spectrum 73
Number of unidentified lines 30
Number of lines tentatively identified by NID 43 58.90%

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	7.579E+00	7.579E+00	0.659E+00	8.69	
CS-137	9.47E+08S	1.00	1.964E-01	1.971E-01	0.283E-01	14.35	
EU-155	1.57E+08S	1.02	5.010E-02	5.122E-02	5.557E-02	108.51	
TL-208	4.43E+17S	1.00	3.255E-01	3.255E-01	0.388E-01	11.93	
BI-212	4.43E+17S	1.00	8.951E-01	8.951E-01	1.967E-01	21.98	
PB-212	4.43E+17S	1.00	1.046E+00	1.046E+00	0.078E+00	7.41	
BI-214	5.05E+10S	1.00	7.867E-01	7.867E-01	0.855E-01	10.87	
PB-214	5.05E+10S	1.00	9.654E-01	9.654E-01	0.850E-01	8.81	
RA-223	1.04E+12S	1.00	3.793E-01	3.793E-01	1.011E-01	26.66	
AC-228	4.43E+17S	1.00	1.121E+00	1.121E+00	0.146E+00	13.00	
TH-234	1.41E+17S	1.00	1.480E+00	1.480E+00	0.289E+00	19.49	
NP-236	4.89E+12S	1.00	2.155E-02	2.155E-02	2.341E-02	108.63	
NP-237	6.75E+13S	1.00	5.645E-02	5.645E-02	8.391E-02	148.62	
AM-243	2.33E+11S	1.00	1.976E-01	1.976E-01	0.243E-01	12.31	
			---	---			
	Total Activity :		1.510E+01	1.510E+01			

Grand Total Activity : 1.510E+01 1.510E+01

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

Sample ID : G198681004 Acquisition date : 14-DEC-2007 19:08:27

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.86	11	1092	1.03	93.23	89	8	3.64E-04	****	2.66E+00	
5	84.27	392	729	1.22	168.04	165	28	1.31E-02	25.5	7.01E+00	
5	90.09	594	942	1.17	179.67	165	28	1.98E-02	19.5	7.22E+00	
0	112.84	157	829	1.61	225.15	222	7	5.23E-03	62.9	7.42E+00	
0	149.54	69	654	0.99	298.54	296	6	2.30E-03	****	6.85E+00	
0	154.40	173	1022	1.68	308.25	304	9	5.76E-03	68.4	6.75E+00	
0	186.16	685	1258	1.35	371.75	367	11	2.28E-02	23.0	6.10E+00	
3	236.46	106	548	1.64	472.32	469	19	3.53E-03	69.2	5.23E+00	
0	266.51	64	363	1.13	532.41	530	6	2.13E-03	97.4	4.81E+00	
0	328.57	190	490	2.36	656.48	652	10	6.35E-03	48.7	4.12E+00	
0	447.84	38	211	0.88	894.98	893	7	1.27E-03	****	3.23E+00	
0	576.91	40	220	0.90	1153.04	1147	9	1.32E-03	****	2.62E+00	
2	665.77	75	194	1.93	1330.73	1316	20	2.51E-03	73.5	2.32E+00	
0	749.65	24	143	1.00	1498.46	1496	8	8.15E-04	****	2.09E+00	
3	772.61	62	115	1.82	1544.36	1531	18	2.08E-03	67.4	2.03E+00	
3	790.92	45	74	2.24	1580.97	1577	20	1.51E-03	70.7	1.99E+00	
0	817.65	51	108	3.95	1634.42	1629	11	1.71E-03	83.0	1.93E+00	
0	837.47	80	370	5.83	1674.05	1665	22	2.67E-03	****	1.89E+00	
0	1053.21	48	73	2.14	2105.45	2098	11	1.60E-03	75.3	1.54E+00	
0	1187.92	23	70	1.16	2374.84	2371	8	7.75E-04	****	1.39E+00	
0	1357.33	36	70	1.42	2713.59	2706	13	1.19E-03	****	1.24E+00	
0	1497.26	26	47	2.02	2993.43	2988	10	8.76E-04	****	1.14E+00	
0	1520.47	23	102	10.91	3039.84	3024	27	7.80E-04	****	1.13E+00	
0	1593.17	21	60	1.59	3185.23	3181	9	7.11E-04	****	1.09E+00	
0	1631.61	35	25	3.33	3262.10	3257	10	1.18E-03	64.0	1.07E+00	
0	1639.34	18	23	2.00	3277.55	3273	9	6.01E-04	****	1.07E+00	
0	1847.61	58	27	2.24	3694.05	3687	15	1.93E-03	46.7	9.87E-01	
9	1942.18	18	14	4.17	3883.19	3880	23	6.09E-04	73.7	9.59E-01	
9	1946.81	23	19	2.47	3892.45	3880	23	7.55E-04	98.8	9.58E-01	
0	2001.84	11	24	1.28	4002.50	3992	14	3.54E-04	****	9.44E-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]G198681004            *
* Acquisition date : 14-DEC-2007 19:08:27 Detector SN#    :                 *
* Detector ID      : GAM07                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 08:20:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 08:20:57.72     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681004           Analyst initials: MJH1            *
* Batch Number     : 708121               Sample Quantity : 1.3784E+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	7.579E+00	6.456E-01	9.912E-02	6.456E-01
CS-137	1.971E-01	2.772E-02	1.151E-02	2.772E-02
EU-155	5.122E-02	5.446E-02	3.040E-02	5.446E-02
TL-208	3.255E-01	3.804E-02	1.084E-02	3.804E-02
BI-212	8.951E-01	1.928E-01	7.712E-02	1.928E-01
PB-212	1.046E+00	7.596E-02	1.725E-02	7.596E-02
BI-214	7.867E-01	8.383E-02	2.171E-02	8.383E-02
PB-214	9.654E-01	8.332E-02	2.087E-02	8.332E-02
RA-223	3.793E-01	9.909E-02	5.174E-02	9.909E-02
AC-228	1.121E+00	1.428E-01	3.959E-02	1.428E-01
TH-234	1.480E+00	2.827E-01	1.274E-01	2.827E-01
NP-236	2.155E-02	2.294E-02	1.623E-02	2.294E-02
NP-237	5.645E-02	8.223E-02	5.678E-02	8.223E-02
AM-243	1.976E-01	2.384E-02	1.255E-02	2.384E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	-1.285E-02	2.206E-02	1.276E-02	2.206E-02	NOT IDENT.
RH-101	4.805E-03	1.384E-02	1.115E-02	1.384E-02	NOT IDENT.
SB-125	1.527E-02	3.435E-02	2.969E-02	3.435E-02	NOT IDENT.
PO-209	7.347E-02	2.676E+00	2.252E+00	2.676E+00	NOT IDENT.
BI-211	2.749E-01	4.174E-01	3.212E-01	4.174E-01	NOT IDENT.
PA-233	-6.193E-03	2.303E-02	1.989E-02	2.303E-02	NOT IDENT.
PA-234M	1.174E-01	1.587E+00	1.325E+00	1.587E+00	NOT IDENT.
U-235	-9.312E-03	8.178E-02	6.367E-02	8.178E-02	NOT IDENT.
NP-239	-1.682E-02	7.945E-02	7.052E-02	7.945E-02	NOT IDENT.
AM-241	1.582E-02	3.476E-02	2.857E-02	3.476E-02	NOT IDENT.
CM-243	1.297E-02	4.375E-02	2.737E-02	4.375E-02	NOT IDENT.
AM-246	2.979E-02	4.899E-02	4.371E-02	4.899E-02	NOT IDENT.
CF-249	5.443E-03	1.727E-02	1.346E-02	1.727E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	865.8326
63.29	947.3862
74.66	1161.3003
74.81	1161.6643
74.81	1161.6643
77.11	1167.1532
77.11	1167.1532
86.48	963.7311
87.30	965.2161
87.30	965.2161
92.58	974.6047
98.44	804.5457
103.76	808.7026
105.31	852.6821
129.07	864.8415
143.76	865.9611
198.00	776.0725
209.25	735.8867
228.18	675.7741
238.63	603.0754
242.00	604.9586
269.46	459.4514
270.25	469.6408
277.36	484.6942
295.22	448.3733
300.09	457.8964
312.17	451.9983
338.32	450.8446
351.93	381.3835
387.59	384.4619
409.46	362.5459
427.87	309.2808
463.00	292.9395
510.77	268.4129
583.19	234.0674
609.31	260.0209
661.66	215.4199
727.33	159.4015
763.13	179.6221
768.36	186.9818
785.37	179.4740
794.95	124.5709
806.17	175.4624
831.80	145.0354
860.56	145.8331
896.60	148.7048
911.20	135.7586
934.06	127.2480
964.77	117.8096
968.97	117.9680
1001.03	134.3293
1078.86	123.8366
1120.29	113.1618
1155.19	107.6589
1173.23	125.2808
1238.11	136.1577
1280.96	117.1631
1332.51	83.0737
1377.67	94.2742
1401.50	72.3984
1407.98	77.5452
1460.80	65.2448
1509.23	63.6002
1588.20	82.6723
1620.50	52.7751
1729.60	42.5490
1764.49	38.1844

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198681004

Total Uranium Activity	-4.3089E-03	ug/g
Total Uranium Counting Unc.	3.7839E-02	ug/g
Total Uranium Tpu	3.7839E-08	ug/g
Total Uranium Mda	2.9458E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 03:31:48.00

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681005.CNF;1
Sample date       : 18-OCT-2007 00:00:00 Acquisition date : 14-DEC-2007 19:08:50
Sample ID         : G198681005           Sample quantity  : 1.23570E+02 GRAM
Detector name     : GAM21                Detector geometry: CAN
Elapsed live time: 0 08:20:00.00         Elapsed real time: 0 08:20:50.92  0.2%
Energy tolerance : 2.00000 keV           Analyst Initials : MJH1
Abundance limit  : 75.00000              Sensitivity      : 3.00000
Batch ID          : 708121               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.48	168	753	0.97	92.07	89	8	5.59E-03	29.3	
2	0	63.63	321	1100	1.91	126.32	122	9	1.07E-02	19.5	
3	0	67.88	129	1139	0.70	134.80	131	9	4.30E-03	47.8	
4	2	75.01	1560	1347	1.65	149.05	140	20	5.20E-02	5.5	3.92E+00
5	2	77.27*	2163	1083	1.40	153.56	140	20	7.21E-02	3.8	
6	2	84.22	311	1041	1.36	167.44	163	29	1.04E-02	18.2	2.26E+00
7	2	87.24	737	1217	1.68	173.46	163	29	2.46E-02	9.6	
8	2	89.93	447	902	1.30	178.85	163	29	1.49E-02	13.0	
9	2	93.01*	687	834	1.35	184.99	163	29	2.29E-02	9.2	
10	0	99.99	156	836	2.24	198.94	194	9	5.19E-03	34.4	
11	0	105.70	101	858	2.40	210.33	205	9	3.36E-03	53.4	
12	0	128.89	115	913	1.18	256.65	253	9	3.82E-03	48.3	
13	0	153.84	60	692	1.30	306.49	305	7	1.99E-03	73.8	
14	0	163.18	86	651	1.07	325.14	322	8	2.87E-03	52.4	
15	0	185.85*	529	897	1.57	370.43	365	12	1.76E-02	13.1	
16	0	198.73*	62	562	1.25	396.15	392	8	2.07E-03	76.3	
17	0	209.28	302	881	1.09	417.23	411	12	1.01E-02	20.5	
18	4	238.66*	2863	505	1.47	475.91	468	21	9.54E-02	2.5	2.03E+00
19	4	241.66	627	656	2.02	481.92	468	21	2.09E-02	11.5	
20	0	270.65	217	686	1.34	539.83	532	13	7.25E-03	25.7	
21	0	277.41	116	519	1.78	553.34	549	10	3.88E-03	37.8	
22	0	295.28*	687	369	1.59	589.04	584	10	2.29E-02	7.4	
23	0	300.12	176	415	1.34	598.71	595	10	5.87E-03	22.8	
24	0	328.23	114	380	1.28	654.86	650	10	3.81E-03	33.2	
25	0	338.23	508	554	1.61	674.86	667	14	1.69E-02	10.8	
26	0	352.04*	1091	365	1.56	702.45	697	11	3.64E-02	4.9	
27	0	409.39	56	381	1.64	817.04	811	12	1.86E-03	71.3	
28	0	463.17	123	244	1.49	924.53	920	11	4.09E-03	26.4	
29	0	510.80*	216	373	2.35	1019.71	1011	19	7.21E-03	28.2	
30	0	546.62	36	79	1.41	1091.31	1088	7	1.19E-03	45.3	
31	0	558.58	28	80	1.49	1115.20	1112	7	9.18E-04	58.3	
32	0	568.24	201	291	2.63	1134.52	1127	17	6.69E-03	20.8	
33	0	583.27*	698	171	1.75	1164.57	1159	12	2.33E-02	5.6	
34	0	609.49*	715	229	1.83	1216.98	1210	15	2.38E-02	6.4	
35	0	651.77	43	143	3.43	1301.51	1290	15	1.44E-03	62.1	
36	0	661.49	239	184	2.05	1320.93	1313	13	7.97E-03	13.5	
37	0	727.46	133	135	2.35	1452.84	1447	11	4.45E-03	18.9	
38	0	736.64	53	119	2.71	1471.19	1466	13	1.77E-03	44.3	

Sample ID : G198681005 Acquisition date : 14-DEC-2007 19:08:50

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	771.82*	106	295	9.40	1541.52	1528	30	3.54E-03	50.9	
40	0	795.24	94	114	1.77	1588.37	1582	16	3.14E-03	27.2	
41	4	835.44	29	159	2.82	1668.75	1653	36	9.79E-04	102.7	1.70E+00
42	4	841.67	38	152	2.82	1681.21	1653	36	1.27E-03	70.4	
43	0	860.92	95	75	2.21	1719.72	1715	10	3.15E-03	20.2	
44	0	911.36	433	130	1.81	1820.60	1814	14	1.44E-02	7.4	
45	0	935.74	39	108	3.54	1869.35	1860	16	1.31E-03	61.2	
46	3	964.55	63	117	2.64	1926.98	1918	28	2.09E-03	41.4	1.37E+00
47	3	969.54	261	75	1.81	1936.97	1918	28	8.71E-03	8.9	
48	0	993.78	50	290	16.94	1985.46	1951	45	1.68E-03	119.7	
49	0	1000.71	27	37	1.37	1999.32	1996	7	8.83E-04	42.6	
50	0	1033.63	40	70	2.41	2065.17	2055	15	1.34E-03	48.3	
51	0	1120.96*	161	97	1.98	2239.89	2231	19	5.35E-03	19.0	
52	0	1238.72	76	66	1.85	2475.53	2470	14	2.54E-03	25.4	
53	0	1310.69	31	57	1.82	2619.58	2613	17	1.04E-03	57.4	
54	0	1328.07	32	51	4.60	2654.37	2648	16	1.06E-03	53.9	
55	0	1422.38	17	24	4.35	2843.17	2838	12	5.53E-04	64.1	
56	0	1461.28*	468	74	2.44	2921.03	2910	24	1.56E-02	7.1	
57	0	1555.71	38	66	8.67	3110.12	3095	24	1.27E-03	58.6	
58	0	1561.79*	7	20	1.59	3122.28	3118	8	2.24E-04	153.0	
59	0	1637.37	41	55	11.53	3273.63	3259	28	1.38E-03	53.2	
60	0	1648.66	16	34	5.74	3296.26	3287	19	5.35E-04	89.8	
61	0	1654.42	11	9	1.14	3307.78	3305	7	3.64E-04	54.4	
62	4	1661.54	34	12	3.27	3322.05	3318	19	1.13E-03	23.3	5.27E+00
63	4	1667.00	16	23	2.21	3332.98	3318	19	5.35E-04	53.4	
64	0	1730.86	25	33	0.93	3460.90	3456	10	8.18E-04	49.1	
65	0	1765.69	140	36	3.14	3530.66	3522	23	4.67E-03	14.4	
66	0	1888.10	16	14	1.70	3775.90	3770	10	5.36E-04	51.1	
67	0	1910.48	19	18	2.95	3820.74	3814	12	6.50E-04	49.0	
68	0	1945.13	20	17	2.06	3890.17	3882	12	6.71E-04	47.4	
69	0	2007.41	34	8	5.03	4014.97	4008	15	1.12E-03	24.8	

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]G198681005       *
* Acquisition date : 14-DEC-2007 19:08:50 Detector SN#    :                 *
* Detector ID      : GAM21                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 08:20:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 08:20:50.92     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681005           Analyst initials: MJH1            *
* Batch Number     : 708121               Sample Quantity : 1.2357E+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	4.308E+00	6.433E-01	3.326E-01	0.000E+00
RH-101	1.162E-02	1.739E-02	2.356E-02	0.000E+00
CS-137	1.253E-01	3.469E-02	3.297E-02	0.000E+00
EU-155	4.362E-02	4.577E-02	6.107E-02	0.000E+00
TL-208	3.213E-01	4.219E-02	3.015E-02	0.000E+00
BI-212	5.547E-01	2.104E-01	2.301E-01	0.000E+00
PB-212	1.024E+00	7.951E-02	4.162E-02	0.000E+00
BI-214	6.317E-01	9.235E-02	5.793E-02	0.000E+00
PB-214	6.606E-01	7.210E-02	5.577E-02	0.000E+00
RA-223	2.770E-01	1.405E-01	1.338E-01	0.000E+00
AC-228	1.037E+00	1.646E-01	1.212E-01	0.000E+00
PA-234M	2.139E+00	1.790E+00	3.941E+00	0.000E+00
TH-234	1.098E+00	2.142E-01	2.462E-01	0.000E+00
NP-236	3.612E-02	2.455E-02	3.365E-02	0.000E+00
NP-237	5.074E-01	1.022E-01	1.058E-01	0.000E+00
AM-243	1.929E-01	2.460E-02	2.003E-02	0.000E+00
CM-243	3.948E-02	4.142E-02	5.478E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error	MDA (pCi/GRAM)		Ided
CO-60	1.295E-02	2.187E-02	3.800E-02	0.000E+00	NOT IDENT.
SB-125	2.023E-02	4.582E-02	7.897E-02	0.000E+00	NOT IDENT.
PO-209	3.095E+00	3.652E+00	6.529E+00	0.000E+00	NOT IDENT.
BI-211	6.919E-01	5.265E-01	9.620E-01	0.000E+00	NOT IDENT.
PA-233	1.083E-02	2.893E-02	5.038E-02	0.000E+00	NOT IDENT.
U-235	9.755E-02	8.064E-02	1.391E-01	0.000E+00	NOT IDENT.
NP-239	-1.074E-02	9.294E-02	1.616E-01	0.000E+00	NOT IDENT.
AM-241	2.221E-02	2.378E-02	3.713E-02	0.000E+00	NOT IDENT.
AM-246	7.523E-02	6.872E-02	1.241E-01	0.000E+00	NOT IDENT.
CF-249	5.927E-03	1.907E-02	3.284E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 03:31:49.05

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681005.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 14-DEC-2007 19:08:50
Sample ID        : G198681005           Sample quantity  : 1.23570E+02 GRAM
Detector name    : GAM21                Detector geometry: CAN
Elapsed live time: 0 08:20:00.00        Elapsed real time: 0 08:20:50.92  0.2%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708121               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	468	10.66*	7.432E-01	4.308E+00	4.308E+00	15.24
RH-101	198.00	62	73.00*	5.529E+00	1.124E-02	1.162E-02	152.72
CS-137	661.66	239	85.10*	1.642E+00	1.248E-01	1.253E-01	28.26
EU-155	105.31	101	21.20*	8.129E+00	4.266E-02	4.362E-02	107.07
TL-208	277.36	116	6.31	4.079E+00	3.293E-01	3.293E-01	75.73
	510.77	216	22.60	2.159E+00	3.233E-01	3.233E-01	56.70
	583.19	698	84.50*	1.875E+00	3.213E-01	3.213E-01	13.40
	763.13	------	1.81	1.415E+00	------	Line Not Found	------
	860.56	95	12.42	1.251E+00	4.439E-01	4.439E-01	40.96
BI-212	727.33	133	11.80*	1.487E+00	5.547E-01	5.547E-01	38.71
	785.37	------	1.10	1.374E+00	------	Line Not Found	------
	1620.50	------	1.49	6.722E-01	------	Line Not Found	------
PB-212	74.81	1560	10.40	8.644E+00	1.265E+00	1.265E+00	13.01
	77.11	2163	17.50	8.639E+00	1.043E+00	1.043E+00	10.37
	87.30	737	7.81	8.538E+00	8.055E-01	8.055E-01	20.56
	238.63	2863	43.30*	4.708E+00	1.024E+00	1.024E+00	7.92
	300.09	176	3.28	3.773E+00	1.038E+00	1.038E+00	45.95
BI-214	609.31	715	46.10*	1.790E+00	6.316E-01	6.317E-01	14.92
	768.36	------	4.94	1.405E+00	------	Line Not Found	------
	806.17	------	1.22	1.337E+00	------	Line Not Found	------
	934.06	39	3.03	1.150E+00	8.234E-01	8.235E-01	122.49
	1120.29	161	15.10	9.614E-01	8.063E-01	8.064E-01	38.37
	1155.19	------	1.63	9.335E-01	------	Line Not Found	------
	1238.11	76	5.79	8.721E-01	1.099E+00	1.099E+00	51.18
	1280.96	------	1.43	8.442E-01	------	Line Not Found	------
	1377.67	------	4.00	7.867E-01	------	Line Not Found	------
	1401.50	------	1.27	7.738E-01	------	Line Not Found	------
	1407.98	------	2.15	7.704E-01	------	Line Not Found	------
	1509.23	------	2.11	7.203E-01	------	Line Not Found	------
	1729.60	25	2.92	6.303E-01	9.725E-01	9.726E-01	98.42
	1764.49	140	15.40	6.181E-01	1.074E+00	1.074E+00	29.35
PB-214	74.81	1560	6.44	8.644E+00	2.043E+00	2.043E+00	13.01

Sample ID : G198681005 Acquisition date : 14-DEC-2007 19:08:50

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	2163	10.80	8.639E+00	1.690E+00	1.690E+00	10.37
	87.30	737	4.84	8.538E+00	1.300E+00	1.300E+00	20.56
	242.00	627	7.43	4.653E+00	1.321E+00	1.321E+00	23.73
	295.22	687	19.30	3.834E+00	6.771E-01	6.771E-01	15.62
	351.93	1091	37.60*	3.204E+00	6.605E-01	6.606E-01	11.14
RA-223	269.46	217	13.70*	4.178E+00	2.770E-01	2.770E-01	51.75
AC-228	129.07	115	2.42	7.450E+00	4.639E-01	4.639E-01	97.04
	209.25	302	3.89	5.292E+00	1.071E+00	1.071E+00	41.48
	270.25	217	3.46	4.178E+00	1.097E+00	1.097E+00	51.75
	338.32	508	11.27	3.340E+00	9.833E-01	9.833E-01	22.23
	409.46	56	1.92	2.734E+00	7.764E-01	7.764E-01	142.73
	463.00	123	4.40	2.397E+00	8.476E-01	8.476E-01	53.12
	794.95	94	4.25	1.356E+00	1.190E+00	1.190E+00	55.00
	911.20	433	25.80*	1.181E+00	1.037E+00	1.037E+00	16.19
	964.77	63	4.99	1.115E+00	8.214E-01	8.214E-01	83.13
	968.97	261	15.80	1.110E+00	1.086E+00	1.086E+00	19.05
	1588.20	------	3.22	6.855E-01	------	Line Not Found	------
PA-234M	1001.03	27	0.84*	1.075E+00	2.139E+00	2.139E+00	85.40
TH-234	63.29	321	4.80	8.523E+00	5.726E-01	5.726E-01	39.48
	92.58	687	5.41*	8.433E+00	1.098E+00	1.098E+00	19.91
NP-236	98.44	156	38.00*	8.275E+00	3.612E-02	3.612E-02	69.34
NP-237	86.48	737	12.40*	8.538E+00	5.074E-01	5.074E-01	20.56
AM-243	74.66	1560	68.20*	8.644E+00	1.929E-01	1.929E-01	13.01
CM-243	103.76	101	23.00*	8.129E+00	3.933E-02	3.948E-02	107.07

Flag: "*" = Keyline

Sample ID : G198681005 Acquisition date : 14-DEC-2007 19:08:50

Total number of lines in spectrum 69
Number of unidentified lines 32
Number of lines tentatively identified by NID 37 53.62%

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	4.308E+00	4.308E+00	0.656E+00	15.24	
RH-101	1.04E+08S	1.03	1.124E-02	1.162E-02	1.775E-02	152.72	
CS-137	9.47E+08S	1.00	1.248E-01	1.253E-01	0.354E-01	28.26	
EU-155	1.57E+08S	1.02	4.266E-02	4.362E-02	4.670E-02	107.07	
TL-208	4.43E+17S	1.00	3.213E-01	3.213E-01	0.430E-01	13.40	
BI-212	4.43E+17S	1.00	5.547E-01	5.547E-01	2.147E-01	38.71	
PB-212	4.43E+17S	1.00	1.024E+00	1.024E+00	0.081E+00	7.92	
BI-214	5.05E+10S	1.00	6.316E-01	6.317E-01	0.942E-01	14.92	
PB-214	5.05E+10S	1.00	6.605E-01	6.606E-01	0.736E-01	11.14	
RA-223	1.04E+12S	1.00	2.770E-01	2.770E-01	1.433E-01	51.75	
AC-228	4.43E+17S	1.00	1.037E+00	1.037E+00	0.168E+00	16.19	
PA-234M	1.41E+17S	1.00	2.139E+00	2.139E+00	1.827E+00	85.40	
TH-234	1.41E+17S	1.00	1.098E+00	1.098E+00	0.219E+00	19.91	
NP-236	4.89E+12S	1.00	3.612E-02	3.612E-02	2.505E-02	69.34	
NP-237	6.75E+13S	1.00	5.074E-01	5.074E-01	1.043E-01	20.56	
AM-243	2.33E+11S	1.00	1.929E-01	1.929E-01	0.251E-01	13.01	
CM-243	8.99E+08S	1.00	3.933E-02	3.948E-02	4.227E-02	107.07	
			---	---			
	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 : G198681005 Acquisition date : 14-DEC-2007 19:08:50

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.48	168	753	0.97	92.07	89	8	5.59E-03	58.6	7.65E+00	
0	67.88	129	1139	0.70	134.80	131	9	4.30E-03	95.6	8.60E+00	
2	84.22	311	1041	1.36	167.44	163	29	1.04E-02	36.4	8.58E+00	
2	89.93	447	902	1.30	178.85	163	29	1.49E-02	25.9	8.49E+00	
0	153.84	60	692	1.30	306.49	305	7	1.99E-03	****	6.70E+00	
0	163.18	86	651	1.07	325.14	322	8	2.87E-03	****	6.44E+00	
0	185.85	529	897	1.57	370.43	365	12	1.76E-02	26.3	5.84E+00	
0	328.23	114	380	1.28	654.86	650	10	3.81E-03	66.3	3.44E+00	
0	546.62	36	79	1.41	1091.31	1088	7	1.19E-03	90.6	2.01E+00	
0	558.58	28	80	1.49	1115.20	1112	7	9.18E-04	****	1.96E+00	
0	568.24	201	291	2.63	1134.52	1127	17	6.69E-03	41.5	1.93E+00	
0	651.77	43	143	3.43	1301.51	1290	15	1.44E-03	****	1.67E+00	
0	736.64	53	119	2.71	1471.19	1466	13	1.77E-03	88.6	1.47E+00	
0	771.82	106	295	9.40	1541.52	1528	30	3.54E-03	****	1.40E+00	
4	835.44	29	159	2.82	1668.75	1653	36	9.79E-04	****	1.29E+00	
4	841.67	38	152	2.82	1681.21	1653	36	1.27E-03	****	1.28E+00	
0	993.78	50	290	16.94	1985.46	1951	45	1.68E-03	****	1.08E+00	
0	1033.63	40	70	2.41	2065.17	2055	15	1.34E-03	96.6	1.04E+00	
0	1310.69	31	57	1.82	2619.58	2613	17	1.04E-03	****	8.26E-01	
0	1328.07	32	51	4.60	2654.37	2648	16	1.06E-03	****	8.15E-01	
0	1422.38	17	24	4.35	2843.17	2838	12	5.53E-04	****	7.63E-01	
0	1555.71	38	66	8.67	3110.12	3095	24	1.27E-03	****	6.99E-01	
0	1561.79	7	20	1.59	3122.28	3118	8	2.24E-04	****	6.97E-01	
0	1637.37	41	55	11.53	3273.63	3259	28	1.38E-03	****	6.65E-01	
0	1648.66	16	34	5.74	3296.26	3287	19	5.35E-04	****	6.61E-01	
0	1654.42	11	9	1.14	3307.78	3305	7	3.64E-04	****	6.59E-01	
4	1661.54	34	12	3.27	3322.05	3318	19	1.13E-03	46.6	6.56E-01	
4	1667.00	16	23	2.21	3332.98	3318	19	5.35E-04	****	6.54E-01	
0	1888.10	16	14	1.70	3775.90	3770	10	5.36E-04	****	5.78E-01	
0	1910.48	19	18	2.95	3820.74	3814	12	6.50E-04	97.9	5.72E-01	
0	1945.13	20	17	2.06	3890.17	3882	12	6.71E-04	94.8	5.61E-01	
0	2007.41	34	8	5.03	4014.97	4008	15	1.12E-03	49.6	5.44E-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]G198681005            *
* Acquisition date : 14-DEC-2007 19:08:50 Detector SN#    :                 *
* Detector ID      : GAM21                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 08:20:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 08:20:50.92     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681005           Analyst initials: MJH1            *
* Batch Number     : 708121               Sample Quantity : 1.2357E+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	4.308E+00	6.433E-01	1.664E-01	6.433E-01
RH-101	1.162E-02	1.739E-02	1.179E-02	1.739E-02
CS-137	1.253E-01	3.469E-02	1.650E-02	3.469E-02
EU-155	4.362E-02	4.577E-02	3.055E-02	4.577E-02
TL-208	3.213E-01	4.219E-02	1.509E-02	4.219E-02
BI-212	5.547E-01	2.104E-01	1.151E-01	2.104E-01
PB-212	1.024E+00	7.951E-02	2.082E-02	7.951E-02
BI-214	6.317E-01	9.235E-02	2.898E-02	9.235E-02
PB-214	6.606E-01	7.210E-02	2.790E-02	7.210E-02
RA-223	2.770E-01	1.405E-01	6.694E-02	1.405E-01
AC-228	1.037E+00	1.646E-01	6.061E-02	1.646E-01
PA-234M	2.139E+00	1.790E+00	1.972E+00	1.790E+00
TH-234	1.098E+00	2.142E-01	1.232E-01	2.142E-01
NP-236	3.612E-02	2.455E-02	1.683E-02	2.455E-02
NP-237	5.074E-01	1.022E-01	5.295E-02	1.022E-01
AM-243	1.929E-01	2.460E-02	1.002E-02	2.460E-02
CM-243	3.948E-02	4.142E-02	2.741E-02	4.142E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	1.295E-02	2.187E-02	1.901E-02	2.187E-02	NOT IDENT.
SB-125	2.023E-02	4.582E-02	3.951E-02	4.582E-02	NOT IDENT.
PO-209	3.095E+00	3.652E+00	3.266E+00	3.652E+00	NOT IDENT.
BI-211	6.919E-01	5.265E-01	4.813E-01	5.265E-01	NOT IDENT.
PA-233	1.083E-02	2.893E-02	2.520E-02	2.893E-02	NOT IDENT.
U-235	9.755E-02	8.064E-02	6.957E-02	8.064E-02	NOT IDENT.
NP-239	-1.074E-02	9.294E-02	8.087E-02	9.294E-02	NOT IDENT.
AM-241	2.221E-02	2.378E-02	1.857E-02	2.378E-02	NOT IDENT.
AM-246	7.523E-02	6.872E-02	6.207E-02	6.872E-02	NOT IDENT.
CF-249	5.927E-03	1.907E-02	1.643E-02	1.907E-02	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
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ENERGY	MDA COUNTS
59.54	913.5787
63.29	973.9396
74.66	1124.2864
74.81	1124.4667
74.81	1124.4667
77.11	1127.2280
77.11	1127.2280
86.48	1018.9708
87.30	1019.7961
87.30	1019.7961
92.58	1025.0123
98.44	917.4512
103.76	857.2492
105.31	864.1759
129.07	898.5679
143.76	830.7377
198.00	703.5862
209.25	660.0054
228.18	611.7434
238.63	598.2369
242.00	599.3088
269.46	493.1872
270.25	493.3756
277.36	494.4342
295.22	394.7228
300.09	413.4515
312.17	395.1970
338.32	425.4911
351.93	379.1815
387.59	316.0337
409.46	314.6353
427.87	272.7149
463.00	243.9846
510.77	221.5728
583.19	194.2690
609.31	194.6800
661.66	179.7591
727.33	139.4662
763.13	137.6329
768.36	140.9213
785.37	135.7247
794.95	134.2242
806.17	118.3616
831.80	104.6779
860.56	114.0796
896.60	92.5937
911.20	117.3389
934.06	89.4263
964.77	97.1211
968.97	97.2070
1001.03	109.3527
1078.86	73.9030
1120.29	95.9277
1155.19	86.2866
1173.23	85.5431
1238.11	100.1094
1280.96	61.9889
1332.51	59.9598
1377.67	69.4116
1401.50	76.1135
1407.98	67.6091
1460.80	60.6029
1509.23	50.4687
1588.20	76.6099
1620.50	52.2646
1729.60	41.5003
1764.49	39.0329

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198681005

Total Uranium Activity	4.5138E-02	ug/g
Total Uranium Counting Unc.	3.7311E-02	ug/g
Total Uranium Tpu	3.7311E-08	ug/g
Total Uranium Mda	3.2189E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 03:31:06.37

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681006.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 14-DEC-2007 19:09:12
Sample ID        : G198681006           Sample quantity  : 1.07570E+02 GRAM
Detector name    : GAM22                Detector geometry: CAN
Elapsed live time: 0 08:20:00.00        Elapsed real time: 0 08:20:04.65  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708121               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	53.67*	53	840	0.89	106.79	103	7	1.78E-03	105.0	
2	0	63.05*	57	1204	1.09	125.54	122	8	1.89E-03	126.4	
3	5	73.46*	61	1100	1.75	146.35	143	16	2.03E-03	100.9	3.50E+00
4	5	74.69*	981	1285	1.22	148.81	143	16	3.27E-02	7.4	
5	5	76.94*	1704	1291	1.23	153.31	143	16	5.68E-02	4.6	
6	3	84.20*	234	1449	1.57	167.83	161	32	7.82E-03	32.0	3.29E+00
7	3	87.13	743	1387	1.45	173.68	161	32	2.48E-02	9.8	
8	3	89.72	466	1179	1.29	178.86	161	32	1.55E-02	14.0	
9	3	92.49*	516	1109	1.29	184.40	161	32	1.72E-02	15.6	
10	2	98.55*	78	867	1.47	196.51	193	10	2.59E-03	76.1	1.32E+00
11	2	100.05	108	831	1.21	199.51	193	10	3.60E-03	46.7	
12	0	105.03	121	995	1.31	209.47	206	8	4.03E-03	46.1	
13	0	129.34	134	1424	1.07	258.07	252	10	4.46E-03	53.5	
14	0	143.63*	240	1553	1.94	286.62	281	13	7.99E-03	36.7	
15	0	185.73*	590	1115	1.47	370.79	366	10	1.97E-02	14.1	
16	0	208.59	329	1528	1.32	416.48	408	14	1.10E-02	25.8	
17	4	238.42*	3906	708	1.27	476.12	467	20	1.30E-01	2.2	3.57E+00
18	4	241.39	939	731	1.82	482.06	467	20	3.13E-02	6.6	
19	0	269.77	396	992	1.95	538.80	532	14	1.32E-02	17.6	
20	0	277.74	104	823	1.28	554.74	548	11	3.46E-03	54.6	
21	0	294.88*	1359	750	1.34	589.01	582	12	4.53E-02	5.1	
22	0	299.96	245	679	1.54	599.16	595	10	8.17E-03	20.9	
23	0	327.98	237	708	1.79	655.17	650	12	7.91E-03	23.3	
24	0	338.05*	815	806	1.45	675.31	669	14	2.72E-02	8.7	
25	0	351.62*	2256	643	1.49	702.45	696	12	7.52E-02	3.3	
26	0	402.06	56	470	2.37	803.30	796	11	1.86E-03	76.7	
27	0	409.19	104	355	0.90	817.56	814	8	3.48E-03	32.8	
28	0	451.89	40	424	3.04	902.92	898	11	1.32E-03	102.1	
29	0	462.60	283	529	1.58	924.34	917	14	9.43E-03	18.2	
30	0	510.63*	382	556	2.50	1020.38	1013	17	1.27E-02	21.0	
31	0	560.14	19	358	2.35	1119.39	1118	12	6.49E-04	195.0	
32	0	569.89*	82	454	2.35	1138.89	1133	17	2.74E-03	64.0	
33	0	582.76*	1232	536	1.66	1164.61	1156	18	4.11E-02	5.6	
34	0	608.92*	1678	444	1.75	1216.94	1210	14	5.59E-02	3.9	
35	0	661.33	565	351	1.60	1321.74	1315	12	1.88E-02	7.9	
36	0	691.63	14	259	1.35	1382.34	1378	10	4.62E-04	218.6	
37	0	712.06	32	404	1.01	1423.20	1412	15	1.08E-03	136.2	
38	0	718.06	35	191	2.72	1435.18	1432	9	1.16E-03	75.1	

Sample ID : G198681006 Acquisition date : 14-DEC-2007 19:09:12

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	726.85	229	233	1.77	1452.77	1448	9	7.63E-03	13.7	
40	0	754.34	18	236	0.87	1507.74	1506	11	6.14E-04	165.3	
41	0	767.47	155	338	1.81	1534.00	1526	15	5.15E-03	27.1	
42	0	773.15	51	261	0.60	1545.37	1540	13	1.71E-03	66.4	
43	0	784.74	126	296	2.48	1568.55	1560	17	4.20E-03	32.6	
44	0	794.52	215	270	1.69	1588.10	1579	18	7.17E-03	19.2	
45	0	841.00	33	307	1.74	1681.05	1672	13	1.11E-03	110.4	
46	0	860.10*	104	220	1.54	1719.25	1714	12	3.46E-03	38.5	
47	0	910.66*	846	218	2.05	1820.38	1813	15	2.82E-02	6.0	
48	0	933.42	92	140	1.32	1865.91	1861	10	3.06E-03	26.4	
49	0	946.78	27	172	4.13	1892.63	1886	14	8.99E-04	104.8	
50	0	953.01	17	141	2.36	1905.09	1900	11	5.67E-04	131.3	
51	1	964.11	218	223	2.53	1927.29	1919	25	7.26E-03	16.6	4.51E+00
52	1	968.51*	652	205	2.54	1936.10	1919	25	2.17E-02	7.0	
53	0	1000.30*	75	173	0.94	1999.67	1993	13	2.51E-03	52.9	
54	0	1056.99	16	141	1.20	2113.08	2102	13	5.20E-04	159.9	
55	0	1119.52*	356	259	2.09	2238.16	2228	22	1.19E-02	13.6	
56	0	1154.37	28	172	1.52	2307.87	2302	13	9.34E-04	98.3	
57	0	1237.94*	169	181	2.93	2475.06	2466	19	5.63E-03	22.2	
58	0	1245.37	49	105	1.14	2489.91	2485	13	1.64E-03	45.1	
59	3	1276.40	26	30	1.85	2552.01	2550	21	8.70E-04	28.3	2.82E+00
60	3	1281.24	52	140	3.39	2561.68	2550	21	1.73E-03	57.3	
61	0	1317.04	64	144	9.81	2633.31	2621	23	2.13E-03	50.2	
62	0	1377.35	86	108	1.98	2753.97	2748	12	2.86E-03	26.7	
63	0	1407.93	81	133	3.55	2815.14	2801	21	2.69E-03	37.8	
64	0	1414.81	73	60	2.97	2828.91	2822	16	2.42E-03	26.6	
65	0	1459.92*	600	166	2.92	2919.18	2909	19	2.00E-02	7.1	
66	0	1487.25	34	60	0.64	2973.85	2966	14	1.12E-03	49.4	
67	0	1509.22	60	84	1.97	3017.82	3012	12	2.00E-03	33.2	
68	0	1543.94	10	95	5.78	3087.29	3073	17	3.48E-04	214.9	
69	0	1644.15	26	34	1.54	3287.80	3281	15	8.56E-04	53.2	
70	0	1729.49	93	53	3.03	3458.59	3452	16	3.11E-03	20.6	
71	0	1763.71	401	63	2.71	3527.07	3515	23	1.34E-02	7.2	
72	0	1807.59	10	56	4.29	3614.89	3603	16	3.23E-04	175.6	
73	0	1860.51	15	35	2.34	3720.81	3713	11	4.84E-04	83.9	

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]G198681006       *
* Acquisition date : 14-DEC-2007 19:09:12 Detector SN#    :                 *
* Detector ID      : GAM22                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 08:20:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 08:20:04.65     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681006           Analyst initials: MJH1            *
* Batch Number     : 708121               Sample Quantity : 1.0757E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 22-FEB-2007 17:43:25 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	2.361E+00	3.568E-01	2.015E-01	0.000E+00
CS-137	1.454E-01	2.565E-02	2.376E-02	0.000E+00
EU-155	5.349E-02	4.845E-02	6.704E-02	0.000E+00
TL-208	2.894E-01	3.874E-02	2.019E-02	0.000E+00
BI-212	4.567E-01	1.295E-01	1.699E-01	0.000E+00
PB-212	1.038E+00	7.560E-02	3.491E-02	0.000E+00
BI-214	7.464E-01	8.197E-02	4.061E-02	0.000E+00
PB-214	8.573E-01	7.296E-02	4.161E-02	0.000E+00
RA-223	3.550E-01	1.243E-01	1.091E-01	0.000E+00
AC-228	9.329E-01	1.418E-01	7.193E-02	0.000E+00
PA-234M	2.770E+00	2.881E+00	2.263E+00	0.000E+00
TH-234	9.232E-01	2.924E-01	2.823E-01	0.000E+00
U-235	2.024E-01	1.459E-01	1.286E-01	0.000E+00
NP-236	1.916E-02	2.860E-02	3.571E-02	0.000E+00
NP-237	6.056E-01	1.270E-01	1.286E-01	0.000E+00
AM-243	1.729E-01	2.847E-02	2.882E-02	0.000E+00
CM-243	4.841E-02	4.385E-02	5.784E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error	MDA (pCi/GRAM)		Ided
CO-60	5.028E-03	1.335E-02	2.243E-02	0.000E+00	NOT IDENT.
RH-101	-5.159E-03	1.688E-02	2.313E-02	0.000E+00	NOT IDENT.
SB-125	-3.221E-03	3.304E-02	5.447E-02	0.000E+00	NOT IDENT.
PO-209	1.209E+00	2.437E+00	4.200E+00	0.000E+00	NOT IDENT.
BI-211	1.496E-01	3.965E-01	6.104E-01	0.000E+00	NOT IDENT.
PA-233	1.040E-02	2.337E-02	4.011E-02	0.000E+00	NOT IDENT.
NP-239	-1.717E-02	1.036E-01	1.454E-01	0.000E+00	NOT IDENT.
AM-241	2.453E-02	5.318E-02	7.954E-02	0.000E+00	NOT IDENT.
AM-246	6.533E-03	4.324E-02	7.233E-02	0.000E+00	NOT IDENT.
CF-249	7.303E-03	1.485E-02	2.513E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 03:31:07.44

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681006.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 14-DEC-2007 19:09:12
Sample ID        : G198681006           Sample quantity  : 1.07570E+02 GRAM
Detector name    : GAM22                Detector geometry: CAN
Elapsed live time: 0 08:20:00.00        Elapsed real time: 0 08:20:04.65  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708121               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	600	10.66*	1.997E+00	2.361E+00	2.361E+00	15.42
CS-137	661.66	565	85.10*	3.836E+00	1.449E-01	1.454E-01	18.00
EU-155	105.31	121	21.20*	9.138E+00	5.232E-02	5.349E-02	92.42
TL-208	277.36	104	6.31	6.704E+00	2.054E-01	2.054E-01	109.30
	510.77	382	22.60	4.633E+00	3.056E-01	3.056E-01	42.63
	583.19	1232	84.50*	4.220E+00	2.894E-01	2.894E-01	13.66
	763.13	------	1.81	3.420E+00	------	Line Not Found	------
	860.56	104	12.42	3.093E+00	2.261E-01	2.261E-01	77.72
BI-212	727.33	229	11.80*	3.559E+00	4.567E-01	4.567E-01	28.95
	785.37	126	1.10	3.342E+00	2.872E+00	2.872E+00	65.83
	1620.50	------	1.49	1.873E+00	------	Line Not Found	------
PB-212	74.81	981	10.40	6.965E+00	1.134E+00	1.134E+00	16.80
	77.11	1704	17.50	7.260E+00	1.124E+00	1.124E+00	12.13
	87.30	743	7.81	8.286E+00	9.615E-01	9.615E-01	21.40
	238.63	3906	43.30*	7.279E+00	1.038E+00	1.038E+00	7.43
	300.09	245	3.28	6.422E+00	9.742E-01	9.742E-01	42.28
BI-214	609.31	1678	46.10*	4.085E+00	7.464E-01	7.464E-01	11.21
	768.36	155	4.94	3.404E+00	7.694E-01	7.694E-01	55.08
	806.17	------	1.22	3.268E+00	------	Line Not Found	------
	934.06	92	3.03	2.882E+00	8.808E-01	8.809E-01	53.70
	1120.29	356	15.10	2.462E+00	8.019E-01	8.020E-01	28.07
	1155.19	28	1.63	2.398E+00	6.005E-01	6.005E-01	196.81
	1238.11	169	5.79	2.262E+00	1.080E+00	1.080E+00	44.82
	1280.96	52	1.43	2.200E+00	1.383E+00	1.383E+00	114.84
	1377.67	86	4.00	2.081E+00	8.638E-01	8.639E-01	53.79
	1401.50	------	1.27	2.055E+00	------	Line Not Found	------
	1407.98	81	2.15	2.048E+00	1.534E+00	1.534E+00	75.89
	1509.23	60	2.11	1.953E+00	1.219E+00	1.219E+00	66.59
	1729.60	93	2.92	1.815E+00	1.474E+00	1.474E+00	41.64
	1764.49	401	15.40	1.801E+00	1.211E+00	1.211E+00	15.42
PB-214	74.81	981	6.44	6.965E+00	1.831E+00	1.831E+00	16.80
	77.11	1704	10.80	7.260E+00	1.821E+00	1.821E+00	12.13

Sample ID : G198681006 Acquisition date : 14-DEC-2007 19:09:12

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	743	4.84	8.286E+00	1.551E+00	1.552E+00	21.40
	242.00	939	7.43	7.231E+00	1.464E+00	1.464E+00	14.44
	295.22	1359	19.30	6.484E+00	9.098E-01	9.099E-01	11.89
	351.93	2256	37.60*	5.862E+00	8.572E-01	8.573E-01	8.68
RA-223	269.46	396	13.70*	6.812E+00	3.550E-01	3.550E-01	35.73
AC-228	129.07	134	2.42	9.236E+00	5.008E-01	5.008E-01	107.20
	209.25	329	3.89	7.793E+00	9.094E-01	9.094E-01	51.98
	270.25	396	3.46	6.812E+00	1.406E+00	1.406E+00	35.73
	338.32	815	11.27	5.998E+00	1.010E+00	1.010E+00	18.26
	409.46	104	1.92	5.350E+00	8.504E-01	8.504E-01	65.75
	463.00	283	4.40	4.948E+00	1.089E+00	1.089E+00	36.99
	794.95	215	4.25	3.308E+00	1.281E+00	1.281E+00	39.52
	911.20	846	25.80*	2.945E+00	9.329E-01	9.329E-01	15.51
	964.77	218	4.99	2.802E+00	1.304E+00	1.304E+00	34.49
	968.97	652	15.80	2.791E+00	1.238E+00	1.238E+00	16.75
	1588.20	------	3.22	1.894E+00	------ Line Not Found		------
PA-234M	1001.03	75	0.84*	2.714E+00	2.770E+00	2.770E+00	106.14
TH-234	63.29	57	4.80	5.033E+00	1.961E-01	1.961E-01	252.83
	92.58	516	5.41*	8.649E+00	9.232E-01	9.232E-01	32.32
U-235	143.76	240	10.96*	9.046E+00	2.024E-01	2.024E-01	73.56
NP-236	98.44	78	38.00*	8.940E+00	1.916E-02	1.916E-02	152.32
NP-237	86.48	743	12.40*	8.286E+00	6.056E-01	6.056E-01	21.40
AM-243	74.66	981	68.20*	6.965E+00	1.729E-01	1.729E-01	16.80
CM-243	103.76	121	23.00*	9.138E+00	4.822E-02	4.841E-02	92.42

Flag: "*" = Keyline

Sample ID : G198681006 Acquisition date : 14-DEC-2007 19:09:12

Total number of lines in spectrum 73
Number of unidentified lines 29
Number of lines tentatively identified by NID 44 60.27%

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	2.361E+00	2.361E+00	0.364E+00	15.42	
CS-137	9.47E+08S	1.00	1.449E-01	1.454E-01	0.262E-01	18.00	
EU-155	1.57E+08S	1.02	5.232E-02	5.349E-02	4.943E-02	92.42	
TL-208	4.43E+17S	1.00	2.894E-01	2.894E-01	0.395E-01	13.66	
BI-212	4.43E+17S	1.00	4.567E-01	4.567E-01	1.322E-01	28.95	
PB-212	4.43E+17S	1.00	1.038E+00	1.038E+00	0.077E+00	7.43	
BI-214	5.05E+10S	1.00	7.464E-01	7.464E-01	0.836E-01	11.21	
PB-214	5.05E+10S	1.00	8.572E-01	8.573E-01	0.744E-01	8.68	
RA-223	1.04E+12S	1.00	3.550E-01	3.550E-01	1.269E-01	35.73	
AC-228	4.43E+17S	1.00	9.329E-01	9.329E-01	1.447E-01	15.51	
PA-234M	1.41E+17S	1.00	2.770E+00	2.770E+00	2.940E+00	106.14	
TH-234	1.41E+17S	1.00	9.232E-01	9.232E-01	2.983E-01	32.32	
U-235	2.22E+16S	1.00	2.024E-01	2.024E-01	1.489E-01	73.56	
NP-236	4.89E+12S	1.00	1.916E-02	1.916E-02	2.918E-02	152.32	
NP-237	6.75E+13S	1.00	6.056E-01	6.056E-01	1.296E-01	21.40	
AM-243	2.33E+11S	1.00	1.729E-01	1.729E-01	0.291E-01	16.80	
CM-243	8.99E+08S	1.00	4.822E-02	4.841E-02	4.474E-02	92.42	
			---	---			
	Total Activity :		1.198E+01	1.198E+01			

Grand Total Activity : 1.198E+01 1.198E+01

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

Sample ID : G198681006 Acquisition date : 14-DEC-2007 19:09:12

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	53.67	53	840	0.89	106.79	103	7	1.78E-03	****	3.11E+00	
5	73.46	61	1100	1.75	146.35	143	16	2.03E-03	****	6.79E+00	
3	84.20	234	1449	1.57	167.83	161	32	7.82E-03	64.1	8.04E+00	
3	89.72	466	1179	1.29	178.86	161	32	1.55E-02	28.0	8.47E+00	
2	100.05	108	831	1.21	199.51	193	10	3.60E-03	93.3	9.00E+00	
0	185.73	590	1115	1.47	370.79	366	10	1.97E-02	28.2	8.23E+00	
0	327.98	237	708	1.79	655.17	650	12	7.91E-03	46.6	6.10E+00	
0	402.06	56	470	2.37	803.30	796	11	1.86E-03	****	5.41E+00	
0	451.89	40	424	3.04	902.92	898	11	1.32E-03	****	5.02E+00	
0	560.14	19	358	2.35	1119.39	1118	12	6.49E-04	****	4.34E+00	
0	569.89	82	454	2.35	1138.89	1133	17	2.74E-03	****	4.29E+00	
0	691.63	14	259	1.35	1382.34	1378	10	4.62E-04	****	3.70E+00	
0	712.06	32	404	1.01	1423.20	1412	15	1.08E-03	****	3.62E+00	
0	718.06	35	191	2.72	1435.18	1432	9	1.16E-03	****	3.59E+00	
0	754.34	18	236	0.87	1507.74	1506	11	6.14E-04	****	3.45E+00	
0	773.15	51	261	0.60	1545.37	1540	13	1.71E-03	****	3.38E+00	
0	841.00	33	307	1.74	1681.05	1672	13	1.11E-03	****	3.15E+00	
0	946.78	27	172	4.13	1892.63	1886	14	8.99E-04	****	2.85E+00	
0	953.01	17	141	2.36	1905.09	1900	11	5.67E-04	****	2.83E+00	
0	1056.99	16	141	1.20	2113.08	2102	13	5.20E-04	****	2.59E+00	
0	1245.37	49	105	1.14	2489.91	2485	13	1.64E-03	90.2	2.25E+00	
3	1276.40	26	30	1.85	2552.01	2550	21	8.70E-04	56.6	2.21E+00	
0	1317.04	64	144	9.81	2633.31	2621	23	2.13E-03	****	2.15E+00	
0	1414.81	73	60	2.97	2828.91	2822	16	2.42E-03	53.2	2.04E+00	
0	1487.25	34	60	0.64	2973.85	2966	14	1.12E-03	98.8	1.97E+00	
0	1543.94	10	95	5.78	3087.29	3073	17	3.48E-04	****	1.93E+00	
0	1644.15	26	34	1.54	3287.80	3281	15	8.56E-04	****	1.86E+00	
0	1807.59	10	56	4.29	3614.89	3603	16	3.23E-04	****	1.79E+00	
0	1860.51	15	35	2.34	3720.81	3713	11	4.84E-04	****	1.77E+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]G198681006            *
* Acquisition date : 14-DEC-2007 19:09:12 Detector SN#    :                 *
* Detector ID      : GAM22                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 08:20:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 08:20:04.65     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681006           Analyst initials: MJH1            *
* Batch Number     : 708121               Sample Quantity : 1.0757E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 22-FEB-2007 17:43:25 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	2.361E+00	3.568E-01	1.008E-01	3.568E-01
CS-137	1.454E-01	2.565E-02	1.189E-02	2.565E-02
EU-155	5.349E-02	4.845E-02	3.354E-02	4.845E-02
TL-208	2.894E-01	3.874E-02	1.010E-02	3.874E-02
BI-212	4.567E-01	1.295E-01	8.500E-02	1.295E-01
PB-212	1.038E+00	7.560E-02	1.747E-02	7.560E-02
BI-214	7.464E-01	8.197E-02	2.032E-02	8.197E-02
PB-214	8.573E-01	7.296E-02	2.082E-02	7.296E-02
RA-223	3.550E-01	1.243E-01	5.460E-02	1.243E-01
AC-228	9.329E-01	1.418E-01	3.598E-02	1.418E-01
PA-234M	2.770E+00	2.881E+00	1.132E+00	2.881E+00
TH-234	9.232E-01	2.924E-01	1.412E-01	2.924E-01
U-235	2.024E-01	1.459E-01	6.436E-02	1.459E-01
NP-236	1.916E-02	2.860E-02	1.786E-02	2.860E-02
NP-237	6.056E-01	1.270E-01	6.434E-02	1.270E-01
AM-243	1.729E-01	2.847E-02	1.442E-02	2.847E-02
CM-243	4.841E-02	4.385E-02	2.894E-02	4.385E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	5.028E-03	1.335E-02	1.122E-02	1.335E-02	NOT IDENT.
RH-101	-5.159E-03	1.688E-02	1.157E-02	1.688E-02	NOT IDENT.
SB-125	-3.221E-03	3.304E-02	2.725E-02	3.304E-02	NOT IDENT.
PO-209	1.209E+00	2.437E+00	2.101E+00	2.437E+00	NOT IDENT.
BI-211	1.496E-01	3.965E-01	3.054E-01	3.965E-01	NOT IDENT.
PA-233	1.040E-02	2.337E-02	2.007E-02	2.337E-02	NOT IDENT.
NP-239	-1.717E-02	1.036E-01	7.274E-02	1.036E-01	NOT IDENT.
AM-241	2.453E-02	5.318E-02	3.979E-02	5.318E-02	NOT IDENT.
AM-246	6.533E-03	4.324E-02	3.619E-02	4.324E-02	NOT IDENT.
CF-249	7.303E-03	1.485E-02	1.257E-02	1.485E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	937.7009
63.29	1136.8464
74.66	1205.3175
74.81	1205.7805
74.81	1205.7805
77.11	1212.8591
77.11	1212.8591
86.48	1112.1383
87.30	1114.2518
87.30	1114.2518
92.58	1127.6438
98.44	949.6887
103.76	941.8027
105.31	1044.8105
129.07	1049.8583
143.76	1055.2306
198.00	1007.2873
209.25	929.4872
228.18	888.8839
238.63	789.7549
242.00	703.5071
269.46	679.1085
270.25	679.6521
277.36	640.7168
295.22	677.2474
300.09	622.8400
312.17	589.0519
338.32	597.6560
351.93	551.3226
387.59	520.6271
409.46	518.6563
427.87	438.4546
463.00	418.5888
510.77	400.5946
583.19	341.6951
609.31	385.8553
661.66	394.5265
727.33	336.7400
763.13	318.7805
768.36	255.6055
785.37	244.6064
794.95	232.6772
806.17	271.6562
831.80	253.7547
860.56	242.7857
896.60	209.6592
911.20	198.0088
934.06	167.7588
964.77	208.1079
968.97	178.0465
1001.03	176.5743
1078.86	168.1870
1120.29	160.0425
1155.19	170.1983
1173.23	165.8597
1238.11	211.0801
1280.96	150.7239
1332.51	119.9888
1377.67	153.7707
1401.50	105.1302
1407.98	55.2856
1460.80	122.7490
1509.23	110.3871
1588.20	136.2297
1620.50	105.0193
1729.60	71.0266
1764.49	83.0116

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198681006

Total Uranium Activity	9.3649E-02	ug/g
Total Uranium Counting Unc.	6.7510E-02	ug/g
Total Uranium Tpu	6.7510E-08	ug/g
Total Uranium Mda	2.9778E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 10:58:18.43

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681007.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 14-DEC-2007 19:09:36
Sample ID        : G198681007           Sample quantity  : 1.23370E+02 GRAM
Detector name    : GAM23                Detector geometry: CAN
Elapsed live time: 0 08:20:00.00        Elapsed real time: 0 08:20:18.13  0.1%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708121               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.49*	4	762	0.71	92.92	90	7	1.44E-04	*****	
2	0	63.23*	59	793	0.88	126.41	124	6	1.96E-03	92.2	
3	5	73.01	132	416	1.24	145.98	144	14	4.40E-03	21.7	4.29E+00
4	5	74.95	921	838	1.02	149.85	144	14	3.07E-02	6.0	
5	5	77.14*	1272	846	0.93	154.23	144	14	4.24E-02	5.1	
6	5	84.17*	131	1043	1.09	168.30	164	28	4.38E-03	45.7	1.83E+00
7	5	87.27	610	866	1.07	174.49	164	28	2.03E-02	8.5	
8	5	89.99	363	832	0.92	179.95	164	28	1.21E-02	13.7	
9	5	92.92*	497	933	1.24	185.80	164	28	1.66E-02	13.4	
10	1	98.05	56	469	0.95	196.06	194	9	1.85E-03	56.6	4.81E-01
11	1	99.61	89	706	0.95	199.17	194	9	2.96E-03	49.0	
12	0	105.66	113	810	1.18	211.28	208	7	3.76E-03	42.9	
13	0	109.00	87	856	1.54	217.97	215	7	2.89E-03	56.8	
14	0	129.01	139	717	1.00	257.98	255	6	4.64E-03	31.5	
15	0	143.92*	4	707	1.50	287.81	285	6	1.18E-04	*****	
16	0	154.08	61	710	0.75	308.14	306	6	2.03E-03	70.4	
17	0	185.81*	582	1023	1.07	371.60	366	10	1.94E-02	12.4	
18	0	198.73*	61	699	1.53	397.45	395	7	2.04E-03	86.0	
19	0	209.60	291	984	1.01	419.20	415	10	9.72E-03	21.0	
20	5	238.66*	3127	544	0.99	477.32	473	18	1.04E-01	2.3	3.78E+00
21	5	241.66	823	741	1.61	483.32	473	18	2.74E-02	7.6	
22	0	258.74	46	486	1.60	517.49	514	7	1.55E-03	80.1	
23	0	269.83	318	922	1.22	539.68	533	14	1.06E-02	21.0	
24	0	277.55	202	683	1.29	555.12	550	11	6.74E-03	26.2	
25	0	295.24*	1012	600	1.14	590.51	585	11	3.37E-02	6.3	
26	0	299.82	155	515	0.99	599.67	597	8	5.15E-03	26.5	
27	0	328.05	261	555	1.21	656.13	651	11	8.71E-03	18.6	
28	0	338.30	588	520	1.19	676.63	672	9	1.96E-02	8.1	
29	0	351.91*	1761	602	1.23	703.88	698	12	5.87E-02	3.9	
30	0	389.08	57	351	2.32	778.23	775	8	1.91E-03	58.2	
31	0	409.10	97	477	1.35	818.27	814	12	3.25E-03	45.7	
32	0	438.97*	72	411	2.49	878.02	872	12	2.40E-03	63.3	
33	0	463.56	229	478	1.31	927.22	920	15	7.63E-03	21.9	
34	0	510.73*	244	549	1.95	1021.58	1015	18	8.14E-03	29.8	
35	0	561.55	51	201	1.39	1123.26	1120	9	1.72E-03	51.3	
36	0	569.66*	32	332	1.28	1139.49	1134	12	1.08E-03	176.3	
37	0	583.08*	970	291	1.32	1166.34	1161	13	3.23E-02	5.4	
38	2	609.19*	1247	185	1.39	1218.57	1212	24	4.16E-02	3.8	1.18E+00

Sample ID : G198681007 Acquisition date : 14-DEC-2007 19:09:36

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	2	614.08*	52	216	1.85	1228.36	1212	24	1.74E-03	70.6	
40	0	661.54*	418	215	1.32	1323.30	1318	10	1.39E-02	8.7	
41	0	664.97	24	180	0.84	1330.17	1328	8	8.01E-04	98.5	
42	0	697.98	18	194	1.27	1396.21	1391	8	6.14E-04	133.5	
43	0	726.96	236	230	2.08	1454.20	1450	12	7.85E-03	14.3	
44	0	756.84	44	270	4.52	1513.97	1506	16	1.46E-03	86.2	
45	0	767.77	179	196	1.36	1535.84	1530	12	5.98E-03	17.3	
46	0	785.56	52	229	1.23	1571.43	1564	13	1.72E-03	62.1	
47	0	794.83	139	166	1.45	1590.00	1585	10	4.65E-03	19.3	
48	0	835.19	45	130	1.27	1670.74	1667	7	1.48E-03	45.0	
49	0	860.62	161	151	2.00	1721.62	1715	14	5.37E-03	18.1	
50	0	910.91*	590	169	1.87	1822.24	1816	13	1.97E-02	6.5	
51	4	918.25	28	47	1.50	1836.93	1834	13	9.28E-04	40.9	2.61E+00
52	4	920.83	42	92	2.37	1842.10	1834	13	1.41E-03	45.6	
53	0	933.46	81	170	1.75	1867.37	1861	15	2.69E-03	36.8	
54	4	964.33	147	166	2.59	1929.13	1919	26	4.90E-03	22.5	1.94E+00
55	4	968.68	377	110	1.67	1937.85	1919	26	1.26E-02	7.3	
56	0	1000.87*	10	92	1.40	2002.26	1998	10	3.28E-04	240.2	
57	0	1047.97	32	203	7.39	2096.50	2083	19	1.08E-03	106.9	
58	0	1094.33	31	64	2.33	2189.26	2184	9	1.04E-03	49.7	
59	0	1119.86	293	100	1.71	2240.35	2235	12	9.77E-03	9.0	
60	0	1183.98	72	148	5.76	2368.66	2357	22	2.41E-03	44.5	
61	0	1191.51	32	63	0.77	2383.72	2379	10	1.08E-03	49.1	
62	0	1237.51*	80	93	1.97	2475.79	2472	10	2.65E-03	26.8	
63	0	1280.80	55	55	2.92	2562.42	2556	13	1.83E-03	30.9	
64	0	1308.81	35	57	0.98	2618.46	2612	13	1.18E-03	47.6	
65	0	1333.44	22	79	1.52	2667.75	2660	13	7.46E-04	84.2	
66	0	1377.36	85	66	1.69	2755.65	2748	13	2.85E-03	22.6	
67	0	1408.36	52	69	1.34	2817.69	2810	16	1.74E-03	38.8	
68	0	1460.22*	963	52	2.16	2921.47	2912	17	3.21E-02	3.8	
69	0	1508.77	68	57	2.52	3018.64	3010	19	2.26E-03	29.3	
70	0	1537.72	25	38	3.26	3076.59	3069	14	8.23E-04	56.9	
71	0	1557.36	14	17	0.64	3115.90	3111	9	4.59E-04	61.5	
72	0	1587.68	42	69	2.13	3176.57	3171	11	1.40E-03	41.3	
73	0	1630.65	34	38	2.68	3262.58	3255	14	1.13E-03	42.5	
74	0	1662.36	13	38	0.67	3326.04	3314	14	4.20E-04	108.2	
75	3	1729.04	42	33	3.03	3459.51	3454	20	1.41E-03	27.8	2.90E+00
76	3	1734.83	28	6	2.76	3471.10	3454	20	9.20E-04	21.2	
77	1	1763.99	237	35	2.52	3529.46	3520	28	7.90E-03	8.6	7.61E-01
78	1	1769.65*	15	31	2.53	3540.78	3520	28	4.96E-04	139.6	
79	0	1848.06	32	42	1.75	3697.74	3689	14	1.07E-03	47.5	
80	0	1916.65	15	36	6.42	3835.04	3818	21	4.92E-04	105.8	
81	0	2001.56	22	6	4.30	4005.01	3998	13	7.30E-04	32.0	
82	0	2032.19	9	24	4.95	4066.31	4053	16	2.90E-04	130.6	

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]G198681007       *
* Acquisition date : 14-DEC-2007 19:09:36 Detector SN#    :                 *
* Detector ID      : GAM23                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 08:20:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 08:20:18.13     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681007           Analyst initials: MJH1            *
* Batch Number     : 708121               Sample Quantity : 1.2337E+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    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	6.360E+00	6.470E-01	2.230E-01	0.000E+00
RH-101	1.165E-02	1.966E-02	2.356E-02	0.000E+00
CS-137	1.713E-01	3.082E-02	2.672E-02	0.000E+00
EU-155	6.287E-02	5.304E-02	6.712E-02	0.000E+00
TL-208	3.579E-01	4.272E-02	2.723E-02	0.000E+00
BI-212	7.529E-01	2.170E-01	2.288E-01	0.000E+00
PB-212	1.106E+00	7.860E-02	4.015E-02	0.000E+00
BI-214	8.756E-01	8.125E-02	5.096E-02	0.000E+00
PB-214	9.690E-01	8.938E-02	5.062E-02	0.000E+00
RA-223	3.899E-01	1.622E-01	1.300E-01	0.000E+00
AC-228	1.057E+00	1.586E-01	1.021E-01	0.000E+00
PA-234M	5.907E-01	2.782E+00	3.011E+00	0.000E+00
TH-234	1.163E+00	3.162E-01	2.994E-01	0.000E+00
U-235	3.690E-03	1.111E-01	1.341E-01	0.000E+00
NP-236	1.771E-02	1.968E-02	3.816E-02	0.000E+00
NP-237	6.680E-01	1.216E-01	1.402E-01	0.000E+00
AM-243	2.369E-01	3.239E-02	3.393E-02	0.000E+00
CM-243	5.690E-02	4.800E-02	6.069E-02	0.000E+00
CF-249	1.944E-02	2.218E-02	3.059E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
CO-60	1.583E-02	1.839E-02	3.073E-02	0.000E+00	FAIL ABUN
SB-125	1.702E-02	4.270E-02	7.365E-02	0.000E+00	NOT IDENT.
PO-209	6.288E-01	3.395E+00	5.708E+00	0.000E+00	NOT IDENT.
BI-211	2.060E-01	5.715E-01	8.506E-01	0.000E+00	NOT IDENT.
PA-233	-2.767E-03	2.778E-02	4.850E-02	0.000E+00	NOT IDENT.
NP-239	4.334E-02	9.688E-02	1.646E-01	0.000E+00	NOT IDENT.
AM-241	-1.584E-02	6.626E-02	1.108E-01	0.000E+00	NOT IDENT.
AM-246	-3.446E-03	5.720E-02	9.725E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 10:58:19.74

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681007.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 14-DEC-2007 19:09:36
Sample ID        : G198681007           Sample quantity  : 1.23370E+02 GRAM
Detector name    : GAM23                Detector geometry: CAN
Elapsed live time: 0 08:20:00.00        Elapsed real time: 0 08:20:18.13  0.1%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708121               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	963	10.66*	1.037E+00	6.360E+00	6.360E+00	10.38
RH-101	198.00	61	73.00*	5.421E+00	1.127E-02	1.165E-02	172.14
CS-137	661.66	418	85.10*	2.102E+00	1.707E-01	1.713E-01	18.36
EU-155	105.31	113	21.20*	6.313E+00	6.149E-02	6.287E-02	86.09
TL-208	277.36	202	6.31	4.251E+00	5.501E-01	5.501E-01	52.70
	510.77	244	22.60	2.615E+00	3.019E-01	3.019E-01	59.76
	583.19	970	84.50*	2.341E+00	3.579E-01	3.579E-01	12.18
	763.13	------	1.81	1.854E+00	------	Line Not Found	------
	860.56	161	12.42	1.664E+00	5.697E-01	5.697E-01	37.00
BI-212	727.33	236	11.80*	1.936E+00	7.529E-01	7.529E-01	29.41
	785.37	52	1.10	1.807E+00	1.901E+00	1.901E+00	124.35
	1620.50	------	1.49	9.597E-01	------	Line Not Found	------
PB-212	74.81	921	10.40	4.165E+00	1.553E+00	1.553E+00	13.95
	77.11	1272	17.50	4.416E+00	1.202E+00	1.202E+00	12.36
	87.30	610	7.81	5.375E+00	1.061E+00	1.061E+00	18.58
	238.63	3127	43.30*	4.766E+00	1.106E+00	1.106E+00	7.25
	300.09	155	3.28	4.004E+00	8.592E-01	8.592E-01	53.41
BI-214	609.31	1247	46.10*	2.256E+00	8.756E-01	8.756E-01	9.47
	768.36	179	4.94	1.844E+00	1.437E+00	1.437E+00	35.24
	806.17	------	1.22	1.765E+00	------	Line Not Found	------
	934.06	81	3.03	1.544E+00	1.261E+00	1.261E+00	74.01
	1120.29	293	15.10	1.306E+00	1.085E+00	1.085E+00	19.00
	1155.19	------	1.63	1.270E+00	------	Line Not Found	------
	1238.11	80	5.79	1.194E+00	8.412E-01	8.413E-01	54.05
	1280.96	55	1.43	1.158E+00	2.424E+00	2.425E+00	62.26
	1377.67	85	4.00	1.088E+00	1.433E+00	1.433E+00	45.80
	1401.50	------	1.27	1.073E+00	------	Line Not Found	------
	1407.98	52	2.15	1.068E+00	1.659E+00	1.659E+00	77.86
	1509.23	68	2.11	1.011E+00	2.320E+00	2.320E+00	59.11
	1729.60	42	2.92	9.198E-01	1.147E+00	1.147E+00	56.02
	1764.49	237	15.40	9.089E-01	1.236E+00	1.237E+00	18.24
PB-214	74.81	921	6.44	4.165E+00	2.508E+00	2.508E+00	13.95

Sample ID : G198681007 Acquisition date : 14-DEC-2007 19:09:36

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	1272	10.80	4.416E+00	1.947E+00	1.947E+00	12.36
	87.30	610	4.84	5.375E+00	1.711E+00	1.711E+00	18.58
	242.00	823	7.43	4.722E+00	1.714E+00	1.714E+00	16.14
	295.22	1012	19.30	4.052E+00	9.447E-01	9.447E-01	13.87
	351.93	1761	37.60*	3.529E+00	9.689E-01	9.690E-01	9.41
RA-223	269.46	318	13.70*	4.344E+00	3.898E-01	3.899E-01	42.46
AC-228	129.07	139	2.42	6.529E+00	6.434E-01	6.434E-01	63.44
	209.25	291	3.89	5.231E+00	1.046E+00	1.046E+00	42.32
	270.25	318	3.46	4.344E+00	1.544E+00	1.544E+00	42.46
	338.32	588	11.27	3.641E+00	1.047E+00	1.047E+00	17.16
	409.46	97	1.92	3.130E+00	1.185E+00	1.185E+00	91.57
	463.00	229	4.40	2.830E+00	1.343E+00	1.343E+00	44.16
	794.95	139	4.25	1.788E+00	1.340E+00	1.340E+00	39.25
	911.20	590	25.80*	1.580E+00	1.057E+00	1.057E+00	15.32
	964.77	147	4.99	1.499E+00	1.435E+00	1.435E+00	45.60
	968.97	377	15.80	1.493E+00	1.168E+00	1.168E+00	16.53
	1588.20	42	3.22	9.736E-01	9.764E-01	9.764E-01	82.93
PA-234M	1001.03	10	0.84*	1.448E+00	5.907E-01	5.907E-01	480.54
TH-234	63.29	59	4.80	2.619E+00	3.422E-01	3.422E-01	184.57
	92.58	497	5.41*	5.764E+00	1.163E+00	1.163E+00	27.74
U-235	143.76	4	10.96*	6.387E+00	3.690E-03	3.690E-03	3072.49
NP-236	98.44	56	38.00*	6.036E+00	1.771E-02	1.771E-02	113.40
NP-237	86.48	610	12.40*	5.375E+00	6.680E-01	6.680E-01	18.58
AM-243	74.66	921	68.20*	4.165E+00	2.368E-01	2.369E-01	13.95
CM-243	103.76	113	23.00*	6.313E+00	5.668E-02	5.690E-02	86.09
CF-249	387.59	57	66.00*	3.258E+00	1.943E-02	1.944E-02	116.44

Flag: "*" = Keyline

Sample ID : G198681007 Acquisition date : 14-DEC-2007 19:09:36

Total number of lines in spectrum 82
Number of unidentified lines 35
Number of lines tentatively identified by NID 47 57.32%

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	6.360E+00	6.360E+00	0.660E+00	10.38	
RH-101	1.04E+08S	1.03	1.127E-02	1.165E-02	2.006E-02	172.14	
CS-137	9.47E+08S	1.00	1.707E-01	1.713E-01	0.314E-01	18.36	
EU-155	1.57E+08S	1.02	6.149E-02	6.287E-02	5.412E-02	86.09	
TL-208	4.43E+17S	1.00	3.579E-01	3.579E-01	0.436E-01	12.18	
BI-212	4.43E+17S	1.00	7.529E-01	7.529E-01	2.214E-01	29.41	
PB-212	4.43E+17S	1.00	1.106E+00	1.106E+00	0.080E+00	7.25	
BI-214	5.05E+10S	1.00	8.756E-01	8.756E-01	0.829E-01	9.47	
PB-214	5.05E+10S	1.00	9.689E-01	9.690E-01	0.912E-01	9.41	
RA-223	1.04E+12S	1.00	3.898E-01	3.899E-01	1.655E-01	42.46	
AC-228	4.43E+17S	1.00	1.057E+00	1.057E+00	0.162E+00	15.32	
PA-234M	1.41E+17S	1.00	5.907E-01	5.907E-01	28.39E-01	480.54	
TH-234	1.41E+17S	1.00	1.163E+00	1.163E+00	0.323E+00	27.74	
U-235	2.22E+16S	1.00	3.690E-03	3.690E-03	113.4E-03	3072.49	
NP-236	4.89E+12S	1.00	1.771E-02	1.771E-02	2.009E-02	113.40	
NP-237	6.75E+13S	1.00	6.680E-01	6.680E-01	1.241E-01	18.58	
AM-243	2.33E+11S	1.00	2.368E-01	2.369E-01	0.330E-01	13.95	
CM-243	8.99E+08S	1.00	5.668E-02	5.690E-02	4.898E-02	86.09	
CF-249	1.11E+10S	1.00	1.943E-02	1.944E-02	2.263E-02	116.44	
			---	---			
		Total Activity :	1.487E+01	1.487E+01			

Grand Total Activity : 1.487E+01 1.487E+01

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

Sample ID : G198681007 Acquisition date : 14-DEC-2007 19:09:36

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.49	4	762	0.71	92.92	90	7	1.44E-04	****	5.81E-01	
5	73.01	132	416	1.24	145.98	144	14	4.40E-03	43.3	3.93E+00	
5	84.17	131	1043	1.09	168.30	164	28	4.38E-03	91.3	5.12E+00	
5	89.99	363	832	0.92	179.95	164	28	1.21E-02	27.5	5.58E+00	
1	99.61	89	706	0.95	199.17	194	9	2.96E-03	98.1	6.10E+00	
0	109.00	87	856	1.54	217.97	215	7	2.89E-03	****	6.40E+00	
0	154.08	61	710	0.75	308.14	306	6	2.03E-03	****	6.23E+00	
0	185.81	582	1023	1.07	371.60	366	10	1.94E-02	24.8	5.66E+00	
0	258.74	46	486	1.60	517.49	514	7	1.55E-03	****	4.49E+00	
0	328.05	261	555	1.21	656.13	651	11	8.71E-03	37.1	3.73E+00	
0	438.97	72	411	2.49	878.02	872	12	2.40E-03	****	2.96E+00	
0	561.55	51	201	1.39	1123.26	1120	9	1.72E-03	****	2.42E+00	
0	569.66	32	332	1.28	1139.49	1134	12	1.08E-03	****	2.39E+00	
2	614.08	52	216	1.85	1228.36	1212	24	1.74E-03	****	2.24E+00	
0	664.97	24	180	0.84	1330.17	1328	8	8.01E-04	****	2.09E+00	
0	697.98	18	194	1.27	1396.21	1391	8	6.14E-04	****	2.01E+00	
0	756.84	44	270	4.52	1513.97	1506	16	1.46E-03	****	1.87E+00	
0	835.19	45	130	1.27	1670.74	1667	7	1.48E-03	90.0	1.71E+00	
4	918.25	28	47	1.50	1836.93	1834	13	9.28E-04	81.9	1.57E+00	
4	920.83	42	92	2.37	1842.10	1834	13	1.41E-03	91.2	1.56E+00	
0	1047.97	32	203	7.39	2096.50	2083	19	1.08E-03	****	1.39E+00	
0	1094.33	31	64	2.33	2189.26	2184	9	1.04E-03	99.3	1.33E+00	
0	1183.98	72	148	5.76	2368.66	2357	22	2.41E-03	89.0	1.24E+00	
0	1191.51	32	63	0.77	2383.72	2379	10	1.08E-03	98.2	1.23E+00	
0	1308.81	35	57	0.98	2618.46	2612	13	1.18E-03	95.2	1.14E+00	
0	1333.44	22	79	1.52	2667.75	2660	13	7.46E-04	****	1.12E+00	T
0	1537.72	25	38	3.26	3076.59	3069	14	8.23E-04	****	9.97E-01	
0	1557.36	14	17	0.64	3115.90	3111	9	4.59E-04	****	9.87E-01	
0	1630.65	34	38	2.68	3262.58	3255	14	1.13E-03	85.1	9.56E-01	
0	1662.36	13	38	0.67	3326.04	3314	14	4.20E-04	****	9.43E-01	
3	1734.83	28	6	2.76	3471.10	3454	20	9.20E-04	42.4	9.18E-01	
1	1769.65	15	31	2.53	3540.78	3520	28	4.96E-04	****	9.07E-01	
0	1848.06	32	42	1.75	3697.74	3689	14	1.07E-03	95.0	8.86E-01	
0	1916.65	15	36	6.42	3835.04	3818	21	4.92E-04	****	8.71E-01	
0	2001.56	22	6	4.30	4005.01	3998	13	7.30E-04	64.0	8.56E-01	
0	2032.19	9	24	4.95	4066.31	4053	16	2.90E-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]G198681007            *
* Acquisition date : 14-DEC-2007 19:09:36 Detector SN#    :                 *
* Detector ID      : GAM23                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 08:20:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 08:20:18.13     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681007           Analyst initials: MJH1            *
* Batch Number     : 708121               Sample Quantity : 1.2337E+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	6.360E+00	6.470E-01	1.115E-01	6.470E-01
RH-101	1.165E-02	1.966E-02	1.179E-02	1.966E-02
CS-137	1.713E-01	3.082E-02	1.337E-02	3.082E-02
EU-155	6.287E-02	5.304E-02	3.358E-02	5.304E-02
TL-208	3.579E-01	4.272E-02	1.362E-02	4.272E-02
BI-212	7.529E-01	2.170E-01	1.145E-01	2.170E-01
PB-212	1.106E+00	7.860E-02	2.009E-02	7.860E-02
BI-214	8.756E-01	8.125E-02	2.549E-02	8.125E-02
PB-214	9.690E-01	8.938E-02	2.533E-02	8.938E-02
RA-223	3.899E-01	1.622E-01	6.504E-02	1.622E-01
AC-228	1.057E+00	1.586E-01	5.107E-02	1.586E-01
PA-234M	5.907E-01	2.782E+00	1.506E+00	2.782E+00
TH-234	1.163E+00	3.162E-01	1.498E-01	3.162E-01
U-235	3.690E-03	1.111E-01	6.707E-02	1.111E-01
NP-236	1.771E-02	1.968E-02	1.909E-02	1.968E-02
NP-237	6.680E-01	1.216E-01	7.013E-02	1.216E-01
AM-243	2.369E-01	3.239E-02	1.697E-02	3.239E-02
CM-243	5.690E-02	4.800E-02	3.036E-02	4.800E-02
CF-249	1.944E-02	2.218E-02	1.530E-02	2.218E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	1.583E-02	1.839E-02	1.537E-02	1.839E-02	FAIL ABUN
SB-125	1.702E-02	4.270E-02	3.684E-02	4.270E-02	NOT IDENT.
PO-209	6.288E-01	3.395E+00	2.856E+00	3.395E+00	NOT IDENT.
BI-211	2.060E-01	5.715E-01	4.256E-01	5.715E-01	NOT IDENT.
PA-233	-2.767E-03	2.778E-02	2.426E-02	2.778E-02	NOT IDENT.
NP-239	4.334E-02	9.688E-02	8.235E-02	9.688E-02	NOT IDENT.
AM-241	-1.584E-02	6.626E-02	5.541E-02	6.626E-02	NOT IDENT.
AM-246	-3.446E-03	5.720E-02	4.865E-02	5.720E-02	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
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ENERGY	MDA COUNTS
59.54	575.2087
63.29	677.6823
74.66	734.5910
74.81	734.9424
74.81	734.9424
77.11	740.2870
77.11	740.2870
86.48	688.4158
87.30	690.0255
87.30	690.0255
92.58	700.2227
98.44	623.9886
103.76	613.8992
105.31	624.6269
129.07	686.7816
143.76	720.8973
198.00	674.1640
209.25	618.1796
228.18	598.5205
238.63	569.0521
242.00	571.5313
269.46	498.7617
270.25	499.2275
277.36	473.0637
295.22	419.3735
300.09	440.2332
312.17	445.7180
338.32	441.7712
351.93	377.7008
387.59	365.1337
409.46	367.6118
427.87	320.7318
463.00	277.7572
510.77	288.5277
583.19	246.2346
609.31	238.5002
661.66	193.0183
727.33	232.9900
763.13	168.7092
768.36	232.1484
785.37	209.6429
794.95	171.2991
806.17	184.3550
831.80	182.7743
860.56	166.1016
896.60	151.8293
911.20	148.5210
934.06	134.9363
964.77	135.5316
968.97	135.7574
1001.03	115.4692
1078.86	116.9715
1120.29	114.8682
1155.19	110.4375
1173.23	96.1655
1238.11	119.4531
1280.96	58.8051
1332.51	84.0320
1377.67	76.5488
1401.50	66.3192
1407.98	68.0892
1460.80	52.8477
1509.23	60.3135
1588.20	81.9843
1620.50	49.8779
1729.60	51.7005
1764.49	48.1899

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198681007

Total Uranium Activity	1.7072E-03	ug/g
Total Uranium Counting Unc.	5.1404E-02	ug/g
Total Uranium Tpu	5.1404E-08	ug/g
Total Uranium Mda	3.1033E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 10:31:42.34

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681008.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 06:31:12
Sample ID        : G198681008           Sample quantity  : 1.16330E+02 GRAM
Detector name    : GAM01                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         : 708121               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	4	74.87	581	740	2.17	149.80	136	25	4.03E-02	11.2	2.05E+00
2	4	77.22	661	503	1.44	154.50	136	25	4.59E-02	7.7	
3	2	84.28	102	565	1.80	168.63	164	29	7.10E-03	41.7	1.45E+00
4	2	87.24	272	472	1.30	174.55	164	29	1.89E-02	15.2	
5	2	89.91	241	617	1.82	179.88	164	29	1.67E-02	22.1	
6	2	92.97*	283	567	1.82	186.01	164	29	1.97E-02	19.2	
7	0	105.41	51	337	1.62	210.90	208	7	3.56E-03	61.0	
8	0	129.13	53	483	0.90	258.35	255	9	3.69E-03	76.0	
9	0	185.83*	285	492	1.70	371.79	366	11	1.98E-02	17.2	
10	0	209.87	218	424	1.72	419.87	415	13	1.51E-02	20.7	
11	2	238.69*	1284	327	1.47	477.53	469	21	8.92E-02	4.0	1.08E+00
12	2	241.70*	356	346	1.62	483.54	469	21	2.47E-02	12.3	
13	0	250.03	50	251	1.22	500.22	495	10	3.47E-03	61.2	
14	0	270.34	135	333	2.56	540.84	535	12	9.39E-03	28.3	
15	0	278.05	76	313	1.34	556.27	550	12	5.30E-03	48.2	
16	0	295.19*	485	314	1.56	590.57	585	12	3.37E-02	9.1	
17	0	300.19	119	242	1.49	600.57	596	10	8.27E-03	26.0	
18	0	327.89*	51	274	1.01	655.97	652	11	3.52E-03	68.0	
19	0	338.49	250	259	1.48	677.17	671	11	1.74E-02	13.9	
20	0	351.92*	911	180	1.50	704.05	698	12	6.32E-02	4.6	
21	0	427.42	10	93	0.99	855.08	851	7	6.99E-04	161.9	
22	0	446.58	48	129	1.00	893.41	888	10	3.35E-03	46.5	
23	0	462.70	111	140	1.92	925.64	919	11	7.67E-03	22.8	
24	0	511.25*	136	173	1.63	1022.76	1015	17	9.43E-03	29.4	
25	0	528.93	35	107	2.15	1058.13	1052	10	2.42E-03	58.6	
26	0	583.41*	364	81	1.46	1167.12	1161	13	2.53E-02	7.7	
27	0	609.47*	508	194	1.54	1219.26	1213	14	3.53E-02	7.6	
28	0	661.64*	229	197	1.42	1323.60	1316	16	1.59E-02	15.7	
29	0	727.13	122	86	1.45	1454.60	1447	15	8.49E-03	18.8	
30	0	768.54	28	114	1.48	1537.44	1533	10	1.92E-03	75.1	
31	1	795.02	56	85	2.18	1590.40	1583	37	3.90E-03	35.0	2.32E+00
32	1	799.82	30	71	1.98	1600.00	1583	37	2.09E-03	57.8	
33	1	805.82	32	64	1.99	1612.00	1583	37	2.25E-03	54.3	
34	0	848.02	16	34	1.68	1696.40	1692	8	1.13E-03	66.8	
35	0	861.06	68	57	1.78	1722.49	1716	15	4.74E-03	26.9	
36	0	911.33*	289	73	2.14	1823.04	1814	15	2.01E-02	8.5	
37	1	965.10	76	100	2.13	1930.59	1922	45	5.27E-03	25.1	3.14E+00
38	1	969.21*	191	71	2.26	1938.81	1922	45	1.32E-02	12.4	

Sample ID : G198681008 Acquisition date : 15-DEC-2007 06:31:12

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	1	981.10	28	14	2.27	1962.59	1922	45	1.92E-03	39.2	
40	0	986.71	10	30	2.81	1973.80	1967	9	7.16E-04	87.0	
41	0	1001.48	34	49	1.29	2003.35	1997	14	2.36E-03	46.9	
42	0	1121.25*	90	108	1.97	2242.89	2235	18	6.25E-03	29.5	
43	0	1239.11	45	46	1.42	2478.63	2475	12	3.14E-03	33.3	
44	0	1320.34	35	20	4.24	2641.08	2633	16	2.44E-03	33.0	
45	0	1344.22	12	22	1.38	2688.83	2681	11	8.35E-04	87.0	
46	0	1347.26	14	5	1.66	2694.93	2691	9	9.37E-04	39.3	
47	0	1358.91	25	17	1.74	2718.22	2711	14	1.73E-03	40.8	
48	0	1377.96	37	20	1.88	2756.32	2751	11	2.56E-03	29.4	
49	0	1461.09*	512	16	2.05	2922.57	2913	16	3.56E-02	5.0	
50	0	1509.78	21	11	2.57	3019.94	3015	9	1.44E-03	36.4	
51	0	1521.21	15	13	0.60	3042.80	3035	13	1.04E-03	55.9	
52	0	1588.39	26	10	3.66	3177.16	3172	10	1.83E-03	29.6	
53	0	1608.61	16	8	3.21	3217.58	3211	15	1.08E-03	46.1	
54	0	1622.76	16	23	0.84	3245.89	3235	19	1.09E-03	78.4	
55	0	1631.87	14	15	2.23	3264.10	3257	11	9.61E-04	62.3	
56	0	1682.02	10	9	0.55	3364.40	3359	9	6.94E-04	62.6	
57	0	1765.21*	92	11	2.29	3530.74	3523	17	6.36E-03	15.4	
58	0	1840.14*	18	14	1.08	3680.59	3669	21	1.22E-03	63.8	
59	0	1847.99	27	3	4.16	3696.29	3689	13	1.85E-03	24.0	
60	0	1928.71	7	2	1.20	3857.70	3854	8	5.13E-04	48.8	

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]G198681008       *
* Acquisition date : 15-DEC-2007 06:31:12 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 04:00:01.87     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681008           Analyst initials: MJH1            *
* Batch Number     : 708121               Sample Quantity : 1.1633E+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	7.409E+00	8.389E-01	3.683E-01	0.000E+00
SB-125	1.852E-02	5.875E-02	1.122E-01	0.000E+00
CS-137	2.061E-01	6.531E-02	4.495E-02	0.000E+00
EU-155	6.015E-02	7.209E-02	1.248E-01	0.000E+00
TL-208	2.950E-01	4.919E-02	3.985E-02	0.000E+00
BI-212	8.609E-01	3.255E-01	3.129E-01	0.000E+00
PB-212	9.840E-01	1.018E-01	6.661E-02	0.000E+00
BI-214	7.826E-01	1.289E-01	8.439E-02	0.000E+00
PB-214	1.089E+00	1.189E-01	7.935E-02	0.000E+00
RA-223	3.599E-01	2.013E-01	2.146E-01	0.000E+00
AC-228	1.142E+00	2.191E-01	1.331E-01	0.000E+00
PA-234M	4.503E+00	4.159E+00	4.493E+00	0.000E+00
NP-237	6.054E-01	1.871E-01	2.403E-01	0.000E+00
AM-243	2.921E-01	6.776E-02	5.653E-02	0.000E+00
CM-243	5.443E-02	6.523E-02	1.126E-01	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
CO-60	-1.980E-03	2.790E-02	4.565E-02	0.000E+00	NOT IDENT.
RH-101	2.312E-03	2.532E-02	4.083E-02	0.000E+00	NOT IDENT.
PO-209	4.493E-01	5.261E+00	8.867E+00	0.000E+00	NOT IDENT.
BI-211	-3.997E-01	7.270E-01	1.169E+00	0.000E+00	NOT IDENT.
PA-233	-3.116E-02	4.540E-02	7.404E-02	0.000E+00	NOT IDENT.
TH-234	0.000E+00	5.249E-01	7.006E-01	0.000E+00	FAIL ABUN
U-235	8.623E-02	1.428E-01	2.521E-01	0.000E+00	NOT IDENT.
NP-236	3.392E-02	4.406E-02	6.964E-02	0.000E+00	NOT IDENT.
NP-239	-1.953E-02	1.594E-01	2.711E-01	0.000E+00	NOT IDENT.
AM-241	-1.866E-02	1.097E-01	1.841E-01	0.000E+00	NOT IDENT.
AM-246	5.633E-02	8.821E-02	1.548E-01	0.000E+00	NOT IDENT.
CF-249	3.942E-03	2.902E-02	4.880E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 10:31:43.36

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681008.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 06:31:12
Sample ID        : G198681008           Sample quantity  : 1.16330E+02 GRAM
Detector name    : GAM01                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         : 708121               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	512	10.66*	1.047E+00	7.409E+00	7.409E+00	11.55
SB-125	427.87	10	29.80*	3.064E+00	1.778E-02	1.852E-02	323.78
CS-137	661.66	229	85.10*	2.113E+00	2.053E-01	2.061E-01	32.34
EU-155	105.31	51	21.20*	6.641E+00	5.883E-02	6.015E-02	122.29
TL-208	277.36	76	6.31	4.329E+00	4.506E-01	4.506E-01	96.65
	510.77	136	22.60	2.639E+00	3.673E-01	3.673E-01	59.13
	583.19	364	84.50*	2.358E+00	2.950E-01	2.950E-01	17.01
	763.13	------	1.81	1.860E+00	------	Line Not Found	------
	860.56	68	12.42	1.666E+00	5.322E-01	5.322E-01	54.52
BI-212	727.33	122	11.80*	1.943E+00	8.609E-01	8.609E-01	38.58
	785.37	------	1.10	1.812E+00	------	Line Not Found	------
	1620.50	------	1.49	9.727E-01	------	Line Not Found	------
PB-212	74.81	581	10.40	4.706E+00	1.915E+00	1.915E+00	23.67
	77.11	661	17.50	4.964E+00	1.228E+00	1.228E+00	17.41
	87.30	272	7.81	5.842E+00	9.611E-01	9.611E-01	31.54
	238.63	1284	43.30*	4.864E+00	9.840E-01	9.840E-01	10.56
	300.09	119	3.28	4.076E+00	1.437E+00	1.437E+00	52.51
BI-214	609.31	508	46.10*	2.271E+00	7.826E-01	7.826E-01	16.81
	768.36	28	4.94	1.848E+00	4.874E-01	4.874E-01	150.54
	806.17	32	1.22	1.770E+00	2.418E+00	2.418E+00	108.99
	934.06	------	3.03	1.546E+00	------	Line Not Found	------
	1120.29	90	15.10	1.309E+00	7.350E-01	7.351E-01	59.42
	1155.19	------	1.63	1.274E+00	------	Line Not Found	------
	1238.11	45	5.79	1.198E+00	1.051E+00	1.051E+00	66.81
	1280.96	------	1.43	1.164E+00	------	Line Not Found	------
	1377.67	37	4.00	1.096E+00	1.356E+00	1.356E+00	59.12
	1401.50	------	1.27	1.081E+00	------	Line Not Found	------
	1407.98	------	2.15	1.077E+00	------	Line Not Found	------
	1509.23	21	2.11	1.022E+00	1.555E+00	1.556E+00	73.09
	1729.60	------	2.92	9.349E-01	------	Line Not Found	------
	1764.49	92	15.40	9.245E-01	1.039E+00	1.039E+00	31.25
PB-214	74.81	581	6.44	4.706E+00	3.093E+00	3.093E+00	23.67

Sample ID : G198681008 Acquisition date : 15-DEC-2007 06:31:12

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	661	10.80	4.964E+00	1.989E+00	1.989E+00	17.41
	87.30	272	4.84	5.842E+00	1.551E+00	1.551E+00	31.54
	242.00	356	7.43	4.818E+00	1.604E+00	1.604E+00	25.64
	295.22	485	19.30	4.130E+00	9.813E-01	9.814E-01	19.39
	351.93	911	37.60*	3.590E+00	1.089E+00	1.089E+00	11.15
RA-223	269.46	135	13.70*	4.424E+00	3.599E-01	3.599E-01	57.07
AC-228	129.07	53	2.42	6.749E+00	5.250E-01	5.250E-01	152.04
	209.25	218	3.89	5.337E+00	1.694E+00	1.694E+00	41.95
	270.25	135	3.46	4.424E+00	1.425E+00	1.425E+00	57.07
	338.32	250	11.27	3.704E+00	9.681E-01	9.681E-01	28.62
	409.46	------	1.92	3.174E+00	------	Line Not Found	------
	463.00	111	4.40	2.870E+00	1.412E+00	1.412E+00	46.10
	794.95	56	4.25	1.792E+00	1.190E+00	1.190E+00	70.53
	911.20	289	25.80*	1.582E+00	1.142E+00	1.142E+00	19.58
	964.77	76	4.99	1.500E+00	1.636E+00	1.636E+00	51.02
	968.97	191	15.80	1.495E+00	1.303E+00	1.303E+00	26.38
	1588.20	26	3.22	9.857E-01	1.343E+00	1.343E+00	59.42
PA-234M	1001.03	34	0.84*	1.450E+00	4.503E+00	4.503E+00	94.26
NP-237	86.48	272	12.40*	5.842E+00	6.054E-01	6.054E-01	31.54
AM-243	74.66	581	68.20*	4.706E+00	2.921E-01	2.921E-01	23.67
CM-243	103.76	51	23.00*	6.641E+00	5.422E-02	5.443E-02	122.29

Flag: "*" = Keyline

Sample ID : G198681008 Acquisition date : 15-DEC-2007 06:31:12

Total number of lines in spectrum 60
Number of unidentified lines 23
Number of lines tentatively identified by NID 37 61.67%

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	7.409E+00	7.409E+00	0.856E+00	11.55	
SB-125	8.62E+07S	1.04	1.778E-02	1.852E-02	5.995E-02	323.78	
CS-137	9.47E+08S	1.00	2.053E-01	2.061E-01	0.666E-01	32.34	
EU-155	1.57E+08S	1.02	5.883E-02	6.015E-02	7.356E-02	122.29	
TL-208	4.43E+17S	1.00	2.950E-01	2.950E-01	0.502E-01	17.01	
BI-212	4.43E+17S	1.00	8.609E-01	8.609E-01	3.321E-01	38.58	
PB-212	4.43E+17S	1.00	9.840E-01	9.840E-01	1.039E-01	10.56	
BI-214	5.05E+10S	1.00	7.826E-01	7.826E-01	1.316E-01	16.81	
PB-214	5.05E+10S	1.00	1.089E+00	1.089E+00	0.121E+00	11.15	
RA-223	1.04E+12S	1.00	3.599E-01	3.599E-01	2.054E-01	57.07	
AC-228	4.43E+17S	1.00	1.142E+00	1.142E+00	0.224E+00	19.58	
PA-234M	1.41E+17S	1.00	4.503E+00	4.503E+00	4.244E+00	94.26	
NP-237	6.75E+13S	1.00	6.054E-01	6.054E-01	1.909E-01	31.54	
AM-243	2.33E+11S	1.00	2.921E-01	2.921E-01	0.691E-01	23.67	
CM-243	8.99E+08S	1.00	5.422E-02	5.443E-02	6.657E-02	122.29	
			---	---			
		Total Activity :	1.866E+01	1.866E+01			

Grand Total Activity : 1.866E+01 1.866E+01

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

Sample ID : G198681008 Acquisition date : 15-DEC-2007 06:31:12

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
2	84.28	102	565	1.80	168.63	164	29	7.10E-03	83.4	5.62E+00	
2	89.91	241	617	1.82	179.88	164	29	1.67E-02	44.3	6.02E+00	
2	92.97	283	567	1.82	186.01	164	29	1.97E-02	38.5	6.19E+00	T
0	185.83	285	492	1.70	371.79	366	11	1.98E-02	34.3	5.78E+00	
0	250.03	50	251	1.22	500.22	495	10	3.47E-03	****	4.70E+00	
0	327.89	51	274	1.01	655.97	652	11	3.52E-03	****	3.80E+00	
0	446.58	48	129	1.00	893.41	888	10	3.35E-03	92.9	2.96E+00	
0	528.93	35	107	2.15	1058.13	1052	10	2.42E-03	****	2.56E+00	
1	799.82	30	71	1.98	1600.00	1583	37	2.09E-03	****	1.78E+00	
0	848.02	16	34	1.68	1696.40	1692	8	1.13E-03	****	1.69E+00	
1	981.10	28	14	2.27	1962.59	1922	45	1.92E-03	78.4	1.48E+00	
0	986.71	10	30	2.81	1973.80	1967	9	7.16E-04	****	1.47E+00	
0	1320.34	35	20	4.24	2641.08	2633	16	2.44E-03	66.1	1.14E+00	
0	1344.22	12	22	1.38	2688.83	2681	11	8.35E-04	****	1.12E+00	
0	1347.26	14	5	1.66	2694.93	2691	9	9.37E-04	78.6	1.12E+00	
0	1358.91	25	17	1.74	2718.22	2711	14	1.73E-03	81.6	1.11E+00	
0	1521.21	15	13	0.60	3042.80	3035	13	1.04E-03	****	1.02E+00	
0	1608.61	16	8	3.21	3217.58	3211	15	1.08E-03	92.3	9.77E-01	
0	1622.76	16	23	0.84	3245.89	3235	19	1.09E-03	****	9.72E-01	
0	1631.87	14	15	2.23	3264.10	3257	11	9.61E-04	****	9.68E-01	
0	1682.02	10	9	0.55	3364.40	3359	9	6.94E-04	****	9.50E-01	
0	1840.14	18	14	1.08	3680.59	3669	21	1.22E-03	****	9.06E-01	
0	1847.99	27	3	4.16	3696.29	3689	13	1.85E-03	47.9	9.04E-01	
0	1928.71	7	2	1.20	3857.70	3854	8	5.13E-04	97.6	8.88E-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]G198681008            *
* Acquisition date : 15-DEC-2007 06:31:12 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 04:00:01.87     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681008           Analyst initials: MJH1            *
* Batch Number     : 708121               Sample Quantity : 1.1633E+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	7.409E+00	8.389E-01	1.843E-01	8.389E-01
SB-125	1.852E-02	5.875E-02	5.612E-02	5.875E-02
CS-137	2.061E-01	6.531E-02	2.249E-02	6.531E-02
EU-155	6.015E-02	7.209E-02	6.246E-02	7.209E-02
TL-208	2.950E-01	4.919E-02	1.994E-02	4.919E-02
BI-212	8.609E-01	3.255E-01	1.566E-01	3.255E-01
PB-212	9.840E-01	1.018E-01	3.333E-02	1.018E-01
BI-214	7.826E-01	1.289E-01	4.222E-02	1.289E-01
PB-214	1.089E+00	1.189E-01	3.970E-02	1.189E-01
RA-223	3.599E-01	2.013E-01	1.074E-01	2.013E-01
AC-228	1.142E+00	2.191E-01	6.659E-02	2.191E-01
PA-234M	4.503E+00	4.159E+00	2.248E+00	4.159E+00
NP-237	6.054E-01	1.871E-01	1.202E-01	1.871E-01
AM-243	2.921E-01	6.776E-02	2.828E-02	6.776E-02
CM-243	5.443E-02	6.523E-02	5.634E-02	6.523E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	-1.980E-03	2.790E-02	2.284E-02	2.790E-02	NOT IDENT.
RH-101	2.312E-03	2.532E-02	2.043E-02	2.532E-02	NOT IDENT.
PO-209	4.493E-01	5.261E+00	4.436E+00	5.261E+00	NOT IDENT.
BI-211	-3.997E-01	7.270E-01	5.850E-01	7.270E-01	NOT IDENT.
PA-233	-3.116E-02	4.540E-02	3.704E-02	4.540E-02	NOT IDENT.
TH-234	1.364E+00	5.249E-01	3.505E-01	5.249E-01	FAIL ABUN
U-235	8.623E-02	1.428E-01	1.261E-01	1.428E-01	NOT IDENT.
NP-236	3.392E-02	4.406E-02	3.484E-02	4.406E-02	NOT IDENT.
NP-239	-1.953E-02	1.594E-01	1.356E-01	1.594E-01	NOT IDENT.
AM-241	-1.866E-02	1.097E-01	9.209E-02	1.097E-01	NOT IDENT.
AM-246	5.633E-02	8.821E-02	7.743E-02	8.821E-02	NOT IDENT.
CF-249	3.942E-03	2.902E-02	2.442E-02	2.902E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	514.3342
63.29	531.8596
74.66	549.2030
74.81	549.2861
74.81	549.2861
77.11	550.5452
77.11	550.5452
86.48	502.8892
87.30	503.2686
87.30	503.2686
92.58	507.9306
98.44	440.1914
103.76	492.3133
105.31	501.1602
129.07	470.4805
143.76	524.2421
198.00	414.8708
209.25	456.2476
228.18	377.2413
238.63	339.5431
242.00	340.1172
269.46	293.9240
270.25	302.4316
277.36	283.1958
295.22	253.1897
300.09	253.7292
312.17	250.6034
338.32	238.7935
351.93	199.3819
387.59	193.6489
409.46	200.5280
427.87	168.5508
463.00	157.5282
510.77	133.2913
583.19	110.8195
609.31	137.1736
661.66	114.1651
727.33	90.7106
763.13	86.0127
768.36	101.4577
785.37	79.8354
794.95	69.3791
806.17	69.5585
831.80	91.9495
860.56	46.5541
896.60	77.0344
911.20	52.2886
934.06	53.1214
964.77	75.7749
968.97	75.8394
1001.03	53.2492
1078.86	47.2906
1120.29	70.9476
1155.19	66.0667
1173.23	57.7244
1238.11	70.4177
1280.96	45.7273
1332.51	37.6423
1377.67	36.9651
1401.50	35.1998
1407.98	26.6641
1460.80	30.2388
1509.23	34.8085
1588.20	46.9403
1620.50	17.1918
1729.60	15.9531
1764.49	14.0234

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198681008

Total Uranium Activity	3.9900E-02	ug/g
Total Uranium Counting Unc.	6.6058E-02	ug/g
Total Uranium Tpu	6.6058E-08	ug/g
Total Uranium Mda	5.8365E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 10:32:33.48

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681009.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 06:31:56
Sample ID        : G198681009           Sample quantity  : 1.21280E+02 GRAM
Detector name    : GAM02                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:04.08  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708121               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.28*	65	521	0.91	126.10	122	9	4.54E-03	70.3	
2	2	74.83*	230	371	0.86	149.19	145	14	1.59E-02	15.8	5.14E-01
3	2	77.15*	493	341	0.90	153.82	145	14	3.42E-02	7.6	
4	3	84.21*	54	334	0.82	167.92	163	29	3.78E-03	57.3	1.34E+00
5	3	87.25	200	451	1.24	173.99	163	29	1.39E-02	18.8	
6	3	89.99	181	370	0.97	179.46	163	29	1.26E-02	18.4	
7	3	92.66*	232	411	1.16	184.80	163	29	1.61E-02	19.6	
8	0	105.87	42	312	0.96	211.21	209	6	2.91E-03	68.5	
9	0	129.31	46	450	1.00	258.04	254	8	3.22E-03	81.0	
10	0	185.79*	150	463	1.03	370.89	366	11	1.04E-02	32.7	
11	0	204.61	66	334	1.01	408.50	405	9	4.60E-03	51.1	
12	0	209.39	132	340	1.16	418.06	414	9	9.18E-03	26.7	
13	7	238.65*	1164	172	1.08	476.51	469	19	8.09E-02	3.6	1.64E+00
14	7	241.69*	375	248	1.74	482.59	469	19	2.60E-02	11.9	
15	0	270.40	129	252	1.66	539.96	535	10	8.95E-03	24.8	
16	0	277.98	85	403	6.48	555.11	549	18	5.91E-03	56.5	
17	0	295.20*	483	272	1.19	589.51	584	11	3.35E-02	8.3	
18	0	299.87	68	202	1.16	598.86	595	8	4.71E-03	38.3	
19	0	321.19	33	165	2.09	641.46	639	9	2.27E-03	72.9	
20	0	328.19	95	232	1.14	655.45	651	11	6.62E-03	32.5	
21	0	338.24	223	226	1.24	675.53	671	10	1.55E-02	14.3	
22	0	351.88*	855	230	1.29	702.78	696	14	5.94E-02	5.2	
23	0	380.16	39	124	2.55	759.29	755	9	2.71E-03	53.8	
24	0	394.57	26	112	0.60	788.09	784	8	1.84E-03	72.0	
25	0	408.78	42	221	1.83	816.49	812	14	2.92E-03	76.9	
26	0	415.56	22	172	0.81	830.05	827	10	1.51E-03	114.1	
27	0	462.83	60	124	1.27	924.51	920	10	4.14E-03	37.4	
28	0	510.62*	86	196	2.07	1020.01	1012	16	5.98E-03	46.1	
29	0	545.42	6	132	0.60	1089.54	1082	12	3.85E-04	416.9	
30	0	571.38	12	69	1.09	1141.43	1137	7	8.66E-04	114.4	
31	0	583.24*	336	111	1.49	1165.12	1160	11	2.33E-02	9.3	
32	0	609.20*	568	96	1.51	1217.01	1211	11	3.95E-02	5.6	
33	2	661.57	214	66	1.67	1321.65	1316	17	1.48E-02	9.8	3.71E-01
34	2	665.08	34	49	1.72	1328.67	1316	17	2.37E-03	40.1	
35	2	719.94	33	28	1.98	1438.31	1434	33	2.26E-03	34.8	1.59E+00
36	2	723.25	29	42	1.98	1444.92	1434	33	2.01E-03	51.4	
37	2	727.11	128	42	1.99	1452.65	1434	33	8.91E-03	13.5	
38	0	755.24	39	44	1.00	1508.87	1504	10	2.74E-03	35.4	

Sample ID : G198681009 Acquisition date : 15-DEC-2007 06:31:56

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	768.40*	59	90	1.65	1535.16	1530	11	4.12E-03	34.7	
40	0	787.86	30	93	2.84	1574.05	1561	17	2.05E-03	77.3	
41	0	795.24	39	63	1.67	1588.80	1582	12	2.70E-03	43.8	
42	0	804.83	72	93	5.30	1607.97	1597	21	4.99E-03	35.8	
43	0	839.22	24	72	1.00	1676.69	1672	12	1.67E-03	72.4	
44	0	860.42	69	62	1.18	1719.06	1713	13	4.78E-03	26.5	
45	0	910.94	257	52	1.87	1820.04	1815	12	1.78E-02	8.4	
46	0	934.91	54	86	3.28	1867.94	1858	17	3.75E-03	42.2	
47	3	964.46	75	28	2.41	1927.00	1921	20	5.19E-03	18.6	9.51E-01
48	3	968.73*	171	20	1.91	1935.53	1921	20	1.19E-02	9.9	
49	0	981.77	14	43	1.17	1961.59	1956	10	9.63E-04	92.1	
50	0	1001.75*	20	57	5.54	2001.53	1991	19	1.39E-03	102.1	
51	0	1096.82	15	20	0.68	2191.53	2188	8	1.02E-03	60.4	
52	0	1120.38	129	47	1.51	2238.61	2233	14	8.97E-03	14.7	
53	0	1129.08	21	21	0.54	2256.01	2249	12	1.46E-03	48.7	
54	0	1237.68	51	31	1.72	2473.08	2468	11	3.56E-03	25.1	
55	0	1246.51	21	23	2.50	2490.72	2484	12	1.44E-03	52.0	
56	0	1294.33	17	21	2.93	2586.29	2578	14	1.20E-03	61.0	
57	0	1377.87	28	35	2.20	2753.27	2748	11	1.92E-03	45.9	
58	1	1407.25	21	12	2.07	2812.00	2806	24	1.49E-03	42.0	2.09E+00
59	1	1409.75	26	12	2.07	2817.00	2806	24	1.80E-03	35.8	
60	0	1417.80	16	13	0.70	2833.09	2829	12	1.11E-03	50.4	
61	0	1460.39*	377	19	2.16	2918.21	2910	15	2.62E-02	6.0	
62	0	1501.23	19	9	2.15	2999.84	2996	9	1.32E-03	36.6	
63	0	1729.49	25	7	2.52	3456.12	3451	9	1.75E-03	27.3	
64	0	1764.39*	106	20	2.44	3525.88	3515	19	7.36E-03	15.1	
65	0	1992.32	10	3	4.05	3981.54	3974	13	6.78E-04	49.7	
66	0	2009.52	11	8	5.20	4015.90	4007	15	7.29E-04	64.7	

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]G198681009       *
* Acquisition date : 15-DEC-2007 06:31:56 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 04:00:04.08     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681009           Analyst initials: MJH1            *
* Batch Number     : 708121               Sample Quantity : 1.2128E+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    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	5.133E+00	6.857E-01	2.810E-01	0.000E+00
CS-137	1.787E-01	3.611E-02	3.616E-02	0.000E+00
EU-155	4.908E-02	6.601E-02	9.139E-02	0.000E+00
TL-208	2.535E-01	4.854E-02	3.456E-02	0.000E+00
BI-212	8.377E-01	2.287E-01	2.522E-01	0.000E+00
PB-212	8.559E-01	7.975E-02	5.300E-02	0.000E+00
BI-214	8.149E-01	1.016E-01	6.379E-02	0.000E+00
PB-214	9.689E-01	1.142E-01	6.325E-02	0.000E+00
RA-223	3.283E-01	1.607E-01	1.671E-01	0.000E+00
AC-228	9.416E-01	1.703E-01	1.425E-01	0.000E+00
PA-234M	2.468E+00	4.943E+00	4.381E+00	0.000E+00
TH-234	1.149E+00	4.505E-01	4.631E-01	0.000E+00
NP-237	4.612E-01	1.745E-01	2.174E-01	0.000E+00
AM-243	1.255E-01	4.024E-02	5.250E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	-1.689E-03		2.530E-02	4.256E-02	0.000E+00	NOT IDENT.
RH-101	-4.101E-03		2.069E-02	3.229E-02	0.000E+00	NOT IDENT.
SB-125	1.591E-02		5.388E-02	9.235E-02	0.000E+00	NOT IDENT.
PO-209	3.624E+00		4.087E+00	7.344E+00	0.000E+00	NOT IDENT.
BI-211	4.060E-02		6.613E-01	1.083E+00	0.000E+00	NOT IDENT.
PA-233	2.074E-02		3.498E-02	6.225E-02	0.000E+00	NOT IDENT.
U-235	-4.746E-02		1.270E-01	2.001E-01	0.000E+00	NOT IDENT.
NP-236	1.441E-02		4.147E-02	6.269E-02	0.000E+00	NOT IDENT.
NP-239	5.722E-02		1.320E-01	2.219E-01	0.000E+00	NOT IDENT.
AM-241	7.477E-02		1.034E-01	1.734E-01	0.000E+00	NOT IDENT.
CM-243	-3.823E-02		5.799E-02	8.735E-02	0.000E+00	NOT IDENT.
AM-246	3.650E-02		7.547E-02	1.346E-01	0.000E+00	NOT IDENT.
CF-249	2.531E-02		2.353E-02	4.227E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 10:32:34.52

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681009.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 06:31:56
Sample ID        : G198681009           Sample quantity  : 1.21280E+02 GRAM
Detector name    : GAM02                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:04.08  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708121               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	377	10.66*	1.065E+00	5.133E+00	5.133E+00	13.63
CS-137	661.66	214	85.10*	2.182E+00	1.781E-01	1.787E-01	20.62
EU-155	105.31	42	21.20*	6.371E+00	4.800E-02	4.908E-02	137.24
TL-208	277.36	85	6.31	4.347E+00	4.799E-01	4.799E-01	113.24
	510.77	86	22.60	2.711E+00	2.175E-01	2.175E-01	92.40
	583.19	336	84.50*	2.429E+00	2.535E-01	2.535E-01	19.54
	763.13	------	1.81	1.923E+00	------	Line Not Found	------
	860.56	69	12.42	1.723E+00	4.976E-01	4.976E-01	53.48
BI-212	727.33	128	11.80*	2.008E+00	8.377E-01	8.377E-01	27.86
	785.37	------	1.10	1.873E+00	------	Line Not Found	------
	1620.50	------	1.49	9.857E-01	------	Line Not Found	------
PB-212	74.81	230	10.40	4.150E+00	8.232E-01	8.232E-01	32.71
	77.11	493	17.50	4.422E+00	9.858E-01	9.858E-01	17.25
	87.30	200	7.81	5.400E+00	7.322E-01	7.322E-01	38.62
	238.63	1164	43.30*	4.862E+00	8.559E-01	8.559E-01	9.51
	300.09	68	3.28	4.106E+00	7.791E-01	7.791E-01	76.87
BI-214	609.31	568	46.10*	2.342E+00	8.148E-01	8.149E-01	12.72
	768.36	59	4.94	1.911E+00	9.730E-01	9.730E-01	69.80
	806.17	72	1.22	1.832E+00	4.973E+00	4.974E+00	71.95
	934.06	54	3.03	1.595E+00	1.731E+00	1.732E+00	84.65
	1120.29	129	15.10	1.346E+00	9.837E-01	9.838E-01	29.99
	1155.19	------	1.63	1.308E+00	------	Line Not Found	------
	1238.11	51	5.79	1.228E+00	1.116E+00	1.117E+00	50.46
	1280.96	------	1.43	1.191E+00	------	Line Not Found	------
	1377.67	28	4.00	1.118E+00	9.589E-01	9.589E-01	91.95
	1401.50	------	1.27	1.102E+00	------	Line Not Found	------
	1407.98	21	2.15	1.098E+00	1.406E+00	1.406E+00	84.20
	1509.23	------	2.11	1.038E+00	------	Line Not Found	------
	1729.60	25	2.92	9.455E-01	1.412E+00	1.412E+00	54.89
	1764.49	106	15.40	9.347E-01	1.139E+00	1.139E+00	30.73
PB-214	74.81	230	6.44	4.150E+00	1.329E+00	1.329E+00	32.71
	77.11	493	10.80	4.422E+00	1.597E+00	1.597E+00	17.25

Sample ID : G198681009 Acquisition date : 15-DEC-2007 06:31:56

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	200	4.84	5.400E+00	1.182E+00	1.182E+00	38.62
	242.00	375	7.43	4.818E+00	1.619E+00	1.619E+00	24.63
	295.22	483	19.30	4.155E+00	9.318E-01	9.319E-01	17.87
	351.93	855	37.60*	3.634E+00	9.689E-01	9.689E-01	12.03
RA-223	269.46	129	13.70*	4.437E+00	3.283E-01	3.283E-01	49.95
AC-228	129.07	46	2.42	6.595E+00	4.489E-01	4.489E-01	162.20
	209.25	132	3.89	5.324E+00	9.877E-01	9.877E-01	53.61
	270.25	129	3.46	4.437E+00	1.300E+00	1.300E+00	49.95
	338.32	223	11.27	3.746E+00	8.179E-01	8.179E-01	29.16
	409.46	42	1.92	3.235E+00	1.048E+00	1.048E+00	153.96
	463.00	60	4.40	2.933E+00	7.140E-01	7.140E-01	75.03
	794.95	39	4.25	1.852E+00	7.652E-01	7.652E-01	87.95
	911.20	257	25.80*	1.634E+00	9.416E-01	9.416E-01	18.46
	964.77	75	4.99	1.549E+00	1.497E+00	1.497E+00	37.90
	968.97	171	15.80	1.542E+00	1.088E+00	1.088E+00	21.18
	1588.20	------	3.22	9.997E-01	------	Line Not Found	------
PA-234M	1001.03	20	0.84*	1.495E+00	2.468E+00	2.468E+00	204.42
TH-234	63.29	65	4.80	2.599E+00	8.111E-01	8.111E-01	140.87
	92.58	232	5.41*	5.784E+00	1.149E+00	1.149E+00	40.01
NP-237	86.48	200	12.40*	5.400E+00	4.612E-01	4.612E-01	38.62
AM-243	74.66	230	68.20*	4.150E+00	1.255E-01	1.255E-01	32.71

Flag: "*" = Keyline

Sample ID : G198681009 Acquisition date : 15-DEC-2007 06:31:56

Total number of lines in spectrum 66
Number of unidentified lines 27
Number of lines tentatively identified by NID 39 59.09%

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	5.133E+00	5.133E+00	0.700E+00	13.63	
CS-137	9.47E+08S	1.00	1.781E-01	1.787E-01	0.368E-01	20.62	
EU-155	1.57E+08S	1.02	4.800E-02	4.908E-02	6.735E-02	137.24	
TL-208	4.43E+17S	1.00	2.535E-01	2.535E-01	0.495E-01	19.54	
BI-212	4.43E+17S	1.00	8.377E-01	8.377E-01	2.334E-01	27.86	
PB-212	4.43E+17S	1.00	8.559E-01	8.559E-01	0.814E-01	9.51	
BI-214	5.05E+10S	1.00	8.148E-01	8.149E-01	1.037E-01	12.72	
PB-214	5.05E+10S	1.00	9.689E-01	9.689E-01	1.165E-01	12.03	
RA-223	1.04E+12S	1.00	3.283E-01	3.283E-01	1.640E-01	49.95	
AC-228	4.43E+17S	1.00	9.416E-01	9.416E-01	1.738E-01	18.46	
PA-234M	1.41E+17S	1.00	2.468E+00	2.468E+00	5.044E+00	204.42	
TH-234	1.41E+17S	1.00	1.149E+00	1.149E+00	0.460E+00	40.01	
NP-237	6.75E+13S	1.00	4.612E-01	4.612E-01	1.781E-01	38.62	
AM-243	2.33E+11S	1.00	1.255E-01	1.255E-01	0.411E-01	32.71	
			---	---			
		Total Activity :	1.456E+01	1.457E+01			

Grand Total Activity : 1.456E+01 1.457E+01

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

Sample ID : G198681009 Acquisition date : 15-DEC-2007 06:31:56

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
3	84.21	54	334	0.82	167.92	163	29	3.78E-03	****	5.14E+00	
3	89.99	181	370	0.97	179.46	163	29	1.26E-02	36.8	5.61E+00	
0	185.79	150	463	1.03	370.89	366	11	1.04E-02	65.4	5.74E+00	
0	204.61	66	334	1.01	408.50	405	9	4.60E-03	****	5.41E+00	
0	321.19	33	165	2.09	641.46	639	9	2.27E-03	****	3.90E+00	
0	328.19	95	232	1.14	655.45	651	11	6.62E-03	65.0	3.83E+00	
0	380.16	39	124	2.55	759.29	755	9	2.71E-03	****	3.42E+00	
0	394.57	26	112	0.60	788.09	784	8	1.84E-03	****	3.33E+00	
0	415.56	22	172	0.81	830.05	827	10	1.51E-03	****	3.19E+00	
0	545.42	6	132	0.60	1089.54	1082	12	3.85E-04	****	2.57E+00	
0	571.38	12	69	1.09	1141.43	1137	7	8.66E-04	****	2.47E+00	
2	665.08	34	49	1.72	1328.67	1316	17	2.37E-03	80.3	2.17E+00	
2	719.94	33	28	1.98	1438.31	1434	33	2.26E-03	69.6	2.03E+00	
2	723.25	29	42	1.98	1444.92	1434	33	2.01E-03	****	2.02E+00	
0	755.24	39	44	1.00	1508.87	1504	10	2.74E-03	70.8	1.94E+00	
0	787.86	30	93	2.84	1574.05	1561	17	2.05E-03	****	1.87E+00	
0	839.22	24	72	1.00	1676.69	1672	12	1.67E-03	****	1.76E+00	
0	981.77	14	43	1.17	1961.59	1956	10	9.63E-04	****	1.52E+00	
0	1096.82	15	20	0.68	2191.53	2188	8	1.02E-03	****	1.37E+00	
0	1129.08	21	21	0.54	2256.01	2249	12	1.46E-03	97.5	1.34E+00	
0	1246.51	21	23	2.50	2490.72	2484	12	1.44E-03	****	1.22E+00	
0	1294.33	17	21	2.93	2586.29	2578	14	1.20E-03	****	1.18E+00	
1	1409.75	26	12	2.07	2817.00	2806	24	1.80E-03	71.6	1.10E+00	
0	1417.80	16	13	0.70	2833.09	2829	12	1.11E-03	****	1.09E+00	
0	1501.23	19	9	2.15	2999.84	2996	9	1.32E-03	73.1	1.04E+00	
0	1992.32	10	3	4.05	3981.54	3974	13	6.78E-04	99.4	8.86E-01	
0	2009.52	11	8	5.20	4015.90	4007	15	7.29E-04	****	8.84E-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]G198681009            *
* Acquisition date : 15-DEC-2007 06:31:56 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 04:00:04.08     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681009           Analyst initials: MJH1            *
* Batch Number     : 708121               Sample Quantity : 1.2128E+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	5.133E+00	6.857E-01	1.406E-01	6.857E-01
CS-137	1.787E-01	3.611E-02	1.809E-02	3.611E-02
EU-155	4.908E-02	6.601E-02	4.572E-02	6.601E-02
TL-208	2.535E-01	4.854E-02	1.729E-02	4.854E-02
BI-212	8.377E-01	2.287E-01	1.262E-01	2.287E-01
PB-212	8.559E-01	7.975E-02	2.652E-02	7.975E-02
BI-214	8.149E-01	1.016E-01	3.191E-02	1.016E-01
PB-214	9.689E-01	1.142E-01	3.164E-02	1.142E-01
RA-223	3.283E-01	1.607E-01	8.361E-02	1.607E-01
AC-228	9.416E-01	1.703E-01	7.127E-02	1.703E-01
PA-234M	2.468E+00	4.943E+00	2.192E+00	4.943E+00
TH-234	1.149E+00	4.505E-01	2.317E-01	4.505E-01
NP-237	4.612E-01	1.745E-01	1.088E-01	1.745E-01
AM-243	1.255E-01	4.024E-02	2.626E-02	4.024E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	-1.689E-03	2.530E-02	2.129E-02	2.530E-02	NOT IDENT.
RH-101	-4.101E-03	2.069E-02	1.616E-02	2.069E-02	NOT IDENT.
SB-125	1.591E-02	5.388E-02	4.620E-02	5.388E-02	NOT IDENT.
PO-209	3.624E+00	4.087E+00	3.674E+00	4.087E+00	NOT IDENT.
BI-211	4.060E-02	6.613E-01	5.416E-01	6.613E-01	NOT IDENT.
PA-233	2.074E-02	3.498E-02	3.114E-02	3.498E-02	NOT IDENT.
U-235	-4.746E-02	1.270E-01	1.001E-01	1.270E-01	NOT IDENT.
NP-236	1.441E-02	4.147E-02	3.136E-02	4.147E-02	NOT IDENT.
NP-239	5.722E-02	1.320E-01	1.110E-01	1.320E-01	NOT IDENT.
AM-241	7.477E-02	1.034E-01	8.674E-02	1.034E-01	NOT IDENT.
CM-243	-3.823E-02	5.799E-02	4.370E-02	5.799E-02	NOT IDENT.
AM-246	3.650E-02	7.547E-02	6.732E-02	7.547E-02	NOT IDENT.
CF-249	2.531E-02	2.353E-02	2.115E-02	2.353E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	261.8504
63.29	312.6050
74.66	393.9444
74.81	394.0971
74.81	394.0971
77.11	396.4025
77.11	396.4025
86.48	374.6995
87.30	375.4090
87.30	375.4090
92.58	379.9032
98.44	331.6272
103.76	325.1497
105.31	263.5583
129.07	329.8393
143.76	346.3737
198.00	286.5585
209.25	258.1165
228.18	245.8791
238.63	230.7964
242.00	231.6526
269.46	192.9146
270.25	208.4271
277.36	216.3466
295.22	218.7719
300.09	227.2926
312.17	150.2852
338.32	188.7664
351.93	139.7357
387.59	129.5352
409.46	136.5853
427.87	118.7941
463.00	120.5867
510.77	115.4742
583.19	95.3824
609.31	89.9028
661.66	84.9998
727.33	67.9707
763.13	91.7495
768.36	87.2761
785.37	66.2454
794.95	57.9785
806.17	52.2447
831.80	75.5480
860.56	54.1899
896.60	44.3840
911.20	69.0704
934.06	49.2984
964.77	47.6824
968.97	50.6486
1001.03	58.1745
1078.86	43.1905
1120.29	38.5356
1155.19	50.0174
1173.23	57.0650
1238.11	47.3262
1280.96	37.9273
1332.51	30.3723
1377.67	30.7410
1401.50	31.8177
1407.98	37.1836
1460.80	19.7411
1509.23	29.2419
1588.20	44.2649
1620.50	21.4438
1729.60	18.1505
1764.49	17.3245

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198681009

Total Uranium Activity	-2.1961E-02	ug/g
Total Uranium Counting Unc.	5.8775E-02	ug/g
Total Uranium Tpu	5.8775E-08	ug/g
Total Uranium Mda	4.6316E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 13:11:09.40

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681010.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 06:32:43
Sample ID        : G198681010           Sample quantity  : 1.29150E+02 GRAM
Detector name    : GAM04                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:29.79  0.2%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708121               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.31*	7	262	1.47	93.56	91	6	4.89E-04	396.6	
2	0	62.99*	47	470	2.43	126.90	122	10	3.30E-03	93.2	
3	3	74.81	234	467	1.29	150.54	145	17	1.63E-02	17.8	2.79E-01
4	3	77.01	403	386	1.21	154.94	145	17	2.80E-02	9.9	
5	4	84.55*	82	469	1.34	170.01	166	13	5.69E-03	48.7	1.32E+00
6	4	87.16	141	480	1.29	175.23	166	13	9.78E-03	28.4	
7	2	92.78*	154	494	1.26	186.46	182	12	1.07E-02	29.0	1.42E+00
8	2	94.82	71	289	1.34	190.54	182	12	4.93E-03	43.6	
9	0	105.42	92	352	2.09	211.72	208	8	6.37E-03	37.0	
10	4	185.77*	192	369	1.44	372.34	366	13	1.33E-02	21.3	7.88E-01
11	4	187.67	36	191	0.87	376.14	366	13	2.47E-03	64.1	
12	0	195.65	38	492	3.64	392.10	387	12	2.65E-03	117.1	
13	0	209.21	139	295	1.17	419.19	415	9	9.66E-03	23.8	
14	0	223.47	33	267	0.69	447.70	443	8	2.26E-03	88.9	
15	4	238.65*	1169	300	1.29	478.04	473	25	8.12E-02	4.0	6.37E-01
16	4	241.61	328	351	1.76	483.97	473	25	2.28E-02	14.2	
17	0	270.50*	127	305	1.81	541.70	536	12	8.84E-03	30.0	
18	0	295.25*	390	255	1.45	591.20	586	11	2.71E-02	9.7	
19	0	300.06	109	219	1.85	600.81	597	10	7.60E-03	27.3	
20	0	328.84	86	238	3.27	658.33	652	12	5.96E-03	37.9	
21	0	338.36	194	286	1.51	677.37	673	11	1.35E-02	18.5	
22	0	351.85*	643	244	1.45	704.32	697	15	4.46E-02	6.8	
23	1	463.08	66	130	1.69	926.69	918	25	4.58E-03	34.0	1.81E+00
24	1	466.39	30	108	1.70	933.31	918	25	2.10E-03	71.1	
25	0	511.09*	168	150	2.17	1022.67	1014	19	1.17E-02	23.2	
26	0	518.01	30	60	1.19	1036.51	1033	8	2.05E-03	49.0	
27	0	564.29	20	114	4.95	1129.03	1122	13	1.38E-03	113.1	
28	0	583.19*	362	124	1.40	1166.81	1160	15	2.52E-02	8.9	
29	0	609.32*	476	87	1.47	1219.05	1213	12	3.31E-02	6.5	
30	0	617.05	7	70	0.66	1234.52	1229	8	4.64E-04	220.7	
31	0	661.64	272	141	1.38	1323.66	1316	16	1.89E-02	11.5	
32	0	707.39	25	29	1.69	1415.13	1412	7	1.71E-03	42.9	
33	0	711.08	27	36	1.12	1422.51	1419	9	1.87E-03	43.7	
34	0	727.92	82	106	1.82	1456.18	1449	17	5.72E-03	30.7	
35	0	802.80*	34	95	7.76	1605.89	1596	20	2.36E-03	74.0	
36	0	841.44	9	53	1.06	1683.14	1677	8	6.16E-04	147.0	
37	0	851.37	11	15	0.51	1702.99	1700	7	7.41E-04	68.6	
38	0	860.81	74	72	2.07	1721.86	1713	16	5.14E-03	28.2	

Sample ID : G198681010 Acquisition date : 15-DEC-2007 06:32:43

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	903.46	18	42	4.06	1807.14	1799	12	1.24E-03	76.5	
40	0	911.35*	239	48	1.57	1822.91	1816	15	1.66E-02	9.5	
41	1	964.98*	54	39	2.08	1930.14	1922	22	3.76E-03	30.5	1.33E+00
42	1	969.02*	153	44	1.92	1938.23	1922	22	1.06E-02	12.7	
43	0	997.81	7	26	2.06	1995.78	1990	8	5.03E-04	124.3	
44	0	1001.63*	1	44	1.81	2003.43	1997	13	8.58E-05	*****	
45	0	1037.86	14	29	0.61	2075.88	2069	9	9.48E-04	76.4	
46	0	1120.34	95	43	1.84	2240.79	2232	17	6.63E-03	18.2	
47	0	1166.95	15	22	3.44	2334.00	2326	11	1.04E-03	65.8	
48	0	1221.11	15	73	9.20	2442.29	2426	23	1.02E-03	154.5	
49	0	1239.37	28	53	2.23	2478.82	2469	15	1.91E-03	60.5	
50	0	1269.47	15	32	4.31	2539.00	2527	16	1.04E-03	88.2	
51	0	1378.05	42	32	1.44	2756.14	2748	16	2.92E-03	33.8	
52	0	1448.27	20	18	0.83	2896.55	2886	18	1.39E-03	54.5	
53	0	1460.81*	401	10	1.82	2921.63	2914	14	2.78E-02	5.5	
54	0	1589.34	30	45	4.23	3178.67	3165	23	2.06E-03	62.1	
55	0	1595.43*	2	14	1.37	3190.86	3187	9	1.36E-04	447.0	
56	0	1675.46	8	9	3.41	3350.92	3344	12	5.37E-04	85.8	
57	0	1729.14	33	11	1.65	3458.27	3452	14	2.27E-03	27.5	
58	1	1764.77	110	7	2.47	3529.54	3520	22	7.65E-03	11.1	1.56E+00
59	1	1769.29	16	8	2.07	3538.57	3520	22	1.10E-03	31.0	
60	0	1847.64	18	8	1.05	3695.28	3690	11	1.22E-03	39.8	
61	0	1944.76	9	4	0.53	3889.52	3879	13	6.28E-04	53.7	
62	0	1953.36	10	5	0.56	3906.72	3902	9	6.74E-04	56.6	
63	0	1980.76	9	3	1.38	3961.54	3954	12	6.48E-04	49.1	

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]G198681010       *
* Acquisition date : 15-DEC-2007 06:32:43 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 04:00:29.79     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681010           Analyst initials: MJH1            *
* Batch Number     : 708121               Sample Quantity : 1.2915E+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	5.154E+00	6.352E-01	3.151E-01	0.000E+00
CS-137	2.151E-01	5.031E-02	3.437E-02	0.000E+00
EU-155	1.098E-01	8.034E-02	1.098E-01	0.000E+00
TL-208	2.583E-01	4.800E-02	3.020E-02	0.000E+00
BI-212	5.081E-01	3.079E-01	2.387E-01	0.000E+00
PB-212	8.414E-01	1.068E-01	5.569E-02	0.000E+00
BI-214	6.448E-01	9.239E-02	6.081E-02	0.000E+00
PB-214	7.011E-01	1.062E-01	6.467E-02	0.000E+00
RA-223	3.157E-01	1.881E-01	1.748E-01	0.000E+00
AC-228	8.270E-01	1.734E-01	1.245E-01	0.000E+00
PA-234M	1.438E-01	3.403E+00	1.844E+00	0.000E+00
TH-234	7.898E-01	4.541E-01	4.942E-01	0.000E+00
NP-237	3.414E-01	1.923E-01	2.511E-01	0.000E+00
AM-243	1.389E-01	5.006E-02	5.443E-02	0.000E+00
CM-243	9.941E-02	7.271E-02	9.621E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
CO-60	1.298E-02	2.291E-02	3.909E-02	0.000E+00	NOT IDENT.
RH-101	1.745E-02	2.337E-02	3.614E-02	0.000E+00	NOT IDENT.
SB-125	-1.476E-02	5.141E-02	8.870E-02	0.000E+00	NOT IDENT.
PO-209	1.032E+00	3.963E+00	6.111E+00	0.000E+00	NOT IDENT.
BI-211	-4.480E-01	5.554E-01	8.464E-01	0.000E+00	NOT IDENT.
PA-233	-2.282E-02	3.555E-02	5.817E-02	0.000E+00	NOT IDENT.
U-235	4.945E-02	1.212E-01	2.069E-01	0.000E+00	NOT IDENT.
NP-236	-6.413E-03	3.915E-02	5.883E-02	0.000E+00	NOT IDENT.
NP-239	-1.937E-02	1.423E-01	2.277E-01	0.000E+00	NOT IDENT.
AM-241	4.322E-02	1.315E-01	2.093E-01	0.000E+00	NOT IDENT.
AM-246	2.020E-02	6.887E-02	1.202E-01	0.000E+00	NOT IDENT.
CF-249	-9.656E-03	2.533E-02	4.143E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 13:11:10.51

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681010.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 06:32:43
Sample ID        : G198681010           Sample quantity  : 1.29150E+02 GRAM
Detector name    : GAM04                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:29.79  0.2%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708121               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	401	10.66*	1.060E+00	5.154E+00	5.154E+00	12.58
CS-137	661.66	272	85.10*	2.171E+00	2.143E-01	2.151E-01	23.87
EU-155	105.31	92	21.20*	5.858E+00	1.074E-01	1.098E-01	74.63
TL-208	277.36	------	6.31	4.202E+00	------	Line Not Found	------
	510.77	168	22.60	2.680E+00	4.042E-01	4.042E-01	46.89
	583.19	362	84.50*	2.412E+00	2.583E-01	2.583E-01	18.96
	763.13	------	1.81	1.915E+00	------	Line Not Found	------
	860.56	74	12.42	1.715E+00	5.045E-01	5.045E-01	57.12
BI-212	727.33	82	11.80*	1.998E+00	5.081E-01	5.081E-01	61.83
	785.37	------	1.10	1.866E+00	------	Line Not Found	------
	1620.50	------	1.49	9.849E-01	------	Line Not Found	------
PB-212	74.81	234	10.40	3.590E+00	9.109E-01	9.109E-01	36.77
	77.11	403	17.50	3.845E+00	8.709E-01	8.709E-01	21.94
	87.30	141	7.81	4.836E+00	5.420E-01	5.420E-01	57.48
	238.63	1169	43.30*	4.663E+00	8.414E-01	8.414E-01	12.95
	300.09	109	3.28	3.974E+00	1.221E+00	1.221E+00	55.27
BI-214	609.31	476	46.10*	2.327E+00	6.447E-01	6.448E-01	14.62
	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	95	15.10	1.337E+00	6.869E-01	6.869E-01	37.11
	1155.19	------	1.63	1.299E+00	------	Line Not Found	------
	1238.11	28	5.79	1.218E+00	5.667E-01	5.667E-01	121.19
	1280.96	------	1.43	1.183E+00	------	Line Not Found	------
	1377.67	42	4.00	1.111E+00	1.374E+00	1.374E+00	67.96
	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	33	2.92	9.491E-01	1.712E+00	1.712E+00	55.38
	1764.49	110	15.40	9.397E-01	1.107E+00	1.107E+00	23.02
PB-214	74.81	234	6.44	3.590E+00	1.471E+00	1.471E+00	36.77
	77.11	403	10.80	3.845E+00	1.411E+00	1.411E+00	21.94

Sample ID : G198681010 Acquisition date : 15-DEC-2007 06:32:43

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	141	4.84	4.836E+00	8.747E-01	8.747E-01	57.48
	242.00	328	7.43	4.624E+00	1.387E+00	1.387E+00	30.11
	295.22	390	19.30	4.020E+00	7.305E-01	7.305E-01	21.47
	351.93	643	37.60*	3.544E+00	7.011E-01	7.011E-01	15.45
RA-223	269.46	127	13.70*	4.276E+00	3.157E-01	3.157E-01	60.82
AC-228	129.07	------	2.42	6.175E+00	------	Line Not Found	------
	209.25	139	3.89	5.084E+00	1.022E+00	1.022E+00	48.78
	270.25	127	3.46	4.276E+00	1.250E+00	1.250E+00	60.82
	338.32	194	11.27	3.645E+00	6.859E-01	6.859E-01	37.76
	409.46	------	1.92	3.171E+00	------	Line Not Found	------
	463.00	66	4.40	2.892E+00	7.538E-01	7.538E-01	68.25
	794.95	------	4.25	1.846E+00	------	Line Not Found	------
	911.20	239	25.80*	1.626E+00	8.270E-01	8.270E-01	21.40
	964.77	54	4.99	1.540E+00	1.023E+00	1.023E+00	61.81
	968.97	153	15.80	1.534E+00	9.150E-01	9.150E-01	27.07
	1588.20	30	3.22	9.973E-01	1.343E+00	1.343E+00	124.32
PA-234M	1001.03	1	0.84*	1.487E+00	1.438E-01	1.438E-01	2414.19
TH-234	63.29	47	4.80	2.082E+00	6.907E-01	6.907E-01	186.74
	92.58	154	5.41*	5.249E+00	7.898E-01	7.898E-01	58.67
NP-237	86.48	141	12.40*	4.836E+00	3.414E-01	3.414E-01	57.48
AM-243	74.66	234	68.20*	3.590E+00	1.389E-01	1.389E-01	36.77
CM-243	103.76	92	23.00*	5.858E+00	9.902E-02	9.941E-02	74.63

Flag: "*" = Keyline

Sample ID : G198681010 Acquisition date : 15-DEC-2007 06:32:43

Total number of lines in spectrum	63	
Number of unidentified lines	31	
Number of lines tentatively identified by NID	32	50.79%

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	5.154E+00	5.154E+00	0.648E+00	12.58	
CS-137	9.47E+08S	1.00	2.143E-01	2.151E-01	0.513E-01	23.87	
EU-155	1.57E+08S	1.02	1.074E-01	1.098E-01	0.820E-01	74.63	
TL-208	4.43E+17S	1.00	2.583E-01	2.583E-01	0.490E-01	18.96	
BI-212	4.43E+17S	1.00	5.081E-01	5.081E-01	3.142E-01	61.83	
PB-212	4.43E+17S	1.00	8.414E-01	8.414E-01	1.090E-01	12.95	
BI-214	5.05E+10S	1.00	6.447E-01	6.448E-01	0.943E-01	14.62	
PB-214	5.05E+10S	1.00	7.011E-01	7.011E-01	1.084E-01	15.45	
RA-223	1.04E+12S	1.00	3.157E-01	3.157E-01	1.920E-01	60.82	
AC-228	4.43E+17S	1.00	8.270E-01	8.270E-01	1.769E-01	21.40	
PA-234M	1.41E+17S	1.00	1.438E-01	1.438E-01	34.73E-01	2414.19	
TH-234	1.41E+17S	1.00	7.898E-01	7.898E-01	4.634E-01	58.67	
NP-237	6.75E+13S	1.00	3.414E-01	3.414E-01	1.962E-01	57.48	
AM-243	2.33E+11S	1.00	1.389E-01	1.389E-01	0.511E-01	36.77	
CM-243	8.99E+08S	1.00	9.902E-02	9.941E-02	7.419E-02	74.63	
			---	---			
		Total Activity :	1.108E+01	1.109E+01			

Grand Total Activity : 1.108E+01 1.109E+01

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

Sample ID : G198681010 Acquisition date : 15-DEC-2007 06:32:43

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.31	7	262	1.47	93.56	91	6	4.89E-04	****	3.60E-01	
4	84.55	82	469	1.34	170.01	166	13	5.69E-03	97.3	4.61E+00	
2	94.82	71	289	1.34	190.54	182	12	4.93E-03	87.1	5.38E+00	
4	185.77	192	369	1.44	372.34	366	13	1.33E-02	42.7	5.46E+00	
4	187.67	36	191	0.87	376.14	366	13	2.47E-03	****	5.43E+00	
0	195.65	38	492	3.64	392.10	387	12	2.65E-03	****	5.30E+00	
0	223.47	33	267	0.69	447.70	443	8	2.26E-03	****	4.87E+00	
0	328.84	86	238	3.27	658.33	652	12	5.96E-03	75.9	3.72E+00	
1	466.39	30	108	1.70	933.31	918	25	2.10E-03	****	2.88E+00	
0	518.01	30	60	1.19	1036.51	1033	8	2.05E-03	98.0	2.65E+00	
0	564.29	20	114	4.95	1129.03	1122	13	1.38E-03	****	2.48E+00	
0	617.05	7	70	0.66	1234.52	1229	8	4.64E-04	****	2.30E+00	
0	707.39	25	29	1.69	1415.13	1412	7	1.71E-03	85.9	2.05E+00	
0	711.08	27	36	1.12	1422.51	1419	9	1.87E-03	87.4	2.04E+00	
0	802.80	34	95	7.76	1605.89	1596	20	2.36E-03	****	1.83E+00	
0	841.44	9	53	1.06	1683.14	1677	8	6.16E-04	****	1.75E+00	
0	851.37	11	15	0.51	1702.99	1700	7	7.41E-04	****	1.73E+00	
0	903.46	18	42	4.06	1807.14	1799	12	1.24E-03	****	1.64E+00	
0	997.81	7	26	2.06	1995.78	1990	8	5.03E-04	****	1.49E+00	
0	1037.86	14	29	0.61	2075.88	2069	9	9.48E-04	****	1.44E+00	
0	1166.95	15	22	3.44	2334.00	2326	11	1.04E-03	****	1.29E+00	
0	1221.11	15	73	9.20	2442.29	2426	23	1.02E-03	****	1.23E+00	
0	1269.47	15	32	4.31	2539.00	2527	16	1.04E-03	****	1.19E+00	
0	1448.27	20	18	0.83	2896.55	2886	18	1.39E-03	****	1.07E+00	
0	1595.43	2	14	1.37	3190.86	3187	9	1.36E-04	****	9.95E-01	
0	1675.46	8	9	3.41	3350.92	3344	12	5.37E-04	****	9.65E-01	
1	1769.29	16	8	2.07	3538.57	3520	22	1.10E-03	62.0	9.39E-01	
0	1847.64	18	8	1.05	3695.28	3690	11	1.22E-03	79.7	9.22E-01	
0	1944.76	9	4	0.53	3889.52	3879	13	6.28E-04	****	9.08E-01	
0	1953.36	10	5	0.56	3906.72	3902	9	6.74E-04	****	9.07E-01	
0	1980.76	9	3	1.38	3961.54	3954	12	6.48E-04	98.2	9.05E-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]G198681010            *
* Acquisition date : 15-DEC-2007 06:32:43 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 04:00:29.79     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681010           Analyst initials: MJH1            *
* Batch Number     : 708121               Sample Quantity : 1.2915E+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	5.154E+00	6.352E-01	1.576E-01	6.352E-01
CS-137	2.151E-01	5.031E-02	1.720E-02	5.031E-02
EU-155	1.098E-01	8.034E-02	5.495E-02	8.034E-02
TL-208	2.583E-01	4.800E-02	1.511E-02	4.800E-02
BI-212	5.081E-01	3.079E-01	1.194E-01	3.079E-01
PB-212	8.414E-01	1.068E-01	2.786E-02	1.068E-01
BI-214	6.448E-01	9.239E-02	3.042E-02	9.239E-02
PB-214	7.011E-01	1.062E-01	3.235E-02	1.062E-01
RA-223	3.157E-01	1.881E-01	8.746E-02	1.881E-01
AC-228	8.270E-01	1.734E-01	6.230E-02	1.734E-01
PA-234M	1.438E-01	3.403E+00	9.226E-01	3.403E+00
TH-234	7.898E-01	4.541E-01	2.473E-01	4.541E-01
NP-237	3.414E-01	1.923E-01	1.256E-01	1.923E-01
AM-243	1.389E-01	5.006E-02	2.723E-02	5.006E-02
CM-243	9.941E-02	7.271E-02	4.813E-02	7.271E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	1.298E-02	2.291E-02	1.955E-02	2.291E-02	NOT IDENT.
RH-101	1.745E-02	2.337E-02	1.808E-02	2.337E-02	NOT IDENT.
SB-125	-1.476E-02	5.141E-02	4.438E-02	5.141E-02	NOT IDENT.
PO-209	1.032E+00	3.963E+00	3.057E+00	3.963E+00	NOT IDENT.
BI-211	-4.480E-01	5.554E-01	4.235E-01	5.554E-01	NOT IDENT.
PA-233	-2.282E-02	3.555E-02	2.910E-02	3.555E-02	NOT IDENT.
U-235	4.945E-02	1.212E-01	1.035E-01	1.212E-01	NOT IDENT.
NP-236	-6.413E-03	3.915E-02	2.943E-02	3.915E-02	NOT IDENT.
NP-239	-1.937E-02	1.423E-01	1.139E-01	1.423E-01	NOT IDENT.
AM-241	4.322E-02	1.315E-01	1.047E-01	1.315E-01	NOT IDENT.
AM-246	2.020E-02	6.887E-02	6.015E-02	6.887E-02	NOT IDENT.
CF-249	-9.656E-03	2.533E-02	2.073E-02	2.533E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	283.8206
63.29	299.7459
74.66	350.6284
74.81	350.7358
74.81	350.7358
77.11	352.3454
77.11	352.3454
86.48	443.4443
87.30	518.1265
87.30	518.1265
92.58	393.3670
98.44	321.3098
103.76	329.1799
105.31	358.0654
129.07	338.4587
143.76	339.8894
198.00	306.2228
209.25	308.6063
228.18	292.8474
238.63	261.1950
242.00	261.9936
269.46	218.6927
270.25	218.8378
277.36	229.4440
295.22	229.9031
300.09	180.9650
312.17	180.1229
338.32	198.5219
351.93	155.1577
387.59	185.3394
409.46	127.4968
427.87	136.6097
463.00	127.3973
510.77	108.9257
583.19	80.4865
609.31	90.5105
661.66	85.3822
727.33	67.8660
763.13	103.7470
768.36	84.8594
785.37	65.1178
794.95	60.7064
806.17	71.7122
831.80	70.5653
860.56	58.1189
896.60	42.8175
911.20	58.8161
934.06	50.5712
964.77	53.9060
968.97	51.9487
1001.03	11.4771
1078.86	41.1062
1120.29	48.5235
1155.19	33.9945
1173.23	40.9926
1238.11	48.0346
1280.96	43.3928
1332.51	36.6221
1377.67	22.2117
1401.50	39.3531
1407.98	36.2163
1460.80	27.7222
1509.23	24.2843
1588.20	29.9224
1620.50	21.0393
1729.60	19.5487
1764.49	10.8247

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198681010

Total Uranium Activity	2.2882E-02	ug/g
Total Uranium Counting Unc.	5.6062E-02	ug/g
Total Uranium Tpu	5.6062E-08	ug/g
Total Uranium Mda	4.7885E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 10:34:22.60

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681011.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 06:33:31
Sample ID        : G198681011           Sample quantity  : 1.08920E+02 GRAM
Detector name    : GAM05                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:02.73  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708121               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	4	44.09	41	219	1.38	88.95	87	12	2.86E-03	52.3	1.03E+00
2	4	46.30*	116	363	1.11	93.38	87	12	8.04E-03	38.2	
3	0	52.99	57	358	1.51	106.75	104	7	3.92E-03	57.1	
4	0	63.10*	124	708	0.78	126.96	123	9	8.64E-03	42.0	
5	4	73.07*	18	623	1.80	146.89	143	16	1.28E-03	244.1	1.97E+00
6	4	74.70*	754	603	1.15	150.16	143	16	5.23E-02	6.9	
7	4	76.98*	1195	486	1.04	154.70	143	16	8.30E-02	4.4	
8	5	83.99*	190	482	1.48	168.71	165	28	1.32E-02	21.4	2.12E+00
9	5	87.09*	473	530	1.28	174.91	165	28	3.28E-02	9.8	
10	5	89.88	290	447	1.15	180.48	165	28	2.01E-02	13.5	
11	5	92.68*	432	551	1.48	186.09	165	28	3.00E-02	12.1	
12	0	98.74	86	477	1.56	198.20	195	9	5.95E-03	47.4	
13	0	105.10	108	572	2.25	210.92	206	11	7.53E-03	43.7	
14	0	109.36	50	390	1.00	219.42	216	7	3.50E-03	66.4	
15	0	129.19	102	464	1.20	259.06	256	8	7.09E-03	37.9	
16	0	143.69*	39	574	2.28	288.05	282	11	2.72E-03	123.9	
17	0	154.11	111	276	1.26	308.86	306	6	7.71E-03	25.5	
18	0	186.01*	243	478	1.46	372.62	366	11	1.69E-02	20.2	
19	0	209.60	138	411	1.17	419.78	415	10	9.60E-03	28.8	
20	4	238.71*	1436	306	1.16	477.96	472	17	9.97E-02	3.4	1.50E+00
21	4	241.74	427	342	1.67	484.01	472	17	2.96E-02	11.0	
22	0	247.79	45	233	1.66	496.10	494	8	3.13E-03	60.2	
23	0	270.61	143	266	1.26	541.71	537	10	9.95E-03	22.9	
24	0	276.69	51	261	0.78	553.86	551	9	3.54E-03	58.8	
25	0	295.35*	553	290	1.07	591.15	585	12	3.84E-02	7.8	
26	0	299.79	80	230	1.19	600.03	597	9	5.54E-03	35.4	
27	0	328.12	71	297	1.14	656.64	652	12	4.95E-03	49.6	
28	0	338.42*	238	320	1.22	677.22	671	13	1.65E-02	17.2	
29	0	352.09*	903	265	1.36	704.55	697	16	6.27E-02	5.5	
30	0	463.17	115	147	1.60	926.51	919	12	7.95E-03	23.1	
31	0	490.16	33	178	4.73	980.44	973	15	2.30E-03	89.9	
32	0	511.19*	169	187	2.16	1022.45	1016	15	1.18E-02	23.9	
33	0	583.64	354	157	1.36	1167.21	1161	14	2.46E-02	9.3	
34	0	609.52*	651	120	1.58	1218.92	1211	14	4.52E-02	5.6	
35	0	661.68	134	135	1.36	1323.13	1317	12	9.31E-03	19.4	
36	0	707.32	61	77	3.53	1414.30	1408	12	4.23E-03	32.5	
37	3	727.69	142	62	2.53	1455.00	1446	45	9.87E-03	14.7	2.45E+00
38	3	734.55	47	57	2.62	1468.70	1446	45	3.24E-03	41.1	

Sample ID : G198681011 Acquisition date : 15-DEC-2007 06:33:31

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	769.61	87	115	3.66	1538.73	1531	18	6.05E-03	30.1	
40	0	794.70	79	84	3.73	1588.86	1581	16	5.51E-03	28.2	
41	0	861.59	89	62	2.12	1722.48	1715	15	6.15E-03	23.1	
42	0	896.82	48	68	5.42	1792.85	1784	16	3.31E-03	42.2	
43	0	911.88*	249	116	1.79	1822.94	1814	16	1.73E-02	11.8	
44	0	935.13*	34	54	1.46	1869.36	1861	14	2.33E-03	55.5	
45	2	964.92	50	35	2.00	1928.87	1925	22	3.46E-03	26.8	1.37E+00
46	2	969.18	157	83	2.52	1937.38	1925	22	1.09E-02	15.2	
47	0	1059.01*	6	42	0.84	2116.78	2106	12	3.88E-04	258.3	
48	0	1099.06	19	38	4.48	2196.77	2189	12	1.30E-03	64.7	
49	0	1120.73*	117	64	1.95	2240.05	2233	16	8.14E-03	18.4	
50	0	1155.74	31	46	3.12	2309.96	2303	14	2.17E-03	49.3	
51	0	1237.73	67	48	5.44	2473.69	2465	16	4.66E-03	26.1	
52	0	1361.31	9	19	0.55	2720.46	2713	12	6.57E-04	95.7	
53	0	1378.97	37	51	1.66	2755.70	2749	18	2.54E-03	49.7	
54	0	1409.26*	24	24	2.14	2816.18	2810	13	1.70E-03	51.4	
55	0	1461.61*	529	29	2.12	2920.70	2909	24	3.67E-02	5.2	
56	0	1496.97	16	9	1.28	2991.30	2987	9	1.08E-03	43.3	
57	0	1509.67	29	14	0.91	3016.66	3010	12	1.98E-03	32.9	
58	0	1549.37	11	8	1.87	3095.91	3092	8	7.64E-04	53.8	
59	1	1589.24	54	25	2.73	3175.50	3168	20	3.74E-03	20.8	2.98E+00
60	1	1593.00	27	8	2.48	3183.00	3168	20	1.89E-03	28.5	
61	0	1647.07	23	9	6.59	3290.93	3282	18	1.60E-03	37.0	
62	0	1718.44	7	30	5.20	3433.41	3418	19	4.57E-04	199.5	
63	0	1732.03	34	25	3.34	3460.54	3447	20	2.34E-03	40.3	
64	0	1765.41*	70	19	1.67	3527.15	3522	12	4.86E-03	18.9	
65	0	1844.64	13	19	0.57	3685.29	3674	17	8.77E-04	87.6	
66	0	1849.11	16	6	1.82	3694.22	3690	9	1.08E-03	39.1	
67	0	1921.70	17	3	2.82	3839.09	3834	10	1.21E-03	29.3	
68	0	2041.98	13	3	1.79	4079.11	4074	12	8.70E-04	39.9	

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]G198681011       *
* Acquisition date : 15-DEC-2007 06:33:31 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 04:00:02.73     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681011           Analyst initials: MJH1            *
* Batch Number     : 708121               Sample Quantity : 1.0892E+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	8.752E+00	1.126E+00	4.601E-01	0.000E+00
CS-137	1.444E-01	5.598E-02	5.559E-02	0.000E+00
EU-155	1.308E-01	1.127E-01	1.165E-01	0.000E+00
TL-208	3.425E-01	6.671E-02	4.783E-02	0.000E+00
PO-209	1.200E+01	9.986E+00	9.684E+00	0.000E+00
BI-212	1.193E+00	3.572E-01	3.785E-01	0.000E+00
PB-212	1.279E+00	1.363E-01	7.854E-02	0.000E+00
BI-214	1.200E+00	1.576E-01	9.985E-02	0.000E+00
PB-214	1.264E+00	1.528E-01	9.065E-02	0.000E+00
RA-223	4.439E-01	2.016E-01	2.304E-01	0.000E+00
AC-228	1.159E+00	2.881E-01	2.007E-01	0.000E+00
TH-234	1.936E+00	4.909E-01	4.954E-01	0.000E+00
U-235	1.008E-01	2.449E-01	2.463E-01	0.000E+00
NP-236	5.547E-02	5.173E-02	6.299E-02	0.000E+00
NP-237	9.133E-01	1.923E-01	2.124E-01	0.000E+00
AM-243	2.598E-01	4.068E-02	3.979E-02	0.000E+00
CM-243	1.184E-01	1.020E-01	9.679E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
CO-60	-1.938E-02	3.264E-02	5.208E-02	0.000E+00	NOT IDENT.
RH-101	4.427E-02	3.144E-02	4.999E-02	0.000E+00	NOT IDENT.
SB-125	-3.722E-02	7.910E-02	1.286E-01	0.000E+00	NOT IDENT.
BI-211	-1.526E-02	8.913E-01	1.483E+00	0.000E+00	NOT IDENT.
PA-233	1.705E-02	4.875E-02	8.440E-02	0.000E+00	NOT IDENT.
PA-234M	2.783E+00	3.705E+00	6.453E+00	0.000E+00	NOT IDENT.
NP-239	5.574E-02	1.876E-01	3.113E-01	0.000E+00	NOT IDENT.
AM-241	5.581E-02	4.314E-02	6.981E-02	0.000E+00	NOT IDENT.
AM-246	2.321E-02	1.142E-01	1.968E-01	0.000E+00	NOT IDENT.
CF-249	3.216E-02	3.406E-02	5.979E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 10:34:25.03

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681011.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 06:33:31
Sample ID        : G198681011           Sample quantity  : 1.08920E+02 GRAM
Detector name    : GAM05                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:02.73  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708121               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	529	10.66*	9.764E-01	8.752E+00	8.752E+00	13.12
CS-137	661.66	134	85.10*	1.888E+00	1.438E-01	1.444E-01	39.57
EU-155	105.31	108	21.20*	6.888E+00	1.279E-01	1.308E-01	87.93
TL-208	277.36	51	6.31	3.989E+00	3.491E-01	3.491E-01	117.78
	510.77	169	22.60	2.366E+00	5.455E-01	5.455E-01	48.13
	583.19	354	84.50*	2.106E+00	3.425E-01	3.425E-01	19.87
	763.13	------	1.81	1.670E+00	------	Line Not Found	------
	860.56	89	12.42	1.507E+00	8.155E-01	8.155E-01	47.09
PO-209	896.60	48	0.47*	1.457E+00	1.198E+01	1.200E+01	84.93
BI-212	727.33	142	11.80*	1.739E+00	1.193E+00	1.193E+00	30.55
	785.37	------	1.10	1.629E+00	------	Line Not Found	------
	1620.50	------	1.49	8.967E-01	------	Line Not Found	------
PB-212	74.81	754	10.40	7.332E+00	1.703E+00	1.703E+00	15.98
	77.11	1195	17.50	7.312E+00	1.610E+00	1.610E+00	12.01
	87.30	473	7.81	7.190E+00	1.450E+00	1.450E+00	21.48
	238.63	1436	43.30*	4.465E+00	1.279E+00	1.279E+00	10.87
	300.09	80	3.28	3.741E+00	1.120E+00	1.120E+00	71.06
BI-214	609.31	651	46.10*	2.028E+00	1.200E+00	1.200E+00	13.41
	768.36	87	4.94	1.658E+00	1.833E+00	1.833E+00	60.85
	806.17	------	1.22	1.594E+00	------	Line Not Found	------
	934.06	34	3.03	1.407E+00	1.359E+00	1.359E+00	111.45
	1120.29	117	15.10	1.212E+00	1.104E+00	1.104E+00	37.43
	1155.19	31	1.63	1.182E+00	2.790E+00	2.790E+00	98.72
	1238.11	67	5.79	1.118E+00	1.787E+00	1.787E+00	52.62
	1280.96	------	1.43	1.087E+00	------	Line Not Found	------
	1377.67	37	4.00	1.024E+00	1.541E+00	1.541E+00	99.69
	1401.50	------	1.27	1.011E+00	------	Line Not Found	------
	1407.98	24	2.15	1.006E+00	1.949E+00	1.949E+00	103.13
	1509.23	29	2.11	9.508E-01	2.450E+00	2.450E+00	66.23
	1729.60	------	2.92	8.489E-01	------	Line Not Found	------
	1764.49	70	15.40	8.343E-01	9.378E-01	9.378E-01	38.29
PB-214	74.81	754	6.44	7.332E+00	2.751E+00	2.751E+00	15.98

Sample ID : G198681011 Acquisition date : 15-DEC-2007 06:33:31

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	1195	10.80	7.312E+00	2.608E+00	2.608E+00	12.01
	87.30	473	4.84	7.190E+00	2.340E+00	2.340E+00	21.48
	242.00	427	7.43	4.424E+00	2.238E+00	2.238E+00	23.59
	295.22	553	19.30	3.786E+00	1.303E+00	1.303E+00	16.87
	351.93	903	37.60*	3.273E+00	1.264E+00	1.264E+00	12.33
RA-223	269.46	143	13.70*	4.059E+00	4.439E-01	4.439E-01	46.34
AC-228	129.07	102	2.42	6.407E+00	1.135E+00	1.135E+00	76.46
	209.25	138	3.89	4.897E+00	1.250E+00	1.250E+00	58.30
	270.25	143	3.46	4.059E+00	1.758E+00	1.758E+00	46.34
	338.32	238	11.27	3.384E+00	1.076E+00	1.076E+00	34.85
	409.46	------	1.92	2.874E+00	------	Line Not Found	------
	463.00	115	4.40	2.581E+00	1.738E+00	1.738E+00	46.64
	794.95	79	4.25	1.613E+00	1.994E+00	1.994E+00	57.01
	911.20	249	25.80*	1.437E+00	1.159E+00	1.159E+00	25.36
	964.77	50	4.99	1.371E+00	1.254E+00	1.254E+00	54.29
	968.97	157	15.80	1.366E+00	1.251E+00	1.251E+00	31.62
	1588.20	54	3.22	9.113E-01	3.161E+00	3.161E+00	42.27
TH-234	63.29	124	4.80	7.386E+00	6.047E-01	6.047E-01	84.28
	92.58	432	5.41*	7.106E+00	1.936E+00	1.936E+00	25.87
U-235	143.76	39	10.96*	6.108E+00	1.008E-01	1.008E-01	247.99
NP-236	98.44	86	38.00*	7.004E+00	5.547E-02	5.547E-02	95.16
NP-237	86.48	473	12.40*	7.190E+00	9.133E-01	9.133E-01	21.48
AM-243	74.66	754	68.20*	7.332E+00	2.598E-01	2.598E-01	15.98
CM-243	103.76	108	23.00*	6.888E+00	1.179E-01	1.184E-01	87.93

Flag: "*" = Keyline

Sample ID : G198681011 Acquisition date : 15-DEC-2007 06:33:31

Total number of lines in spectrum 68
Number of unidentified lines 27
Number of lines tentatively identified by NID 41 60.29%

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	8.752E+00	8.752E+00	1.149E+00	13.12	
CS-137	9.47E+08S	1.00	1.438E-01	1.444E-01	0.571E-01	39.57	
EU-155	1.57E+08S	1.02	1.279E-01	1.308E-01	1.150E-01	87.93	
TL-208	4.43E+17S	1.00	3.425E-01	3.425E-01	0.681E-01	19.87	
PO-209	3.22E+09S	1.00	1.198E+01	1.200E+01	1.019E+01	84.93	
BI-212	4.43E+17S	1.00	1.193E+00	1.193E+00	0.364E+00	30.55	
PB-212	4.43E+17S	1.00	1.279E+00	1.279E+00	0.139E+00	10.87	
BI-214	5.05E+10S	1.00	1.200E+00	1.200E+00	0.161E+00	13.41	
PB-214	5.05E+10S	1.00	1.264E+00	1.264E+00	0.156E+00	12.33	
RA-223	1.04E+12S	1.00	4.439E-01	4.439E-01	2.057E-01	46.34	
AC-228	4.43E+17S	1.00	1.159E+00	1.159E+00	0.294E+00	25.36	
TH-234	1.41E+17S	1.00	1.936E+00	1.936E+00	0.501E+00	25.87	
U-235	2.22E+16S	1.00	1.008E-01	1.008E-01	2.499E-01	247.99	
NP-236	4.89E+12S	1.00	5.547E-02	5.547E-02	5.279E-02	95.16	
NP-237	6.75E+13S	1.00	9.133E-01	9.133E-01	1.962E-01	21.48	
AM-243	2.33E+11S	1.00	2.598E-01	2.598E-01	0.415E-01	15.98	
CM-243	8.99E+08S	1.00	1.179E-01	1.184E-01	1.041E-01	87.93	
			---	---			
	Total Activity :		3.127E+01	3.129E+01			

Grand Total Activity : 3.127E+01 3.129E+01

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

Sample ID : G198681011 Acquisition date : 15-DEC-2007 06:33:31

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
4	44.09	41	219	1.38	88.95	87	12	2.86E-03	****	7.26E+00	
4	46.30	116	363	1.11	93.38	87	12	8.04E-03	76.4	7.29E+00	
0	52.99	57	358	1.51	106.75	104	7	3.92E-03	****	7.35E+00	
4	73.07	18	623	1.80	146.89	143	16	1.28E-03	****	7.34E+00	
5	83.99	190	482	1.48	168.71	165	28	1.32E-02	42.9	7.23E+00	
5	89.88	290	447	1.15	180.48	165	28	2.01E-02	27.1	7.15E+00	
0	109.36	50	390	1.00	219.42	216	7	3.50E-03	****	6.81E+00	
0	154.11	111	276	1.26	308.86	306	6	7.71E-03	51.0	5.90E+00	
0	186.01	243	478	1.46	372.62	366	11	1.69E-02	40.4	5.29E+00	
0	247.79	45	233	1.66	496.10	494	8	3.13E-03	****	4.34E+00	
0	328.12	71	297	1.14	656.64	652	12	4.95E-03	99.2	3.47E+00	
0	490.16	33	178	4.73	980.44	973	15	2.30E-03	****	2.46E+00	
0	707.32	61	77	3.53	1414.30	1408	12	4.23E-03	64.9	1.78E+00	
3	734.55	47	57	2.62	1468.70	1446	45	3.24E-03	82.3	1.73E+00	
0	1059.01	6	42	0.84	2116.78	2106	12	3.88E-04	****	1.27E+00	
0	1099.06	19	38	4.48	2196.77	2189	12	1.30E-03	****	1.23E+00	
0	1361.31	9	19	0.55	2720.46	2713	12	6.57E-04	****	1.03E+00	
0	1496.97	16	9	1.28	2991.30	2987	9	1.08E-03	86.6	9.57E-01	
0	1549.37	11	8	1.87	3095.91	3092	8	7.64E-04	****	9.31E-01	
1	1593.00	27	8	2.48	3183.00	3168	20	1.89E-03	57.1	9.10E-01	
0	1647.07	23	9	6.59	3290.93	3282	18	1.60E-03	74.0	8.85E-01	
0	1718.44	7	30	5.20	3433.41	3418	19	4.57E-04	****	8.54E-01	
0	1732.03	34	25	3.34	3460.54	3447	20	2.34E-03	80.6	8.48E-01	
0	1844.64	13	19	0.57	3685.29	3674	17	8.77E-04	****	8.03E-01	
0	1849.11	16	6	1.82	3694.22	3690	9	1.08E-03	78.1	8.02E-01	
0	1921.70	17	3	2.82	3839.09	3834	10	1.21E-03	58.6	7.75E-01	
0	2041.98	13	3	1.79	4079.11	4074	12	8.70E-04	79.8	7.34E-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]G198681011            *
* Acquisition date : 15-DEC-2007 06:33:31 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 04:00:02.73     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681011           Analyst initials: MJH1            *
* Batch Number     : 708121               Sample Quantity : 1.0892E+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	8.752E+00	1.126E+00	2.302E-01	1.126E+00
CS-137	1.444E-01	5.598E-02	2.781E-02	5.598E-02
EU-155	1.308E-01	1.127E-01	5.828E-02	1.127E-01
TL-208	3.425E-01	6.671E-02	2.393E-02	6.671E-02
PO-209	1.200E+01	9.986E+00	4.845E+00	9.986E+00
BI-212	1.193E+00	3.572E-01	1.894E-01	3.572E-01
PB-212	1.279E+00	1.363E-01	3.929E-02	1.363E-01
BI-214	1.200E+00	1.576E-01	4.996E-02	1.576E-01
PB-214	1.264E+00	1.528E-01	4.535E-02	1.528E-01
RA-223	4.439E-01	2.016E-01	1.153E-01	2.016E-01
AC-228	1.159E+00	2.881E-01	1.004E-01	2.881E-01
TH-234	1.936E+00	4.909E-01	2.479E-01	4.909E-01
U-235	1.008E-01	2.449E-01	1.232E-01	2.449E-01
NP-236	5.547E-02	5.173E-02	3.151E-02	5.173E-02
NP-237	9.133E-01	1.923E-01	1.063E-01	1.923E-01
AM-243	2.598E-01	4.068E-02	1.991E-02	4.068E-02
CM-243	1.184E-01	1.020E-01	4.843E-02	1.020E-01

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	-1.938E-02	3.264E-02	2.606E-02	3.264E-02	NOT IDENT.
RH-101	4.427E-02	3.144E-02	2.501E-02	3.144E-02	NOT IDENT.
SB-125	-3.722E-02	7.910E-02	6.436E-02	7.910E-02	NOT IDENT.
BI-211	-1.526E-02	8.913E-01	7.421E-01	8.913E-01	NOT IDENT.
PA-233	1.705E-02	4.875E-02	4.222E-02	4.875E-02	NOT IDENT.
PA-234M	2.783E+00	3.705E+00	3.228E+00	3.705E+00	NOT IDENT.
NP-239	5.574E-02	1.876E-01	1.558E-01	1.876E-01	NOT IDENT.
AM-241	5.581E-02	4.314E-02	3.492E-02	4.314E-02	NOT IDENT.
AM-246	2.321E-02	1.142E-01	9.845E-02	1.142E-01	NOT IDENT.
CF-249	3.216E-02	3.406E-02	2.991E-02	3.406E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	430.7693
63.29	575.3166
74.66	599.4366
74.81	599.6047
74.81	599.6047
77.11	625.9497
77.11	625.9497
86.48	545.4323
87.30	546.1921
87.30	546.1921
92.58	550.9932
98.44	427.7216
103.76	357.4167
105.31	420.5550
129.07	481.0305
143.76	415.1812
198.00	366.4289
209.25	371.4978
228.18	351.1275
238.63	354.7866
242.00	309.6348
269.46	254.6201
270.25	257.3531
277.36	276.3759
295.22	258.0885
300.09	263.7473
312.17	200.7279
338.32	243.2953
351.93	192.4614
387.59	181.7446
409.46	164.7883
427.87	177.8382
463.00	157.1796
510.77	165.3573
583.19	112.9279
609.31	135.7634
661.66	123.4518
727.33	94.2539
763.13	76.7473
768.36	104.2332
785.37	87.8495
794.95	87.5434
806.17	103.0397
831.80	90.7003
860.56	93.4875
896.60	68.7111
911.20	86.8096
934.06	79.0054
964.77	58.3315
968.97	78.7861
1001.03	63.4161
1078.86	68.7583
1120.29	70.4900
1155.19	59.6062
1173.23	68.5807
1238.11	60.1392
1280.96	54.5703
1332.51	38.1657
1377.67	44.3985
1401.50	28.5684
1407.98	57.2188
1460.80	36.1792
1509.23	35.5096
1588.20	40.8687
1620.50	26.7107
1729.60	21.9598
1764.49	24.0257

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198681011

Total Uranium Activity	4.6622E-02	ug/g
Total Uranium Counting Unc.	1.1331E-01	ug/g
Total Uranium Tpu	1.1331E-07	ug/g
Total Uranium Mda	5.7021E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 10:35:03.69

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681012.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 06:34:17
Sample ID        : G198681012           Sample quantity  : 1.23710E+02 GRAM
Detector name    : GAM06                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.73  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708121               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.41*	26	354	1.50	92.88	90	7	1.83E-03	128.7	
2	0	62.75*	37	361	0.99	125.53	123	6	2.56E-03	91.1	
3	4	74.42*	296	517	1.17	148.87	145	20	2.05E-02	14.1	6.88E-01
4	4	76.71*	536	401	1.05	153.42	145	20	3.73E-02	7.7	
5	3	83.81*	141	430	1.31	167.63	164	28	9.78E-03	28.0	2.96E+00
6	3	86.89	254	426	1.32	173.78	164	28	1.76E-02	15.7	
7	3	89.51	158	371	1.19	179.02	164	28	1.10E-02	22.3	
8	3	92.27*	233	420	1.33	184.51	164	28	1.62E-02	18.9	
9	5	111.32	40	104	0.74	222.58	221	7	2.77E-03	32.7	6.04E+00
10	5	112.23	35	361	1.23	224.41	221	7	2.47E-03	91.2	
11	0	128.30*	87	465	1.10	256.52	253	9	6.07E-03	47.1	
12	0	185.71*	306	395	1.29	371.23	367	10	2.12E-02	14.5	
13	0	208.96	139	446	1.16	417.69	412	11	9.65E-03	30.6	
14	2	235.84	59	154	1.21	471.39	469	18	4.13E-03	34.2	9.54E+00
15	2	238.30*	1295	194	1.07	476.31	469	18	8.99E-02	3.5	
16	2	239.93*	73	303	1.48	479.57	469	18	5.06E-03	71.4	
17	2	241.61	222	310	1.48	482.92	469	18	1.54E-02	16.7	
18	0	270.01	118	253	1.38	539.67	535	9	8.21E-03	26.1	
19	0	277.69	65	246	1.61	555.02	551	9	4.48E-03	45.6	
20	0	294.91*	371	267	1.14	589.45	584	11	2.58E-02	10.6	
21	2	300.25	85	180	1.56	600.10	595	19	5.92E-03	30.9	2.01E+00
22	2	302.43	62	169	1.56	604.46	595	19	4.29E-03	42.1	
23	0	327.61	76	235	0.80	654.78	651	9	5.31E-03	37.7	
24	0	337.94*	241	273	1.15	675.42	669	12	1.67E-02	15.6	
25	0	351.57*	629	284	1.22	702.66	698	12	4.37E-02	6.9	
26	0	462.94	105	136	1.48	925.25	920	12	7.26E-03	24.3	
27	0	510.47*	131	196	2.06	1020.23	1013	15	9.11E-03	30.5	
28	0	582.93*	364	96	1.56	1165.06	1159	11	2.53E-02	7.7	
29	0	608.79*	472	108	1.48	1216.76	1211	13	3.28E-02	6.9	
30	0	649.35	12	54	1.03	1297.83	1295	7	8.51E-04	102.5	
31	0	661.47	141	84	1.50	1322.06	1317	11	9.77E-03	15.2	
32	0	726.79	112	91	1.51	1452.62	1446	13	7.81E-03	19.9	
33	0	767.90	87	65	1.50	1534.81	1528	12	6.02E-03	21.6	
34	0	785.51	32	39	2.11	1570.02	1566	9	2.25E-03	38.7	
35	0	794.55	49	61	2.13	1588.09	1582	11	3.43E-03	33.6	
36	0	860.32	100	59	1.59	1719.58	1712	16	6.98E-03	19.9	
37	0	883.53	15	44	4.48	1765.97	1759	12	1.06E-03	91.4	
38	0	910.86*	262	72	1.62	1820.62	1814	16	1.82E-02	9.9	

Sample ID : G198681012 Acquisition date : 15-DEC-2007 06:34:17

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	4	964.00	95	32	2.64	1926.85	1919	27	6.62E-03	19.5	1.47E+00
40	4	968.53*	143	36	2.16	1935.91	1919	27	9.93E-03	13.0	
41	0	1120.16*	89	47	2.10	2239.08	2233	11	6.15E-03	19.7	
42	0	1154.15	39	37	4.00	2307.06	2300	14	2.69E-03	37.5	
43	0	1238.76	55	66	1.00	2476.24	2470	14	3.81E-03	34.9	
44	0	1332.41*	11	19	1.67	2663.53	2659	10	7.80E-04	91.3	
45	0	1359.74	14	20	2.09	2718.20	2711	10	9.74E-04	65.3	
46	0	1376.80	41	31	4.28	2752.32	2745	15	2.83E-03	33.3	
47	0	1407.95	29	24	1.59	2814.62	2809	15	2.05E-03	39.7	
48	0	1460.27*	387	52	1.81	2919.25	2911	16	2.69E-02	6.9	
49	0	1508.56	13	34	4.28	3015.84	3007	15	8.94E-04	102.3	
50	0	1539.46	14	43	3.22	3077.65	3065	21	9.70E-04	119.3	
51	0	1764.31*	53	36	1.38	3527.44	3519	16	3.71E-03	31.0	
52	0	1848.07	12	16	0.75	3695.01	3687	13	8.35E-04	74.8	
53	0	1862.76	11	5	1.45	3724.39	3718	11	7.64E-04	50.7	
54	0	1961.75	20	0	0.73	3922.45	3915	14	1.39E-03	22.4	
55	0	1992.58	10	6	0.87	3984.15	3977	12	6.94E-04	58.3	
56	0	2017.98	28	4	1.62	4034.98	4027	15	1.96E-03	24.0	

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]G198681012       *
* Acquisition date : 15-DEC-2007 06:34:17 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 04:00:01.73     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681012           Analyst initials: MJH1            *
* Batch Number     : 708121               Sample Quantity : 1.2371E+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	5.733E+00	8.538E-01	3.667E-01	0.000E+00
CS-137	1.273E-01	3.895E-02	4.127E-02	0.000E+00
TL-208	2.970E-01	4.905E-02	3.900E-02	0.000E+00
BI-212	7.951E-01	3.151E-01	3.012E-01	0.000E+00
PB-212	1.032E+00	9.448E-02	6.347E-02	0.000E+00
BI-214	7.316E-01	1.099E-01	6.663E-02	0.000E+00
PB-214	7.708E-01	1.142E-01	7.904E-02	0.000E+00
RA-223	3.259E-01	1.681E-01	1.921E-01	0.000E+00
AC-228	1.041E+00	2.275E-01	1.472E-01	0.000E+00
TH-234	1.186E+00	4.507E-01	4.470E-01	0.000E+00
NP-237	5.985E-01	1.912E-01	2.073E-01	0.000E+00
AM-243	1.596E-01	4.596E-02	5.327E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	-2.695E-03		2.913E-02	4.751E-02	0.000E+00	FAIL ABUN
RH-101	1.462E-02		2.125E-02	3.862E-02	0.000E+00	NOT IDENT.
SB-125	4.080E-02		6.052E-02	1.057E-01	0.000E+00	NOT IDENT.
EU-155	3.516E-02		6.378E-02	1.122E-01	0.000E+00	NOT IDENT.
PO-209	-5.223E+00		5.038E+00	7.539E+00	0.000E+00	NOT IDENT.
BI-211	-5.489E-01		7.307E-01	1.148E+00	0.000E+00	NOT IDENT.
PA-233	2.267E-02		4.221E-02	7.446E-02	0.000E+00	NOT IDENT.
PA-234M	2.328E+00		3.301E+00	5.259E+00	0.000E+00	NOT IDENT.
U-235	2.573E-02		1.272E-01	2.167E-01	0.000E+00	NOT IDENT.
NP-236	3.337E-02		3.909E-02	6.502E-02	0.000E+00	NOT IDENT.
NP-239	-1.374E-02		1.393E-01	2.443E-01	0.000E+00	NOT IDENT.
AM-241	9.066E-02		1.035E-01	1.718E-01	0.000E+00	NOT IDENT.
CM-243	3.215E-02		5.717E-02	1.007E-01	0.000E+00	NOT IDENT.
AM-246	9.881E-02		8.474E-02	1.592E-01	0.000E+00	NOT IDENT.
CF-249	1.955E-02		2.580E-02	4.549E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 10:35:04.73

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681012.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 06:34:17
Sample ID        : G198681012           Sample quantity  : 1.23710E+02 GRAM
Detector name    : GAM06                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.73  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708121               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	387	10.66*	9.605E-01	5.733E+00	5.733E+00	15.19
CS-137	661.66	141	85.10*	1.977E+00	1.268E-01	1.273E-01	31.22
TL-208	277.36	65	6.31	3.933E+00	3.948E-01	3.948E-01	91.45
	510.77	131	22.60	2.457E+00	3.583E-01	3.583E-01	61.33
	583.19	364	84.50*	2.202E+00	2.970E-01	2.970E-01	16.85
	763.13	------	1.81	1.741E+00	------	Line Not Found	------
	860.56	100	12.42	1.559E+00	7.872E-01	7.872E-01	40.92
BI-212	727.33	112	11.80*	1.819E+00	7.951E-01	7.951E-01	40.43
	785.37	32	1.10	1.696E+00	2.637E+00	2.637E+00	77.77
	1620.50	------	1.49	8.878E-01	------	Line Not Found	------
PB-212	74.81	296	10.40	4.121E+00	1.047E+00	1.047E+00	29.38
	77.11	536	17.50	4.355E+00	1.068E+00	1.068E+00	17.51
	87.30	254	7.81	5.192E+00	9.503E-01	9.503E-01	32.59
	238.63	1295	43.30*	4.398E+00	1.032E+00	1.032E+00	9.35
	300.09	85	3.28	3.710E+00	1.062E+00	1.062E+00	62.19
BI-214	609.31	472	46.10*	2.123E+00	7.315E-01	7.316E-01	15.33
	768.36	87	4.94	1.731E+00	1.537E+00	1.537E+00	43.96
	806.17	------	1.22	1.656E+00	------	Line Not Found	------
	934.06	------	3.03	1.443E+00	------	Line Not Found	------
	1120.29	89	15.10	1.216E+00	7.320E-01	7.320E-01	40.10
	1155.19	39	1.63	1.182E+00	3.047E+00	3.047E+00	75.33
	1238.11	55	5.79	1.108E+00	1.297E+00	1.298E+00	70.06
	1280.96	------	1.43	1.075E+00	------	Line Not Found	------
	1377.67	41	4.00	1.009E+00	1.534E+00	1.534E+00	66.88
	1401.50	------	1.27	9.936E-01	------	Line Not Found	------
	1407.98	29	2.15	9.898E-01	2.102E+00	2.103E+00	79.75
	1509.23	13	2.11	9.360E-01	9.889E-01	9.889E-01	204.79
	1729.60	------	2.92	8.509E-01	------	Line Not Found	------
	1764.49	53	15.40	8.411E-01	6.257E-01	6.257E-01	62.37
PB-214	74.81	296	6.44	4.121E+00	1.690E+00	1.690E+00	29.38
	77.11	536	10.80	4.355E+00	1.731E+00	1.731E+00	17.51
	87.30	254	4.84	5.192E+00	1.533E+00	1.534E+00	32.59

Sample ID : G198681012 Acquisition date : 15-DEC-2007 06:34:17

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	242.00	222	7.43	4.354E+00	1.042E+00	1.042E+00	33.94
	295.22	371	19.30	3.760E+00	7.751E-01	7.752E-01	22.20
	351.93	629	37.60*	3.292E+00	7.708E-01	7.708E-01	15.12
RA-223	269.46	118	13.70*	4.016E+00	3.259E-01	3.259E-01	52.63
AC-228	129.07	87	2.42	6.056E+00	9.049E-01	9.049E-01	94.30
	209.25	139	3.89	4.818E+00	1.124E+00	1.124E+00	61.56
	270.25	118	3.46	4.016E+00	1.291E+00	1.291E+00	52.63
	338.32	241	11.27	3.393E+00	9.567E-01	9.567E-01	31.85
	409.46	------	1.92	2.927E+00	------	Line Not Found	------
	463.00	105	4.40	2.658E+00	1.356E+00	1.356E+00	49.03
	794.95	49	4.25	1.678E+00	1.052E+00	1.052E+00	67.77
	911.20	262	25.80*	1.478E+00	1.041E+00	1.041E+00	22.29
	964.77	95	4.99	1.401E+00	2.070E+00	2.070E+00	40.18
	968.97	143	15.80	1.395E+00	9.844E-01	9.844E-01	27.76
	1588.20	------	3.22	9.005E-01	------	Line Not Found	------
TH-234	63.29	37	4.80	2.693E+00	4.329E-01	4.329E-01	182.41
	92.58	233	5.41*	5.502E+00	1.186E+00	1.186E+00	38.78
NP-237	86.48	254	12.40*	5.192E+00	5.985E-01	5.985E-01	32.59
AM-243	74.66	296	68.20*	4.121E+00	1.596E-01	1.596E-01	29.38

Flag: "*" = Keyline

Sample ID : G198681012 Acquisition date : 15-DEC-2007 06:34:17

Total number of lines in spectrum 56
Number of unidentified lines 19
Number of lines tentatively identified by NID 37 66.07%

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	5.733E+00	5.733E+00	0.871E+00	15.19	
CS-137	9.47E+08S	1.00	1.268E-01	1.273E-01	0.397E-01	31.22	
TL-208	4.43E+17S	1.00	2.970E-01	2.970E-01	0.501E-01	16.85	
BI-212	4.43E+17S	1.00	7.951E-01	7.951E-01	3.215E-01	40.43	
PB-212	4.43E+17S	1.00	1.032E+00	1.032E+00	0.096E+00	9.35	
BI-214	5.05E+10S	1.00	7.315E-01	7.316E-01	1.121E-01	15.33	
PB-214	5.05E+10S	1.00	7.708E-01	7.708E-01	1.166E-01	15.12	
RA-223	1.04E+12S	1.00	3.259E-01	3.259E-01	1.715E-01	52.63	
AC-228	4.43E+17S	1.00	1.041E+00	1.041E+00	0.232E+00	22.29	
TH-234	1.41E+17S	1.00	1.186E+00	1.186E+00	0.460E+00	38.78	
NP-237	6.75E+13S	1.00	5.985E-01	5.985E-01	1.951E-01	32.59	
AM-243	2.33E+11S	1.00	1.596E-01	1.596E-01	0.469E-01	29.38	
			---	---			
		Total Activity :	1.280E+01	1.280E+01			

Grand Total Activity : 1.280E+01 1.280E+01

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

Sample ID : G198681012 Acquisition date : 15-DEC-2007 06:34:17

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.41	26	354	1.50	92.88	90	7	1.83E-03	****	6.87E-01	
3	83.81	141	430	1.31	167.63	164	28	9.78E-03	56.0	4.98E+00	
3	89.51	158	371	1.19	179.02	164	28	1.10E-02	44.5	5.35E+00	
5	111.32	40	104	0.74	222.58	221	7	2.77E-03	65.4	6.04E+00	
5	112.23	35	361	1.23	224.41	221	7	2.47E-03	****	6.05E+00	
0	185.71	306	395	1.29	371.23	367	10	2.12E-02	29.1	5.20E+00	
2	235.84	59	154	1.21	471.39	469	18	4.13E-03	68.5	4.43E+00	
2	239.93	73	303	1.48	479.57	469	18	5.06E-03	****	4.38E+00	
2	302.43	62	169	1.56	604.46	595	19	4.29E-03	84.2	3.69E+00	
0	327.61	76	235	0.80	654.78	651	9	5.31E-03	75.5	3.47E+00	
0	649.35	12	54	1.03	1297.83	1295	7	8.51E-04	****	2.01E+00	
0	883.53	15	44	4.48	1765.97	1759	12	1.06E-03	****	1.52E+00	
0	1332.41	11	19	1.67	2663.53	2659	10	7.80E-04	****	1.04E+00	T
0	1359.74	14	20	2.09	2718.20	2711	10	9.74E-04	****	1.02E+00	
0	1539.46	14	43	3.22	3077.65	3065	21	9.70E-04	****	9.22E-01	
0	1848.07	12	16	0.75	3695.01	3687	13	8.35E-04	****	8.21E-01	
0	1862.76	11	5	1.45	3724.39	3718	11	7.64E-04	****	8.18E-01	
0	1961.75	20	0	0.73	3922.45	3915	14	1.39E-03	44.7	8.00E-01	
0	1992.58	10	6	0.87	3984.15	3977	12	6.94E-04	****	7.96E-01	
0	2017.98	28	4	1.62	4034.98	4027	15	1.96E-03	48.0	7.93E-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]G198681012            *
* Acquisition date : 15-DEC-2007 06:34:17 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 04:00:01.73     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681012           Analyst initials: MJH1            *
* Batch Number     : 708121               Sample Quantity : 1.2371E+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	5.733E+00	8.538E-01	1.835E-01	8.538E-01
CS-137	1.273E-01	3.895E-02	2.064E-02	3.895E-02
TL-208	2.970E-01	4.905E-02	1.951E-02	4.905E-02
BI-212	7.951E-01	3.151E-01	1.507E-01	3.151E-01
PB-212	1.032E+00	9.448E-02	3.175E-02	9.448E-02
BI-214	7.316E-01	1.099E-01	3.333E-02	1.099E-01
PB-214	7.708E-01	1.142E-01	3.954E-02	1.142E-01
RA-223	3.259E-01	1.681E-01	9.609E-02	1.681E-01
AC-228	1.041E+00	2.275E-01	7.366E-02	2.275E-01
TH-234	1.186E+00	4.507E-01	2.236E-01	4.507E-01
NP-237	5.985E-01	1.912E-01	1.037E-01	1.912E-01
AM-243	1.596E-01	4.596E-02	2.665E-02	4.596E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU
CO-60	-2.695E-03	2.913E-02	2.377E-02	2.913E-02 FAIL ABUN
RH-101	1.462E-02	2.125E-02	1.932E-02	2.125E-02 NOT IDENT.
SB-125	4.080E-02	6.052E-02	5.289E-02	6.052E-02 NOT IDENT.
EU-155	3.516E-02	6.378E-02	5.613E-02	6.378E-02 NOT IDENT.
PO-209	-5.223E+00	5.038E+00	3.772E+00	5.038E+00 NOT IDENT.
BI-211	-5.489E-01	7.307E-01	5.742E-01	7.307E-01 NOT IDENT.
PA-233	2.267E-02	4.221E-02	3.725E-02	4.221E-02 NOT IDENT.
PA-234M	2.328E+00	3.301E+00	2.631E+00	3.301E+00 NOT IDENT.
U-235	2.573E-02	1.272E-01	1.084E-01	1.272E-01 NOT IDENT.
NP-236	3.337E-02	3.909E-02	3.253E-02	3.909E-02 NOT IDENT.
NP-239	-1.374E-02	1.393E-01	1.222E-01	1.393E-01 NOT IDENT.
AM-241	9.066E-02	1.035E-01	8.593E-02	1.035E-01 NOT IDENT.
CM-243	3.215E-02	5.717E-02	5.039E-02	5.717E-02 NOT IDENT.
AM-246	9.881E-02	8.474E-02	7.963E-02	8.474E-02 NOT IDENT.
CF-249	1.955E-02	2.580E-02	2.276E-02	2.580E-02 NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
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ENERGY	MDA COUNTS
59.54	310.9456
63.29	402.6283
74.66	422.2897
74.81	422.4323
74.81	422.4323
77.11	424.5932
77.11	424.5932
86.48	329.2569
87.30	329.8040
87.30	329.8040
92.58	333.2693
98.44	315.7499
103.76	320.8786
105.31	330.9909
129.07	363.4407
143.76	359.4772
198.00	319.4975
209.25	307.5776
228.18	276.7265
238.63	279.6588
242.00	246.4813
269.46	215.4982
270.25	207.9333
277.36	210.3980
295.22	204.8284
300.09	177.8345
312.17	186.4477
338.32	195.3151
351.93	185.2466
387.59	137.3592
409.46	145.6895
427.87	120.9250
463.00	118.1643
510.77	123.7012
583.19	103.4362
609.31	83.5070
661.66	94.2341
727.33	82.4605
763.13	75.3168
768.36	68.7671
785.37	72.9492
794.95	69.4961
806.17	62.3091
831.80	92.8345
860.56	56.2992
896.60	80.2731
911.20	62.6385
934.06	53.5046
964.77	57.3075
968.97	57.3878
1001.03	47.0522
1078.86	39.2468
1120.29	53.5214
1155.19	39.3231
1173.23	47.0760
1238.11	57.0145
1280.96	38.5890
1332.51	37.1024
1377.67	36.5127
1401.50	26.2343
1407.98	28.6118
1460.80	28.3850
1509.23	37.6787
1588.20	35.1565
1620.50	20.3854
1729.60	18.8198
1764.49	24.6398

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198681012

Total Uranium Activity	1.1904E-02	ug/g
Total Uranium Counting Unc.	5.8841E-02	ug/g
Total Uranium Tpu	5.8841E-08	ug/g
Total Uranium Mda	5.0161E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 10:36:02.04

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681013.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 06:35:05
Sample ID        : G198681013           Sample quantity  : 1.24540E+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         : 708121               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.58*	17	457	1.09	92.67	88	10	1.20E-03	253.5	
2	5	63.49*	63	273	1.00	126.48	120	10	4.36E-03	50.7	1.25E+00
3	0	66.33	66	340	1.10	132.15	130	7	4.59E-03	47.7	
4	4	75.00*	314	357	0.95	149.49	143	17	2.18E-02	11.7	1.17E+00
5	4	77.23*	567	386	1.15	153.95	143	17	3.94E-02	7.6	
6	6	84.64*	155	364	1.61	168.77	165	27	1.08E-02	23.8	1.37E+00
7	6	87.29	328	394	1.50	174.07	165	27	2.27E-02	12.3	
8	6	90.05	123	255	1.06	179.59	165	27	8.54E-03	23.1	
9	6	92.85*	281	407	1.73	185.18	165	27	1.95E-02	16.8	
10	0	105.76*	36	338	1.41	210.99	207	8	2.48E-03	95.6	
11	0	108.98	41	220	1.34	217.43	215	6	2.86E-03	59.1	
12	0	129.29	40	257	0.64	258.05	255	6	2.75E-03	66.1	
13	6	186.11*	231	275	1.67	371.64	366	13	1.60E-02	16.5	8.78E-01
14	0	192.16	37	257	1.13	383.74	380	8	2.58E-03	76.4	
15	0	209.53	128	310	1.23	418.47	413	10	8.91E-03	27.2	
16	4	236.16	42	134	1.56	471.72	469	20	2.89E-03	43.4	1.33E+00
17	4	238.85*	1012	181	1.16	477.10	469	20	7.03E-02	4.2	
18	4	241.92	251	273	1.81	483.24	469	20	1.74E-02	16.4	
19	0	270.37	90	148	1.85	540.12	536	8	6.23E-03	25.7	
20	0	277.80	75	196	1.57	554.98	550	11	5.20E-03	38.1	
21	0	295.59*	245	192	1.20	590.56	586	10	1.70E-02	13.1	
22	0	300.52	41	174	0.68	600.40	597	8	2.82E-03	58.8	
23	0	318.89	55	118	1.46	637.13	633	9	3.84E-03	37.8	
24	0	329.44*	96	263	2.68	658.24	651	16	6.64E-03	40.5	
25	0	338.86*	148	251	0.94	677.07	671	12	1.03E-02	23.9	
26	0	352.14*	387	199	1.19	703.62	699	11	2.69E-02	9.3	
27	0	463.43	68	90	1.50	926.15	922	9	4.71E-03	28.2	
28	0	511.35*	57	176	1.98	1021.96	1016	17	3.97E-03	70.6	
29	0	519.51	15	63	1.00	1038.28	1033	8	1.01E-03	98.4	
30	0	531.05	26	47	1.58	1061.36	1058	8	1.84E-03	49.2	
31	0	555.86	27	52	0.53	1110.96	1107	8	1.87E-03	50.1	
32	0	583.38*	328	87	1.34	1165.98	1158	13	2.28E-02	8.7	
33	0	609.60*	302	106	1.47	1218.41	1213	13	2.10E-02	9.7	
34	0	650.77	13	47	1.39	1300.74	1297	8	8.91E-04	96.1	
35	0	662.12*	199	90	1.22	1323.42	1318	10	1.38E-02	12.0	
36	0	678.00	38	48	0.80	1355.18	1349	12	2.64E-03	39.9	
37	0	727.89	120	52	1.91	1454.95	1449	12	8.30E-03	15.3	
38	3	763.99	41	38	2.22	1527.13	1522	28	2.83E-03	29.2	1.20E+00

Sample ID : G198681013 Acquisition date : 15-DEC-2007 06:35:05

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	3	768.90*	39	45	2.22	1536.95	1522	28	2.69E-03	44.7	
40	3	772.74	40	31	2.22	1544.62	1522	28	2.77E-03	34.8	
41	0	781.93	27	42	1.63	1563.00	1557	11	1.89E-03	49.7	
42	0	795.27	48	71	1.31	1589.68	1582	15	3.35E-03	40.7	
43	0	861.00*	32	33	1.50	1721.11	1717	9	2.21E-03	46.1	
44	0	894.14	13	89	6.97	1787.38	1770	21	9.01E-04	184.2	
45	0	911.68*	199	42	1.61	1822.45	1816	15	1.39E-02	10.7	
46	0	934.70	19	43	0.65	1868.48	1863	10	1.33E-03	67.6	
47	2	965.30*	38	43	2.16	1929.67	1925	20	2.63E-03	37.0	2.31E+00
48	2	969.51	115	39	1.48	1938.08	1925	20	8.00E-03	13.7	
49	0	1010.25	14	18	0.63	2019.56	2015	8	9.81E-04	58.4	
50	0	1120.67*	72	57	1.21	2240.36	2234	12	4.98E-03	25.1	
51	0	1280.27	10	22	1.22	2559.50	2553	9	6.62E-04	95.4	
52	3	1301.67	20	30	2.61	2602.30	2595	35	1.37E-03	54.0	1.87E+00
53	3	1310.67	20	17	2.62	2620.30	2595	35	1.37E-03	62.3	
54	0	1378.66*	20	21	1.29	2756.26	2750	12	1.39E-03	55.7	
55	0	1402.00	23	21	1.14	2802.94	2797	12	1.62E-03	44.4	
56	0	1420.23	14	2	0.94	2839.39	2834	10	9.42E-04	34.8	
57	0	1424.85	12	8	2.26	2848.63	2844	9	7.99E-04	50.8	
58	0	1433.04	12	6	1.62	2865.00	2862	7	8.29E-04	46.0	
59	0	1461.32*	293	42	1.74	2921.55	2915	14	2.04E-02	7.8	
60	0	1530.66	12	6	0.70	3060.23	3056	8	8.26E-04	46.1	
61	0	1534.96	8	15	1.43	3068.81	3063	10	5.56E-04	97.2	
62	0	1586.78	6	12	1.24	3172.45	3165	9	4.28E-04	112.8	
63	0	1590.95	33	12	5.57	3180.79	3173	16	2.32E-03	28.9	
64	0	1622.49	33	3	3.59	3243.86	3237	14	2.27E-03	21.2	
65	0	1632.04	36	6	3.65	3262.95	3254	21	2.51E-03	23.0	
66	0	1730.66	17	12	1.77	3460.18	3454	10	1.18E-03	45.8	
67	0	1765.37*	80	3	2.43	3529.59	3523	16	5.58E-03	14.2	
68	0	1796.75	25	4	0.97	3592.35	3584	17	1.75E-03	27.3	
69	0	1983.58	9	9	3.77	3965.97	3958	12	6.40E-04	72.7	

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]G198681013       *
* Acquisition date : 15-DEC-2007 06:35:05 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      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681013           Analyst initials: MJH1            *
* Batch Number     : 708121               Sample Quantity : 1.2454E+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	3.556E+00	5.783E-01	3.070E-01	0.000E+00
CS-137	1.516E-01	3.723E-02	3.627E-02	0.000E+00
EU-155	3.490E-02	6.545E-02	7.651E-02	0.000E+00
TL-208	2.254E-01	4.115E-02	3.013E-02	0.000E+00
BI-212	7.120E-01	2.193E-01	2.054E-01	0.000E+00
PB-212	6.779E-01	6.873E-02	4.485E-02	0.000E+00
BI-214	3.949E-01	7.972E-02	6.264E-02	0.000E+00
PB-214	3.977E-01	7.569E-02	5.972E-02	0.000E+00
RA-223	2.076E-01	1.055E-01	1.345E-01	0.000E+00
AC-228	6.637E-01	1.459E-01	1.082E-01	0.000E+00
TH-234	1.075E+00	3.622E-01	3.207E-01	0.000E+00
NP-237	5.584E-01	1.416E-01	1.429E-01	0.000E+00
AM-243	1.075E-01	2.572E-02	3.190E-02	0.000E+00
CM-243	3.159E-02	5.923E-02	6.900E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	-1.425E-02		2.482E-02	2.940E-02	0.000E+00	NOT IDENT.
RH-101	-1.220E-02		1.715E-02	2.710E-02	0.000E+00	NOT IDENT.
SB-125	-3.490E-02		4.766E-02	7.589E-02	0.000E+00	NOT IDENT.
PO-209	-3.516E+00		4.507E+00	5.764E+00	0.000E+00	NOT IDENT.
BI-211	9.616E-02		4.920E-01	8.414E-01	0.000E+00	NOT IDENT.
PA-233	1.835E-02		3.124E-02	5.540E-02	0.000E+00	NOT IDENT.
PA-234M	1.612E+00		2.159E+00	3.834E+00	0.000E+00	NOT IDENT.
U-235	-1.125E-02		1.044E-01	1.660E-01	0.000E+00	NOT IDENT.
NP-236	2.270E-02		2.774E-02	4.459E-02	0.000E+00	NOT IDENT.
NP-239	-2.883E-02		1.030E-01	1.786E-01	0.000E+00	NOT IDENT.
AM-241	-3.110E-03		4.547E-02	7.186E-02	0.000E+00	NOT IDENT.
AM-246	9.808E-03		5.974E-02	1.043E-01	0.000E+00	NOT IDENT.
CF-249	-2.308E-02		2.234E-02	3.284E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 10:36:04.54

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681013.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 06:35:05
Sample ID        : G198681013           Sample quantity  : 1.24540E+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         : 708121               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	293	10.66*	1.166E+00	3.556E+00	3.556E+00	16.59
CS-137	661.66	199	85.10*	2.329E+00	1.510E-01	1.516E-01	25.06
EU-155	105.31	36	21.20*	7.434E+00	3.413E-02	3.490E-02	191.34
TL-208	277.36	75	6.31	4.664E+00	3.834E-01	3.834E-01	76.53
	510.77	57	22.60	2.897E+00	1.316E-01	1.316E-01	141.35
	583.19	328	84.50*	2.595E+00	2.254E-01	2.254E-01	18.63
	763.13	41	1.81	2.055E+00	1.651E+00	1.651E+00	58.92
	860.56	32	12.42	1.848E+00	2.093E-01	2.093E-01	92.44
BI-212	727.33	120	11.80*	2.144E+00	7.120E-01	7.120E-01	31.44
	785.37	------	1.10	2.005E+00	------ Line Not Found		------
	1620.50	33	1.49	1.076E+00	3.075E+00	3.075E+00	42.82
PB-212	74.81	314	10.40	6.457E+00	7.049E-01	7.049E-01	24.42
	77.11	567	17.50	6.618E+00	7.376E-01	7.376E-01	16.74
	87.30	328	7.81	7.130E+00	8.865E-01	8.865E-01	25.88
	238.63	1012	43.30*	5.194E+00	6.779E-01	6.779E-01	10.34
	300.09	41	3.28	4.401E+00	4.242E-01	4.242E-01	117.77
BI-214	609.31	302	46.10*	2.500E+00	3.949E-01	3.949E-01	20.60
	768.36	39	4.94	2.043E+00	5.776E-01	5.776E-01	89.76
	806.17	------	1.22	1.959E+00	------ Line Not Found		------
	934.06	19	3.03	1.717E+00	5.556E-01	5.556E-01	135.44
	1120.29	72	15.10	1.460E+00	4.898E-01	4.899E-01	50.61
	1155.19	------	1.63	1.422E+00	------ Line Not Found		------
	1238.11	------	5.79	1.338E+00	------ Line Not Found		------
	1280.96	10	1.43	1.300E+00	7.725E-01	7.725E-01	190.81
	1377.67	20	4.00	1.222E+00	6.153E-01	6.153E-01	111.48
	1401.50	23	1.27	1.205E+00	2.294E+00	2.294E+00	88.97
	1407.98	------	2.15	1.201E+00	------ Line Not Found		------
	1509.23	------	2.11	1.136E+00	------ Line Not Found		------
	1729.60	17	2.92	1.029E+00	8.511E-01	8.512E-01	91.68
	1764.49	80	15.40	1.015E+00	7.740E-01	7.741E-01	28.92
PB-214	74.81	314	6.44	6.457E+00	1.138E+00	1.138E+00	24.42
	77.11	567	10.80	6.618E+00	1.195E+00	1.195E+00	16.74

Sample ID : G198681013 Acquisition date : 15-DEC-2007 06:35:05

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	328	4.84	7.130E+00	1.431E+00	1.431E+00	25.88
	242.00	251	7.43	5.148E+00	9.899E-01	9.900E-01	33.33
	295.22	245	19.30	4.455E+00	4.298E-01	4.298E-01	26.99
	351.93	387	37.60*	3.902E+00	3.977E-01	3.977E-01	19.42
RA-223	269.46	90	13.70*	4.757E+00	2.076E-01	2.076E-01	51.85
AC-228	129.07	40	2.42	7.222E+00	3.418E-01	3.418E-01	132.35
	209.25	128	3.89	5.672E+00	8.759E-01	8.759E-01	54.63
	270.25	90	3.46	4.757E+00	8.219E-01	8.219E-01	51.85
	338.32	148	11.27	4.019E+00	4.921E-01	4.921E-01	48.12
	409.46	------	1.92	3.468E+00	------	Line Not Found	------
	463.00	68	4.40	3.140E+00	7.401E-01	7.401E-01	56.64
	794.95	48	4.25	1.983E+00	8.637E-01	8.637E-01	81.68
	911.20	199	25.80*	1.756E+00	6.637E-01	6.637E-01	22.43
	964.77	38	4.99	1.668E+00	6.854E-01	6.854E-01	74.22
	968.97	115	15.80	1.662E+00	6.611E-01	6.611E-01	28.14
	1588.20	6	3.22	1.094E+00	2.638E-01	2.638E-01	225.64
TH-234	63.29	63	4.80	5.298E+00	3.724E-01	3.724E-01	101.56
	92.58	281	5.41*	7.292E+00	1.075E+00	1.075E+00	34.40
NP-237	86.48	328	12.40*	7.130E+00	5.584E-01	5.584E-01	25.88
AM-243	74.66	314	68.20*	6.457E+00	1.075E-01	1.075E-01	24.42
CM-243	103.76	36	23.00*	7.434E+00	3.146E-02	3.159E-02	191.34

Flag: "*" = Keyline

Sample ID : G198681013 Acquisition date : 15-DEC-2007 06:35:05

Total number of lines in spectrum 69
Number of unidentified lines 30
Number of lines tentatively identified by NID 39 56.52%

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	3.556E+00	3.556E+00	0.590E+00	16.59	
CS-137	9.47E+08S	1.00	1.510E-01	1.516E-01	0.380E-01	25.06	
EU-155	1.57E+08S	1.02	3.413E-02	3.490E-02	6.678E-02	191.34	
TL-208	4.43E+17S	1.00	2.254E-01	2.254E-01	0.420E-01	18.63	
BI-212	4.43E+17S	1.00	7.120E-01	7.120E-01	2.238E-01	31.44	
PB-212	4.43E+17S	1.00	6.779E-01	6.779E-01	0.701E-01	10.34	
BI-214	5.05E+10S	1.00	3.949E-01	3.949E-01	0.813E-01	20.60	
PB-214	5.05E+10S	1.00	3.977E-01	3.977E-01	0.772E-01	19.42	
RA-223	1.04E+12S	1.00	2.076E-01	2.076E-01	1.076E-01	51.85	
AC-228	4.43E+17S	1.00	6.637E-01	6.637E-01	1.489E-01	22.43	
TH-234	1.41E+17S	1.00	1.075E+00	1.075E+00	0.370E+00	34.40	
NP-237	6.75E+13S	1.00	5.584E-01	5.584E-01	1.445E-01	25.88	
AM-243	2.33E+11S	1.00	1.075E-01	1.075E-01	0.262E-01	24.42	
CM-243	8.99E+08S	1.00	3.146E-02	3.159E-02	6.043E-02	191.34	
			---	---			
	Total Activity :		8.792E+00	8.794E+00			

Grand Total Activity : 8.792E+00 8.794E+00

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

Sample ID : G198681013 Acquisition date : 15-DEC-2007 06:35:05

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.58	17	457	1.09	92.67	88	10	1.20E-03	****	2.61E+00	
0	66.33	66	340	1.10	132.15	130	7	4.59E-03	95.5	5.64E+00	
6	84.64	155	364	1.61	168.77	165	27	1.08E-02	47.6	7.03E+00	
6	90.05	123	255	1.06	179.59	165	27	8.54E-03	46.2	7.22E+00	
0	108.98	41	220	1.34	217.43	215	6	2.86E-03	****	7.43E+00	
6	186.11	231	275	1.67	371.64	366	13	1.60E-02	33.1	6.11E+00	
0	192.16	37	257	1.13	383.74	380	8	2.58E-03	****	5.99E+00	
4	236.16	42	134	1.56	471.72	469	20	2.89E-03	86.8	5.23E+00	
0	318.89	55	118	1.46	637.13	633	9	3.84E-03	75.6	4.21E+00	
0	329.44	96	263	2.68	658.24	651	16	6.64E-03	80.9	4.11E+00	
0	519.51	15	63	1.00	1038.28	1033	8	1.01E-03	****	2.86E+00	
0	531.05	26	47	1.58	1061.36	1058	8	1.84E-03	98.4	2.81E+00	
0	555.86	27	52	0.53	1110.96	1107	8	1.87E-03	****	2.70E+00	
0	650.77	13	47	1.39	1300.74	1297	8	8.91E-04	****	2.36E+00	
0	678.00	38	48	0.80	1355.18	1349	12	2.64E-03	79.8	2.28E+00	
3	772.74	40	31	2.22	1544.62	1522	28	2.77E-03	69.7	2.03E+00	
0	781.93	27	42	1.63	1563.00	1557	11	1.89E-03	99.3	2.01E+00	
0	894.14	13	89	6.97	1787.38	1770	21	9.01E-04	****	1.79E+00	
0	1010.25	14	18	0.63	2019.56	2015	8	9.81E-04	****	1.60E+00	
3	1301.67	20	30	2.61	2602.30	2595	35	1.37E-03	****	1.28E+00	
3	1310.67	20	17	2.62	2620.30	2595	35	1.37E-03	****	1.27E+00	
0	1420.23	14	2	0.94	2839.39	2834	10	9.42E-04	69.6	1.19E+00	
0	1424.85	12	8	2.26	2848.63	2844	9	7.99E-04	****	1.19E+00	
0	1433.04	12	6	1.62	2865.00	2862	7	8.29E-04	92.1	1.18E+00	
0	1530.66	12	6	0.70	3060.23	3056	8	8.26E-04	92.1	1.12E+00	
0	1534.96	8	15	1.43	3068.81	3063	10	5.56E-04	****	1.12E+00	
0	1590.95	33	12	5.57	3180.79	3173	16	2.32E-03	57.8	1.09E+00	
0	1632.04	36	6	3.65	3262.95	3254	21	2.51E-03	46.1	1.07E+00	
0	1796.75	25	4	0.97	3592.35	3584	17	1.75E-03	54.5	1.00E+00	
0	1983.58	9	9	3.77	3965.97	3958	12	6.40E-04	****	9.48E-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]G198681013            *
* Acquisition date : 15-DEC-2007 06:35:05 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      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681013           Analyst initials: MJH1            *
* Batch Number     : 708121               Sample Quantity : 1.2454E+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	3.556E+00	5.783E-01	1.536E-01	5.783E-01
CS-137	1.516E-01	3.723E-02	1.814E-02	3.723E-02
EU-155	3.490E-02	6.545E-02	3.828E-02	6.545E-02
TL-208	2.254E-01	4.115E-02	1.507E-02	4.115E-02
BI-212	7.120E-01	2.193E-01	1.028E-01	2.193E-01
PB-212	6.779E-01	6.873E-02	2.244E-02	6.873E-02
BI-214	3.949E-01	7.972E-02	3.134E-02	7.972E-02
PB-214	3.977E-01	7.569E-02	2.988E-02	7.569E-02
RA-223	2.076E-01	1.055E-01	6.730E-02	1.055E-01
AC-228	6.637E-01	1.459E-01	5.413E-02	1.459E-01
TH-234	1.075E+00	3.622E-01	1.604E-01	3.622E-01
NP-237	5.584E-01	1.416E-01	7.149E-02	1.416E-01
AM-243	1.075E-01	2.572E-02	1.596E-02	2.572E-02
CM-243	3.159E-02	5.923E-02	3.452E-02	5.923E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	-1.425E-02	2.482E-02	1.471E-02	2.482E-02	NOT IDENT.
RH-101	-1.220E-02	1.715E-02	1.356E-02	1.715E-02	NOT IDENT.
SB-125	-3.490E-02	4.766E-02	3.797E-02	4.766E-02	NOT IDENT.
PO-209	-3.516E+00	4.507E+00	2.884E+00	4.507E+00	NOT IDENT.
BI-211	9.616E-02	4.920E-01	4.210E-01	4.920E-01	NOT IDENT.
PA-233	1.835E-02	3.124E-02	2.772E-02	3.124E-02	NOT IDENT.
PA-234M	1.612E+00	2.159E+00	1.918E+00	2.159E+00	NOT IDENT.
U-235	-1.125E-02	1.044E-01	8.305E-02	1.044E-01	NOT IDENT.
NP-236	2.270E-02	2.774E-02	2.231E-02	2.774E-02	NOT IDENT.
NP-239	-2.883E-02	1.030E-01	8.938E-02	1.030E-01	NOT IDENT.
AM-241	-3.110E-03	4.547E-02	3.595E-02	4.547E-02	NOT IDENT.
AM-246	9.808E-03	5.974E-02	5.217E-02	5.974E-02	NOT IDENT.
CF-249	-2.308E-02	2.234E-02	1.643E-02	2.234E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	285.7391
63.29	302.7580
74.66	368.2896
74.81	368.4050
74.81	368.4050
77.11	370.1458
77.11	370.1458
86.48	298.9492
87.30	299.4098
87.30	299.4098
92.58	302.3222
98.44	254.7210
103.76	261.7313
105.31	263.9753
129.07	281.3994
143.76	278.3050
198.00	256.3257
209.25	244.0990
228.18	216.7232
238.63	197.6388
242.00	198.2560
269.46	150.3659
270.25	156.7369
277.36	158.6342
295.22	162.9038
300.09	163.5344
312.17	143.4603
338.32	146.2740
351.93	150.7325
387.59	149.2251
409.46	127.1538
427.87	126.4756
463.00	110.6660
510.77	133.6496
583.19	86.8513
609.31	103.8213
661.66	102.4441
727.33	54.1178
763.13	48.2319
768.36	55.9945
785.37	48.6425
794.95	50.5017
806.17	47.6690
831.80	52.2127
860.56	45.5082
896.60	66.3237
911.20	48.4101
934.06	46.6576
964.77	44.6248
968.97	48.2596
1001.03	40.0821
1078.86	36.0420
1120.29	50.5020
1155.19	33.0532
1173.23	30.3711
1238.11	48.2829
1280.96	41.8440
1332.51	31.6471
1377.67	25.7111
1401.50	20.1107
1407.98	18.9907
1460.80	29.7097
1509.23	24.7334
1588.20	0.0000
1620.50	18.0943
1729.60	15.1080
1764.49	17.9280

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198681013

Total Uranium Activity	-5.2059E-03	ug/g
Total Uranium Counting Unc.	4.8316E-02	ug/g
Total Uranium Tpu	4.8316E-08	ug/g
Total Uranium Mda	3.8427E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 10:36:44.06

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681014.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 06:35:56
Sample ID        : G198681014           Sample quantity  : 1.39180E+02 GRAM
Detector name    : GAM11                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:02.12  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708121               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.22*	32	391	1.02	91.90	88	8	2.25E-03	116.7	
2	0	49.98	69	322	0.92	99.43	96	7	4.79E-03	44.8	
3	0	63.18*	88	529	0.99	125.85	122	8	6.11E-03	49.3	
4	4	72.96*	37	387	1.12	145.43	143	23	2.60E-03	81.2	2.20E+00
5	4	74.81*	450	440	0.98	149.13	143	23	3.13E-02	8.9	
6	4	77.04*	681	392	0.94	153.60	143	23	4.73E-02	6.2	
7	4	81.17	48	295	0.90	161.86	143	23	3.33E-03	58.0	
8	5	84.26*	161	295	1.38	168.05	165	29	1.12E-02	20.1	1.87E+00
9	5	87.14*	366	386	1.35	173.81	165	29	2.54E-02	11.1	
10	5	89.84	252	332	1.24	179.22	165	29	1.75E-02	13.7	
11	5	92.66*	313	372	1.41	184.87	165	29	2.17E-02	14.0	
12	0	98.85*	128	496	2.10	197.26	193	11	8.91E-03	35.8	
13	0	105.30	26	404	1.24	210.17	205	8	1.84E-03	132.7	
14	0	129.23	78	373	0.85	258.07	254	8	5.41E-03	44.6	
15	7	143.09*	93	211	1.86	285.81	283	11	6.46E-03	27.9	2.30E+00
16	7	145.12*	23	364	1.53	289.88	283	11	1.58E-03	167.9	
17	0	154.31	54	332	1.89	308.27	305	8	3.78E-03	59.8	
18	0	185.84*	279	423	1.14	371.38	367	10	1.94E-02	16.2	
19	0	204.54*	70	260	2.43	408.81	405	8	4.84E-03	43.6	
20	0	208.82	145	313	0.81	417.39	413	9	1.01E-02	23.4	
21	7	238.59*	1585	215	0.94	476.96	472	16	1.10E-01	3.0	6.46E-01
22	7	241.44	407	279	1.81	482.67	472	16	2.83E-02	13.2	
23	0	258.48	19	157	1.15	516.78	516	6	1.30E-03	108.3	
24	0	270.33*	162	242	1.27	540.50	536	10	1.13E-02	20.1	
25	0	295.00*	402	232	0.97	589.87	584	10	2.79E-02	9.2	
26	0	300.05	75	196	1.09	599.99	597	8	5.21E-03	34.2	
27	0	327.64	41	217	1.12	655.20	652	8	2.86E-03	63.6	
28	0	338.35	297	289	1.04	676.65	671	12	2.06E-02	12.8	
29	0	351.90*	650	196	1.12	703.77	699	10	4.52E-02	5.8	
30	0	409.41	84	128	1.54	818.88	816	10	5.87E-03	26.9	
31	0	440.23*	25	88	1.75	880.57	878	8	1.70E-03	74.1	
32	0	445.76	33	127	2.77	891.64	886	11	2.31E-03	67.9	
33	0	462.79*	80	188	1.47	925.71	921	13	5.52E-03	38.1	
34	0	511.03*	179	173	1.62	1022.26	1014	17	1.24E-02	22.9	
35	0	532.74	32	83	1.04	1065.71	1060	9	2.20E-03	54.8	
36	0	541.95	14	160	5.16	1084.15	1073	15	9.94E-04	194.9	
37	0	583.22*	405	107	1.27	1166.75	1161	11	2.81E-02	7.7	
38	0	609.41*	471	146	1.42	1219.16	1213	14	3.27E-02	7.4	

Sample ID : G198681014 Acquisition date : 15-DEC-2007 06:35:56

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	661.78	114	90	1.32	1323.97	1319	10	7.92E-03	18.2	
40	0	727.45	97	112	1.11	1455.41	1448	14	6.73E-03	25.3	
41	0	755.58	19	62	2.07	1511.69	1507	8	1.33E-03	74.6	
42	0	769.67	96	117	5.42	1539.89	1530	21	6.65E-03	30.4	
43	0	794.90	73	49	1.83	1590.39	1584	13	5.07E-03	22.9	
44	0	838.89	91	121	7.60	1678.41	1668	24	6.29E-03	34.4	
45	0	860.92*	43	107	1.51	1722.50	1715	17	2.99E-03	59.4	
46	0	911.33*	340	47	1.61	1823.39	1817	15	2.36E-02	7.3	
47	1	964.99	52	55	1.75	1930.76	1924	36	3.59E-03	29.3	2.42E+00
48	1	969.15	202	50	1.57	1939.08	1924	36	1.40E-02	9.1	
49	0	1097.71	11	23	1.01	2196.35	2193	6	7.33E-04	79.2	
50	0	1120.45*	97	39	1.62	2241.84	2234	13	6.71E-03	17.5	
51	0	1128.24	16	14	1.00	2257.43	2254	6	1.09E-03	46.1	
52	0	1204.72	6	19	0.48	2410.47	2406	7	4.22E-04	132.4	
53	0	1213.82	65	101	11.09	2428.67	2412	36	4.52E-03	50.0	
54	0	1238.31	73	33	1.59	2477.68	2472	12	5.09E-03	19.5	
55	0	1283.33	14	39	0.97	2567.75	2562	15	9.68E-04	99.8	
56	0	1369.74	34	29	0.60	2740.64	2731	19	2.33E-03	41.9	
57	0	1378.05	58	10	1.54	2757.27	2750	14	4.02E-03	17.7	
58	0	1408.30	37	16	5.35	2817.79	2809	16	2.59E-03	29.0	
59	0	1443.62	14	28	4.18	2888.46	2873	17	9.54E-04	94.5	
60	0	1461.13*	421	20	1.59	2923.50	2917	14	2.92E-02	5.6	
61	0	1587.90	40	2	2.31	3177.13	3172	10	2.74E-03	17.6	
62	0	1600.06	6	11	1.29	3201.45	3196	7	3.82E-04	106.6	
63	0	1614.33	30	12	3.08	3230.01	3222	17	2.06E-03	33.1	
64	0	1621.22	27	8	2.28	3243.80	3239	10	1.90E-03	26.8	
65	0	1661.87	16	12	1.75	3325.13	3319	12	1.11E-03	50.0	
66	0	1707.06	17	2	0.74	3415.51	3412	10	1.20E-03	29.0	
67	0	1730.57	20	13	0.59	3462.55	3456	13	1.39E-03	43.4	
68	0	1765.12	94	17	2.01	3531.68	3522	17	6.50E-03	14.5	
69	0	1805.93*	7	2	3.34	3613.33	3608	9	4.71E-04	65.4	
70	0	1831.26	4	8	1.33	3663.98	3657	8	2.84E-04	129.6	
71	0	1847.27*	29	3	3.22	3696.02	3691	11	2.02E-03	24.7	
72	0	1949.70	6	5	1.01	3900.93	3897	9	4.29E-04	74.4	

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]G198681014       *
* Acquisition date : 15-DEC-2007 06:35:56 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 04:00:02.12     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681014           Analyst initials: MJH1            *
* Batch Number     : 708121               Sample Quantity : 1.3918E+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	4.201E+00	5.456E-01	2.536E-01	0.000E+00
CS-137	7.161E-02	2.606E-02	2.956E-02	0.000E+00
EU-155	2.237E-02	5.819E-02	7.198E-02	0.000E+00
TL-208	2.290E-01	3.774E-02	2.519E-02	0.000E+00
BI-212	4.749E-01	2.385E-01	1.845E-01	0.000E+00
PB-212	8.814E-01	7.252E-02	3.889E-02	0.000E+00
BI-214	5.069E-01	8.198E-02	4.648E-02	0.000E+00
PB-214	5.524E-01	6.987E-02	4.962E-02	0.000E+00
RA-223	3.111E-01	1.241E-01	1.189E-01	0.000E+00
AC-228	9.333E-01	1.556E-01	8.200E-02	0.000E+00
TH-234	1.057E+00	2.993E-01	2.824E-01	0.000E+00
U-235	1.539E-01	8.471E-02	1.351E-01	0.000E+00
NP-236	6.014E-02	4.235E-02	3.896E-02	0.000E+00
NP-237	5.608E-01	1.283E-01	1.280E-01	0.000E+00
AM-243	1.460E-01	2.713E-02	3.129E-02	0.000E+00
CM-243	2.024E-02	5.266E-02	5.895E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error	MDA (pCi/GRAM)		Ided
CO-60	1.236E-03	1.541E-02	2.619E-02	0.000E+00	NOT IDENT.
RH-101	9.578E-03	1.472E-02	2.518E-02	0.000E+00	NOT IDENT.
SB-125	1.141E-02	3.711E-02	6.640E-02	0.000E+00	NOT IDENT.
PO-209	1.643E+00	3.490E+00	5.653E+00	0.000E+00	NOT IDENT.
BI-211	4.740E-01	4.754E-01	8.022E-01	0.000E+00	NOT IDENT.
PA-233	1.560E-04	2.844E-02	4.773E-02	0.000E+00	NOT IDENT.
PA-234M	5.860E-01	2.066E+00	3.531E+00	0.000E+00	NOT IDENT.
NP-239	2.341E-02	9.191E-02	1.602E-01	0.000E+00	NOT IDENT.
AM-241	-1.997E-02	5.001E-02	7.636E-02	0.000E+00	NOT IDENT.
AM-246	4.540E-04	5.411E-02	9.200E-02	0.000E+00	NOT IDENT.
CF-249	6.684E-03	1.655E-02	2.995E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 10:36:45.14

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681014.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 06:35:56
Sample ID        : G198681014           Sample quantity  : 1.39180E+02 GRAM
Detector name    : GAM11                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:02.12  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708121               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	421	10.66*	1.266E+00	4.201E+00	4.201E+00	13.25
CS-137	661.66	114	85.10*	2.532E+00	7.135E-02	7.161E-02	37.13
EU-155	105.31	26	21.20*	7.698E+00	2.187E-02	2.237E-02	265.47
TL-208	277.36	------	6.31	5.036E+00	------	Line Not Found	------
	510.77	179	22.60	3.147E+00	3.398E-01	3.398E-01	46.29
	583.19	405	84.50*	2.820E+00	2.290E-01	2.290E-01	16.82
	763.13	------	1.81	2.235E+00	------	Line Not Found	------
	860.56	43	12.42	2.006E+00	2.328E-01	2.328E-01	119.16
BI-212	727.33	97	11.80*	2.331E+00	4.749E-01	4.749E-01	51.25
	785.37	------	1.10	2.178E+00	------	Line Not Found	------
	1620.50	27	1.49	1.175E+00	2.104E+00	2.104E+00	54.09
PB-212	74.81	450	10.40	6.099E+00	9.577E-01	9.577E-01	18.96
	77.11	681	17.50	6.324E+00	8.302E-01	8.302E-01	14.18
	87.30	366	7.81	7.095E+00	8.904E-01	8.904E-01	23.34
	238.63	1585	43.30*	5.600E+00	8.814E-01	8.814E-01	8.39
	300.09	75	3.28	4.756E+00	6.485E-01	6.485E-01	68.70
BI-214	609.31	471	46.10*	2.717E+00	5.069E-01	5.069E-01	16.50
	768.36	96	4.94	2.218E+00	1.178E+00	1.178E+00	61.36
	806.17	------	1.22	2.128E+00	------	Line Not Found	------
	934.06	------	3.03	1.863E+00	------	Line Not Found	------
	1120.29	97	15.10	1.582E+00	5.458E-01	5.458E-01	35.59
	1155.19	------	1.63	1.540E+00	------	Line Not Found	------
	1238.11	73	5.79	1.450E+00	1.177E+00	1.177E+00	39.56
	1280.96	------	1.43	1.408E+00	------	Line Not Found	------
	1377.67	58	4.00	1.326E+00	1.473E+00	1.473E+00	36.05
	1401.50	------	1.27	1.308E+00	------	Line Not Found	------
	1407.98	37	2.15	1.303E+00	1.797E+00	1.797E+00	58.37
	1509.23	------	2.11	1.236E+00	------	Line Not Found	------
	1729.60	20	2.92	1.128E+00	8.190E-01	8.191E-01	86.97
	1764.49	94	15.40	1.115E+00	7.349E-01	7.349E-01	29.57
PB-214	74.81	450	6.44	6.099E+00	1.547E+00	1.547E+00	18.96
	77.11	681	10.80	6.324E+00	1.345E+00	1.345E+00	14.18

Sample ID : G198681014 Acquisition date : 15-DEC-2007 06:35:56

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	366	4.84	7.095E+00	1.437E+00	1.437E+00	23.34
	242.00	407	7.43	5.554E+00	1.330E+00	1.330E+00	27.14
	295.22	402	19.30	4.816E+00	5.832E-01	5.833E-01	19.29
	351.93	650	37.60*	4.222E+00	5.524E-01	5.524E-01	12.91
RA-223	269.46	162	13.70*	5.130E+00	3.111E-01	3.111E-01	40.70
AC-228	129.07	78	2.42	7.652E+00	5.678E-01	5.678E-01	89.29
	209.25	145	3.89	6.116E+00	8.238E-01	8.238E-01	47.14
	270.25	162	3.46	5.130E+00	1.232E+00	1.232E+00	40.70
	338.32	297	11.27	4.349E+00	8.170E-01	8.170E-01	26.27
	409.46	84	1.92	3.757E+00	1.580E+00	1.580E+00	54.13
	463.00	80	4.40	3.410E+00	7.146E-01	7.146E-01	76.37
	794.95	73	4.25	2.155E+00	1.076E+00	1.076E+00	46.62
	911.20	340	25.80*	1.905E+00	9.333E-01	9.333E-01	17.02
	964.77	52	4.99	1.809E+00	7.722E-01	7.722E-01	59.18
	968.97	202	15.80	1.802E+00	9.577E-01	9.577E-01	20.01
	1588.20	40	3.22	1.192E+00	1.388E+00	1.388E+00	35.80
TH-234	63.29	88	4.80	4.578E+00	5.402E-01	5.402E-01	98.86
	92.58	313	5.41*	7.369E+00	1.057E+00	1.057E+00	28.88
U-235	143.76	93	10.96*	7.435E+00	1.539E-01	1.539E-01	56.15
NP-236	98.44	128	38.00*	7.575E+00	6.014E-02	6.014E-02	71.86
NP-237	86.48	366	12.40*	7.095E+00	5.608E-01	5.608E-01	23.34
AM-243	74.66	450	68.20*	6.099E+00	1.460E-01	1.460E-01	18.96
CM-243	103.76	26	23.00*	7.698E+00	2.016E-02	2.024E-02	265.47

Flag: "*" = Keyline

Sample ID : G198681014 Acquisition date : 15-DEC-2007 06:35:56

Total number of lines in spectrum 72
Number of unidentified lines 33
Number of lines tentatively identified by NID 39 54.17%

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	4.201E+00	4.201E+00	0.557E+00	13.25	
CS-137	9.47E+08S	1.00	7.135E-02	7.161E-02	2.659E-02	37.13	
EU-155	1.57E+08S	1.02	2.187E-02	2.237E-02	5.937E-02	265.47	
TL-208	4.43E+17S	1.00	2.290E-01	2.290E-01	0.385E-01	16.82	
BI-212	4.43E+17S	1.00	4.749E-01	4.749E-01	2.434E-01	51.25	
PB-212	4.43E+17S	1.00	8.814E-01	8.814E-01	0.740E-01	8.39	
BI-214	5.05E+10S	1.00	5.069E-01	5.069E-01	0.837E-01	16.50	
PB-214	5.05E+10S	1.00	5.524E-01	5.524E-01	0.713E-01	12.91	
RA-223	1.04E+12S	1.00	3.111E-01	3.111E-01	1.266E-01	40.70	
AC-228	4.43E+17S	1.00	9.333E-01	9.333E-01	1.588E-01	17.02	
TH-234	1.41E+17S	1.00	1.057E+00	1.057E+00	0.305E+00	28.88	
U-235	2.22E+16S	1.00	1.539E-01	1.539E-01	0.864E-01	56.15	
NP-236	4.89E+12S	1.00	6.014E-02	6.014E-02	4.322E-02	71.86	
NP-237	6.75E+13S	1.00	5.608E-01	5.608E-01	1.309E-01	23.34	
AM-243	2.33E+11S	1.00	1.460E-01	1.460E-01	0.277E-01	18.96	
CM-243	8.99E+08S	1.00	2.016E-02	2.024E-02	5.373E-02	265.47	
			---	---			
	Total Activity :		1.018E+01	1.018E+01			

Grand Total Activity : 1.018E+01 1.018E+01

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

Sample ID : G198681014 Acquisition date : 15-DEC-2007 06:35:56

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.22	32	391	1.02	91.90	88	8	2.25E-03	****	1.70E+00	
0	49.98	69	322	0.92	99.43	96	7	4.79E-03	89.6	2.33E+00	
4	72.96	37	387	1.12	145.43	143	23	2.60E-03	****	5.90E+00	
4	81.17	48	295	0.90	161.86	143	23	3.33E-03	****	6.69E+00	
5	84.26	161	295	1.38	168.05	165	29	1.12E-02	40.2	6.91E+00	
5	89.84	252	332	1.24	179.22	165	29	1.75E-02	27.5	7.24E+00	
7	145.12	23	364	1.53	289.88	283	11	1.58E-03	****	7.40E+00	
0	154.31	54	332	1.89	308.27	305	8	3.78E-03	****	7.22E+00	
0	185.84	279	423	1.14	371.38	367	10	1.94E-02	32.3	6.57E+00	
0	204.54	70	260	2.43	408.81	405	8	4.84E-03	87.2	6.20E+00	
0	258.48	19	157	1.15	516.78	516	6	1.30E-03	****	5.30E+00	
0	327.64	41	217	1.12	655.20	652	8	2.86E-03	****	4.46E+00	
0	440.23	25	88	1.75	880.57	878	8	1.70E-03	****	3.55E+00	
0	445.76	33	127	2.77	891.64	886	11	2.31E-03	****	3.51E+00	
0	532.74	32	83	1.04	1065.71	1060	9	2.20E-03	****	3.04E+00	
0	541.95	14	160	5.16	1084.15	1073	15	9.94E-04	****	3.00E+00	
0	755.58	19	62	2.07	1511.69	1507	8	1.33E-03	****	2.25E+00	
0	838.89	91	121	7.60	1678.41	1668	24	6.29E-03	68.7	2.05E+00	
0	1097.71	11	23	1.01	2196.35	2193	6	7.33E-04	****	1.61E+00	
0	1128.24	16	14	1.00	2257.43	2254	6	1.09E-03	92.1	1.57E+00	
0	1204.72	6	19	0.48	2410.47	2406	7	4.22E-04	****	1.48E+00	
0	1213.82	65	101	11.09	2428.67	2412	36	4.52E-03	****	1.47E+00	
0	1283.33	14	39	0.97	2567.75	2562	15	9.68E-04	****	1.41E+00	
0	1369.74	34	29	0.60	2740.64	2731	19	2.33E-03	83.9	1.33E+00	
0	1443.62	14	28	4.18	2888.46	2873	17	9.54E-04	****	1.28E+00	
0	1600.06	6	11	1.29	3201.45	3196	7	3.82E-04	****	1.19E+00	
0	1614.33	30	12	3.08	3230.01	3222	17	2.06E-03	66.1	1.18E+00	
0	1661.87	16	12	1.75	3325.13	3319	12	1.11E-03	****	1.16E+00	
0	1707.06	17	2	0.74	3415.51	3412	10	1.20E-03	58.0	1.14E+00	
0	1805.93	7	2	3.34	3613.33	3608	9	4.71E-04	****	1.10E+00	
0	1831.26	4	8	1.33	3663.98	3657	8	2.84E-04	****	1.09E+00	
0	1847.27	29	3	3.22	3696.02	3691	11	2.02E-03	49.3	1.09E+00	
0	1949.70	6	5	1.01	3900.93	3897	9	4.29E-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]G198681014            *
* Acquisition date : 15-DEC-2007 06:35:56 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 04:00:02.12     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681014           Analyst initials: MJH1            *
* Batch Number     : 708121               Sample Quantity : 1.3918E+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	4.201E+00	5.456E-01	1.269E-01	5.456E-01
CS-137	7.161E-02	2.606E-02	1.479E-02	2.606E-02
EU-155	2.237E-02	5.819E-02	3.601E-02	5.819E-02
TL-208	2.290E-01	3.774E-02	1.260E-02	3.774E-02
BI-212	4.749E-01	2.385E-01	9.229E-02	2.385E-01
PB-212	8.814E-01	7.252E-02	1.946E-02	7.252E-02
BI-214	5.069E-01	8.198E-02	2.326E-02	8.198E-02
PB-214	5.524E-01	6.987E-02	2.482E-02	6.987E-02
RA-223	3.111E-01	1.241E-01	5.946E-02	1.241E-01
AC-228	9.333E-01	1.556E-01	4.102E-02	1.556E-01
TH-234	1.057E+00	2.993E-01	1.413E-01	2.993E-01
U-235	1.539E-01	8.471E-02	6.757E-02	8.471E-02
NP-236	6.014E-02	4.235E-02	1.949E-02	4.235E-02
NP-237	5.608E-01	1.283E-01	6.401E-02	1.283E-01
AM-243	1.460E-01	2.713E-02	1.565E-02	2.713E-02
CM-243	2.024E-02	5.266E-02	2.949E-02	5.266E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	1.236E-03	1.541E-02	1.310E-02	1.541E-02	NOT IDENT.
RH-101	9.578E-03	1.472E-02	1.260E-02	1.472E-02	NOT IDENT.
SB-125	1.141E-02	3.711E-02	3.322E-02	3.711E-02	NOT IDENT.
PO-209	1.643E+00	3.490E+00	2.828E+00	3.490E+00	NOT IDENT.
BI-211	4.740E-01	4.754E-01	4.013E-01	4.754E-01	NOT IDENT.
PA-233	1.560E-04	2.844E-02	2.388E-02	2.844E-02	NOT IDENT.
PA-234M	5.860E-01	2.066E+00	1.766E+00	2.066E+00	NOT IDENT.
NP-239	2.341E-02	9.191E-02	8.017E-02	9.191E-02	NOT IDENT.
AM-241	-1.997E-02	5.001E-02	3.820E-02	5.001E-02	NOT IDENT.
AM-246	4.540E-04	5.411E-02	4.603E-02	5.411E-02	NOT IDENT.
CF-249	6.684E-03	1.655E-02	1.498E-02	1.655E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	287.7785
63.29	302.9083
74.66	378.3854
74.81	378.5131
74.81	378.5131
77.11	380.4818
77.11	380.4818
86.48	283.0431
87.30	283.5204
87.30	283.5204
92.58	286.5475
98.44	284.4898
103.76	244.3501
105.31	300.2398
129.07	265.2880
143.76	277.9129
198.00	243.7646
209.25	238.0680
228.18	221.2503
238.63	208.6475
242.00	209.3517
269.46	165.3229
270.25	181.9894
277.36	183.1677
295.22	184.9338
300.09	183.4398
312.17	171.5729
338.32	135.7716
351.93	147.8094
387.59	130.7813
409.46	123.9000
427.87	105.4392
463.00	103.9688
510.77	92.1999
583.19	87.6744
609.31	82.6245
661.66	98.4606
727.33	63.2074
763.13	58.4042
768.36	63.1839
785.37	60.2688
794.95	53.7773
806.17	60.3164
831.80	50.0049
860.56	45.0331
896.60	47.4888
911.20	40.2485
934.06	55.6668
964.77	46.7187
968.97	46.7857
1001.03	47.2845
1078.86	43.5187
1120.29	45.0681
1155.19	42.4983
1173.23	36.6170
1238.11	44.5369
1280.96	26.1951
1332.51	36.1084
1377.67	16.1140
1401.50	27.0166
1407.98	30.3064
1460.80	29.5998
1509.23	25.8729
1588.20	30.1016
1620.50	19.4891
1729.60	18.2832
1764.49	17.5767

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198681014

Total Uranium Activity	7.1230E-02	ug/g
Total Uranium Counting Unc.	3.9198E-02	ug/g
Total Uranium Tpu	3.9198E-08	ug/g
Total Uranium Mda	3.1266E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 10:37:28.89

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681015.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 06:36:41
Sample ID        : G198681015           Sample quantity  : 1.30820E+02 GRAM
Detector name    : GAM13                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:04.17  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708121               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.83*	51	539	0.82	93.11	89	8	3.57E-03	93.5	
2	0	49.92	87	388	1.70	99.30	97	6	6.04E-03	37.4	
3	0	53.11*	93	424	1.61	105.68	103	6	6.43E-03	40.9	
4	0	63.43*	199	913	1.02	126.34	121	11	1.38E-02	35.1	
5	4	73.12	51	312	1.16	145.74	144	14	3.53E-03	47.2	2.13E+00
6	4	74.97	522	607	0.97	149.44	144	14	3.63E-02	8.7	
7	4	77.21*	846	584	0.93	153.92	144	14	5.88E-02	6.0	
8	3	84.22*	75	476	0.87	167.94	165	29	5.18E-03	50.4	3.40E+00
9	3	87.38	312	617	1.12	174.28	165	29	2.17E-02	13.9	
10	3	90.05	225	494	0.95	179.63	165	29	1.56E-02	16.9	
11	3	92.81*	227	511	1.14	185.14	165	29	1.57E-02	25.0	
12	3	94.65	91	399	0.95	188.83	165	29	6.29E-03	45.0	
13	0	98.75*	62	560	0.95	197.03	194	8	4.33E-03	71.3	
14	0	124.69	54	396	0.60	248.97	246	6	3.73E-03	60.4	
15	0	129.16	58	799	1.22	257.90	254	11	4.06E-03	94.6	
16	0	144.13*	31	521	0.93	287.89	284	8	2.15E-03	141.2	
17	0	185.88*	212	575	1.22	371.44	366	11	1.47E-02	26.4	
18	0	198.26*	6	412	0.74	396.24	393	8	3.89E-04	676.6	
19	0	209.26	127	411	1.21	418.26	414	8	8.82E-03	29.0	
20	0	225.98	42	310	1.52	451.72	449	7	2.92E-03	71.4	
21	5	238.78*	1264	291	0.97	477.34	473	19	8.77E-02	3.8	9.77E-01
22	5	241.76	291	379	1.55	483.30	473	19	2.02E-02	14.1	
23	0	270.15	199	393	1.97	540.12	533	13	1.38E-02	21.8	
24	0	277.61	77	305	1.22	555.07	551	9	5.32E-03	42.9	
25	0	295.33*	335	228	1.20	590.52	587	7	2.32E-02	10.1	
26	0	300.07	71	291	1.56	600.01	597	8	4.94E-03	43.1	
27	0	328.10	66	254	0.78	656.12	653	8	4.56E-03	43.8	
28	0	338.64*	256	345	1.65	677.22	671	13	1.78E-02	17.5	
29	0	351.94*	549	289	1.27	703.82	698	11	3.81E-02	7.7	
30	0	409.19	62	223	1.28	818.42	814	10	4.29E-03	47.1	
31	0	463.34*	73	222	1.31	926.79	922	11	5.06E-03	43.2	
32	0	487.54	21	146	1.21	975.22	971	8	1.47E-03	101.0	
33	0	511.17*	53	306	1.90	1022.51	1015	17	3.65E-03	96.7	
34	0	582.98*	391	204	1.33	1166.22	1158	15	2.72E-02	9.9	
35	0	609.46*	406	191	1.58	1219.21	1212	15	2.82E-02	9.4	
36	0	694.74	26	143	2.21	1389.85	1385	10	1.80E-03	88.3	
37	0	727.37	85	192	1.69	1455.16	1448	13	5.92E-03	35.2	
38	0	768.69	43	116	1.19	1537.84	1534	9	3.01E-03	47.5	

Sample ID : G198681015 Acquisition date : 15-DEC-2007 06:36:41

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	794.42	61	137	1.83	1589.31	1585	16	4.23E-03	44.2	
40	0	836.10	60	65	2.42	1672.71	1669	9	4.18E-03	27.4	
41	0	841.54	95	104	4.63	1683.61	1677	14	6.57E-03	25.2	
42	0	861.58	60	148	3.74	1723.70	1715	17	4.18E-03	48.1	
43	0	911.27*	252	144	1.66	1823.12	1815	16	1.75E-02	13.1	
44	1	965.38	35	54	2.07	1931.38	1928	15	2.43E-03	35.4	3.69E+00
45	1	969.18*	146	57	1.69	1938.97	1928	15	1.02E-02	14.6	
46	0	983.75	20	49	3.40	1968.13	1963	8	1.38E-03	66.3	
47	0	1002.80	31	90	2.36	2006.24	1996	12	2.14E-03	64.2	
48	0	1042.30	29	131	5.90	2085.27	2072	19	2.02E-03	96.9	
49	3	1110.99	36	90	2.65	2222.68	2214	20	2.52E-03	59.3	2.06E+00
50	3	1115.18	18	19	1.45	2231.07	2214	20	1.27E-03	46.0	
51	0	1120.53*	90	56	1.67	2241.77	2237	10	6.22E-03	21.2	
52	0	1461.02	502	55	1.95	2922.86	2913	18	3.49E-02	5.6	
53	1	1588.82	34	33	2.53	3178.46	3170	22	2.38E-03	41.4	2.03E+00
54	1	1591.86	27	35	2.53	3184.54	3170	22	1.90E-03	53.7	
55	0	1622.57	14	26	0.48	3245.96	3241	9	9.77E-04	73.1	
56	0	1663.52	14	21	0.59	3327.86	3320	14	9.72E-04	74.4	
57	0	1717.65	13	5	3.52	3436.12	3431	10	9.03E-04	42.5	
58	0	1731.17	21	26	0.73	3463.14	3455	13	1.46E-03	54.6	
59	0	1765.21	69	27	2.09	3531.22	3520	18	4.79E-03	21.4	
60	0	1822.57	6	13	0.48	3645.93	3639	11	3.82E-04	137.0	
61	0	1848.15	24	18	1.90	3697.07	3691	14	1.68E-03	42.1	
62	0	1912.07	10	12	4.46	3824.89	3816	12	7.10E-04	74.5	
63	0	1978.85	19	10	2.64	3958.41	3953	12	1.35E-03	38.5	

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]G198681015       *
* Acquisition date : 15-DEC-2007 06:36:41 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 04:00:04.17     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681015           Analyst initials: MJH1            *
* Batch Number     : 708121               Sample Quantity : 1.3082E+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	6.371E+00	7.848E-01	3.824E-01	0.000E+00
RH-101	2.086E-03	2.767E-02	3.337E-02	0.000E+00
TL-208	2.881E-01	5.966E-02	4.014E-02	0.000E+00
BI-212	5.454E-01	3.788E-01	3.650E-01	0.000E+00
PB-212	8.685E-01	8.581E-02	6.007E-02	0.000E+00
BI-214	5.703E-01	1.132E-01	8.099E-02	0.000E+00
PB-214	5.872E-01	9.407E-02	8.754E-02	0.000E+00
RA-223	4.728E-01	2.039E-01	1.834E-01	0.000E+00
AC-228	8.981E-01	2.369E-01	1.782E-01	0.000E+00
PA-234M	3.651E+00	4.596E+00	5.669E+00	0.000E+00
TH-234	7.995E-01	3.973E-01	4.098E-01	0.000E+00
U-235	6.232E-02	1.726E-01	1.946E-01	0.000E+00
NP-236	3.172E-02	4.438E-02	4.725E-02	0.000E+00
NP-237	4.752E-01	1.350E-01	1.755E-01	0.000E+00
AM-243	1.428E-01	2.662E-02	3.029E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
CO-60	7.113E-03	2.869E-02	4.909E-02	0.000E+00	NOT IDENT.
SB-125	-3.678E-02	6.161E-02	1.011E-01	0.000E+00	NOT IDENT.
CS-137	4.692E-03	2.926E-02	5.052E-02	0.000E+00	NOT IDENT.
EU-155	7.565E-02	5.394E-02	1.007E-01	0.000E+00	NOT IDENT.
PO-209	-1.182E-01	5.691E+00	9.398E+00	0.000E+00	NOT IDENT.
BI-211	1.134E+00	7.783E-01	1.286E+00	0.000E+00	NOT IDENT.
PA-233	4.188E-03	3.928E-02	6.920E-02	0.000E+00	NOT IDENT.
NP-239	-2.558E-02	1.508E-01	2.236E-01	0.000E+00	NOT IDENT.
AM-241	3.660E-03	3.303E-02	5.222E-02	0.000E+00	NOT IDENT.
CM-243	-4.065E-02	4.985E-02	8.345E-02	0.000E+00	NOT IDENT.
AM-246	5.858E-02	9.767E-02	1.726E-01	0.000E+00	NOT IDENT.
CF-249	-6.426E-03	2.706E-02	4.590E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 10:37:30.04

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681015.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 06:36:41
Sample ID        : G198681015           Sample quantity  : 1.30820E+02 GRAM
Detector name    : GAM13                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:04.17  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708121               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	502	10.66*	1.060E+00	6.371E+00	6.371E+00	12.57
RH-101	198.00	6	73.00*	5.464E+00	2.017E-03	2.086E-03	1353.20
TL-208	277.36	77	6.31	4.312E+00	4.039E-01	4.039E-01	86.01
	510.77	53	22.60	2.589E+00	1.289E-01	1.289E-01	193.48
	583.19	391	84.50*	2.306E+00	2.881E-01	2.881E-01	21.13
	763.13	------	1.81	1.821E+00	------	Line Not Found	------
	860.56	60	12.42	1.640E+00	4.244E-01	4.244E-01	96.44
BI-212	727.33	85	11.80*	1.899E+00	5.454E-01	5.454E-01	70.86
	785.37	------	1.10	1.777E+00	------	Line Not Found	------
	1620.50	------	1.49	9.772E-01	------	Line Not Found	------
PB-212	74.81	522	10.40	7.694E+00	9.362E-01	9.362E-01	19.03
	77.11	846	17.50	7.683E+00	9.030E-01	9.030E-01	14.29
	87.30	312	7.81	7.591E+00	7.545E-01	7.545E-01	28.99
	238.63	1264	43.30*	4.821E+00	8.685E-01	8.685E-01	10.08
	300.09	71	3.28	4.059E+00	7.667E-01	7.667E-01	86.45
BI-214	609.31	406	46.10*	2.218E+00	5.703E-01	5.703E-01	20.25
	768.36	43	4.94	1.810E+00	6.944E-01	6.945E-01	95.26
	806.17	------	1.22	1.737E+00	------	Line Not Found	------
	934.06	------	3.03	1.531E+00	------	Line Not Found	------
	1120.29	90	15.10	1.314E+00	6.473E-01	6.473E-01	42.73
	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	21	2.92	9.280E-01	1.112E+00	1.112E+00	109.36
	1764.49	69	15.40	9.140E-01	7.033E-01	7.033E-01	43.12
PB-214	74.81	522	6.44	7.694E+00	1.512E+00	1.512E+00	19.03
	77.11	846	10.80	7.683E+00	1.463E+00	1.463E+00	14.29
	87.30	312	4.84	7.591E+00	1.217E+00	1.218E+00	28.99

Sample ID : G198681015 Acquisition date : 15-DEC-2007 06:36:41

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	242.00	291	7.43	4.778E+00	1.177E+00	1.177E+00	29.02
	295.22	335	19.30	4.110E+00	6.054E-01	6.054E-01	20.85
	351.93	549	37.60*	3.567E+00	5.872E-01	5.872E-01	16.35
RA-223	269.46	199	13.70*	4.402E+00	4.728E-01	4.728E-01	44.01
AC-228	129.07	58	2.42	6.829E+00	5.070E-01	5.070E-01	189.39
	209.25	127	3.89	5.277E+00	8.880E-01	8.880E-01	58.56
	270.25	199	3.46	4.402E+00	1.872E+00	1.872E+00	44.01
	338.32	256	11.27	3.682E+00	8.848E-01	8.848E-01	35.48
	409.46	62	1.92	3.141E+00	1.471E+00	1.471E+00	94.31
	463.00	73	4.40	2.821E+00	8.420E-01	8.420E-01	86.58
	794.95	61	4.25	1.759E+00	1.169E+00	1.169E+00	88.80
	911.20	252	25.80*	1.563E+00	8.981E-01	8.981E-01	26.92
	964.77	35	4.99	1.489E+00	6.751E-01	6.751E-01	70.97
	968.97	146	15.80	1.484E+00	8.957E-01	8.957E-01	29.75
	1588.20	34	3.22	9.924E-01	1.542E+00	1.542E+00	83.09
PA-234M	1001.03	31	0.84*	1.442E+00	3.651E+00	3.651E+00	128.47
TH-234	63.29	199	4.80	7.667E+00	7.747E-01	7.747E-01	70.57
	92.58	227	5.41*	7.518E+00	7.995E-01	7.995E-01	50.71
U-235	143.76	31	10.96*	6.514E+00	6.232E-02	6.232E-02	282.54
NP-236	98.44	62	38.00*	7.424E+00	3.172E-02	3.172E-02	142.78
NP-237	86.48	312	12.40*	7.591E+00	4.752E-01	4.752E-01	28.99
AM-243	74.66	522	68.20*	7.694E+00	1.428E-01	1.428E-01	19.03

Flag: "*" = Keyline

Sample ID : G198681015 Acquisition date : 15-DEC-2007 06:36:41

Total number of lines in spectrum	63	
Number of unidentified lines	27	
Number of lines tentatively identified by NID	36	57.14%

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	6.371E+00	6.371E+00	0.801E+00	12.57	
RH-101	1.04E+08S	1.03	2.017E-03	2.086E-03	28.23E-03	1353.20	
TL-208	4.43E+17S	1.00	2.881E-01	2.881E-01	0.609E-01	21.13	
BI-212	4.43E+17S	1.00	5.454E-01	5.454E-01	3.865E-01	70.86	
PB-212	4.43E+17S	1.00	8.685E-01	8.685E-01	0.876E-01	10.08	
BI-214	5.05E+10S	1.00	5.703E-01	5.703E-01	1.155E-01	20.25	
PB-214	5.05E+10S	1.00	5.872E-01	5.872E-01	0.960E-01	16.35	
RA-223	1.04E+12S	1.00	4.728E-01	4.728E-01	2.081E-01	44.01	
AC-228	4.43E+17S	1.00	8.981E-01	8.981E-01	2.417E-01	26.92	
PA-234M	1.41E+17S	1.00	3.651E+00	3.651E+00	4.690E+00	128.47	
TH-234	1.41E+17S	1.00	7.995E-01	7.995E-01	4.054E-01	50.71	
U-235	2.22E+16S	1.00	6.232E-02	6.232E-02	17.61E-02	282.54	
NP-236	4.89E+12S	1.00	3.172E-02	3.172E-02	4.529E-02	142.78	
NP-237	6.75E+13S	1.00	4.752E-01	4.752E-01	1.377E-01	28.99	
AM-243	2.33E+11S	1.00	1.428E-01	1.428E-01	0.272E-01	19.03	
			---	---			
		Total Activity :	1.577E+01	1.577E+01			

Grand Total Activity : 1.577E+01 1.577E+01

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

Sample ID : G198681015 Acquisition date : 15-DEC-2007 06:36:41

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.83	51	539	0.82	93.11	89	8	3.57E-03	****	7.28E+00	
0	49.92	87	388	1.70	99.30	97	6	6.04E-03	74.7	7.39E+00	
0	53.11	93	424	1.61	105.68	103	6	6.43E-03	81.7	7.49E+00	
4	73.12	51	312	1.16	145.74	144	14	3.53E-03	94.3	7.70E+00	
3	84.22	75	476	0.87	167.94	165	29	5.18E-03	****	7.63E+00	
3	90.05	225	494	0.95	179.63	165	29	1.56E-02	33.9	7.56E+00	
3	94.65	91	399	0.95	188.83	165	29	6.29E-03	89.9	7.49E+00	
0	124.69	54	396	0.60	248.97	246	6	3.73E-03	****	6.92E+00	
0	185.88	212	575	1.22	371.44	366	11	1.47E-02	52.8	5.69E+00	
0	225.98	42	310	1.52	451.72	449	7	2.92E-03	****	5.01E+00	
0	328.10	66	254	0.78	656.12	653	8	4.56E-03	87.6	3.78E+00	
0	487.54	21	146	1.21	975.22	971	8	1.47E-03	****	2.70E+00	
0	694.74	26	143	2.21	1389.85	1385	10	1.80E-03	****	1.98E+00	
0	836.10	60	65	2.42	1672.71	1669	9	4.18E-03	54.8	1.68E+00	
0	841.54	95	104	4.63	1683.61	1677	14	6.57E-03	50.4	1.67E+00	
0	983.75	20	49	3.40	1968.13	1963	8	1.38E-03	****	1.47E+00	
0	1042.30	29	131	5.90	2085.27	2072	19	2.02E-03	****	1.40E+00	
3	1110.99	36	90	2.65	2222.68	2214	20	2.52E-03	****	1.32E+00	
3	1115.18	18	19	1.45	2231.07	2214	20	1.27E-03	92.0	1.32E+00	
1	1591.86	27	35	2.53	3184.54	3170	22	1.90E-03	****	9.91E-01	
0	1622.57	14	26	0.48	3245.96	3241	9	9.77E-04	****	9.76E-01	
0	1663.52	14	21	0.59	3327.86	3320	14	9.72E-04	****	9.57E-01	
0	1717.65	13	5	3.52	3436.12	3431	10	9.03E-04	85.0	9.34E-01	
0	1822.57	6	13	0.48	3645.93	3639	11	3.82E-04	****	8.92E-01	
0	1848.15	24	18	1.90	3697.07	3691	14	1.68E-03	84.2	8.82E-01	
0	1912.07	10	12	4.46	3824.89	3816	12	7.10E-04	****	8.59E-01	
0	1978.85	19	10	2.64	3958.41	3953	12	1.35E-03	77.0	8.36E-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]G198681015            *
* Acquisition date : 15-DEC-2007 06:36:41 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 04:00:04.17     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681015           Analyst initials: MJH1            *
* Batch Number     : 708121               Sample Quantity : 1.3082E+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    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	6.371E+00	7.848E-01	1.913E-01	7.848E-01
RH-101	2.086E-03	2.767E-02	1.669E-02	2.767E-02
TL-208	2.881E-01	5.966E-02	2.008E-02	5.966E-02
BI-212	5.454E-01	3.788E-01	1.826E-01	3.788E-01
PB-212	8.685E-01	8.581E-02	3.005E-02	8.581E-02
BI-214	5.703E-01	1.132E-01	4.052E-02	1.132E-01
PB-214	5.872E-01	9.407E-02	4.379E-02	9.407E-02
RA-223	4.728E-01	2.039E-01	9.173E-02	2.039E-01
AC-228	8.981E-01	2.369E-01	8.913E-02	2.369E-01
PA-234M	3.651E+00	4.596E+00	2.836E+00	4.596E+00
TH-234	7.995E-01	3.973E-01	2.050E-01	3.973E-01
U-235	6.232E-02	1.726E-01	9.736E-02	1.726E-01
NP-236	3.172E-02	4.438E-02	2.364E-02	4.438E-02
NP-237	4.752E-01	1.350E-01	8.780E-02	1.350E-01
AM-243	1.428E-01	2.662E-02	1.516E-02	2.662E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	7.113E-03	2.869E-02	2.456E-02	2.869E-02	NOT IDENT.
SB-125	-3.678E-02	6.161E-02	5.060E-02	6.161E-02	NOT IDENT.
CS-137	4.692E-03	2.926E-02	2.527E-02	2.926E-02	NOT IDENT.
EU-155	7.565E-02	5.394E-02	5.036E-02	5.394E-02	NOT IDENT.
PO-209	-1.182E-01	5.691E+00	4.702E+00	5.691E+00	NOT IDENT.
BI-211	1.134E+00	7.783E-01	6.435E-01	7.783E-01	NOT IDENT.
PA-233	4.188E-03	3.928E-02	3.462E-02	3.928E-02	NOT IDENT.
NP-239	-2.558E-02	1.508E-01	1.119E-01	1.508E-01	NOT IDENT.
AM-241	3.660E-03	3.303E-02	2.613E-02	3.303E-02	NOT IDENT.
CM-243	-4.065E-02	4.985E-02	4.175E-02	4.985E-02	NOT IDENT.
AM-246	5.858E-02	9.767E-02	8.636E-02	9.767E-02	NOT IDENT.
CF-249	-6.426E-03	2.706E-02	2.296E-02	2.706E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	405.2462
63.29	441.1848
74.66	514.3950
74.81	514.6570
74.81	514.6570
77.11	518.6683
77.11	518.6683
86.48	559.6307
87.30	561.0297
87.30	561.0297
92.58	569.8912
98.44	365.4108
103.76	452.2802
105.31	398.8312
129.07	386.4151
143.76	402.0861
198.00	348.2818
209.25	359.8629
228.18	311.8628
238.63	332.3015
242.00	333.8246
269.46	260.2736
270.25	260.5293
277.36	257.4272
295.22	284.7828
300.09	268.0068
312.17	230.6912
338.32	225.6649
351.93	294.6763
387.59	222.5725
409.46	203.4211
427.87	186.9022
463.00	173.0446
510.77	167.1562
583.19	132.9942
609.31	149.3671
661.66	164.7998
727.33	146.5789
763.13	116.6979
768.36	146.6004
785.37	135.3479
794.95	110.8808
806.17	103.0675
831.80	69.1966
860.56	114.3460
896.60	108.5205
911.20	113.9921
934.06	94.6849
964.77	101.5400
968.97	80.7251
1001.03	104.6674
1078.86	78.6263
1120.29	100.9165
1155.19	76.7700
1173.23	76.2329
1238.11	99.7227
1280.96	66.3530
1332.51	56.7244
1377.67	50.2163
1401.50	55.2528
1407.98	54.4175
1460.80	41.9114
1509.23	49.2355
1588.20	45.3534
1620.50	29.8263
1729.60	37.7962
1764.49	28.8418

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198681015

Total Uranium Activity	2.8836E-02	ug/g
Total Uranium Counting Unc.	7.9844E-02	ug/g
Total Uranium Tpu	7.9844E-08	ug/g
Total Uranium Mda	4.5048E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 10:38:14.19

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681016.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 06:37:33
Sample ID        : G198681016           Sample quantity  : 1.13480E+02 GRAM
Detector name    : GAM16                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.65  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708121               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.36*	147	613	0.86	126.94	122	10	1.02E-02	34.7	
2	3	74.75*	518	679	1.64	149.72	142	17	3.60E-02	11.7	8.54E+00
3	3	77.12*	822	413	1.01	154.45	142	17	5.71E-02	5.7	
4	2	84.13*	82	571	1.54	168.48	164	30	5.71E-03	54.2	1.78E+00
5	2	87.23*	420	489	1.40	174.67	164	30	2.92E-02	10.4	
6	2	89.99	221	405	1.19	180.19	164	30	1.54E-02	16.8	
7	2	92.80*	355	497	1.48	185.80	164	30	2.47E-02	14.2	
8	0	105.30	44	377	0.60	210.81	208	7	3.03E-03	75.1	
9	0	115.78	20	422	1.24	231.76	227	8	1.41E-03	177.1	
10	0	128.91	106	494	1.15	258.03	254	10	7.33E-03	40.6	
11	0	143.65*	44	444	0.76	287.51	284	9	3.06E-03	91.4	
12	0	154.28	69	416	1.32	308.76	304	9	4.79E-03	54.7	
13	0	185.80*	260	445	1.20	371.81	366	11	1.81E-02	18.2	
14	0	209.37	165	288	0.94	418.96	416	8	1.14E-02	19.4	
15	0	214.99	19	374	3.22	430.18	425	10	1.29E-03	195.8	
16	4	238.66*	1640	243	1.06	477.54	473	17	1.14E-01	3.0	1.96E+00
17	4	241.61	439	320	1.90	483.43	473	17	3.05E-02	12.0	
18	0	257.78	76	352	2.63	515.78	508	14	5.26E-03	54.1	
19	0	269.88	175	231	1.14	539.98	535	10	1.22E-02	17.9	
20	0	276.84	120	292	1.01	553.90	548	12	8.34E-03	29.9	
21	0	295.27*	486	264	1.14	590.76	585	12	3.38E-02	8.4	
22	0	300.70	155	246	1.12	601.62	596	12	1.07E-02	22.0	
23	0	328.31	126	239	1.29	656.85	652	12	8.74E-03	26.1	
24	0	338.10	337	179	1.07	676.44	671	10	2.34E-02	9.2	
25	0	351.84*	870	204	1.20	703.91	697	13	6.04E-02	5.1	
26	0	409.71	32	145	0.78	819.67	815	9	2.22E-03	70.4	
27	0	453.15	63	122	0.98	906.56	901	12	4.37E-03	37.4	
28	0	462.99	98	153	1.37	926.24	922	12	6.77E-03	27.3	
29	0	472.29	43	180	4.26	944.85	937	16	2.96E-03	72.1	
30	0	510.67*	159	193	1.67	1021.63	1014	17	1.10E-02	26.3	
31	0	562.36	17	103	0.62	1125.02	1121	9	1.18E-03	110.1	
32	0	583.28*	526	179	1.31	1166.87	1159	16	3.66E-02	7.4	
33	0	609.39*	563	161	1.48	1219.12	1211	16	3.91E-02	6.8	
34	0	662.10	48	112	1.55	1324.57	1319	13	3.31E-03	47.8	
35	0	682.13	24	71	0.79	1364.64	1360	10	1.67E-03	68.5	
36	0	693.80	20	78	1.55	1387.97	1382	10	1.37E-03	86.8	
37	0	709.58	16	65	1.59	1419.56	1416	8	1.09E-03	92.0	
38	0	727.49*	128	108	1.83	1455.38	1445	18	8.92E-03	21.7	

Sample ID : G198681016 Acquisition date : 15-DEC-2007 06:37:33

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	794.91	99	46	1.86	1590.28	1584	13	6.89E-03	17.2	
40	0	840.56	52	139	4.07	1681.60	1663	21	3.64E-03	57.5	
41	0	860.76	81	70	2.29	1722.01	1714	15	5.60E-03	25.4	
42	0	911.10*	329	85	1.68	1822.75	1816	16	2.29E-02	8.9	
43	4	932.65	52	21	2.81	1865.86	1859	38	3.64E-03	25.5	1.91E+00
44	4	939.61	32	31	2.81	1879.78	1859	38	2.23E-03	45.8	
45	0	964.48	57	47	1.61	1929.55	1926	8	3.96E-03	24.5	
46	0	968.81	183	69	1.67	1938.22	1934	11	1.27E-02	11.6	
47	0	1001.10*	17	63	1.75	2002.82	1996	14	1.21E-03	107.9	
48	0	1018.29	28	32	2.41	2037.21	2029	13	1.95E-03	45.9	
49	0	1094.36	26	64	3.87	2189.45	2179	15	1.84E-03	68.5	
50	0	1120.17*	106	45	1.55	2241.10	2233	15	7.38E-03	17.7	
51	1	1234.56*	33	67	2.05	2470.00	2462	23	2.27E-03	50.7	4.72E+00
52	1	1237.35*	23	63	2.26	2475.59	2462	23	1.59E-03	88.3	
53	0	1377.50*	36	22	2.80	2756.07	2752	11	2.53E-03	31.9	
54	0	1386.74	13	25	0.87	2774.56	2767	13	9.27E-04	83.0	
55	0	1407.18	35	26	1.22	2815.47	2809	13	2.42E-03	34.6	
56	0	1451.48	24	30	5.79	2904.13	2893	18	1.63E-03	59.5	
57	0	1460.24*	430	33	1.64	2921.67	2913	16	2.99E-02	5.9	
58	0	1477.72	6	16	0.87	2956.67	2951	9	4.15E-04	126.8	
59	0	1510.20*	4	38	2.17	3021.66	3010	17	3.00E-04	364.9	
60	1	1587.65	37	30	2.41	3176.69	3163	30	2.58E-03	34.5	1.21E+00
61	1	1592.02	31	20	2.42	3185.44	3163	30	2.12E-03	41.3	
62	0	1620.39	22	11	1.65	3242.22	3237	10	1.51E-03	37.0	
63	0	1719.98	16	10	2.63	3441.58	3433	15	1.12E-03	51.0	
64	0	1729.00	48	12	2.38	3459.64	3450	23	3.32E-03	23.5	
65	0	1764.24*	106	14	2.16	3530.19	3524	17	7.39E-03	13.2	
66	0	1847.76	23	7	1.80	3697.37	3691	14	1.60E-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]G198681016       *
* Acquisition date : 15-DEC-2007 06:37:33 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 04:00:01.65     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681016           Analyst initials: MJH1            *
* Batch Number     : 708121               Sample Quantity : 1.1348E+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    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	5.099E+00	6.610E-01	2.577E-01	0.000E+00
CS-137	3.556E-02	3.344E-02	3.583E-02	0.000E+00
EU-155	4.451E-02	6.559E-02	1.027E-01	0.000E+00
TL-208	3.537E-01	5.724E-02	3.315E-02	0.000E+00
BI-212	7.469E-01	3.244E-01	2.492E-01	0.000E+00
PB-212	1.084E+00	8.747E-02	5.432E-02	0.000E+00
BI-214	7.196E-01	1.105E-01	6.505E-02	0.000E+00
PB-214	8.779E-01	9.854E-02	6.330E-02	0.000E+00
RA-223	3.990E-01	1.418E-01	1.751E-01	0.000E+00
AC-228	1.070E+00	2.058E-01	1.189E-01	0.000E+00
PA-234M	1.900E+00	4.021E+00	3.826E+00	0.000E+00
TH-234	1.456E+00	4.170E-01	4.432E-01	0.000E+00
U-235	8.749E-02	1.568E-01	1.901E-01	0.000E+00
NP-237	7.820E-01	1.697E-01	2.016E-01	0.000E+00
AM-243	2.054E-01	4.901E-02	4.477E-02	0.000E+00
CM-243	4.028E-02	5.936E-02	9.097E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error	MDA (pCi/GRAM)		Ided
CO-60	1.028E-02	2.244E-02	3.897E-02	0.000E+00	NOT IDENT.
RH-101	-1.318E-02	2.065E-02	3.182E-02	0.000E+00	NOT IDENT.
SB-125	1.558E-02	5.028E-02	8.699E-02	0.000E+00	NOT IDENT.
PO-209	-1.458E+00	3.997E+00	6.587E+00	0.000E+00	NOT IDENT.
BI-211	-2.899E-01	6.814E-01	9.567E-01	0.000E+00	NOT IDENT.
PA-233	3.551E-03	3.567E-02	6.195E-02	0.000E+00	NOT IDENT.
NP-236	2.634E-02	3.829E-02	5.788E-02	0.000E+00	NOT IDENT.
NP-239	2.108E-02	1.293E-01	2.161E-01	0.000E+00	NOT IDENT.
AM-241	1.005E-02	7.323E-02	1.137E-01	0.000E+00	NOT IDENT.
AM-246	-5.960E-03	6.919E-02	1.151E-01	0.000E+00	NOT IDENT.
CF-249	-9.419E-04	2.333E-02	3.981E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 10:38:15.38

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681016.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 06:37:33
Sample ID        : G198681016           Sample quantity  : 1.13480E+02 GRAM
Detector name    : GAM16                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.65  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708121               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	430	10.66*	1.310E+00	5.099E+00	5.099E+00	13.23
CS-137	661.66	48	85.10*	2.615E+00	3.543E-02	3.556E-02	95.95
EU-155	105.31	44	21.20*	7.817E+00	4.353E-02	4.451E-02	150.37
TL-208	277.36	120	6.31	5.208E+00	6.041E-01	6.041E-01	59.98
	510.77	159	22.60	3.252E+00	3.580E-01	3.580E-01	52.97
	583.19	526	84.50*	2.913E+00	3.537E-01	3.537E-01	16.51
	763.13	------	1.81	2.311E+00	------	Line Not Found	------
	860.56	81	12.42	2.076E+00	5.174E-01	5.174E-01	51.41
BI-212	727.33	128	11.80*	2.410E+00	7.469E-01	7.469E-01	44.32
	785.37	------	1.10	2.253E+00	------	Line Not Found	------
	1620.50	22	1.49	1.212E+00	1.985E+00	1.985E+00	74.18
PB-212	74.81	518	10.40	6.117E+00	1.347E+00	1.347E+00	24.35
	77.11	822	17.50	6.363E+00	1.221E+00	1.221E+00	13.33
	87.30	420	7.81	7.165E+00	1.242E+00	1.242E+00	22.15
	238.63	1640	43.30*	5.778E+00	1.084E+00	1.084E+00	8.23
	300.09	155	3.28	4.904E+00	1.591E+00	1.591E+00	44.29
BI-214	609.31	563	46.10*	2.807E+00	7.196E-01	7.196E-01	15.66
	768.36	------	4.94	2.297E+00	------	Line Not Found	------
	806.17	------	1.22	2.201E+00	------	Line Not Found	------
	934.06	52	3.03	1.932E+00	1.481E+00	1.481E+00	51.68
	1120.29	106	15.10	1.639E+00	7.105E-01	7.106E-01	35.91
	1155.19	------	1.63	1.595E+00	------	Line Not Found	------
	1238.11	23	5.79	1.502E+00	4.340E-01	4.340E-01	176.61
	1280.96	------	1.43	1.458E+00	------	Line Not Found	------
	1377.67	36	4.00	1.373E+00	1.098E+00	1.098E+00	64.07
	1401.50	------	1.27	1.353E+00	------	Line Not Found	------
	1407.98	35	2.15	1.349E+00	1.989E+00	1.990E+00	69.42
	1509.23	4	2.11	1.276E+00	2.651E-01	2.651E-01	729.91
	1729.60	48	2.92	1.161E+00	2.333E+00	2.333E+00	47.33
	1764.49	106	15.40	1.146E+00	9.963E-01	9.963E-01	27.03
PB-214	74.81	518	6.44	6.117E+00	2.175E+00	2.175E+00	24.35
	77.11	822	10.80	6.363E+00	1.978E+00	1.978E+00	13.33

Sample ID : G198681016 Acquisition date : 15-DEC-2007 06:37:33

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	420	4.84	7.165E+00	2.003E+00	2.004E+00	22.15
	242.00	439	7.43	5.730E+00	1.706E+00	1.706E+00	24.68
	295.22	486	19.30	4.970E+00	8.387E-01	8.387E-01	17.66
	351.93	870	37.60*	4.361E+00	8.779E-01	8.779E-01	11.45
RA-223	269.46	175	13.70*	5.304E+00	3.990E-01	3.990E-01	36.28
AC-228	129.07	106	2.42	7.822E+00	9.226E-01	9.226E-01	81.45
	209.25	165	3.89	6.296E+00	1.113E+00	1.113E+00	39.19
	270.25	175	3.46	5.304E+00	1.580E+00	1.580E+00	36.28
	338.32	337	11.27	4.494E+00	1.099E+00	1.099E+00	19.22
	409.46	32	1.92	3.878E+00	7.099E-01	7.099E-01	140.88
	463.00	98	4.40	3.520E+00	1.041E+00	1.041E+00	54.95
	794.95	99	4.25	2.229E+00	1.732E+00	1.732E+00	35.55
	911.20	329	25.80*	1.973E+00	1.070E+00	1.070E+00	19.63
	964.77	57	4.99	1.874E+00	1.009E+00	1.009E+00	49.70
	968.97	183	15.80	1.867E+00	1.028E+00	1.028E+00	24.41
	1588.20	37	3.22	1.230E+00	1.551E+00	1.551E+00	69.23
PA-234M	1001.03	17	0.84*	1.813E+00	1.900E+00	1.900E+00	215.91
TH-234	63.29	147	4.80	4.605E+00	1.096E+00	1.096E+00	69.66
	92.58	355	5.41*	7.456E+00	1.456E+00	1.456E+00	29.23
U-235	143.76	44	10.96*	7.607E+00	8.749E-02	8.749E-02	182.93
NP-237	86.48	420	12.40*	7.165E+00	7.820E-01	7.820E-01	22.15
AM-243	74.66	518	68.20*	6.117E+00	2.054E-01	2.054E-01	24.35
CM-243	103.76	44	23.00*	7.817E+00	4.013E-02	4.028E-02	150.37

Flag: "*" = Keyline

Sample ID : G198681016 Acquisition date : 15-DEC-2007 06:37:33

Total number of lines in spectrum 66
Number of unidentified lines 25
Number of lines tentatively identified by NID 41 62.12%

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	5.099E+00	5.099E+00	0.675E+00	13.23	
CS-137	9.47E+08S	1.00	3.543E-02	3.556E-02	3.412E-02	95.95	
EU-155	1.57E+08S	1.02	4.353E-02	4.451E-02	6.693E-02	150.37	
TL-208	4.43E+17S	1.00	3.537E-01	3.537E-01	0.584E-01	16.51	
BI-212	4.43E+17S	1.00	7.469E-01	7.469E-01	3.311E-01	44.32	
PB-212	4.43E+17S	1.00	1.084E+00	1.084E+00	0.089E+00	8.23	
BI-214	5.05E+10S	1.00	7.196E-01	7.196E-01	1.127E-01	15.66	
PB-214	5.05E+10S	1.00	8.779E-01	8.779E-01	1.005E-01	11.45	
RA-223	1.04E+12S	1.00	3.990E-01	3.990E-01	1.447E-01	36.28	
AC-228	4.43E+17S	1.00	1.070E+00	1.070E+00	0.210E+00	19.63	
PA-234M	1.41E+17S	1.00	1.900E+00	1.900E+00	4.103E+00	215.91	
TH-234	1.41E+17S	1.00	1.456E+00	1.456E+00	0.425E+00	29.23	
U-235	2.22E+16S	1.00	8.749E-02	8.749E-02	16.00E-02	182.93	
NP-237	6.75E+13S	1.00	7.820E-01	7.820E-01	1.732E-01	22.15	
AM-243	2.33E+11S	1.00	2.054E-01	2.054E-01	0.500E-01	24.35	
CM-243	8.99E+08S	1.00	4.013E-02	4.028E-02	6.057E-02	150.37	
		Total Activity :	1.490E+01	1.490E+01			

Grand Total Activity : 1.490E+01 1.490E+01

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

Sample ID : G198681016 Acquisition date : 15-DEC-2007 06:37:33

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
2	84.13	82	571	1.54	168.48	164	30	5.71E-03	****	6.96E+00	
2	89.99	221	405	1.19	180.19	164	30	1.54E-02	33.5	7.32E+00	
0	115.78	20	422	1.24	231.76	227	8	1.41E-03	****	7.90E+00	
0	154.28	69	416	1.32	308.76	304	9	4.79E-03	****	7.41E+00	
0	185.80	260	445	1.20	371.81	366	11	1.81E-02	36.3	6.76E+00	
0	214.99	19	374	3.22	430.18	425	10	1.29E-03	****	6.19E+00	
0	257.78	76	352	2.63	515.78	508	14	5.26E-03	****	5.48E+00	
0	328.31	126	239	1.29	656.85	652	12	8.74E-03	52.1	4.59E+00	
0	453.15	63	122	0.98	906.56	901	12	4.37E-03	74.9	3.58E+00	
0	472.29	43	180	4.26	944.85	937	16	2.96E-03	****	3.46E+00	
0	562.36	17	103	0.62	1125.02	1121	9	1.18E-03	****	3.00E+00	
0	682.13	24	71	0.79	1364.64	1360	10	1.67E-03	****	2.55E+00	
0	693.80	20	78	1.55	1387.97	1382	10	1.37E-03	****	2.51E+00	
0	709.58	16	65	1.59	1419.56	1416	8	1.09E-03	****	2.46E+00	
0	840.56	52	139	4.07	1681.60	1663	21	3.64E-03	****	2.12E+00	
4	939.61	32	31	2.81	1879.78	1859	38	2.23E-03	91.6	1.92E+00	
0	1018.29	28	32	2.41	2037.21	2029	13	1.95E-03	91.7	1.79E+00	
0	1094.36	26	64	3.87	2189.45	2179	15	1.84E-03	****	1.67E+00	
1	1234.56	33	67	2.05	2470.00	2462	23	2.27E-03	****	1.51E+00	
0	1386.74	13	25	0.87	2774.56	2767	13	9.27E-04	****	1.37E+00	
0	1451.48	24	30	5.79	2904.13	2893	18	1.63E-03	****	1.32E+00	
0	1477.72	6	16	0.87	2956.67	2951	9	4.15E-04	****	1.30E+00	
1	1592.02	31	20	2.42	3185.44	3163	30	2.12E-03	82.6	1.23E+00	
0	1719.98	16	10	2.63	3441.58	3433	15	1.12E-03	****	1.16E+00	
0	1847.76	23	7	1.80	3697.37	3691	14	1.60E-03	64.2	1.12E+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]G198681016            *
* Acquisition date : 15-DEC-2007 06:37:33 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 04:00:01.65     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681016           Analyst initials: MJH1            *
* Batch Number     : 708121               Sample Quantity : 1.1348E+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	5.099E+00	6.610E-01	1.289E-01	6.610E-01
CS-137	3.556E-02	3.344E-02	1.792E-02	3.344E-02
EU-155	4.451E-02	6.559E-02	5.138E-02	6.559E-02
TL-208	3.537E-01	5.724E-02	1.658E-02	5.724E-02
BI-212	7.469E-01	3.244E-01	1.247E-01	3.244E-01
PB-212	1.084E+00	8.747E-02	2.717E-02	8.747E-02
BI-214	7.196E-01	1.105E-01	3.254E-02	1.105E-01
PB-214	8.779E-01	9.854E-02	3.167E-02	9.854E-02
RA-223	3.990E-01	1.418E-01	8.761E-02	1.418E-01
AC-228	1.070E+00	2.058E-01	5.947E-02	2.058E-01
PA-234M	1.900E+00	4.021E+00	1.914E+00	4.021E+00
TH-234	1.456E+00	4.170E-01	2.217E-01	4.170E-01
U-235	8.749E-02	1.568E-01	9.508E-02	1.568E-01
NP-237	7.820E-01	1.697E-01	1.009E-01	1.697E-01
AM-243	2.054E-01	4.901E-02	2.240E-02	4.901E-02
CM-243	4.028E-02	5.936E-02	4.551E-02	5.936E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	1.028E-02	2.244E-02	1.950E-02	2.244E-02	NOT IDENT.
RH-101	-1.318E-02	2.065E-02	1.592E-02	2.065E-02	NOT IDENT.
SB-125	1.558E-02	5.028E-02	4.352E-02	5.028E-02	NOT IDENT.
PO-209	-1.458E+00	3.997E+00	3.295E+00	3.997E+00	NOT IDENT.
BI-211	-2.899E-01	6.814E-01	4.786E-01	6.814E-01	NOT IDENT.
PA-233	3.551E-03	3.567E-02	3.099E-02	3.567E-02	NOT IDENT.
NP-236	2.634E-02	3.829E-02	2.896E-02	3.829E-02	NOT IDENT.
NP-239	2.108E-02	1.293E-01	1.081E-01	1.293E-01	NOT IDENT.
AM-241	1.005E-02	7.323E-02	5.688E-02	7.323E-02	NOT IDENT.
AM-246	-5.960E-03	6.919E-02	5.759E-02	6.919E-02	NOT IDENT.
CF-249	-9.419E-04	2.333E-02	1.991E-02	2.333E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	418.1781
63.29	469.1059
74.66	562.8242
74.81	562.9402
74.81	562.9402
77.11	564.7090
77.11	564.7090
86.48	514.1097
87.30	514.6393
87.30	514.6393
92.58	517.9966
98.44	395.4906
103.76	429.2421
105.31	451.1753
129.07	421.3208
143.76	410.9357
198.00	343.4172
209.25	381.9771
228.18	308.4107
238.63	305.0997
242.00	305.7805
269.46	268.6194
270.25	262.7790
277.36	251.9146
295.22	193.9635
300.09	191.4661
312.17	212.0480
338.32	201.7179
351.93	179.0812
387.59	189.9051
409.46	163.9052
427.87	135.1432
463.00	128.3401
510.77	125.8400
583.19	111.7362
609.31	119.0432
661.66	106.2915
727.33	84.6574
763.13	137.1460
768.36	95.6002
785.37	78.2245
794.95	76.5967
806.17	83.3240
831.80	89.5234
860.56	64.8574
896.60	73.0789
911.20	61.9267
934.06	51.7511
964.77	77.8192
968.97	61.3251
1001.03	57.4959
1078.86	51.6149
1120.29	54.1077
1155.19	52.5057
1173.23	51.6993
1238.11	52.4132
1280.96	44.5817
1332.51	55.5167
1377.67	33.8138
1401.50	30.9335
1407.98	45.5462
1460.80	22.0773
1509.23	30.3140
1588.20	31.0491
1620.50	32.1667
1729.60	16.4815
1764.49	18.4029

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198681016

Total Uranium Activity	4.0481E-02	ug/g
Total Uranium Counting Unc.	7.2570E-02	ug/g
Total Uranium Tpu	7.2570E-08	ug/g
Total Uranium Mda	4.3995E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 10:39:00.94

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681017.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 06:38:12
Sample ID        : G198681017           Sample quantity  : 1.12670E+02 GRAM
Detector name    : GAM17                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:05.66  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708121               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.49*	72	426	0.80	93.47	90	8	5.01E-03	57.6	
2	0	53.45*	89	459	1.52	107.38	103	9	6.17E-03	47.3	
3	0	63.42*	87	623	0.85	127.30	123	8	6.02E-03	58.2	
4	2	74.92*	553	475	0.86	150.29	147	15	3.84E-02	7.5	2.21E+00
5	2	77.20*	911	438	0.80	154.84	147	15	6.33E-02	5.0	
6	1	84.20*	108	448	1.00	168.82	166	18	7.51E-03	35.1	4.09E+00
7	1	87.30*	218	455	1.00	175.01	166	18	1.51E-02	17.7	
8	1	89.88	192	461	1.01	180.18	166	18	1.33E-02	18.7	
9	0	92.93*	412	601	1.29	186.27	183	10	2.86E-02	13.9	
10	0	105.48*	39	369	1.27	211.34	209	7	2.69E-03	88.4	
11	0	129.23	93	415	0.75	258.80	255	8	6.49E-03	39.2	
12	1	143.93*	49	320	1.10	288.18	284	9	3.40E-03	70.1	7.12E-01
13	0	163.27*	67	442	3.05	326.82	323	11	4.67E-03	63.9	
14	0	186.22*	222	534	1.06	372.68	367	12	1.54E-02	23.3	
15	0	209.41	96	308	0.68	419.03	415	8	6.69E-03	33.1	
16	3	219.34	36	249	1.46	438.86	435	13	2.47E-03	73.3	4.33E+00
17	3	222.49	39	170	1.19	445.15	435	13	2.69E-03	52.0	
18	4	236.38	58	88	1.25	472.91	471	22	4.05E-03	23.3	1.04E+01
19	4	238.74*	1371	166	1.01	477.64	471	22	9.52E-02	3.3	
20	4	241.16	179	211	1.36	482.47	471	22	1.25E-02	23.5	
21	0	270.04	184	335	1.50	540.19	534	14	1.28E-02	22.2	
22	0	276.98	18	281	0.55	554.05	550	9	1.24E-03	170.2	
23	3	295.32*	371	154	1.14	590.71	586	19	2.58E-02	8.1	1.19E+00
24	3	300.16	124	177	1.58	600.37	586	19	8.63E-03	22.1	
25	0	328.67	81	180	1.31	657.35	653	9	5.63E-03	31.9	
26	0	332.35	38	111	1.37	664.69	662	6	2.61E-03	47.3	
27	0	338.54*	272	231	1.06	677.06	672	11	1.89E-02	13.1	
28	0	351.99*	659	165	1.24	703.95	699	9	4.58E-02	5.6	
29	0	366.91	21	84	1.37	733.76	732	5	1.43E-03	70.7	
30	0	409.51	65	163	0.78	818.90	814	10	4.51E-03	38.7	
31	0	463.00	108	150	1.08	925.80	920	12	7.50E-03	24.6	
32	0	483.67	24	81	0.84	967.11	964	7	1.64E-03	67.0	
33	0	511.07*	161	187	1.44	1021.88	1014	15	1.11E-02	24.5	
34	0	562.55	26	55	0.98	1124.76	1122	6	1.82E-03	48.6	
35	0	583.36*	403	115	1.32	1166.34	1162	11	2.80E-02	7.4	
36	0	609.44*	439	117	1.14	1218.48	1213	12	3.05E-02	7.4	
37	0	721.37	22	72	2.94	1442.19	1436	11	1.49E-03	79.2	
38	0	727.67	99	107	1.35	1454.79	1449	14	6.89E-03	24.1	

Sample ID : G198681017 Acquisition date : 15-DEC-2007 06:38:12

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	746.55	30	39	1.18	1492.52	1489	8	2.07E-03	41.6	
40	0	768.97	102	81	5.78	1537.32	1530	17	7.07E-03	22.5	
41	0	785.85	24	91	0.70	1571.08	1563	13	1.69E-03	83.2	
42	2	795.15	57	70	1.88	1589.65	1583	35	3.95E-03	30.7	2.00E+00
43	2	799.32	24	51	1.56	1598.00	1583	35	1.69E-03	54.4	
44	2	806.96	24	42	1.89	1613.26	1583	35	1.64E-03	55.3	
45	0	815.32	31	95	5.75	1629.98	1619	18	2.18E-03	74.7	
46	0	835.80	34	69	1.09	1670.91	1666	11	2.34E-03	50.7	
47	0	861.14	33	97	1.10	1721.57	1718	11	2.30E-03	61.1	
48	0	875.15	17	29	0.57	1749.57	1746	6	1.15E-03	58.3	
49	0	911.29*	234	66	1.85	1821.80	1816	11	1.63E-02	9.9	
50	0	934.69	57	60	2.54	1868.59	1862	14	3.93E-03	31.8	
51	2	964.57	54	63	2.00	1928.31	1922	20	3.78E-03	30.8	2.85E+00
52	2	968.87*	154	45	1.69	1936.91	1922	20	1.07E-02	12.2	
53	0	1000.70*	15	43	2.31	2000.54	1996	10	1.02E-03	101.8	
54	0	1096.08	30	88	8.57	2191.20	2175	25	2.05E-03	87.3	
55	2	1120.35*	101	54	2.01	2239.73	2234	24	7.01E-03	19.0	2.49E+00
56	2	1125.66	28	37	1.91	2250.35	2234	24	1.94E-03	48.4	
57	0	1154.64	36	54	4.99	2308.28	2299	18	2.50E-03	50.7	
58	0	1196.06	16	44	3.11	2391.09	2381	13	1.08E-03	92.6	
59	0	1199.48	24	34	1.64	2397.93	2394	10	1.69E-03	48.5	
60	0	1238.19	52	78	2.28	2475.30	2468	18	3.61E-03	41.9	
61	0	1377.68	49	30	4.13	2754.21	2745	17	3.42E-03	29.1	
62	0	1460.99*	341	74	1.88	2920.77	2913	18	2.37E-02	8.3	
63	0	1509.40	22	26	1.06	3017.56	3010	17	1.50E-03	58.1	
64	0	1572.08	14	5	2.84	3142.90	3139	8	9.69E-04	39.9	
65	0	1588.14	28	10	0.83	3175.01	3171	8	1.94E-03	27.3	
66	0	1593.53	25	23	1.25	3185.78	3180	13	1.71E-03	46.7	
67	0	1620.67	19	6	1.06	3240.05	3233	12	1.31E-03	34.7	
68	0	1665.88	11	13	3.80	3330.46	3324	11	7.34E-04	74.4	
69	0	1670.90	14	0	1.33	3340.50	3337	8	9.72E-04	26.7	
70	5	1718.16	7	0	1.99	3435.01	3433	12	5.11E-04	33.3	1.79E+00
71	5	1720.75	17	3	2.35	3440.18	3433	12	1.21E-03	28.2	
72	0	1730.32*	26	15	0.90	3459.31	3454	12	1.83E-03	37.3	
73	0	1764.37*	84	4	1.84	3527.41	3519	17	5.83E-03	14.0	
74	0	1792.87	5	13	0.56	3584.40	3579	9	3.65E-04	125.4	
75	0	1839.92	6	14	1.46	3678.49	3670	11	3.82E-04	137.0	
76	0	1848.29*	9	10	1.53	3695.22	3690	10	6.12E-04	88.8	
77	0	1930.98	6	11	3.27	3860.60	3851	14	4.15E-04	122.8	
78	0	1999.08	13	12	4.31	3996.79	3986	17	8.81E-04	70.2	

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]G198681017       *
* Acquisition date : 15-DEC-2007 06:38:12 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 04:00:05.66     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681017           Analyst initials: MJH1            *
* Batch Number     : 708121               Sample Quantity : 1.1267E+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	5.969E+00	1.016E+00	4.316E-01	0.000E+00
EU-155	4.573E-02	7.930E-02	9.624E-02	0.000E+00
TL-208	3.944E-01	6.333E-02	4.907E-02	0.000E+00
BI-212	8.547E-01	4.092E-01	3.414E-01	0.000E+00
PB-212	1.193E+00	1.205E-01	6.115E-02	0.000E+00
BI-214	8.202E-01	1.313E-01	8.895E-02	0.000E+00
PB-214	9.100E-01	1.154E-01	7.660E-02	0.000E+00
RA-223	5.582E-01	2.470E-01	1.872E-01	0.000E+00
AC-228	1.135E+00	2.319E-01	1.868E-01	0.000E+00
PA-234M	2.373E+00	4.735E+00	5.864E+00	0.000E+00
TH-234	1.818E+00	5.112E-01	4.077E-01	0.000E+00
U-235	1.229E-01	1.694E-01	2.115E-01	0.000E+00
NP-237	4.160E-01	1.466E-01	1.956E-01	0.000E+00
AM-243	1.905E-01	3.036E-02	3.623E-02	0.000E+00
CM-243	4.139E-02	7.176E-02	8.708E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
CO-60	-2.071E-02	3.079E-02	4.708E-02	0.000E+00	NOT IDENT.
RH-101	-5.643E-03	2.326E-02	3.592E-02	0.000E+00	NOT IDENT.
SB-125	-9.321E-02	6.908E-02	1.073E-01	0.000E+00	NOT IDENT.
CS-137	1.100E-02	3.445E-02	5.430E-02	0.000E+00	NOT IDENT.
PO-209	-6.307E-01	5.787E+00	9.695E+00	0.000E+00	NOT IDENT.
BI-211	1.882E-01	8.510E-01	1.293E+00	0.000E+00	NOT IDENT.
PA-233	-8.571E-03	3.997E-02	6.866E-02	0.000E+00	NOT IDENT.
NP-236	2.787E-02	3.826E-02	5.833E-02	0.000E+00	NOT IDENT.
NP-239	1.881E-02	1.467E-01	2.439E-01	0.000E+00	NOT IDENT.
AM-241	-1.682E-03	3.672E-02	5.878E-02	0.000E+00	NOT IDENT.
AM-246	5.809E-02	1.116E-01	1.943E-01	0.000E+00	NOT IDENT.
CF-249	1.534E-02	2.793E-02	4.923E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 10:39:01.98

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681017.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 06:38:12
Sample ID        : G198681017           Sample quantity  : 1.12670E+02 GRAM
Detector name    : GAM17                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:05.66  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708121               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	341	10.66*	8.923E-01	5.969E+00	5.969E+00	17.37
EU-155	105.31	39	21.20*	6.793E+00	4.473E-02	4.573E-02	176.93
TL-208	277.36	18	6.31	3.936E+00	1.199E-01	1.199E-01	340.55
	510.77	161	22.60	2.281E+00	5.188E-01	5.188E-01	49.48
	583.19	403	84.50*	2.014E+00	3.944E-01	3.944E-01	16.38
	763.13	------	1.81	1.568E+00	------	Line Not Found	------
	860.56	33	12.42	1.403E+00	3.168E-01	3.168E-01	122.33
BI-212	727.33	99	11.80*	1.638E+00	8.547E-01	8.547E-01	48.85
	785.37	24	1.10	1.526E+00	2.417E+00	2.417E+00	166.61
	1620.50	19	1.49	8.222E-01	2.573E+00	2.573E+00	69.54
PB-212	74.81	553	10.40	7.088E+00	1.250E+00	1.250E+00	16.26
	77.11	911	17.50	7.087E+00	1.224E+00	1.224E+00	12.01
	87.30	218	7.81	7.032E+00	6.605E-01	6.605E-01	35.96
	238.63	1371	43.30*	4.423E+00	1.193E+00	1.193E+00	10.31
	300.09	124	3.28	3.684E+00	1.713E+00	1.713E+00	44.77
BI-214	609.31	439	46.10*	1.933E+00	8.202E-01	8.202E-01	16.33
	768.36	102	4.94	1.557E+00	2.206E+00	2.207E+00	45.63
	806.17	24	1.22	1.489E+00	2.171E+00	2.172E+00	110.81
	934.06	57	3.03	1.304E+00	2.390E+00	2.390E+00	64.00
	1120.29	101	15.10	1.112E+00	1.001E+00	1.001E+00	38.44
	1155.19	36	1.63	1.084E+00	3.394E+00	3.394E+00	101.55
	1238.11	52	5.79	1.022E+00	1.463E+00	1.463E+00	84.02
	1280.96	------	1.43	9.933E-01	------	Line Not Found	------
	1377.67	49	4.00	9.356E-01	2.193E+00	2.193E+00	58.43
	1401.50	------	1.27	9.227E-01	------	Line Not Found	------
	1407.98	------	2.15	9.193E-01	------	Line Not Found	------
	1509.23	22	2.11	8.694E-01	1.956E+00	1.956E+00	116.23
	1729.60	26	2.92	7.817E-01	1.922E+00	1.922E+00	74.85
	1764.49	84	15.40	7.702E-01	1.180E+00	1.180E+00	28.50
PB-214	74.81	553	6.44	7.088E+00	2.018E+00	2.018E+00	16.26
	77.11	911	10.80	7.087E+00	1.983E+00	1.983E+00	12.01
	87.30	218	4.84	7.032E+00	1.066E+00	1.066E+00	35.96

Sample ID : G198681017 Acquisition date : 15-DEC-2007 06:38:12

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	242.00	179	7.43	4.389E+00	9.168E-01	9.169E-01	47.72
	295.22	371	19.30	3.734E+00	8.585E-01	8.585E-01	17.80
	351.93	659	37.60*	3.210E+00	9.099E-01	9.100E-01	12.94
RA-223	269.46	184	13.70*	4.018E+00	5.582E-01	5.582E-01	45.15
AC-228	129.07	93	2.42	6.354E+00	1.012E+00	1.012E+00	78.97
	209.25	96	3.89	4.863E+00	8.489E-01	8.489E-01	66.75
	270.25	184	3.46	4.018E+00	2.210E+00	2.210E+00	45.15
	338.32	272	11.27	3.322E+00	1.212E+00	1.212E+00	27.03
	409.46	65	1.92	2.801E+00	2.014E+00	2.014E+00	77.68
	463.00	108	4.40	2.501E+00	1.635E+00	1.635E+00	49.65
	794.95	57	4.25	1.509E+00	1.476E+00	1.476E+00	61.75
	911.20	234	25.80*	1.334E+00	1.135E+00	1.135E+00	20.85
	964.77	54	4.99	1.268E+00	1.434E+00	1.434E+00	62.02
	968.97	154	15.80	1.263E+00	1.282E+00	1.282E+00	25.29
	1588.20	28	3.22	8.353E-01	1.730E+00	1.730E+00	54.81
PA-234M	1001.03	15	0.84*	1.227E+00	2.373E+00	2.373E+00	203.66
TH-234	63.29	87	4.80	7.002E+00	4.297E-01	4.297E-01	116.56
	92.58	412	5.41*	6.973E+00	1.818E+00	1.818E+00	28.68
U-235	143.76	49	10.96*	6.061E+00	1.229E-01	1.229E-01	140.59
NP-237	86.48	218	12.40*	7.032E+00	4.160E-01	4.160E-01	35.96
AM-243	74.66	553	68.20*	7.088E+00	1.905E-01	1.905E-01	16.26
CM-243	103.76	39	23.00*	6.793E+00	4.123E-02	4.139E-02	176.93

Flag: "*" = Keyline

Sample ID : G198681017 Acquisition date : 15-DEC-2007 06:38:12

Total number of lines in spectrum 78
Number of unidentified lines 35
Number of lines tentatively identified by NID 43 55.13%

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	5.969E+00	5.969E+00	1.037E+00	17.37	
EU-155	1.57E+08S	1.02	4.473E-02	4.573E-02	8.092E-02	176.93	
TL-208	4.43E+17S	1.00	3.944E-01	3.944E-01	0.646E-01	16.38	
BI-212	4.43E+17S	1.00	8.547E-01	8.547E-01	4.175E-01	48.85	
PB-212	4.43E+17S	1.00	1.193E+00	1.193E+00	0.123E+00	10.31	
BI-214	5.05E+10S	1.00	8.202E-01	8.202E-01	1.340E-01	16.33	
PB-214	5.05E+10S	1.00	9.099E-01	9.100E-01	1.177E-01	12.94	
RA-223	1.04E+12S	1.00	5.582E-01	5.582E-01	2.521E-01	45.15	
AC-228	4.43E+17S	1.00	1.135E+00	1.135E+00	0.237E+00	20.85	
PA-234M	1.41E+17S	1.00	2.373E+00	2.373E+00	4.832E+00	203.66	
TH-234	1.41E+17S	1.00	1.818E+00	1.818E+00	0.522E+00	28.68	
U-235	2.22E+16S	1.00	1.229E-01	1.229E-01	1.728E-01	140.59	
NP-237	6.75E+13S	1.00	4.160E-01	4.160E-01	1.496E-01	35.96	
AM-243	2.33E+11S	1.00	1.905E-01	1.905E-01	0.310E-01	16.26	
CM-243	8.99E+08S	1.00	4.123E-02	4.139E-02	7.323E-02	176.93	
			---	---			
		Total Activity :	1.684E+01	1.684E+01			

Grand Total Activity : 1.684E+01 1.684E+01

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

Sample ID : G198681017 Acquisition date : 15-DEC-2007 06:38:12

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.49	72	426	0.80	93.47	90	8	5.01E-03	****	6.47E+00	
0	53.45	89	459	1.52	107.38	103	9	6.17E-03	94.5	6.76E+00	
1	84.20	108	448	1.00	168.82	166	18	7.51E-03	70.3	7.06E+00	
1	89.88	192	461	1.01	180.18	166	18	1.33E-02	37.5	7.01E+00	
0	163.27	67	442	3.05	326.82	323	11	4.67E-03	****	5.68E+00	
0	186.22	222	534	1.06	372.68	367	12	1.54E-02	46.6	5.26E+00	
3	219.34	36	249	1.46	438.86	435	13	2.47E-03	****	4.71E+00	
3	222.49	39	170	1.19	445.15	435	13	2.69E-03	****	4.66E+00	
4	236.38	58	88	1.25	472.91	471	22	4.05E-03	46.6	4.46E+00	
0	328.67	81	180	1.31	657.35	653	9	5.63E-03	63.9	3.41E+00	
0	332.35	38	111	1.37	664.69	662	6	2.61E-03	94.6	3.38E+00	
0	366.91	21	84	1.37	733.76	732	5	1.43E-03	****	3.09E+00	
0	483.67	24	81	0.84	967.11	964	7	1.64E-03	****	2.40E+00	
0	562.55	26	55	0.98	1124.76	1122	6	1.82E-03	97.1	2.08E+00	
0	721.37	22	72	2.94	1442.19	1436	11	1.49E-03	****	1.65E+00	
0	746.55	30	39	1.18	1492.52	1489	8	2.07E-03	83.2	1.60E+00	
2	799.32	24	51	1.56	1598.00	1583	35	1.69E-03	****	1.50E+00	
0	815.32	31	95	5.75	1629.98	1619	18	2.18E-03	****	1.48E+00	
0	835.80	34	69	1.09	1670.91	1666	11	2.34E-03	****	1.44E+00	
0	875.15	17	29	0.57	1749.57	1746	6	1.15E-03	****	1.38E+00	
0	1096.08	30	88	8.57	2191.20	2175	25	2.05E-03	****	1.13E+00	
2	1125.66	28	37	1.91	2250.35	2234	24	1.94E-03	96.7	1.11E+00	
0	1196.06	16	44	3.11	2391.09	2381	13	1.08E-03	****	1.05E+00	
0	1199.48	24	34	1.64	2397.93	2394	10	1.69E-03	97.1	1.05E+00	
0	1572.08	14	5	2.84	3142.90	3139	8	9.69E-04	79.8	8.42E-01	
0	1593.53	25	23	1.25	3185.78	3180	13	1.71E-03	93.5	8.33E-01	
0	1665.88	11	13	3.80	3330.46	3324	11	7.34E-04	****	8.05E-01	
0	1670.90	14	0	1.33	3340.50	3337	8	9.72E-04	53.5	8.03E-01	
5	1718.16	7	0	1.99	3435.01	3433	12	5.11E-04	66.6	7.86E-01	
5	1720.75	17	3	2.35	3440.18	3433	12	1.21E-03	56.4	7.85E-01	
0	1792.87	5	13	0.56	3584.40	3579	9	3.65E-04	****	7.61E-01	
0	1839.92	6	14	1.46	3678.49	3670	11	3.82E-04	****	7.46E-01	
0	1848.29	9	10	1.53	3695.22	3690	10	6.12E-04	****	7.44E-01	
0	1930.98	6	11	3.27	3860.60	3851	14	4.15E-04	****	7.20E-01	
0	1999.08	13	12	4.31	3996.79	3986	17	8.81E-04	****	7.01E-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]G198681017            *
* Acquisition date : 15-DEC-2007 06:38:12 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 04:00:05.66     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681017           Analyst initials: MJH1            *
* Batch Number     : 708121               Sample Quantity : 1.1267E+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	5.969E+00	1.016E+00	2.159E-01	1.016E+00
EU-155	4.573E-02	7.930E-02	4.815E-02	7.930E-02
TL-208	3.944E-01	6.333E-02	2.455E-02	6.333E-02
BI-212	8.547E-01	4.092E-01	1.708E-01	4.092E-01
PB-212	1.193E+00	1.205E-01	3.059E-02	1.205E-01
BI-214	8.202E-01	1.313E-01	4.450E-02	1.313E-01
PB-214	9.100E-01	1.154E-01	3.832E-02	1.154E-01
RA-223	5.582E-01	2.470E-01	9.366E-02	2.470E-01
AC-228	1.135E+00	2.319E-01	9.346E-02	2.319E-01
PA-234M	2.373E+00	4.735E+00	2.934E+00	4.735E+00
TH-234	1.818E+00	5.112E-01	2.040E-01	5.112E-01
U-235	1.229E-01	1.694E-01	1.058E-01	1.694E-01
NP-237	4.160E-01	1.466E-01	9.784E-02	1.466E-01
AM-243	1.905E-01	3.036E-02	1.812E-02	3.036E-02
CM-243	4.139E-02	7.176E-02	4.356E-02	7.176E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	-2.071E-02	3.079E-02	2.355E-02	3.079E-02	NOT IDENT.
RH-101	-5.643E-03	2.326E-02	1.797E-02	2.326E-02	NOT IDENT.
SB-125	-9.321E-02	6.908E-02	5.370E-02	6.908E-02	NOT IDENT.
CS-137	1.100E-02	3.445E-02	2.717E-02	3.445E-02	NOT IDENT.
PO-209	-6.307E-01	5.787E+00	4.850E+00	5.787E+00	NOT IDENT.
BI-211	1.882E-01	8.510E-01	6.467E-01	8.510E-01	NOT IDENT.
PA-233	-8.571E-03	3.997E-02	3.435E-02	3.997E-02	NOT IDENT.
NP-236	2.787E-02	3.826E-02	2.918E-02	3.826E-02	NOT IDENT.
NP-239	1.881E-02	1.467E-01	1.220E-01	1.467E-01	NOT IDENT.
AM-241	-1.682E-03	3.672E-02	2.941E-02	3.672E-02	NOT IDENT.
AM-246	5.809E-02	1.116E-01	9.719E-02	1.116E-01	NOT IDENT.
CF-249	1.534E-02	2.793E-02	2.463E-02	2.793E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	343.4555
63.29	381.7607
74.66	490.6578
74.81	490.8192
74.81	490.8192
77.11	493.2871
77.11	493.2871
86.48	467.4398
87.30	468.2043
87.30	468.2043
92.58	380.3679
98.44	320.2317
103.76	297.8971
105.31	295.8771
129.07	278.6055
143.76	319.7366
198.00	252.1067
209.25	255.2455
228.18	229.3206
238.63	223.8830
242.00	224.6195
269.46	174.2098
270.25	174.3328
277.36	200.4961
295.22	187.3245
300.09	188.0847
312.17	153.2101
338.32	143.5581
351.93	140.4010
387.59	132.6151
409.46	142.2526
427.87	155.6152
463.00	112.2931
510.77	103.1445
583.19	115.6029
609.31	104.1963
661.66	93.5472
727.33	72.4609
763.13	70.4637
768.36	80.1288
785.37	74.1777
794.95	68.2505
806.17	68.5459
831.80	58.2009
860.56	79.4881
896.60	65.7023
911.20	68.9511
934.06	67.5361
964.77	62.3017
968.97	49.5142
1001.03	61.0402
1078.86	53.3102
1120.29	56.0461
1155.19	55.5646
1173.23	53.7417
1238.11	48.2739
1280.96	40.1454
1332.51	43.9805
1377.67	35.2122
1401.50	27.9614
1407.98	28.9389
1460.80	28.3606
1509.23	21.9874
1588.20	18.3477
1620.50	20.1563
1729.60	13.7467
1764.49	22.2077

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198681017

Total Uranium Activity	5.6876E-02	ug/g
Total Uranium Counting Unc.	7.8363E-02	ug/g
Total Uranium Tpu	7.8363E-08	ug/g
Total Uranium Mda	4.8961E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 10:39:41.46

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681018.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 06:38:50
Sample ID        : G198681018           Sample quantity  : 8.18700E+01 GRAM
Detector name    : GAM19                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.69  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708121               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.77*	3	261	1.63	93.17	90	8	1.78E-04	*****	
2	0	63.49*	78	372	0.88	126.58	123	8	5.45E-03	48.9	
3	2	74.97*	336	476	1.52	149.53	143	29	2.33E-02	13.4	1.36E+00
4	2	77.28*	432	344	1.20	154.15	143	29	3.00E-02	9.2	
5	2	84.30*	63	356	1.36	168.17	143	29	4.37E-03	57.2	
6	0	87.34	139	305	1.70	174.25	172	6	9.68E-03	21.4	
7	0	93.17*	383	412	1.58	185.89	182	12	2.66E-02	13.2	
8	0	99.62*	115	326	4.38	198.79	194	13	8.02E-03	35.0	
9	0	119.49	77	275	3.26	238.50	233	11	5.38E-03	43.0	
10	0	128.24	57	331	0.95	255.98	252	10	3.99E-03	60.5	
11	0	185.82*	201	244	1.04	371.04	365	10	1.40E-02	18.0	
12	0	209.57	132	328	1.49	418.51	413	13	9.14E-03	29.8	
13	3	238.69*	1056	201	1.26	476.69	471	19	7.34E-02	4.2	8.82E-01
14	3	241.42	183	227	1.91	482.15	471	19	1.27E-02	25.5	
15	0	269.96	106	100	2.18	539.19	536	7	7.38E-03	18.3	
16	0	276.98	42	157	0.98	553.21	550	9	2.94E-03	55.3	
17	1	295.30*	179	162	1.62	589.83	583	21	1.24E-02	16.4	8.43E-01
18	1	300.03	82	164	1.62	599.29	583	21	5.68E-03	31.4	
19	0	327.89	34	111	1.44	654.96	652	7	2.37E-03	54.3	
20	0	338.30	233	224	1.71	675.77	670	13	1.62E-02	14.8	
21	0	351.97*	242	136	1.43	703.09	698	11	1.68E-02	12.5	
22	0	409.72	30	95	1.41	818.51	815	8	2.05E-03	60.3	
23	0	448.59	29	120	3.28	896.22	886	16	2.00E-03	87.2	
24	0	462.81	89	89	1.76	924.63	918	12	6.15E-03	23.9	
25	0	511.06*	51	146	1.67	1021.09	1014	15	3.52E-03	70.9	
26	0	569.37*	107	157	2.22	1137.62	1131	18	7.44E-03	30.3	
27	0	583.39*	347	91	1.40	1165.67	1158	16	2.41E-02	8.6	
28	6	589.05	16	34	1.74	1176.97	1174	12	1.10E-03	64.6	3.48E+00
29	6	592.06	13	35	1.49	1182.99	1174	12	9.11E-04	66.0	
30	0	609.61*	184	100	1.72	1218.06	1212	14	1.28E-02	15.0	
31	0	674.41	28	91	5.25	1347.61	1334	17	1.96E-03	80.4	
32	0	727.98	90	73	1.82	1454.71	1449	16	6.26E-03	23.1	
33	6	738.28	22	22	2.24	1475.29	1472	15	1.52E-03	45.4	2.22E+00
34	6	742.45	15	35	1.95	1483.64	1472	15	1.06E-03	57.8	
35	0	768.74	44	52	1.20	1536.19	1531	11	3.02E-03	35.6	
36	0	782.50	20	34	1.28	1563.71	1558	9	1.42E-03	55.8	
37	0	795.18	65	57	2.51	1589.05	1583	14	4.54E-03	27.3	
38	0	803.14	35	34	0.99	1604.97	1601	9	2.41E-03	34.7	

Sample ID : G198681018 Acquisition date : 15-DEC-2007 06:38:50

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	861.16	58	39	3.89	1720.98	1714	14	4.05E-03	26.1	
40	1	911.75*	238	21	1.91	1822.11	1813	29	1.65E-02	8.1	1.57E+00
41	1	915.37	22	15	1.98	1829.36	1813	29	1.52E-03	65.8	
42	0	959.39	21	20	1.69	1917.38	1912	10	1.49E-03	44.6	
43	8	965.20	17	31	1.96	1928.99	1926	20	1.22E-03	53.1	2.41E+00
44	8	969.59	159	61	2.51	1937.78	1926	20	1.10E-02	13.5	
45	0	1001.34*	7	23	1.97	2001.25	1997	9	4.74E-04	168.0	
46	0	1122.73	35	52	2.33	2244.00	2233	16	2.45E-03	48.7	
47	0	1152.03	16	16	2.07	2302.59	2299	7	1.12E-03	47.8	
48	0	1156.31	13	18	1.93	2311.15	2307	8	9.30E-04	61.1	
49	0	1199.86	15	15	2.82	2398.25	2393	9	1.05E-03	53.4	
50	0	1370.24	10	9	1.08	2738.99	2735	7	6.93E-04	58.7	
51	0	1378.33	21	28	4.28	2755.18	2744	19	1.42E-03	66.1	
52	0	1461.55*	125	11	2.39	2921.63	2914	15	8.71E-03	11.8	
53	0	1480.43	21	32	5.44	2959.39	2946	21	1.42E-03	71.9	
54	0	1515.36	5	17	0.54	3029.26	3023	10	3.58E-04	157.2	
55	0	1582.05	5	13	1.32	3162.66	3156	10	3.24E-04	150.4	
56	0	1587.71	28	12	5.75	3174.00	3165	16	1.94E-03	33.6	
57	0	1615.93	8	15	1.30	3230.44	3222	10	5.56E-04	97.2	
58	0	1654.47	17	3	0.85	3307.55	3302	11	1.19E-03	30.6	
59	2	1660.13*	11	7	2.50	3318.87	3314	14	7.47E-04	60.8	3.08E+00
60	2	1662.70*	8	5	2.07	3324.00	3314	14	5.37E-04	78.1	
61	0	1668.39	12	5	2.32	3335.38	3329	12	8.29E-04	49.5	
62	0	1710.68	7	16	0.48	3419.99	3410	13	4.57E-04	132.2	
63	0	1765.87	35	28	1.93	3530.40	3522	16	2.42E-03	38.0	
64	0	1848.68	12	5	1.00	3696.08	3690	11	8.37E-04	47.0	

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]G198681018       *
* Acquisition date : 15-DEC-2007 06:38:50 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 04:00:01.69     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681018           Analyst initials: MJH1            *
* Batch Number     : 708121               Sample Quantity : 8.1870E+01 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	2.269E+00	5.408E-01	4.062E-01	0.000E+00
TL-208	3.611E-01	6.641E-02	4.253E-02	0.000E+00
BI-212	8.073E-01	3.727E-01	3.028E-01	0.000E+00
PB-212	1.088E+00	1.128E-01	6.657E-02	0.000E+00
PB-214	3.812E-01	9.583E-02	8.283E-02	0.000E+00
RA-223	3.775E-01	1.373E-01	2.182E-01	0.000E+00
AC-228	1.188E+00	2.250E-01	1.551E-01	0.000E+00
PA-234M	1.135E+00	3.739E+00	5.355E+00	0.000E+00
TH-234	2.498E+00	6.648E-01	6.955E-01	0.000E+00
NP-236	1.031E-01	7.105E-02	5.795E-02	0.000E+00
NP-237	4.181E-01	1.778E-01	2.484E-01	0.000E+00
AM-243	2.222E-01	5.994E-02	5.807E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	-1.048E-02		2.791E-02	4.474E-02	0.000E+00	NOT IDENT.
RH-101	-1.501E-02		2.767E-02	3.999E-02	0.000E+00	NOT IDENT.
SB-125	-2.866E-03		6.858E-02	1.141E-01	0.000E+00	NOT IDENT.
CS-137	4.018E-02		2.787E-02	5.046E-02	0.000E+00	NOT IDENT.
EU-155	-8.656E-03		8.279E-02	1.184E-01	0.000E+00	NOT IDENT.
PO-209	3.641E+00		5.660E+00	9.704E+00	0.000E+00	NOT IDENT.
BI-211	-8.183E-01		7.655E-01	1.101E+00	0.000E+00	NOT IDENT.
BI-214	0.000E+00		1.102E-01	1.574E-01	0.000E+00	FAIL ABUN
PA-233	-7.170E-02		5.026E-02	7.262E-02	0.000E+00	NOT IDENT.
U-235	-7.007E-02		1.565E-01	2.300E-01	0.000E+00	NOT IDENT.
NP-239	-1.947E-03		1.613E-01	2.593E-01	0.000E+00	NOT IDENT.
AM-241	6.099E-02		1.139E-01	1.703E-01	0.000E+00	NOT IDENT.
CM-243	1.842E-02		7.158E-02	1.046E-01	0.000E+00	NOT IDENT.
AM-246	-2.521E-02		9.208E-02	1.501E-01	0.000E+00	NOT IDENT.
CF-249	2.365E-02		2.891E-02	5.061E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 10:39:42.60

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681018.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 06:38:50
Sample ID        : G198681018           Sample quantity  : 8.18700E+01 GRAM
Detector name    : GAM19                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.69  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708121               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	125	10.66*	1.188E+00	2.269E+00	2.269E+00	24.32
TL-208	277.36	42	6.31	4.624E+00	3.324E-01	3.324E-01	110.87
	510.77	51	22.60	2.904E+00	1.770E-01	1.770E-01	142.02
	583.19	347	84.50*	2.610E+00	3.611E-01	3.611E-01	18.77
	763.13	------	1.81	2.083E+00	------	Line Not Found	------
	860.56	58	12.42	1.874E+00	5.749E-01	5.749E-01	53.14
BI-212	727.33	90	11.80*	2.169E+00	8.073E-01	8.073E-01	47.11
	785.37	------	1.10	2.031E+00	------	Line Not Found	------
	1620.50	------	1.49	1.102E+00	------	Line Not Found	------
PB-212	74.81	336	10.40	5.079E+00	1.457E+00	1.457E+00	27.53
	77.11	432	17.50	5.325E+00	1.063E+00	1.063E+00	19.44
	87.30	139	7.81	6.164E+00	6.638E-01	6.638E-01	43.39
	238.63	1056	43.30*	5.139E+00	1.088E+00	1.088E+00	10.58
	300.09	82	3.28	4.362E+00	1.310E+00	1.310E+00	63.04
PB-214	74.81	336	6.44	5.079E+00	2.353E+00	2.353E+00	27.53
	77.11	432	10.80	5.325E+00	1.722E+00	1.722E+00	19.44
	87.30	139	4.84	6.164E+00	1.071E+00	1.071E+00	43.39
	242.00	183	7.43	5.099E+00	1.106E+00	1.106E+00	51.38
	295.22	179	19.30	4.413E+00	4.808E-01	4.809E-01	33.37
	351.93	242	37.60*	3.873E+00	3.812E-01	3.812E-01	25.65
RA-223	269.46	106	13.70*	4.711E+00	3.775E-01	3.775E-01	37.12
AC-228	129.07	57	2.42	6.991E+00	7.784E-01	7.784E-01	121.10
	209.25	132	3.89	5.607E+00	1.383E+00	1.383E+00	59.91
	270.25	106	3.46	4.711E+00	1.495E+00	1.495E+00	37.12
	338.32	233	11.27	3.990E+00	1.188E+00	1.188E+00	30.17
	409.46	30	1.92	3.450E+00	1.022E+00	1.022E+00	120.67
	463.00	89	4.40	3.140E+00	1.469E+00	1.469E+00	48.24
	794.95	65	4.25	2.010E+00	1.755E+00	1.755E+00	55.38
	911.20	238	25.80*	1.782E+00	1.188E+00	1.188E+00	19.33
	964.77	17	4.99	1.694E+00	4.746E-01	4.746E-01	106.59
	968.97	159	15.80	1.687E+00	1.366E+00	1.366E+00	28.78
	1588.20	28	3.22	1.118E+00	1.780E+00	1.780E+00	67.41

Sample ID : G198681018 Acquisition date : 15-DEC-2007 06:38:50

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
PA-234M	1001.03	7	0.84*	1.640E+00	1.135E+00	1.135E+00	336.13
TH-234	63.29	78	4.80	3.582E+00	1.047E+00	1.047E+00	97.95
	92.58	383	5.41*	6.496E+00	2.498E+00	2.498E+00	27.15
NP-236	98.44	115	38.00*	6.753E+00	1.031E-01	1.031E-01	70.29
NP-237	86.48	139	12.40*	6.164E+00	4.181E-01	4.181E-01	43.39
AM-243	74.66	336	68.20*	5.079E+00	2.222E-01	2.222E-01	27.53

Flag: "*" = Keyline

Sample ID : G198681018 Acquisition date : 15-DEC-2007 06:38:50

Total number of lines in spectrum	64	
Number of unidentified lines	30	
Number of lines tentatively identified by NID	34	53.13%

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	2.269E+00	2.269E+00	0.552E+00	24.32	
TL-208	4.43E+17S	1.00	3.611E-01	3.611E-01	0.678E-01	18.77	
BI-212	4.43E+17S	1.00	8.073E-01	8.073E-01	3.803E-01	47.11	
PB-212	4.43E+17S	1.00	1.088E+00	1.088E+00	0.115E+00	10.58	
PB-214	5.05E+10S	1.00	3.812E-01	3.812E-01	0.978E-01	25.65	
RA-223	1.04E+12S	1.00	3.775E-01	3.775E-01	1.401E-01	37.12	
AC-228	4.43E+17S	1.00	1.188E+00	1.188E+00	0.230E+00	19.33	
PA-234M	1.41E+17S	1.00	1.135E+00	1.135E+00	3.816E+00	336.13	
TH-234	1.41E+17S	1.00	2.498E+00	2.498E+00	0.678E+00	27.15	
NP-236	4.89E+12S	1.00	1.031E-01	1.031E-01	0.725E-01	70.29	
NP-237	6.75E+13S	1.00	4.181E-01	4.181E-01	1.814E-01	43.39	
AM-243	2.33E+11S	1.00	2.222E-01	2.222E-01	0.612E-01	27.53	
			---	---			
		Total Activity :	1.085E+01	1.085E+01			
		Grand Total Activity :	1.085E+01	1.085E+01			

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

Sample ID : G198681018 Acquisition date : 15-DEC-2007 06:38:50

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.77	3	261	1.63	93.17	90	8	1.78E-04	****	1.12E+00	
2	84.30	63	356	1.36	168.17	143	29	4.37E-03	****	5.95E+00	
0	119.49	77	275	3.26	238.50	233	11	5.38E-03	86.0	7.03E+00	
0	185.82	201	244	1.04	371.04	365	10	1.40E-02	36.1	6.04E+00	
0	327.89	34	111	1.44	654.96	652	7	2.37E-03	****	4.08E+00	
0	448.59	29	120	3.28	896.22	886	16	2.00E-03	****	3.22E+00	
0	569.37	107	157	2.22	1137.62	1131	18	7.44E-03	60.6	2.66E+00	
6	589.05	16	34	1.74	1176.97	1174	12	1.10E-03	****	2.59E+00	
6	592.06	13	35	1.49	1182.99	1174	12	9.11E-04	****	2.58E+00	
0	609.61	184	100	1.72	1218.06	1212	14	1.28E-02	29.9	2.52E+00	T
0	674.41	28	91	5.25	1347.61	1334	17	1.96E-03	****	2.31E+00	
6	738.28	22	22	2.24	1475.29	1472	15	1.52E-03	90.9	2.14E+00	
6	742.45	15	35	1.95	1483.64	1472	15	1.06E-03	****	2.13E+00	
0	768.74	44	52	1.20	1536.19	1531	11	3.02E-03	71.1	2.07E+00	T
0	782.50	20	34	1.28	1563.71	1558	9	1.42E-03	****	2.04E+00	
0	803.14	35	34	0.99	1604.97	1601	9	2.41E-03	69.5	1.99E+00	
1	915.37	22	15	1.98	1829.36	1813	29	1.52E-03	****	1.78E+00	
0	959.39	21	20	1.69	1917.38	1912	10	1.49E-03	89.2	1.70E+00	
0	1122.73	35	52	2.33	2244.00	2233	16	2.45E-03	97.3	1.48E+00	
0	1152.03	16	16	2.07	2302.59	2299	7	1.12E-03	95.6	1.45E+00	
0	1156.31	13	18	1.93	2311.15	2307	8	9.30E-04	****	1.44E+00	T
0	1199.86	15	15	2.82	2398.25	2393	9	1.05E-03	****	1.40E+00	
0	1370.24	10	9	1.08	2738.99	2735	7	6.93E-04	****	1.25E+00	
0	1378.33	21	28	4.28	2755.18	2744	19	1.42E-03	****	1.24E+00	T
0	1480.43	21	32	5.44	2959.39	2946	21	1.42E-03	****	1.18E+00	
0	1515.36	5	17	0.54	3029.26	3023	10	3.58E-04	****	1.16E+00	
0	1582.05	5	13	1.32	3162.66	3156	10	3.24E-04	****	1.12E+00	
0	1615.93	8	15	1.30	3230.44	3222	10	5.56E-04	****	1.10E+00	
0	1654.47	17	3	0.85	3307.55	3302	11	1.19E-03	61.2	1.09E+00	
2	1660.13	11	7	2.50	3318.87	3314	14	7.47E-04	****	1.08E+00	
2	1662.70	8	5	2.07	3324.00	3314	14	5.37E-04	****	1.08E+00	
0	1668.39	12	5	2.32	3335.38	3329	12	8.29E-04	99.1	1.08E+00	
0	1710.68	7	16	0.48	3419.99	3410	13	4.57E-04	****	1.06E+00	
0	1765.87	35	28	1.93	3530.40	3522	16	2.42E-03	76.1	1.04E+00	T
0	1848.68	12	5	1.00	3696.08	3690	11	8.37E-04	94.0	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]G198681018            *
* Acquisition date : 15-DEC-2007 06:38:50 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 04:00:01.69     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681018           Analyst initials: MJH1            *
* Batch Number     : 708121               Sample Quantity : 8.1870E+01 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	2.269E+00	5.408E-01	2.032E-01	5.408E-01
TL-208	3.611E-01	6.641E-02	2.128E-02	6.641E-02
BI-212	8.073E-01	3.727E-01	1.515E-01	3.727E-01
PB-212	1.088E+00	1.128E-01	3.331E-02	1.128E-01
PB-214	3.812E-01	9.583E-02	4.144E-02	9.583E-02
RA-223	3.775E-01	1.373E-01	1.092E-01	1.373E-01
AC-228	1.188E+00	2.250E-01	7.761E-02	2.250E-01
PA-234M	1.135E+00	3.739E+00	2.679E+00	3.739E+00
TH-234	2.498E+00	6.648E-01	3.479E-01	6.648E-01
NP-236	1.031E-01	7.105E-02	2.899E-02	7.105E-02
NP-237	4.181E-01	1.778E-01	1.243E-01	1.778E-01
AM-243	2.222E-01	5.994E-02	2.905E-02	5.994E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	-1.048E-02	2.791E-02	2.238E-02	2.791E-02	NOT IDENT.
RH-101	-1.501E-02	2.767E-02	2.001E-02	2.767E-02	NOT IDENT.
SB-125	-2.866E-03	6.858E-02	5.708E-02	6.858E-02	NOT IDENT.
CS-137	4.018E-02	2.787E-02	2.524E-02	2.787E-02	NOT IDENT.
EU-155	-8.656E-03	8.279E-02	5.922E-02	8.279E-02	NOT IDENT.
PO-209	3.641E+00	5.660E+00	4.855E+00	5.660E+00	NOT IDENT.
BI-211	-8.183E-01	7.655E-01	5.511E-01	7.655E-01	NOT IDENT.
BI-214	3.639E-01	1.102E-01	7.873E-02	1.102E-01	FAIL ABUN
PA-233	-7.170E-02	5.026E-02	3.633E-02	5.026E-02	NOT IDENT.
U-235	-7.007E-02	1.565E-01	1.151E-01	1.565E-01	NOT IDENT.
NP-239	-1.947E-03	1.613E-01	1.297E-01	1.613E-01	NOT IDENT.
AM-241	6.099E-02	1.139E-01	8.521E-02	1.139E-01	NOT IDENT.
CM-243	1.842E-02	7.158E-02	5.233E-02	7.158E-02	NOT IDENT.
AM-246	-2.521E-02	9.208E-02	7.508E-02	9.208E-02	NOT IDENT.
CF-249	2.365E-02	2.891E-02	2.532E-02	2.891E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	285.5184
63.29	340.0587
74.66	375.3131
74.81	375.3784
74.81	375.3784
77.11	376.3708
77.11	376.3708
86.48	332.1614
87.30	525.4230
87.30	525.4230
92.58	555.2102
98.44	204.8404
103.76	240.8630
105.31	273.8989
129.07	270.2029
143.76	280.4688
198.00	250.6897
209.25	248.2689
228.18	203.2362
238.63	203.3985
242.00	203.7885
269.46	184.0031
270.25	167.7419
277.36	160.7140
295.22	158.8689
300.09	162.7901
312.17	181.3256
338.32	152.2506
351.93	134.1503
387.59	108.6113
409.46	135.5900
427.87	110.3888
463.00	86.9054
510.77	98.3692
583.19	80.6698
609.31	97.5957
661.66	57.6582
727.33	54.9531
763.13	55.4818
768.36	84.3776
785.37	55.8034
794.95	53.6093
806.17	50.8409
831.80	67.7531
860.56	41.5775
896.60	48.3871
911.20	46.3951
934.06	36.8771
964.77	49.1462
968.97	41.2973
1001.03	49.5396
1078.86	41.9659
1120.29	32.9150
1155.19	35.7132
1173.23	41.8122
1238.11	32.7092
1280.96	39.7555
1332.51	20.5505
1377.67	35.5078
1401.50	29.7107
1407.98	28.7510
1460.80	24.0049
1509.23	24.1943
1588.20	41.9967
1620.50	19.3436
1729.60	15.6390
1764.49	21.5558

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198681018

Total Uranium Activity	-3.2422E-02	ug/g
Total Uranium Counting Unc.	7.2411E-02	ug/g
Total Uranium Tpu	7.2411E-08	ug/g
Total Uranium Mda	5.3235E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 10:41:14.04

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681019.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 06:39:24
Sample ID        : G198681019           Sample quantity  : 1.06190E+02 GRAM
Detector name    : GAM20                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:01:01.23  0.4%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708121               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	53.14	26	209	0.58	106.24	104	5	1.82E-03	85.0	
2	0	63.16*	89	475	0.98	126.25	122	9	6.18E-03	48.8	
3	3	74.95*	435	443	1.12	149.81	144	16	3.02E-02	9.7	9.35E-01
4	3	77.25*	700	408	1.10	154.40	144	16	4.86E-02	6.5	
5	2	84.17*	132	454	1.33	168.22	164	28	9.16E-03	30.2	1.04E+00
6	2	87.27*	255	428	1.30	174.42	164	28	1.77E-02	15.7	
7	2	89.99	166	359	1.14	179.84	164	28	1.15E-02	20.9	
8	2	92.91*	350	379	1.35	185.67	164	28	2.43E-02	13.0	
9	0	123.21	41	260	1.33	246.20	244	7	2.86E-03	66.4	
10	0	129.13	83	272	1.31	258.03	255	7	5.73E-03	35.2	
11	0	154.16	26	272	1.42	308.03	305	7	1.81E-03	106.5	
12	0	185.96*	216	423	1.24	371.56	366	12	1.50E-02	22.4	
13	0	209.40	126	256	1.09	418.40	415	8	8.75E-03	23.8	
14	0	215.55	60	181	1.46	430.68	428	6	4.17E-03	38.1	
15	0	218.67	62	175	1.89	436.92	434	7	4.31E-03	37.6	
16	0	223.23	30	216	1.46	446.02	443	8	2.08E-03	86.7	
17	2	238.68*	1534	258	1.10	476.89	472	22	1.07E-01	3.3	2.19E+00
18	2	241.47	248	251	1.58	482.46	472	22	1.72E-02	16.4	
19	0	270.60	150	273	1.35	540.67	536	12	1.04E-02	23.6	
20	0	277.48	18	188	0.62	554.42	551	7	1.23E-03	131.0	
21	0	289.29	81	136	2.87	578.03	574	9	5.61E-03	28.7	
22	0	295.02*	233	174	1.32	589.47	583	11	1.62E-02	13.8	
23	0	299.87	114	187	1.25	599.16	595	10	7.90E-03	24.4	
24	0	328.14	91	162	1.29	655.66	652	9	6.35E-03	27.1	
25	0	338.32	355	240	1.42	675.99	670	12	2.46E-02	10.2	
26	0	351.98*	369	179	1.43	703.29	698	13	2.56E-02	9.8	
27	0	409.62	35	115	1.63	818.50	815	8	2.40E-03	56.6	
28	0	454.82	28	64	1.01	908.83	906	8	1.97E-03	52.8	
29	1	463.27	74	99	1.45	925.71	918	24	5.12E-03	26.3	2.21E+00
30	1	466.56	31	90	1.61	932.29	918	24	2.17E-03	62.5	
31	0	510.99*	132	193	2.13	1021.10	1013	19	9.17E-03	32.2	
32	0	583.52*	437	147	1.36	1166.09	1160	14	3.03E-02	8.0	
33	0	609.67*	255	126	1.46	1218.38	1212	14	1.77E-02	12.2	
34	0	662.22	29	92	0.59	1323.44	1319	11	2.00E-03	66.9	
35	0	727.59*	107	74	1.40	1454.15	1448	14	7.40E-03	20.9	
36	0	754.57	39	63	3.92	1508.10	1501	15	2.68E-03	47.8	
37	0	768.84	26	59	1.88	1536.64	1532	8	1.78E-03	56.3	
38	0	796.67	47	87	1.83	1592.30	1584	18	3.29E-03	50.0	

Sample ID : G198681019 Acquisition date : 15-DEC-2007 06:39:24

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	861.14*	80	65	2.05	1721.22	1712	20	5.58E-03	27.7	
40	0	911.55*	315	64	1.42	1822.06	1814	16	2.19E-02	8.2	
41	0	965.73	66	43	1.13	1930.43	1924	11	4.55E-03	23.1	
42	0	969.65	188	58	1.65	1938.28	1934	13	1.30E-02	11.0	
43	5	979.98	17	28	2.77	1958.95	1953	21	1.16E-03	69.2	1.64E+00
44	5	985.03	22	15	2.78	1969.04	1953	21	1.54E-03	37.8	
45	0	989.65	11	16	2.20	1978.29	1973	8	7.33E-04	72.8	
46	0	992.76	4	14	0.91	1984.51	1980	6	2.66E-04	166.0	
47	0	1002.40*	14	44	1.45	2003.79	1996	16	9.91E-04	118.1	
48	0	1052.78	28	72	7.40	2104.58	2082	26	1.94E-03	85.1	
49	0	1111.89	22	18	1.26	2222.86	2216	12	1.56E-03	43.3	
50	0	1239.42	40	39	1.59	2478.05	2470	17	2.81E-03	38.4	
51	0	1328.16	9	22	1.48	2655.67	2652	11	6.25E-04	106.3	
52	0	1379.18	22	29	0.83	2757.81	2750	13	1.53E-03	54.8	
53	0	1432.43	16	4	2.01	2864.40	2860	9	1.12E-03	34.0	
54	0	1461.61*	144	28	1.92	2922.82	2914	14	1.00E-02	12.2	
55	0	1509.38*	20	27	0.86	3018.47	3011	17	1.37E-03	66.6	
56	0	1556.84	10	0	1.62	3113.50	3110	8	6.94E-04	31.6	
57	0	1568.53	13	9	1.35	3136.90	3131	12	8.87E-04	54.8	
58	0	1581.44	8	12	4.58	3162.75	3154	12	5.56E-04	93.5	
59	0	1589.49	34	18	0.77	3178.87	3172	13	2.37E-03	31.5	
60	0	1594.23	22	5	3.34	3188.36	3184	10	1.53E-03	28.6	
61	0	1622.44	11	20	1.61	3244.86	3238	13	7.29E-04	92.0	
62	0	1632.50	18	12	1.47	3265.00	3258	12	1.28E-03	44.0	
63	0	1662.22	10	6	0.50	3324.53	3317	11	6.60E-04	57.8	
64	0	1676.60	9	6	0.62	3353.33	3345	12	6.25E-04	63.8	
65	1	1762.01	13	1	2.20	3524.40	3522	17	9.26E-04	32.0	3.12E+00
66	1	1765.10*	47	13	2.20	3530.60	3522	17	3.28E-03	24.7	
67	0	1849.13	21	14	4.06	3698.93	3688	18	1.48E-03	45.8	
68	0	1930.07	10	3	3.49	3861.08	3855	12	6.81E-04	47.8	
69	0	1962.24	12	6	0.73	3925.54	3918	12	8.33E-04	50.0	
70	0	2020.54	12	3	4.64	4042.38	4036	13	8.50E-04	41.3	
71	0	2035.64	10	3	0.92	4072.63	4066	11	7.08E-04	44.5	

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]G198681019       *
* Acquisition date : 15-DEC-2007 06:39:24 Detector SN#    :                 *
* Detector ID      : GAM20                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 04:01:01.23     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681019           Analyst initials: MJH1            *
* Batch Number     : 708121               Sample Quantity : 1.0619E+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	1.862E+00	4.723E-01	3.229E-01	0.000E+00
CS-137	2.326E-02	3.052E-02	2.970E-02	0.000E+00
TL-208	3.179E-01	5.341E-02	3.240E-02	0.000E+00
BI-212	6.714E-01	2.790E-01	2.293E-01	0.000E+00
PB-212	1.120E+00	9.604E-02	5.455E-02	0.000E+00
PB-214	4.078E-01	8.154E-02	5.560E-02	0.000E+00
RA-223	3.761E-01	1.751E-01	1.690E-01	0.000E+00
AC-228	1.112E+00	2.064E-01	1.091E-01	0.000E+00
PA-234M	1.686E+00	3.907E+00	2.944E+00	0.000E+00
TH-234	1.532E+00	4.225E-01	3.910E-01	0.000E+00
NP-237	5.051E-01	1.656E-01	1.769E-01	0.000E+00
AM-243	1.805E-01	3.938E-02	4.086E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	-6.327E-03		1.864E-02	2.914E-02	0.000E+00	NOT IDENT.
RH-101	-9.828E-03		2.004E-02	3.160E-02	0.000E+00	NOT IDENT.
SB-125	-2.141E-02		5.047E-02	8.051E-02	0.000E+00	NOT IDENT.
EU-155	5.944E-02		5.623E-02	1.011E-01	0.000E+00	NOT IDENT.
PO-209	7.317E-01		3.730E+00	6.336E+00	0.000E+00	NOT IDENT.
BI-211	-3.097E-02		5.953E-01	9.927E-01	0.000E+00	NOT IDENT.
BI-214	0.000E+00		8.726E-02	1.231E-01	0.000E+00	FAIL ABUN
PA-233	-2.104E-02		3.581E-02	5.788E-02	0.000E+00	NOT IDENT.
U-235	-1.054E-01		1.212E-01	1.891E-01	0.000E+00	NOT IDENT.
NP-236	5.212E-02		3.653E-02	5.492E-02	0.000E+00	NOT IDENT.
NP-239	7.527E-02		1.396E-01	2.145E-01	0.000E+00	NOT IDENT.
AM-241	3.035E-02		7.006E-02	1.054E-01	0.000E+00	NOT IDENT.
CM-243	7.448E-02		4.993E-02	9.078E-02	0.000E+00	NOT IDENT.
AM-246	8.043E-03		6.703E-02	1.119E-01	0.000E+00	NOT IDENT.
CF-249	-1.718E-03		2.251E-02	3.705E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 10:41:15.08

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681019.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 06:39:24
Sample ID        : G198681019           Sample quantity  : 1.06190E+02 GRAM
Detector name    : GAM20                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:01:01.23  0.4%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708121               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	144	10.66*	1.286E+00	1.862E+00	1.862E+00	25.88
CS-137	661.66	29	85.10*	2.581E+00	2.317E-02	2.326E-02	133.89
TL-208	277.36	18	6.31	5.043E+00	9.876E-02	9.876E-02	262.14
	510.77	132	22.60	3.200E+00	3.227E-01	3.227E-01	64.70
	583.19	437	84.50*	2.872E+00	3.179E-01	3.179E-01	17.14
	763.13	------	1.81	2.279E+00	------	Line Not Found	------
	860.56	80	12.42	2.045E+00	5.594E-01	5.594E-01	56.18
BI-212	727.33	107	11.80*	2.378E+00	6.714E-01	6.714E-01	42.41
	785.37	------	1.10	2.222E+00	------	Line Not Found	------
	1620.50	11	1.49	1.194E+00	1.043E+00	1.043E+00	184.22
PB-212	74.81	435	10.40	6.241E+00	1.184E+00	1.184E+00	22.26
	77.11	700	17.50	6.467E+00	1.094E+00	1.094E+00	17.09
	87.30	255	7.81	7.198E+00	8.020E-01	8.020E-01	33.45
	238.63	1534	43.30*	5.589E+00	1.120E+00	1.120E+00	8.75
	300.09	114	3.28	4.776E+00	1.284E+00	1.284E+00	49.13
PB-214	74.81	435	6.44	6.241E+00	1.912E+00	1.912E+00	22.26
	77.11	700	10.80	6.467E+00	1.773E+00	1.773E+00	17.09
	87.30	255	4.84	7.198E+00	1.294E+00	1.294E+00	33.45
	242.00	248	7.43	5.546E+00	1.064E+00	1.064E+00	33.38
	295.22	233	19.30	4.831E+00	4.414E-01	4.414E-01	28.22
	351.93	369	37.60*	4.255E+00	4.078E-01	4.078E-01	20.40
RA-223	269.46	150	13.70*	5.132E+00	3.761E-01	3.761E-01	47.51
AC-228	129.07	83	2.42	7.644E+00	7.887E-01	7.887E-01	70.53
	209.25	126	3.89	6.083E+00	9.415E-01	9.415E-01	47.86
	270.25	150	3.46	5.132E+00	1.489E+00	1.489E+00	47.51
	338.32	355	11.27	4.379E+00	1.271E+00	1.271E+00	21.22
	409.46	35	1.92	3.800E+00	8.367E-01	8.367E-01	113.29
	463.00	74	4.40	3.458E+00	8.573E-01	8.573E-01	52.88
	794.95	47	4.25	2.193E+00	8.973E-01	8.973E-01	100.29
	911.20	315	25.80*	1.941E+00	1.112E+00	1.112E+00	18.94
	964.77	66	4.99	1.842E+00	1.261E+00	1.261E+00	47.09
	968.97	188	15.80	1.835E+00	1.145E+00	1.145E+00	23.63

Sample ID : G198681019 Acquisition date : 15-DEC-2007 06:39:24

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	1588.20	34	3.22	1.211E+00	1.545E+00	1.545E+00	63.52
PA-234M	1001.03	14	0.84*	1.780E+00	1.686E+00	1.686E+00	236.43
TH-234	63.29	89	4.80	4.707E+00	6.957E-01	6.957E-01	98.16
	92.58	350	5.41*	7.455E+00	1.532E+00	1.532E+00	28.15
NP-237	86.48	255	12.40*	7.198E+00	5.051E-01	5.051E-01	33.45
AM-243	74.66	435	68.20*	6.241E+00	1.805E-01	1.805E-01	22.26

Flag: "*" = Keyline

Sample ID : G198681019 Acquisition date : 15-DEC-2007 06:39:24

Total number of lines in spectrum	71	
Number of unidentified lines	35	
Number of lines tentatively identified by NID	36	50.70%

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	1.862E+00	1.862E+00	0.482E+00	25.88	
CS-137	9.47E+08S	1.00	2.317E-02	2.326E-02	3.114E-02	133.89	
TL-208	4.43E+17S	1.00	3.179E-01	3.179E-01	0.545E-01	17.14	
BI-212	4.43E+17S	1.00	6.714E-01	6.714E-01	2.847E-01	42.41	
PB-212	4.43E+17S	1.00	1.120E+00	1.120E+00	0.098E+00	8.75	
PB-214	5.05E+10S	1.00	4.078E-01	4.078E-01	0.832E-01	20.40	
RA-223	1.04E+12S	1.00	3.761E-01	3.761E-01	1.787E-01	47.51	
AC-228	4.43E+17S	1.00	1.112E+00	1.112E+00	0.211E+00	18.94	
PA-234M	1.41E+17S	1.00	1.686E+00	1.686E+00	3.987E+00	236.43	
TH-234	1.41E+17S	1.00	1.532E+00	1.532E+00	0.431E+00	28.15	
NP-237	6.75E+13S	1.00	5.051E-01	5.051E-01	1.690E-01	33.45	
AM-243	2.33E+11S	1.00	1.805E-01	1.805E-01	0.402E-01	22.26	
		Total Activity :	9.794E+00	9.794E+00			
		Grand Total Activity :	9.794E+00	9.794E+00			

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

Sample ID : G198681019 Acquisition date : 15-DEC-2007 06:39:24

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	53.14	26	209	0.58	106.24	104	5	1.82E-03	****	2.98E+00	
2	84.17	132	454	1.33	168.22	164	28	9.16E-03	60.4	7.01E+00	
2	89.99	166	359	1.14	179.84	164	28	1.15E-02	41.7	7.33E+00	
0	123.21	41	260	1.33	246.20	244	7	2.86E-03	****	7.72E+00	
0	154.16	26	272	1.42	308.03	305	7	1.81E-03	****	7.19E+00	
0	185.96	216	423	1.24	371.56	366	12	1.50E-02	44.8	6.53E+00	
0	215.55	60	181	1.46	430.68	428	6	4.17E-03	76.2	5.97E+00	
0	218.67	62	175	1.89	436.92	434	7	4.31E-03	75.2	5.92E+00	
0	223.23	30	216	1.46	446.02	443	8	2.08E-03	****	5.84E+00	
0	289.29	81	136	2.87	578.03	574	9	5.61E-03	57.3	4.90E+00	
0	328.14	91	162	1.29	655.66	652	9	6.35E-03	54.1	4.48E+00	
0	454.82	28	64	1.01	908.83	906	8	1.97E-03	****	3.51E+00	
1	466.56	31	90	1.61	932.29	918	24	2.17E-03	****	3.44E+00	
0	609.67	255	126	1.46	1218.38	1212	14	1.77E-02	24.3	2.77E+00	T
0	754.57	39	63	3.92	1508.10	1501	15	2.68E-03	95.7	2.30E+00	
0	768.84	26	59	1.88	1536.64	1532	8	1.78E-03	****	2.26E+00	T
5	979.98	17	28	2.77	1958.95	1953	21	1.16E-03	****	1.82E+00	
5	985.03	22	15	2.78	1969.04	1953	21	1.54E-03	75.5	1.81E+00	
0	989.65	11	16	2.20	1978.29	1973	8	7.33E-04	****	1.80E+00	
0	992.76	4	14	0.91	1984.51	1980	6	2.66E-04	****	1.80E+00	
0	1052.78	28	72	7.40	2104.58	2082	26	1.94E-03	****	1.70E+00	
0	1111.89	22	18	1.26	2222.86	2216	12	1.56E-03	86.6	1.62E+00	
0	1239.42	40	39	1.59	2478.05	2470	17	2.81E-03	76.9	1.47E+00	T
0	1328.16	9	22	1.48	2655.67	2652	11	6.25E-04	****	1.39E+00	
0	1379.18	22	29	0.83	2757.81	2750	13	1.53E-03	****	1.35E+00	T
0	1432.43	16	4	2.01	2864.40	2860	9	1.12E-03	68.0	1.31E+00	
0	1509.38	20	27	0.86	3018.47	3011	17	1.37E-03	****	1.26E+00	T
0	1556.84	10	0	1.62	3113.50	3110	8	6.94E-04	63.2	1.23E+00	
0	1568.53	13	9	1.35	3136.90	3131	12	8.87E-04	****	1.22E+00	
0	1581.44	8	12	4.58	3162.75	3154	12	5.56E-04	****	1.21E+00	
0	1594.23	22	5	3.34	3188.36	3184	10	1.53E-03	57.1	1.21E+00	
0	1632.50	18	12	1.47	3265.00	3258	12	1.28E-03	88.0	1.19E+00	
0	1662.22	10	6	0.50	3324.53	3317	11	6.60E-04	****	1.18E+00	
0	1676.60	9	6	0.62	3353.33	3345	12	6.25E-04	****	1.17E+00	
1	1762.01	13	1	2.20	3524.40	3522	17	9.26E-04	64.1	1.14E+00	
1	1765.10	47	13	2.20	3530.60	3522	17	3.28E-03	49.4	1.14E+00	T
0	1849.13	21	14	4.06	3698.93	3688	18	1.48E-03	91.6	1.11E+00	
0	1930.07	10	3	3.49	3861.08	3855	12	6.81E-04	95.6	1.09E+00	
0	1962.24	12	6	0.73	3925.54	3918	12	8.33E-04	****	1.08E+00	
0	2020.54	12	3	4.64	4042.38	4036	13	8.50E-04	82.7	1.07E+00	
0	2035.64	10	3	0.92	4072.63	4066	11	7.08E-04	89.0	1.07E+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]G198681019            *
* Acquisition date : 15-DEC-2007 06:39:24 Detector SN#    :                 *
* Detector ID      : GAM20                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 04:01:01.23     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681019           Analyst initials: MJH1            *
* Batch Number     : 708121               Sample Quantity : 1.0619E+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	1.862E+00	4.723E-01	1.616E-01	4.723E-01
CS-137	2.326E-02	3.052E-02	1.486E-02	3.052E-02
TL-208	3.179E-01	5.341E-02	1.621E-02	5.341E-02
BI-212	6.714E-01	2.790E-01	1.147E-01	2.790E-01
PB-212	1.120E+00	9.604E-02	2.729E-02	9.604E-02
PB-214	4.078E-01	8.154E-02	2.782E-02	8.154E-02
RA-223	3.761E-01	1.751E-01	8.453E-02	1.751E-01
AC-228	1.112E+00	2.064E-01	5.458E-02	2.064E-01
PA-234M	1.686E+00	3.907E+00	1.473E+00	3.907E+00
TH-234	1.532E+00	4.225E-01	1.956E-01	4.225E-01
NP-237	5.051E-01	1.656E-01	8.850E-02	1.656E-01
AM-243	1.805E-01	3.938E-02	2.044E-02	3.938E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	-6.327E-03	1.864E-02	1.458E-02	1.864E-02	NOT IDENT.
RH-101	-9.828E-03	2.004E-02	1.581E-02	2.004E-02	NOT IDENT.
SB-125	-2.141E-02	5.047E-02	4.028E-02	5.047E-02	NOT IDENT.
EU-155	5.944E-02	5.623E-02	5.060E-02	5.623E-02	NOT IDENT.
PO-209	7.317E-01	3.730E+00	3.170E+00	3.730E+00	NOT IDENT.
BI-211	-3.097E-02	5.953E-01	4.967E-01	5.953E-01	NOT IDENT.
BI-214	3.539E-01	8.726E-02	6.160E-02	8.726E-02	FAIL ABUN
PA-233	-2.104E-02	3.581E-02	2.895E-02	3.581E-02	NOT IDENT.
U-235	-1.054E-01	1.212E-01	9.461E-02	1.212E-01	NOT IDENT.
NP-236	5.212E-02	3.653E-02	2.748E-02	3.653E-02	NOT IDENT.
NP-239	7.527E-02	1.396E-01	1.073E-01	1.396E-01	NOT IDENT.
AM-241	3.035E-02	7.006E-02	5.273E-02	7.006E-02	NOT IDENT.
CM-243	7.448E-02	4.993E-02	4.542E-02	4.993E-02	NOT IDENT.
AM-246	8.043E-03	6.703E-02	5.597E-02	6.703E-02	NOT IDENT.
CF-249	-1.718E-03	2.251E-02	1.853E-02	2.251E-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	325.9882
63.29	366.1076
74.66	435.1345
74.81	435.2219
74.81	435.2219
77.11	436.5510
77.11	436.5510
86.48	358.2224
87.30	358.5822
87.30	358.5822
92.58	360.8555
98.44	262.9021
103.76	301.2454
105.31	329.8262
129.07	333.8017
143.76	328.8749
198.00	276.0014
209.25	296.4688
228.18	233.2727
238.63	256.4111
242.00	256.9668
269.46	209.0979
270.25	198.4718
277.36	211.1456
295.22	153.9158
300.09	172.2060
312.17	179.8914
338.32	179.2800
351.93	116.8689
387.59	141.1968
409.46	138.3321
427.87	118.9261
463.00	107.5479
510.77	82.7780
583.19	91.9141
609.31	91.8239
661.66	62.9183
727.33	61.6500
763.13	68.1492
768.36	91.6523
785.37	73.4857
794.95	69.7554
806.17	47.0884
831.80	72.4582
860.56	39.0124
896.60	47.4624
911.20	44.6005
934.06	46.8984
964.77	54.7917
968.97	10.2839
1001.03	29.0192
1078.86	37.9898
1120.29	37.2764
1155.19	20.3897
1173.23	34.4734
1238.11	32.7583
1280.96	30.2876
1332.51	36.5552
1377.67	27.2515
1401.50	27.2394
1407.98	25.3916
1460.80	29.4346
1509.23	28.7317
1588.20	16.3092
1620.50	16.7327
1729.60	20.8624
1764.49	20.9769

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198681019

Total Uranium Activity	-4.8763E-02	ug/g
Total Uranium Counting Unc.	5.6083E-02	ug/g
Total Uranium Tpu	5.6083E-08	ug/g
Total Uranium Mda	4.3775E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 10:40:28.45

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681020.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 06:39:56
Sample ID        : G198681020           Sample quantity  : 1.20130E+02 GRAM
Detector name    : GAM22                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:02.38  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708121               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	63.12*	124	769	1.10	125.68	121	10	8.59E-03	46.0	
2	1	74.67*	611	712	1.27	148.77	141	20	4.24E-02	9.2	1.82E+00
3	1	76.90*	929	586	1.20	153.23	141	20	6.45E-02	5.8	
4	1	79.17	53	562	1.16	157.77	141	20	3.65E-03	86.2	
5	5	83.86*	219	859	1.90	167.14	161	29	1.52E-02	27.6	1.17E+00
6	5	87.03	450	614	1.36	173.47	161	29	3.12E-02	10.7	
7	5	89.65	273	453	1.06	178.71	161	29	1.90E-02	13.9	
8	5	92.54*	385	594	1.39	184.49	161	29	2.67E-02	14.1	
9	0	128.32	71	711	0.77	256.03	253	10	4.95E-03	70.7	
10	0	143.53*	24	558	1.44	286.43	283	8	1.66E-03	182.8	
11	0	185.70*	303	608	1.27	370.72	366	10	2.10E-02	18.4	
12	0	209.20	247	498	1.44	417.70	413	10	1.72E-02	18.1	
13	3	238.42*	2362	312	1.36	476.13	469	21	1.64E-01	2.6	1.83E+00
14	3	241.36	486	429	2.01	482.00	469	21	3.37E-02	13.2	
15	0	270.24	299	399	1.91	539.73	534	13	2.07E-02	15.0	
16	0	277.77	103	384	1.09	554.80	550	10	7.14E-03	37.3	
17	0	295.02*	553	492	1.57	589.28	581	14	3.84E-02	9.7	
18	0	300.10	155	301	1.24	599.43	595	10	1.08E-02	22.5	
19	0	327.45	141	291	1.92	654.13	649	10	9.79E-03	24.1	
20	0	338.10*	483	356	1.37	675.42	669	12	3.36E-02	9.4	
21	0	351.59*	1088	416	1.49	702.40	694	16	7.55E-02	5.3	
22	0	400.96	48	190	1.54	801.10	797	9	3.34E-03	53.7	
23	0	409.84	95	220	3.72	818.86	814	12	6.60E-03	33.2	
24	0	462.89	170	210	1.47	924.92	919	13	1.18E-02	19.2	
25	0	510.67*	198	324	2.39	1020.47	1012	19	1.37E-02	28.2	
26	0	582.89*	758	272	1.59	1164.87	1157	16	5.26E-02	6.3	
27	0	609.00*	791	229	1.59	1217.08	1211	15	5.49E-02	5.7	
28	0	633.19	14	162	0.77	1265.46	1257	12	9.54E-04	187.3	
29	0	660.10	69	144	3.17	1319.28	1315	12	4.81E-03	36.4	
30	0	698.75	19	216	0.85	1396.57	1391	12	1.34E-03	155.0	
31	0	726.88	239	159	2.06	1452.83	1444	16	1.66E-02	13.5	
32	0	767.23	57	163	2.88	1533.52	1529	11	3.99E-03	44.9	
33	0	772.51	51	105	2.36	1544.08	1539	10	3.52E-03	40.7	
34	0	794.33	82	113	1.53	1587.73	1583	12	5.68E-03	28.1	
35	0	837.72	87	322	6.20	1674.51	1662	32	6.07E-03	62.4	
36	0	860.48*	122	145	0.95	1720.01	1711	20	8.49E-03	27.7	
37	5	910.74*	563	111	2.10	1820.55	1810	26	3.91E-02	6.1	4.79E+00
38	5	917.65	34	30	3.64	1834.36	1810	26	2.36E-03	24.4	

Sample ID : G198681020 Acquisition date : 15-DEC-2007 06:39:56

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	2	963.95	100	112	2.78	1926.97	1899	45	6.95E-03	29.1	1.25E+00
40	2	968.39*	410	72	2.31	1935.86	1899	45	2.84E-02	7.4	
41	0	1079.04	36	80	3.37	2157.19	2147	17	2.47E-03	60.3	
42	0	1107.38	10	68	3.34	2213.88	2203	13	6.65E-04	187.1	
43	0	1119.88*	166	62	2.22	2238.87	2233	13	1.15E-02	13.6	
44	3	1153.66	38	35	2.58	2306.46	2302	22	2.60E-03	33.7	1.14E+00
45	3	1155.43	27	56	2.45	2310.00	2302	22	1.90E-03	67.8	
46	0	1168.02*	15	51	1.76	2335.18	2327	12	1.06E-03	104.2	
47	0	1179.92	15	95	7.48	2358.98	2342	19	1.07E-03	153.8	
48	0	1185.33	20	33	1.01	2369.80	2364	10	1.41E-03	58.3	
49	0	1199.41	26	42	2.57	2397.97	2392	11	1.82E-03	51.4	
50	0	1203.44	24	28	2.50	2406.04	2402	8	1.66E-03	43.4	
51	0	1238.36*	45	81	2.37	2475.89	2467	13	3.14E-03	46.4	
52	0	1378.40	34	60	2.18	2756.07	2746	13	2.34E-03	50.9	
53	0	1409.34	11	81	1.72	2817.97	2811	17	7.32E-04	198.0	
54	0	1460.07*	758	41	2.65	2919.48	2907	23	5.26E-02	4.4	
55	4	1508.49	36	35	3.95	3016.36	3009	24	2.49E-03	38.0	4.23E+00
56	4	1514.74	33	3	3.27	3028.86	3009	24	2.26E-03	24.1	
57	0	1619.10	42	21	3.84	3237.69	3231	14	2.93E-03	27.7	
58	0	1653.44	27	66	10.58	3306.41	3286	33	1.87E-03	93.5	
59	0	1733.27	58	68	10.59	3466.15	3446	36	4.01E-03	48.1	
60	0	1764.49	176	42	3.08	3528.62	3517	25	1.22E-02	13.1	
61	0	1798.17	9	26	0.69	3596.03	3585	15	6.14E-04	130.6	
62	0	1822.49	14	12	4.38	3644.70	3636	14	9.51E-04	63.2	

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]G198681020       *
* Acquisition date : 15-DEC-2007 06:39:56 Detector SN#    :                 *
* Detector ID      : GAM22                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 04:00:02.38     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681020           Analyst initials: MJH1            *
* Batch Number     : 708121               Sample Quantity : 1.2013E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 22-FEB-2007 17:43:25 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	5.563E+00	5.769E-01	2.260E-01	0.000E+00
CS-137	3.320E-02	2.388E-02	3.223E-02	0.000E+00
TL-208	3.321E-01	4.835E-02	2.869E-02	0.000E+00
BI-212	8.874E-01	2.481E-01	2.187E-01	0.000E+00
PB-212	1.171E+00	9.054E-02	4.872E-02	0.000E+00
BI-214	6.563E-01	8.979E-02	5.643E-02	0.000E+00
PB-214	7.709E-01	9.112E-02	5.169E-02	0.000E+00
RA-223	5.003E-01	1.497E-01	1.491E-01	0.000E+00
AC-228	1.158E+00	1.791E-01	1.043E-01	0.000E+00
TH-234	1.285E+00	3.713E-01	3.704E-01	0.000E+00
U-235	3.777E-02	1.353E-01	1.849E-01	0.000E+00
NP-237	6.847E-01	1.552E-01	1.688E-01	0.000E+00
AM-243	2.011E-01	3.937E-02	3.964E-02	0.000E+00
AM-246	7.859E-02	9.310E-02	9.557E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
CO-60	4.396E-03	3.471E-02	2.941E-02	0.000E+00	NOT IDENT.
RH-101	-9.084E-03	2.035E-02	3.125E-02	0.000E+00	NOT IDENT.
SB-125	2.432E-02	4.512E-02	7.734E-02	0.000E+00	NOT IDENT.
EU-155	5.395E-02	5.275E-02	9.514E-02	0.000E+00	NOT IDENT.
PO-209	-7.939E-02	3.283E+00	5.572E+00	0.000E+00	NOT IDENT.
BI-211	4.787E-01	5.462E-01	8.565E-01	0.000E+00	NOT IDENT.
PA-233	6.752E-03	3.040E-02	5.268E-02	0.000E+00	NOT IDENT.
PA-234M	1.996E+00	2.821E+00	3.941E+00	0.000E+00	NOT IDENT.
NP-236	3.716E-02	3.337E-02	5.467E-02	0.000E+00	NOT IDENT.
NP-239	9.314E-02	1.259E-01	1.998E-01	0.000E+00	NOT IDENT.
AM-241	9.076E-02	7.145E-02	1.132E-01	0.000E+00	NOT IDENT.
CM-243	-2.239E-02	4.718E-02	8.189E-02	0.000E+00	NOT IDENT.
CF-249	-6.888E-03	1.963E-02	3.261E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 10:40:29.51

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681020.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 06:39:56
Sample ID        : G198681020           Sample quantity  : 1.20130E+02 GRAM
Detector name    : GAM22                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:02.38  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708121               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	758	10.66*	1.997E+00	5.563E+00	5.563E+00	10.58
CS-137	661.66	69	85.10*	3.842E+00	3.308E-02	3.320E-02	73.40
TL-208	277.36	103	6.31	6.703E+00	3.799E-01	3.799E-01	74.76
	510.77	198	22.60	4.632E+00	2.954E-01	2.954E-01	56.77
	583.19	758	84.50*	4.219E+00	3.321E-01	3.321E-01	14.85
	763.13	------	1.81	3.420E+00	------	Line Not Found	------
	860.56	122	12.42	3.092E+00	4.972E-01	4.972E-01	56.26
BI-212	727.33	239	11.80*	3.559E+00	8.874E-01	8.874E-01	28.52
	785.37	------	1.10	3.340E+00	------	Line Not Found	------
	1620.50	42	1.49	1.874E+00	2.365E+00	2.365E+00	55.61
PB-212	74.81	611	10.40	6.962E+00	1.318E+00	1.318E+00	19.98
	77.11	929	17.50	7.255E+00	1.144E+00	1.144E+00	14.06
	87.30	450	7.81	8.278E+00	1.087E+00	1.087E+00	23.13
	238.63	2362	43.30*	7.278E+00	1.171E+00	1.171E+00	7.89
	300.09	155	3.28	6.421E+00	1.149E+00	1.149E+00	45.34
BI-214	609.31	791	46.10*	4.085E+00	6.563E-01	6.563E-01	13.96
	768.36	57	4.94	3.405E+00	5.336E-01	5.336E-01	90.34
	806.17	------	1.22	3.268E+00	------	Line Not Found	------
	934.06	------	3.03	2.880E+00	------	Line Not Found	------
	1120.29	166	15.10	2.461E+00	6.983E-01	6.983E-01	28.10
	1155.19	27	1.63	2.396E+00	1.093E+00	1.093E+00	135.74
	1238.11	45	5.79	2.262E+00	5.392E-01	5.392E-01	93.05
	1280.96	------	1.43	2.201E+00	------	Line Not Found	------
	1377.67	34	4.00	2.080E+00	6.335E-01	6.335E-01	101.94
	1401.50	------	1.27	2.055E+00	------	Line Not Found	------
	1407.98	11	2.15	2.047E+00	3.742E-01	3.742E-01	395.96
	1509.23	36	2.11	1.954E+00	1.357E+00	1.357E+00	76.18
	1729.60	------	2.92	1.815E+00	------	Line Not Found	------
	1764.49	176	15.40	1.801E+00	9.923E-01	9.924E-01	26.75
PB-214	74.81	611	6.44	6.962E+00	2.129E+00	2.129E+00	19.98
	77.11	929	10.80	7.255E+00	1.853E+00	1.853E+00	14.06
	87.30	450	4.84	8.278E+00	1.754E+00	1.754E+00	23.13

Sample ID : G198681020 Acquisition date : 15-DEC-2007 06:39:56

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	242.00	486	7.43	7.232E+00	1.413E+00	1.413E+00	27.01
	295.22	553	19.30	6.483E+00	6.905E-01	6.905E-01	20.35
	351.93	1088	37.60*	5.862E+00	7.709E-01	7.709E-01	12.06
RA-223	269.46	299	13.70*	6.805E+00	5.003E-01	5.003E-01	30.53
AC-228	129.07	71	2.42	9.245E+00	4.981E-01	4.981E-01	141.58
	209.25	247	3.89	7.781E+00	1.275E+00	1.275E+00	36.69
	270.25	299	3.46	6.805E+00	1.981E+00	1.981E+00	30.53
	338.32	483	11.27	5.998E+00	1.117E+00	1.117E+00	19.62
	409.46	95	1.92	5.345E+00	1.448E+00	1.448E+00	66.73
	463.00	170	4.40	4.946E+00	1.223E+00	1.223E+00	38.85
	794.95	82	4.25	3.308E+00	9.085E-01	9.085E-01	57.01
	911.20	563	25.80*	2.944E+00	1.158E+00	1.158E+00	15.78
	964.77	100	4.99	2.803E+00	1.118E+00	1.118E+00	59.04
	968.97	410	15.80	2.791E+00	1.451E+00	1.451E+00	17.44
	1588.20	------	3.22	1.894E+00	------	Line Not Found	------
TH-234	63.29	124	4.80	5.046E+00	7.983E-01	7.983E-01	92.32
	92.58	385	5.41*	8.651E+00	1.285E+00	1.285E+00	29.48
U-235	143.76	24	10.96*	9.048E+00	3.777E-02	3.777E-02	365.63
NP-237	86.48	450	12.40*	8.278E+00	6.847E-01	6.847E-01	23.13
AM-243	74.66	611	68.20*	6.962E+00	2.011E-01	2.011E-01	19.98
AM-246	1078.86	36	27.80*	2.541E+00	7.859E-02	7.859E-02	120.88

Flag: "*" = Keyline

Sample ID : G198681020 Acquisition date : 15-DEC-2007 06:39:56

Total number of lines in spectrum 62
Number of unidentified lines 23
Number of lines tentatively identified by NID 39 62.90%

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	5.563E+00	5.563E+00	0.589E+00	10.58	
CS-137	9.47E+08S	1.00	3.308E-02	3.320E-02	2.437E-02	73.40	
TL-208	4.43E+17S	1.00	3.321E-01	3.321E-01	0.493E-01	14.85	
BI-212	4.43E+17S	1.00	8.874E-01	8.874E-01	2.531E-01	28.52	
PB-212	4.43E+17S	1.00	1.171E+00	1.171E+00	0.092E+00	7.89	
BI-214	5.05E+10S	1.00	6.563E-01	6.563E-01	0.916E-01	13.96	
PB-214	5.05E+10S	1.00	7.709E-01	7.709E-01	0.930E-01	12.06	
RA-223	1.04E+12S	1.00	5.003E-01	5.003E-01	1.528E-01	30.53	
AC-228	4.43E+17S	1.00	1.158E+00	1.158E+00	0.183E+00	15.78	
TH-234	1.41E+17S	1.00	1.285E+00	1.285E+00	0.379E+00	29.48	
U-235	2.22E+16S	1.00	3.777E-02	3.777E-02	13.81E-02	365.63	
NP-237	6.75E+13S	1.00	6.847E-01	6.847E-01	1.584E-01	23.13	
AM-243	2.33E+11S	1.00	2.011E-01	2.011E-01	0.402E-01	19.98	
AM-246	2.18E+11S	1.00	7.859E-02	7.859E-02	9.500E-02	120.88	
			---	---			
	Total Activity :		1.336E+01	1.336E+01			

Grand Total Activity : 1.336E+01 1.336E+01

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

Sample ID : G198681020 Acquisition date : 15-DEC-2007 06:39:56

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
1	79.17	53	562	1.16	157.77	141	20	3.65E-03	****	7.53E+00	
5	83.86	219	859	1.90	167.14	161	29	1.52E-02	55.3	8.01E+00	
5	89.65	273	453	1.06	178.71	161	29	1.90E-02	27.8	8.47E+00	
0	185.70	303	608	1.27	370.72	366	10	2.10E-02	36.9	8.23E+00	
0	327.45	141	291	1.92	654.13	649	10	9.79E-03	48.2	6.11E+00	
0	400.96	48	190	1.54	801.10	797	9	3.34E-03	****	5.42E+00	
0	633.19	14	162	0.77	1265.46	1257	12	9.54E-04	****	3.97E+00	
0	698.75	19	216	0.85	1396.57	1391	12	1.34E-03	****	3.67E+00	
0	772.51	51	105	2.36	1544.08	1539	10	3.52E-03	81.3	3.39E+00	
0	837.72	87	322	6.20	1674.51	1662	32	6.07E-03	****	3.16E+00	
5	917.65	34	30	3.64	1834.36	1810	26	2.36E-03	48.8	2.93E+00	
0	1107.38	10	68	3.34	2213.88	2203	13	6.65E-04	****	2.48E+00	
3	1153.66	38	35	2.58	2306.46	2302	22	2.60E-03	67.4	2.40E+00	
0	1168.02	15	51	1.76	2335.18	2327	12	1.06E-03	****	2.37E+00	
0	1179.92	15	95	7.48	2358.98	2342	19	1.07E-03	****	2.35E+00	
0	1185.33	20	33	1.01	2369.80	2364	10	1.41E-03	****	2.35E+00	
0	1199.41	26	42	2.57	2397.97	2392	11	1.82E-03	****	2.32E+00	
0	1203.44	24	28	2.50	2406.04	2402	8	1.66E-03	86.8	2.32E+00	
4	1514.74	33	3	3.27	3028.86	3009	24	2.26E-03	48.3	1.95E+00	
0	1653.44	27	66	10.58	3306.41	3286	33	1.87E-03	****	1.85E+00	
0	1733.27	58	68	10.59	3466.15	3446	36	4.01E-03	96.3	1.81E+00	
0	1798.17	9	26	0.69	3596.03	3585	15	6.14E-04	****	1.79E+00	
0	1822.49	14	12	4.38	3644.70	3636	14	9.51E-04	****	1.78E+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]G198681020            *
* Acquisition date : 15-DEC-2007 06:39:56 Detector SN#    :                 *
* Detector ID      : GAM22                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 04:00:02.38     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681020           Analyst initials: MJH1            *
* Batch Number     : 708121               Sample Quantity : 1.2013E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 22-FEB-2007 17:43:25 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	5.563E+00	5.769E-01	1.131E-01	5.769E-01
CS-137	3.320E-02	2.388E-02	1.612E-02	2.388E-02
TL-208	3.321E-01	4.835E-02	1.435E-02	4.835E-02
BI-212	8.874E-01	2.481E-01	1.094E-01	2.481E-01
PB-212	1.171E+00	9.054E-02	2.438E-02	9.054E-02
BI-214	6.563E-01	8.979E-02	2.823E-02	8.979E-02
PB-214	7.709E-01	9.112E-02	2.586E-02	9.112E-02
RA-223	5.003E-01	1.497E-01	7.462E-02	1.497E-01
AC-228	1.158E+00	1.791E-01	5.217E-02	1.791E-01
TH-234	1.285E+00	3.713E-01	1.853E-01	3.713E-01
U-235	3.777E-02	1.353E-01	9.251E-02	1.353E-01
NP-237	6.847E-01	1.552E-01	8.446E-02	1.552E-01
AM-243	2.011E-01	3.937E-02	1.983E-02	3.937E-02
AM-246	7.859E-02	9.310E-02	4.781E-02	9.310E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	4.396E-03	3.471E-02	1.471E-02	3.471E-02	NOT IDENT.
RH-101	-9.084E-03	2.035E-02	1.563E-02	2.035E-02	NOT IDENT.
SB-125	2.432E-02	4.512E-02	3.869E-02	4.512E-02	NOT IDENT.
EU-155	5.395E-02	5.275E-02	4.760E-02	5.275E-02	NOT IDENT.
PO-209	-7.939E-02	3.283E+00	2.788E+00	3.283E+00	NOT IDENT.
BI-211	4.787E-01	5.462E-01	4.285E-01	5.462E-01	NOT IDENT.
PA-233	6.752E-03	3.040E-02	2.636E-02	3.040E-02	NOT IDENT.
PA-234M	1.996E+00	2.821E+00	1.972E+00	2.821E+00	NOT IDENT.
NP-236	3.716E-02	3.337E-02	2.735E-02	3.337E-02	NOT IDENT.
NP-239	9.314E-02	1.259E-01	9.996E-02	1.259E-01	NOT IDENT.
AM-241	9.076E-02	7.145E-02	5.662E-02	7.145E-02	NOT IDENT.
CM-243	-2.239E-02	4.718E-02	4.097E-02	4.718E-02	NOT IDENT.
CF-249	-6.888E-03	1.963E-02	1.632E-02	1.963E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	457.2534
63.29	563.9562
74.66	628.9214
74.81	629.1630
74.81	629.1630
77.11	632.8566
77.11	632.8566
86.48	529.2736
87.30	530.2794
87.30	530.2794
92.58	536.6527
98.44	506.1528
103.76	552.1550
105.31	516.8478
129.07	491.0315
143.76	605.5416
198.00	530.9981
209.25	461.2624
228.18	412.7358
238.63	429.5475
242.00	431.1429
269.46	354.6714
270.25	354.9553
277.36	322.8141
295.22	327.4952
300.09	313.0170
312.17	288.7130
338.32	310.5565
351.93	238.5723
387.59	277.3242
409.46	281.1571
427.87	221.8814
463.00	200.0528
510.77	190.4926
583.19	194.6981
609.31	210.2742
661.66	205.0843
727.33	157.7628
763.13	156.6579
768.36	186.2268
785.37	131.9587
794.95	133.5740
806.17	143.9453
831.80	119.7679
860.56	138.4637
896.60	115.4088
911.20	117.9833
934.06	95.5835
964.77	97.6430
968.97	100.2592
1001.03	111.8887
1078.86	86.1445
1120.29	96.6490
1155.19	75.0133
1173.23	81.3452
1238.11	127.3181
1280.96	95.3949
1332.51	69.6709
1377.67	83.5781
1401.50	47.3086
1407.98	105.3060
1460.80	44.0295
1509.23	60.7635
1588.20	67.0828
1620.50	51.7587
1729.60	44.5100
1764.49	38.1662

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198681020

Total Uranium Activity	1.7477E-02	ug/g
Total Uranium Counting Unc.	6.2622E-02	ug/g
Total Uranium Tpu	6.2622E-08	ug/g
Total Uranium Mda	4.2806E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 10:41:52.04

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201473811.CNF;1
Sample date      : 5-DEC-2007 00:00:00. Acquisition date : 15-DEC-2007 06:40:38
Sample ID        : G1201473811          Sample quantity  : 1.41230E+02 GRAM
Detector name    : GAM23                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:07.47  0.1%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708121               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	53.03	29	103	0.63	106.01	103	6	1.99E-03	59.1	
2	0	63.35*	1	176	0.88	126.65	124	7	8.75E-05	*****	
3	0	77.53*	35	190	1.59	155.00	151	9	2.46E-03	80.8	
4	0	138.19	19	194	1.42	276.35	270	8	1.32E-03	130.2	
5	0	143.07*	11	161	3.51	286.11	283	8	7.97E-04	245.8	
6	0	169.16	26	149	1.41	338.29	336	7	1.80E-03	80.0	
7	0	185.95*	30	234	1.11	371.88	367	10	2.11E-03	112.0	
8	0	193.05	49	179	1.62	386.10	382	9	3.41E-03	51.3	
9	0	238.39*	39	193	1.58	476.79	471	11	2.70E-03	78.8	
10	0	277.59	41	105	2.00	555.20	552	8	2.84E-03	46.2	
11	0	432.60*	20	108	3.34	865.29	859	13	1.41E-03	117.2	
12	0	510.87*	28	116	1.85	1021.87	1014	15	1.93E-03	124.0	
13	0	520.67	10	49	0.94	1041.47	1035	8	6.60E-04	134.3	
14	0	569.63*	27	80	1.32	1139.43	1135	11	1.89E-03	116.4	
15	0	875.06	9	52	0.98	1750.52	1741	13	6.12E-04	172.1	
16	0	1063.34*	10	28	1.48	2127.25	2119	16	6.62E-04	282.4	
17	0	1077.57	18	28	3.77	2155.72	2147	14	1.25E-03	66.7	
18	0	1125.03	7	7	1.38	2250.70	2248	8	5.13E-04	69.0	
19	0	1139.10	7	13	0.62	2278.86	2270	13	4.86E-04	112.7	
20	0	1210.94	12	4	1.61	2422.61	2419	7	7.99E-04	40.0	
21	0	1253.47	19	15	1.60	2507.72	2500	16	1.34E-03	51.3	
22	0	1270.34	29	10	5.46	2541.47	2532	19	1.98E-03	32.0	
23	0	1439.96	11	10	2.56	2880.92	2872	14	7.49E-04	70.5	
24	0	1538.18	12	0	1.87	3077.50	3073	9	8.33E-04	28.9	
25	0	1769.31	31	6	2.17	3540.10	3533	14	2.12E-03	25.7	
26	0	1965.15	6	2	1.26	3932.11	3927	9	3.95E-04	63.5	

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]G1201473811      *
* Acquisition date : 15-DEC-2007 06:40:38 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 04:00:07.47     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-DEC-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G1201473811          Analyst initials: MJH1            *
* Batch Number     : 708121               Sample Quantity : 1.4123E+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)	
U-235	2.176E-02	1.048E-01	1.114E-01	0.000E+00
AM-246	6.358E-02	8.319E-02	7.010E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
K-40	-2.006E-01		1.873E-01	2.982E-01	0.000E+00	NOT IDENT.
CO-60	1.540E-03		1.382E-02	2.391E-02	0.000E+00	NOT IDENT.
RH-101	1.598E-05		1.528E-02	2.145E-02	0.000E+00	NOT IDENT.
SB-125	-1.680E-02		4.415E-02	6.405E-02	0.000E+00	NOT IDENT.
CS-137	-1.052E-02		1.754E-02	2.622E-02	0.000E+00	NOT IDENT.
EU-155	-4.073E-03		3.099E-02	5.645E-02	0.000E+00	NOT IDENT.
TL-208	-1.281E-02		2.036E-02	2.625E-02	0.000E+00	FAIL ABUN
PO-209	6.048E-01		3.203E+00	5.492E+00	0.000E+00	NOT IDENT.
BI-211	9.548E-03		5.011E-01	8.507E-01	0.000E+00	NOT IDENT.
BI-212	-3.324E-02		1.286E-01	2.164E-01	0.000E+00	NOT IDENT.
PB-212	2.503E-02		3.868E-02	4.433E-02	0.000E+00	FAIL ABUN
BI-214	-4.930E-02		3.901E-02	5.684E-02	0.000E+00	NOT IDENT.
PB-214	-8.758E-03		3.473E-02	5.373E-02	0.000E+00	FAIL ABUN
RA-223	2.661E-02		7.193E-02	1.240E-01	0.000E+00	NOT IDENT.
AC-228	-1.135E-02		7.321E-02	1.169E-01	0.000E+00	NOT IDENT.
PA-233	-6.209E-03		2.433E-02	4.265E-02	0.000E+00	NOT IDENT.
PA-234M	-1.354E+00		2.270E+00	3.128E+00	0.000E+00	NOT IDENT.
TH-234	-1.591E-01		2.015E-01	3.353E-01	0.000E+00	FAIL ABUN
NP-236	7.145E-03		1.676E-02	3.165E-02	0.000E+00	NOT IDENT.
NP-237	7.060E-03		6.382E-02	1.196E-01	0.000E+00	NOT IDENT.
NP-239	-4.448E-02		8.106E-02	1.336E-01	0.000E+00	NOT IDENT.
AM-241	1.645E-02		5.086E-02	9.035E-02	0.000E+00	NOT IDENT.
AM-243	8.253E-03		1.703E-02	2.774E-02	0.000E+00	NOT IDENT.
CM-243	-8.433E-03		2.832E-02	5.115E-02	0.000E+00	NOT IDENT.
CF-249	-4.329E-03		1.696E-02	2.905E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 10:41:52.87

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201473811.CNF;1
Sample date      : 5-DEC-2007 00:00:00. Acquisition date : 15-DEC-2007 06:40:38
Sample ID        : G1201473811          Sample quantity  : 1.41230E+02 GRAM
Detector name    : GAM23                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:07.47  0.1%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708121               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
U-235	143.76	11	10.96*	6.399E+00	2.176E-02	2.176E-02	491.64
AM-246	1078.86	18	27.80*	1.353E+00	6.358E-02	6.358E-02	133.50

Flag: "*" = Keyline

Sample ID : G1201473811 Acquisition date : 15-DEC-2007 06:40:38

Total number of lines in spectrum 26
Number of unidentified lines 19
Number of lines tentatively identified by NID 7 26.92%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
U-235	2.22E+16S	1.00	2.176E-02	2.176E-02	10.70E-02	491.64	
AM-246	2.18E+11S	1.00	6.358E-02	6.358E-02	8.489E-02	133.50	
		Total Activity :	8.534E-02	8.534E-02			
		Grand Total Activity :	8.534E-02	8.534E-02			

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

Sample ID : G1201473811 Acquisition date : 15-DEC-2007 06:40:38

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	53.03	29	103	0.63	106.01	103	6	1.99E-03	****	1.25E+00	
0	63.35	1	176	0.88	126.65	124	7	8.75E-05	****	2.64E+00	T
0	77.53	35	190	1.59	155.00	151	9	2.46E-03	****	4.46E+00	T
0	138.19	19	194	1.42	276.35	270	8	1.32E-03	****	6.46E+00	
0	169.16	26	149	1.41	338.29	336	7	1.80E-03	****	5.97E+00	
0	185.95	30	234	1.11	371.88	367	10	2.11E-03	****	5.66E+00	
0	193.05	49	179	1.62	386.10	382	9	3.41E-03	****	5.52E+00	
0	238.39	39	193	1.58	476.79	471	11	2.70E-03	****	4.77E+00	T
0	277.59	41	105	2.00	555.20	552	8	2.84E-03	92.4	4.25E+00	T
0	432.60	20	108	3.34	865.29	859	13	1.41E-03	****	2.99E+00	
0	510.87	28	116	1.85	1021.87	1014	15	1.93E-03	****	2.61E+00	T
0	520.67	10	49	0.94	1041.47	1035	8	6.60E-04	****	2.57E+00	
0	569.63	27	80	1.32	1139.43	1135	11	1.89E-03	****	2.39E+00	
0	875.06	9	52	0.98	1750.52	1741	13	6.12E-04	****	1.64E+00	
0	1063.34	10	28	1.48	2127.25	2119	16	6.62E-04	****	1.37E+00	
0	1125.03	7	7	1.38	2250.70	2248	8	5.13E-04	****	1.30E+00	
0	1139.10	7	13	0.62	2278.86	2270	13	4.86E-04	****	1.29E+00	
0	1210.94	12	4	1.61	2422.61	2419	7	7.99E-04	79.9	1.22E+00	
0	1253.47	19	15	1.60	2507.72	2500	16	1.34E-03	****	1.18E+00	
0	1270.34	29	10	5.46	2541.47	2532	19	1.98E-03	64.0	1.17E+00	
0	1439.96	11	10	2.56	2880.92	2872	14	7.49E-04	****	1.05E+00	
0	1538.18	12	0	1.87	3077.50	3073	9	8.33E-04	57.7	9.97E-01	
0	1769.31	31	6	2.17	3540.10	3533	14	2.12E-03	51.3	9.07E-01	
0	1965.15	6	2	1.26	3932.11	3927	9	3.95E-04	****	8.62E-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]G1201473811           *
* Acquisition date : 15-DEC-2007 06:40:38 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 04:00:07.47     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-DEC-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G1201473811          Analyst initials: MJH1            *
* Batch Number     : 708121               Sample Quantity : 1.4123E+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    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
U-235	2.176E-02	1.048E-01	5.575E-02	1.048E-01
AM-246	6.358E-02	8.319E-02	3.507E-02	8.319E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
K-40	-2.006E-01	1.873E-01	1.492E-01	1.873E-01	NOT IDENT.
CO-60	1.540E-03	1.382E-02	1.196E-02	1.382E-02	NOT IDENT.
RH-101	1.598E-05	1.528E-02	1.073E-02	1.528E-02	NOT IDENT.
SB-125	-1.680E-02	4.415E-02	3.205E-02	4.415E-02	NOT IDENT.
CS-137	-1.052E-02	1.754E-02	1.312E-02	1.754E-02	NOT IDENT.
EU-155	-4.073E-03	3.099E-02	2.824E-02	3.099E-02	NOT IDENT.
TL-208	-1.281E-02	2.036E-02	1.313E-02	2.036E-02	FAIL ABUN
PO-209	6.048E-01	3.203E+00	2.747E+00	3.203E+00	NOT IDENT.
BI-211	9.548E-03	5.011E-01	4.256E-01	5.011E-01	NOT IDENT.
BI-212	-3.324E-02	1.286E-01	1.083E-01	1.286E-01	NOT IDENT.
PB-212	2.503E-02	3.868E-02	2.218E-02	3.868E-02	FAIL ABUN
BI-214	-4.930E-02	3.901E-02	2.844E-02	3.901E-02	NOT IDENT.
PB-214	-8.758E-03	3.473E-02	2.688E-02	3.473E-02	FAIL ABUN
RA-223	2.661E-02	7.193E-02	6.204E-02	7.193E-02	NOT IDENT.
AC-228	-1.135E-02	7.321E-02	5.850E-02	7.321E-02	NOT IDENT.
PA-233	-6.209E-03	2.433E-02	2.134E-02	2.433E-02	NOT IDENT.
PA-234M	-1.354E+00	2.270E+00	1.565E+00	2.270E+00	NOT IDENT.
TH-234	-1.591E-01	2.015E-01	1.678E-01	2.015E-01	FAIL ABUN
NP-236	7.145E-03	1.676E-02	1.583E-02	1.676E-02	NOT IDENT.
NP-237	7.060E-03	6.382E-02	5.981E-02	6.382E-02	NOT IDENT.
NP-239	-4.448E-02	8.106E-02	6.683E-02	8.106E-02	NOT IDENT.
AM-241	1.645E-02	5.086E-02	4.520E-02	5.086E-02	NOT IDENT.
AM-243	8.253E-03	1.703E-02	1.388E-02	1.703E-02	NOT IDENT.
CM-243	-8.433E-03	2.832E-02	2.559E-02	2.832E-02	NOT IDENT.
CF-249	-4.329E-03	1.696E-02	1.453E-02	1.696E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	96.6351
63.29	129.4711
74.66	122.8359
74.81	122.8947
74.81	122.8947
77.11	122.1596
77.11	122.1596
86.48	139.8606
87.30	132.6326
87.30	132.6326
92.58	125.2223
98.44	110.7467
103.76	135.0578
105.31	135.5779
129.07	146.8356
143.76	143.6050
198.00	154.9947
209.25	134.5261
228.18	138.1201
238.63	141.1516
242.00	155.7199
269.46	120.0723
270.25	116.7176
277.36	125.8396
295.22	130.1627
300.09	131.7473
312.17	106.2098
338.32	103.4528
351.93	107.6447
387.59	103.3765
409.46	86.4385
427.87	91.9835
463.00	66.3301
510.77	76.1542
583.19	60.7154
609.31	87.7242
661.66	62.1425
727.33	67.2649
763.13	51.6052
768.36	47.7563
785.37	48.1477
794.95	41.3133
806.17	52.6728
831.80	58.4194
860.56	72.6694
896.60	40.0661
911.20	40.3128
934.06	32.1277
964.77	52.0441
968.97	45.6145
1001.03	29.6921
1078.86	17.7883
1120.29	18.0507
1155.19	27.1250
1173.23	21.4423
1238.11	21.8997
1280.96	17.1515
1332.51	10.2478
1377.67	14.5383
1401.50	17.7747
1407.98	18.8555
1460.80	23.3866
1509.23	16.1554
1588.20	16.0199
1620.50	9.5006
1729.60	16.5832
1764.49	13.7686

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1201473811

Total Uranium Activity	1.0069E-02	ug/g
Total Uranium Counting Unc.	4.8512E-02	ug/g
Total Uranium Tpu	4.8512E-08	ug/g
Total Uranium Mda	2.5797E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 10:44:30.24

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201473812.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 06:43:39
Sample ID        : G1201473812          Sample quantity  : 1.41230E+02 GRAM
Detector name    : GAM21                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:23.68  0.2%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708121               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.20	84	385	0.89	91.50	87	9	5.81E-03	43.7	
2	0	63.68	116	505	1.05	126.41	123	8	8.04E-03	34.9	
3	1	75.07	665	617	1.47	149.15	141	20	4.62E-02	8.3	1.97E+00
4	1	77.35*	969	515	1.41	153.72	141	20	6.73E-02	5.5	
5	2	83.96	161	572	1.71	166.90	162	29	1.12E-02	28.9	1.44E+00
6	2	87.36	353	558	1.71	173.71	162	29	2.45E-02	13.9	
7	2	90.02	233	438	1.42	179.01	162	29	1.62E-02	17.6	
8	2	92.99*	339	534	1.72	184.96	162	29	2.36E-02	14.6	
9	0	121.08	32	284	1.41	241.04	238	7	2.22E-03	89.1	
10	0	129.51	111	632	1.51	257.88	252	13	7.69E-03	47.8	
11	0	155.03	40	514	1.69	308.87	302	10	2.80E-03	106.2	
12	0	163.79	27	331	1.16	326.36	324	8	1.89E-03	117.4	
13	0	185.84*	253	498	1.68	370.41	364	13	1.76E-02	20.0	
14	0	203.92*	57	347	2.69	406.53	400	11	3.98E-03	65.7	
15	0	209.88	238	416	1.44	418.42	412	14	1.65E-02	19.4	
16	2	238.71*	1245	269	1.40	476.01	470	19	8.65E-02	3.8	1.64E+00
17	2	241.71	279	305	1.91	482.02	470	19	1.94E-02	17.7	
18	0	269.97	121	310	1.97	538.46	533	13	8.39E-03	31.3	
19	0	276.81	38	233	0.81	552.13	548	9	2.63E-03	74.3	
20	3	295.39*	359	197	1.66	589.26	584	19	2.49E-02	9.7	1.86E+00
21	3	299.77	75	194	1.78	598.01	584	19	5.23E-03	33.9	
22	0	328.48	78	235	1.44	655.38	651	12	5.41E-03	41.3	
23	0	338.19	261	184	1.42	674.77	669	11	1.81E-02	11.4	
24	0	352.25*	523	298	1.43	702.86	695	16	3.63E-02	8.8	
25	0	399.77	47	128	3.31	797.82	793	11	3.29E-03	48.2	
26	0	463.11	77	82	1.76	924.40	920	10	5.33E-03	24.9	
27	0	511.19*	62	162	2.48	1020.48	1011	18	4.29E-03	60.0	
28	0	568.92	110	117	2.93	1135.87	1130	14	7.66E-03	23.0	
29	0	583.42*	331	113	1.61	1164.86	1159	12	2.30E-02	8.7	
30	0	609.34*	395	94	1.36	1216.68	1209	14	2.75E-02	7.6	
31	0	641.87	31	45	3.82	1281.72	1277	11	2.18E-03	44.8	
32	3	661.92	241	66	1.92	1321.80	1315	18	1.67E-02	9.3	1.20E+00
33	3	665.77	25	36	1.53	1329.49	1315	18	1.71E-03	46.0	
34	4	723.37	24	60	2.26	1444.65	1441	29	1.67E-03	54.2	1.25E+00
35	4	728.12	63	99	2.72	1454.16	1441	29	4.35E-03	37.8	
36	1	768.74	34	43	2.08	1535.38	1530	18	2.38E-03	40.6	1.24E+00
37	1	771.56*	19	51	1.90	1541.00	1530	18	1.29E-03	91.2	
38	0	795.74	32	52	0.68	1589.37	1582	11	2.20E-03	45.9	

Sample ID : G1201473812 Acquisition date : 15-DEC-2007 06:43:39

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	840.04	18	36	1.74	1677.94	1674	8	1.25E-03	62.4	
40	0	860.98	71	48	2.63	1719.83	1712	16	4.93E-03	24.8	
41	2	869.55	19	33	2.35	1736.96	1730	22	1.30E-03	68.3	1.18E+00
42	2	874.16	20	26	2.35	1746.19	1730	22	1.38E-03	57.9	
43	0	911.51	166	61	1.30	1820.89	1815	13	1.15E-02	12.4	
44	6	935.18	39	38	3.17	1868.23	1859	18	2.68E-03	40.6	1.07E+00
45	6	937.96	11	15	1.47	1873.79	1859	18	7.46E-04	71.2	
46	1	965.36	42	62	2.18	1928.60	1918	25	2.93E-03	42.2	8.79E-01
47	1	969.26	102	63	1.95	1936.40	1918	25	7.09E-03	18.2	
48	0	1121.44	72	55	2.84	2240.86	2233	17	5.03E-03	26.9	
49	0	1360.95	31	27	5.89	2720.19	2709	27	2.15E-03	50.0	
50	0	1409.05	12	8	1.26	2816.47	2812	8	8.61E-04	48.4	
51	0	1423.54	19	7	4.32	2845.49	2839	13	1.28E-03	36.7	
52	0	1432.76	10	5	1.48	2863.95	2859	9	6.60E-04	51.7	
53	0	1443.46	13	12	6.71	2885.35	2875	16	9.06E-04	65.5	
54	0	1461.46*	288	31	1.96	2921.40	2913	19	2.00E-02	7.9	
55	0	1502.54	19	5	2.85	3003.66	2998	11	1.33E-03	32.8	
56	0	1512.19	24	17	4.88	3022.98	3016	16	1.65E-03	43.2	
57	1	1589.39	18	2	2.43	3177.56	3171	20	1.23E-03	36.4	1.07E+00
58	1	1593.39	26	4	2.43	3185.56	3171	20	1.79E-03	22.9	
59	0	1640.25	12	2	2.87	3279.41	3275	9	8.33E-04	36.4	
60	0	1666.69	13	32	9.13	3332.35	3313	26	8.89E-04	125.1	
61	0	1726.84	9	5	0.66	3452.84	3448	8	6.08E-04	58.3	
62	0	1730.39	27	6	1.96	3459.95	3456	10	1.88E-03	24.9	
63	0	1765.50	64	9	3.26	3530.27	3521	18	4.44E-03	16.6	
64	0	1787.91	9	6	0.85	3575.18	3568	12	6.02E-04	66.3	
65	0	1799.03	15	7	1.34	3597.44	3588	15	1.03E-03	47.6	
66	0	1836.54	9	10	0.65	3672.59	3665	13	6.41E-04	77.1	
67	0	1853.06	5	9	1.25	3705.68	3698	10	3.52E-04	132.6	
68	0	1908.68	16	26	6.30	3817.12	3795	25	1.12E-03	87.2	
69	0	1981.88	11	6	1.58	3963.82	3955	12	7.64E-04	53.8	

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]G1201473812      *
* Acquisition date : 15-DEC-2007 06:43:39 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 04:00:23.68     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G1201473812          Analyst initials: MJH1            *
* Batch Number     : 708121               Sample Quantity : 1.4123E+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	4.826E+00	7.903E-01	3.821E-01	0.000E+00
CS-137	2.301E-01	4.591E-02	4.521E-02	0.000E+00
TL-208	2.775E-01	5.140E-02	3.914E-02	0.000E+00
BI-212	4.750E-01	3.537E-01	3.068E-01	0.000E+00
PB-212	8.121E-01	7.733E-02	5.400E-02	0.000E+00
BI-214	6.370E-01	1.060E-01	7.147E-02	0.000E+00
PB-214	5.768E-01	1.042E-01	6.485E-02	0.000E+00
RA-223	2.799E-01	1.726E-01	1.747E-01	0.000E+00
AC-228	7.257E-01	1.833E-01	1.826E-01	0.000E+00
TH-234	9.884E-01	2.930E-01	3.069E-01	0.000E+00
NP-237	4.433E-01	1.247E-01	1.320E-01	0.000E+00
AM-243	1.499E-01	2.650E-02	2.767E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	-2.020E-03		2.558E-02	4.258E-02	0.000E+00	NOT IDENT.
RH-101	1.271E-02		2.151E-02	3.297E-02	0.000E+00	NOT IDENT.
SB-125	5.700E-02		5.706E-02	1.038E-01	0.000E+00	NOT IDENT.
EU-155	5.403E-02		4.697E-02	8.484E-02	0.000E+00	NOT IDENT.
PO-209	-2.149E+00		4.812E+00	7.896E+00	0.000E+00	NOT IDENT.
BI-211	-4.147E-01		6.847E-01	1.117E+00	0.000E+00	NOT IDENT.
PA-233	3.124E-02		3.601E-02	6.560E-02	0.000E+00	NOT IDENT.
PA-234M	2.808E+00		3.066E+00	5.626E+00	0.000E+00	NOT IDENT.
U-235	5.123E-02		1.038E-01	1.816E-01	0.000E+00	NOT IDENT.
NP-236	1.104E-02		2.807E-02	4.371E-02	0.000E+00	NOT IDENT.
NP-239	9.926E-02		1.173E-01	2.152E-01	0.000E+00	NOT IDENT.
AM-241	4.622E-02		3.021E-02	5.024E-02	0.000E+00	NOT IDENT.
CM-243	-5.178E-03		4.324E-02	7.519E-02	0.000E+00	NOT IDENT.
AM-246	-2.016E-02		9.562E-02	1.583E-01	0.000E+00	NOT IDENT.
CF-249	-2.093E-02		2.444E-02	4.016E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 10:44:31.15

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201473812.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 06:43:39
Sample ID        : G1201473812          Sample quantity  : 1.41230E+02 GRAM
Detector name    : GAM21                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:23.68  0.2%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708121               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	288	10.66*	7.431E-01	4.826E+00	4.826E+00	16.71
CS-137	661.66	241	85.10*	1.641E+00	2.293E-01	2.301E-01	20.35
TL-208	277.36	38	6.31	4.088E+00	1.952E-01	1.952E-01	148.69
	510.77	62	22.60	2.158E+00	1.682E-01	1.682E-01	120.23
	583.19	331	84.50*	1.874E+00	2.775E-01	2.775E-01	18.90
	763.13	------	1.81	1.415E+00	------	Line Not Found	------
	860.56	71	12.42	1.251E+00	6.075E-01	6.075E-01	50.19
BI-212	727.33	63	11.80*	1.485E+00	4.750E-01	4.750E-01	75.98
	785.37	------	1.10	1.374E+00	------	Line Not Found	------
	1620.50	------	1.49	6.722E-01	------	Line Not Found	------
PB-212	74.81	665	10.40	8.644E+00	9.829E-01	9.829E-01	18.04
	77.11	969	17.50	8.639E+00	8.521E-01	8.521E-01	13.09
	87.30	353	7.81	8.536E+00	7.039E-01	7.039E-01	28.70
	238.63	1245	43.30*	4.707E+00	8.121E-01	8.121E-01	9.72
	300.09	75	3.28	3.777E+00	8.077E-01	8.077E-01	68.08
BI-214	609.31	395	46.10*	1.790E+00	6.369E-01	6.370E-01	16.98
	768.36	34	4.94	1.404E+00	6.566E-01	6.566E-01	81.56
	806.17	------	1.22	1.337E+00	------	Line Not Found	------
	934.06	39	3.03	1.150E+00	1.470E+00	1.470E+00	81.56
	1120.29	72	15.10	9.610E-01	6.640E-01	6.640E-01	54.09
	1155.19	------	1.63	9.335E-01	------	Line Not Found	------
	1238.11	------	5.79	8.725E-01	------	Line Not Found	------
	1280.96	------	1.43	8.442E-01	------	Line Not Found	------
	1377.67	------	4.00	7.867E-01	------	Line Not Found	------
	1401.50	------	1.27	7.738E-01	------	Line Not Found	------
	1407.98	12	2.15	7.698E-01	9.957E-01	9.957E-01	96.93
	1509.23	------	2.11	7.203E-01	------	Line Not Found	------
	1729.60	27	2.92	6.305E-01	1.956E+00	1.956E+00	50.12
	1764.49	64	15.40	6.181E-01	8.935E-01	8.935E-01	33.77
PB-214	74.81	665	6.44	8.644E+00	1.587E+00	1.587E+00	18.04
	77.11	969	10.80	8.639E+00	1.381E+00	1.381E+00	13.09
	87.30	353	4.84	8.536E+00	1.136E+00	1.136E+00	28.70

Sample ID : G1201473812 Acquisition date : 15-DEC-2007 06:43:39

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	242.00	279	7.43	4.652E+00	1.073E+00	1.073E+00	35.95
	295.22	359	19.30	3.833E+00	6.441E-01	6.441E-01	20.03
	351.93	523	37.60*	3.202E+00	5.768E-01	5.768E-01	18.44
RA-223	269.46	121	13.70*	4.189E+00	2.799E-01	2.799E-01	62.91
AC-228	129.07	111	2.42	7.431E+00	8.178E-01	8.178E-01	96.07
	209.25	238	3.89	5.280E+00	1.541E+00	1.541E+00	39.25
	270.25	121	3.46	4.189E+00	1.108E+00	1.108E+00	62.91
	338.32	261	11.27	3.340E+00	9.205E-01	9.205E-01	23.30
	409.46	------	1.92	2.733E+00	------	Line Not Found	------
	463.00	77	4.40	2.398E+00	9.677E-01	9.677E-01	50.10
	794.95	32	4.25	1.355E+00	7.326E-01	7.326E-01	92.16
	911.20	166	25.80*	1.180E+00	7.257E-01	7.257E-01	25.77
	964.77	42	4.99	1.114E+00	1.010E+00	1.010E+00	84.69
	968.97	102	15.80	1.110E+00	7.736E-01	7.736E-01	36.93
	1588.20	18	3.22	6.850E-01	1.066E+00	1.066E+00	73.08
TH-234	63.29	116	4.80	8.524E+00	3.762E-01	3.762E-01	70.19
	92.58	339	5.41*	8.433E+00	9.884E-01	9.884E-01	30.25
NP-237	86.48	353	12.40*	8.536E+00	4.433E-01	4.433E-01	28.70
AM-243	74.66	665	68.20*	8.644E+00	1.499E-01	1.499E-01	18.04

Flag: "*" = Keyline

Sample ID : G1201473812 Acquisition date : 15-DEC-2007 06:43:39

Total number of lines in spectrum	69	
Number of unidentified lines	35	
Number of lines tentatively identified by NID	34	49.28%

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	4.826E+00	4.826E+00	0.806E+00	16.71	
CS-137	9.47E+08S	1.00	2.293E-01	2.301E-01	0.468E-01	20.35	
TL-208	4.43E+17S	1.00	2.775E-01	2.775E-01	0.525E-01	18.90	
BI-212	4.43E+17S	1.00	4.750E-01	4.750E-01	3.609E-01	75.98	
PB-212	4.43E+17S	1.00	8.121E-01	8.121E-01	0.789E-01	9.72	
BI-214	5.05E+10S	1.00	6.369E-01	6.370E-01	1.082E-01	16.98	
PB-214	5.05E+10S	1.00	5.768E-01	5.768E-01	1.064E-01	18.44	
RA-223	1.04E+12S	1.00	2.799E-01	2.799E-01	1.761E-01	62.91	
AC-228	4.43E+17S	1.00	7.257E-01	7.257E-01	1.870E-01	25.77	
TH-234	1.41E+17S	1.00	9.884E-01	9.884E-01	2.990E-01	30.25	
NP-237	6.75E+13S	1.00	4.433E-01	4.433E-01	1.273E-01	28.70	
AM-243	2.33E+11S	1.00	1.499E-01	1.499E-01	0.270E-01	18.04	
			---	---			
		Total Activity :	1.042E+01	1.042E+01			
		Grand Total Activity :	1.042E+01	1.042E+01			

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

Sample ID : G1201473812 Acquisition date : 15-DEC-2007 06:43:39

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.20	84	385	0.89	91.50	87	9	5.81E-03	87.3	7.62E+00	
2	83.96	161	572	1.71	166.90	162	29	1.12E-02	57.7	8.58E+00	
2	90.02	233	438	1.42	179.01	162	29	1.62E-02	35.3	8.49E+00	
0	121.08	32	284	1.41	241.04	238	7	2.22E-03	****	7.69E+00	
0	155.03	40	514	1.69	308.87	302	10	2.80E-03	****	6.67E+00	
0	163.79	27	331	1.16	326.36	324	8	1.89E-03	****	6.42E+00	
0	185.84	253	498	1.68	370.41	364	13	1.76E-02	39.9	5.84E+00	
0	203.92	57	347	2.69	406.53	400	11	3.98E-03	****	5.41E+00	
0	328.48	78	235	1.44	655.38	651	12	5.41E-03	82.5	3.44E+00	
0	399.77	47	128	3.31	797.82	793	11	3.29E-03	96.5	2.80E+00	
0	568.92	110	117	2.93	1135.87	1130	14	7.66E-03	46.0	1.93E+00	
0	641.87	31	45	3.82	1281.72	1277	11	2.18E-03	89.6	1.69E+00	
3	665.77	25	36	1.53	1329.49	1315	18	1.71E-03	91.9	1.63E+00	
4	723.37	24	60	2.26	1444.65	1441	29	1.67E-03	****	1.50E+00	
1	771.56	19	51	1.90	1541.00	1530	18	1.29E-03	****	1.40E+00	
0	840.04	18	36	1.74	1677.94	1674	8	1.25E-03	****	1.28E+00	
2	869.55	19	33	2.35	1736.96	1730	22	1.30E-03	****	1.24E+00	
2	874.16	20	26	2.35	1746.19	1730	22	1.38E-03	****	1.23E+00	
6	937.96	11	15	1.47	1873.79	1859	18	7.46E-04	****	1.15E+00	
0	1360.95	31	27	5.89	2720.19	2709	27	2.15E-03	****	7.96E-01	
0	1423.54	19	7	4.32	2845.49	2839	13	1.28E-03	73.4	7.62E-01	
0	1432.76	10	5	1.48	2863.95	2859	9	6.60E-04	****	7.57E-01	
0	1443.46	13	12	6.71	2885.35	2875	16	9.06E-04	****	7.52E-01	
0	1502.54	19	5	2.85	3003.66	2998	11	1.33E-03	65.6	7.23E-01	
0	1512.19	24	17	4.88	3022.98	3016	16	1.65E-03	86.4	7.19E-01	
1	1593.39	26	4	2.43	3185.56	3171	20	1.79E-03	45.7	6.83E-01	
0	1640.25	12	2	2.87	3279.41	3275	9	8.33E-04	72.8	6.64E-01	
0	1666.69	13	32	9.13	3332.35	3313	26	8.89E-04	****	6.54E-01	
0	1726.84	9	5	0.66	3452.84	3448	8	6.08E-04	****	6.32E-01	
0	1787.91	9	6	0.85	3575.18	3568	12	6.02E-04	****	6.11E-01	
0	1799.03	15	7	1.34	3597.44	3588	15	1.03E-03	95.3	6.07E-01	
0	1836.54	9	10	0.65	3672.59	3665	13	6.41E-04	****	5.94E-01	
0	1853.06	5	9	1.25	3705.68	3698	10	3.52E-04	****	5.89E-01	
0	1908.68	16	26	6.30	3817.12	3795	25	1.12E-03	****	5.72E-01	
0	1981.88	11	6	1.58	3963.82	3955	12	7.64E-04	****	5.51E-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]G1201473812           *
* Acquisition date : 15-DEC-2007 06:43:39 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 04:00:23.68     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G1201473812          Analyst initials: MJH1            *
* Batch Number     : 708121               Sample Quantity : 1.4123E+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	4.826E+00	7.903E-01	1.911E-01	7.903E-01
CS-137	2.301E-01	4.591E-02	2.262E-02	4.591E-02
TL-208	2.775E-01	5.140E-02	1.958E-02	5.140E-02
BI-212	4.750E-01	3.537E-01	1.535E-01	3.537E-01
PB-212	8.121E-01	7.733E-02	2.701E-02	7.733E-02
BI-214	6.370E-01	1.060E-01	3.576E-02	1.060E-01
PB-214	5.768E-01	1.042E-01	3.244E-02	1.042E-01
RA-223	2.799E-01	1.726E-01	8.738E-02	1.726E-01
AC-228	7.257E-01	1.833E-01	9.137E-02	1.833E-01
TH-234	9.884E-01	2.930E-01	1.536E-01	2.930E-01
NP-237	4.433E-01	1.247E-01	6.605E-02	1.247E-01
AM-243	1.499E-01	2.650E-02	1.384E-02	2.650E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	-2.020E-03	2.558E-02	2.130E-02	2.558E-02	NOT IDENT.
RH-101	1.271E-02	2.151E-02	1.649E-02	2.151E-02	NOT IDENT.
SB-125	5.700E-02	5.706E-02	5.191E-02	5.706E-02	NOT IDENT.
EU-155	5.403E-02	4.697E-02	4.244E-02	4.697E-02	NOT IDENT.
PO-209	-2.149E+00	4.812E+00	3.950E+00	4.812E+00	NOT IDENT.
BI-211	-4.147E-01	6.847E-01	5.586E-01	6.847E-01	NOT IDENT.
PA-233	3.124E-02	3.601E-02	3.282E-02	3.601E-02	NOT IDENT.
PA-234M	2.808E+00	3.066E+00	2.814E+00	3.066E+00	NOT IDENT.
U-235	5.123E-02	1.038E-01	9.086E-02	1.038E-01	NOT IDENT.
NP-236	1.104E-02	2.807E-02	2.187E-02	2.807E-02	NOT IDENT.
NP-239	9.926E-02	1.173E-01	1.076E-01	1.173E-01	NOT IDENT.
AM-241	4.622E-02	3.021E-02	2.513E-02	3.021E-02	NOT IDENT.
CM-243	-5.178E-03	4.324E-02	3.762E-02	4.324E-02	NOT IDENT.
AM-246	-2.016E-02	9.562E-02	7.919E-02	9.562E-02	NOT IDENT.
CF-249	-2.093E-02	2.444E-02	2.009E-02	2.444E-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	418.1063
63.29	541.5369
74.66	611.3438
74.81	611.4418
74.81	611.4418
77.11	612.9434
77.11	612.9434
86.48	452.6876
87.30	453.0542
87.30	453.0542
92.58	455.3716
98.44	416.7115
103.76	469.5486
105.31	408.7221
129.07	406.9402
143.76	428.1580
198.00	348.8730
209.25	332.6328
228.18	270.2180
238.63	291.5697
242.00	292.0921
269.46	243.7784
270.25	243.8716
277.36	251.5995
295.22	240.7162
300.09	223.7502
312.17	172.1650
338.32	189.6569
351.93	149.2841
387.59	174.6768
409.46	158.8450
427.87	115.8526
463.00	129.7791
510.77	100.2353
583.19	96.0552
609.31	87.0078
661.66	99.3406
727.33	73.0092
763.13	53.4339
768.36	74.5815
785.37	56.9836
794.95	55.2128
806.17	54.4081
831.80	71.0657
860.56	39.1544
896.60	59.4549
911.20	78.7847
934.06	46.1872
964.77	55.3950
968.97	55.4440
1001.03	46.8451
1078.86	53.6556
1120.29	45.4855
1155.19	44.1705
1173.23	39.1643
1238.11	45.8835
1280.96	31.5198
1332.51	36.0365
1377.67	25.6289
1401.50	21.4404
1407.98	30.0485
1460.80	23.8083
1509.23	0.0000
1588.20	28.1376
1620.50	17.1048
1729.60	18.5786
1764.49	20.3650

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1201473812

Total Uranium Activity	2.3703E-02	ug/g
Total Uranium Counting Unc.	4.8043E-02	ug/g
Total Uranium Tpu	4.8043E-08	ug/g
Total Uranium Mda	4.2040E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 14-DEC-2007 17:48:36.14

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201473813.CNF;1
Sample date      : 5-DEC-2007 00:00:00. Acquisition date : 14-DEC-2007 16:41:11
Sample ID        : G1201473813          Sample quantity  : 1.51730E+02 GRAM
Detector name    : GAM22                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00        Elapsed real time: 0 01:00:02.54  0.1%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708121               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	59.28	4549	1758	1.19	118.00	111	12	1.26E+00	2.4	
2	0	63.01*	28	663	1.23	125.46	124	6	7.78E-03	149.1	
3	3	73.01*	52	720	1.21	145.46	143	16	1.45E-02	78.8	8.24E-01
4	3	74.81*	266	1003	1.14	149.06	143	16	7.38E-02	21.1	
5	3	77.08*	497	1139	1.31	153.58	143	16	1.38E-01	12.8	
6	0	87.89	6790	1841	1.17	175.19	169	13	1.89E+00	1.8	
7	0	92.83*	112	688	1.56	185.07	181	8	3.11E-02	42.9	
8	0	121.88	2644	507	1.29	243.15	240	8	7.34E-01	2.5	
9	0	136.34	311	584	1.06	272.06	268	10	8.65E-02	15.6	
10	0	160.15*	80	513	2.34	319.65	314	10	2.23E-02	54.6	
11	0	165.52	1305	612	1.22	330.38	324	13	3.62E-01	4.8	
12	0	185.31*	130	637	1.15	369.94	364	13	3.62E-02	41.4	
13	0	190.58	63	509	2.28	380.48	376	10	1.75E-02	68.0	
14	0	208.12	77	628	1.91	415.54	411	11	2.14E-02	63.8	
15	3	238.41*	952	379	1.35	476.11	468	21	2.64E-01	4.8	9.17E-01
16	3	241.63	271	487	2.01	482.54	468	21	7.54E-02	19.4	
17	0	269.80	135	304	1.40	538.86	534	9	3.74E-02	24.9	
18	0	295.22*	291	449	1.56	589.68	583	13	8.10E-02	16.2	
19	0	305.48	245	928	12.78	610.20	596	31	6.79E-02	37.4	
20	0	327.10	88	285	2.37	653.42	650	9	2.46E-02	35.9	
21	0	338.50*	204	465	1.38	676.21	670	13	5.66E-02	23.2	
22	0	351.41*	420	499	1.33	702.03	694	16	1.17E-01	12.9	
23	0	391.39	732	342	1.33	781.96	776	12	2.03E-01	6.3	
24	0	408.27	88	358	2.88	815.71	809	13	2.44E-02	45.6	
25	0	448.30	44	150	1.42	895.75	893	6	1.21E-02	47.0	
26	0	510.49*	138	448	2.09	1020.10	1011	20	3.84E-02	39.8	
27	0	582.83*	338	292	1.70	1164.76	1156	16	9.38E-02	12.6	
28	0	609.16*	316	254	1.43	1217.41	1212	13	8.78E-02	12.1	
29	0	661.21	4160	335	1.77	1321.49	1311	20	1.16E+00	1.9	
30	0	727.91	71	268	1.77	1454.88	1446	15	1.96E-02	52.4	
31	0	887.37	43	146	2.91	1773.80	1770	10	1.21E-02	54.7	
32	0	897.66	715	276	2.14	1794.39	1788	18	1.99E-01	6.6	
33	0	910.81*	270	225	2.29	1820.68	1813	16	7.51E-02	13.9	
34	0	969.12*	130	285	1.48	1937.31	1930	15	3.61E-02	30.4	
35	0	1025.54	7	189	0.69	2050.17	2042	13	1.99E-03	397.5	
36	0	1045.47	25	132	1.88	2090.04	2087	11	6.94E-03	91.2	
37	0	1068.45	42	212	4.30	2136.00	2128	15	1.18E-02	76.7	
38	0	1076.85	33	181	2.93	2152.81	2144	14	9.06E-03	89.4	

Sample ID : G1201473813 Acquisition date : 14-DEC-2007 16:41:11

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1120.13*	76	152	2.29	2239.38	2233	15	2.12E-02	37.8	
40	0	1172.54	4310	210	2.39	2344.22	2333	24	1.20E+00	1.8	
41	0	1222.61	21	39	0.73	2444.39	2439	12	5.72E-03	64.6	
42	0	1229.22	30	35	3.38	2457.61	2451	13	8.41E-03	44.5	
43	0	1238.00*	30	48	2.56	2475.18	2467	12	8.38E-03	50.2	
44	0	1331.77	3933	100	2.61	2662.78	2650	27	1.09E+00	1.7	
45	0	1358.10	13	45	1.80	2715.46	2706	15	3.61E-03	115.8	
46	0	1425.38	46	37	4.87	2850.05	2838	22	1.27E-02	37.5	
47	0	1461.00*	70	31	2.46	2921.34	2909	25	1.95E-02	25.1	
48	0	1699.53	16	19	3.86	3398.64	3392	12	4.55E-03	57.6	
49	4	1735.81	17	6	2.88	3471.24	3468	21	4.69E-03	27.9	1.41E+00
50	4	1741.71	28	2	4.17	3483.04	3468	21	7.66E-03	21.5	
51	0	1747.49	8	10	1.28	3494.61	3488	11	2.19E-03	88.1	
52	0	1763.72	83	11	3.19	3527.09	3519	16	2.30E-02	14.4	
53	0	1811.39	11	16	4.31	3622.49	3610	17	3.01E-03	92.0	
54	0	1835.06	494	0	2.92	3669.87	3660	18	1.37E-01	4.5	

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]G1201473813      *
* Acquisition date : 14-DEC-2007 16:41:11 Detector SN#    :                 *
* Detector ID      : GAM22                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 01:00:02.54     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-DEC-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G1201473813          Analyst initials: MJH1            *
* Batch Number     : 708121               Sample Quantity : 1.5173E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 22-FEB-2007 17:43:25 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	1.629E+00	8.058E-01	7.310E-01	0.000E+00
CO-60	9.043E+00	6.378E-01	1.090E-01	0.000E+00
CS-137	6.308E+00	5.905E-01	1.108E-01	0.000E+00
TL-208	4.686E-01	1.213E-01	1.084E-01	0.000E+00
PO-209	2.526E+02	4.090E+01	2.698E+01	0.000E+00
BI-212	8.316E-01	8.575E-01	8.213E-01	0.000E+00
PB-212	1.494E+00	1.663E-01	1.580E-01	0.000E+00
BI-214	8.310E-01	2.070E-01	2.018E-01	0.000E+00
PB-214	9.414E-01	2.442E-01	1.985E-01	0.000E+00
RA-223	7.146E-01	3.507E-01	5.098E-01	0.000E+00
AC-228	1.760E+00	5.095E-01	5.049E-01	0.000E+00
TH-234	1.181E+00	9.970E-01	1.262E+00	0.000E+00
NP-237	3.247E+01	3.018E+00	8.522E-01	0.000E+00
AM-241	1.465E+01	1.300E+00	5.369E-01	0.000E+00
AM-243	2.761E-01	1.159E-01	1.687E-01	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
RH-101	8.706E-03		5.239E-02	9.201E-02	0.000E+00	NOT IDENT.
SB-125	-3.463E-02		1.619E-01	2.758E-01	0.000E+00	NOT IDENT.
EU-155	8.319E-02		1.764E-01	3.281E-01	0.000E+00	NOT IDENT.
BI-211	-1.024E+00		1.890E+00	3.208E+00	0.000E+00	NOT IDENT.
PA-233	-3.730E-02		1.219E-01	1.844E-01	0.000E+00	NOT IDENT.
PA-234M	4.412E-01		9.220E+00	1.564E+01	0.000E+00	NOT IDENT.
U-235	-1.382E-01		3.056E-01	5.407E-01	0.000E+00	NOT IDENT.
NP-236	8.236E-03		9.454E-02	1.745E-01	0.000E+00	NOT IDENT.
NP-239	1.944E-03		3.856E-01	6.622E-01	0.000E+00	NOT IDENT.
CM-243	1.321E-01		1.598E-01	2.999E-01	0.000E+00	NOT IDENT.
AM-246	-5.892E-02		3.401E-01	4.840E-01	0.000E+00	NOT IDENT.
CF-249	5.394E-02		8.014E-02	1.246E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 14-DEC-2007 17:48:37.12

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201473813.CNF;1
Sample date      : 5-DEC-2007 00:00:00. Acquisition date : 14-DEC-2007 16:41:11
Sample ID        : G1201473813          Sample quantity  : 1.51730E+02 GRAM
Detector name    : GAM22                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00        Elapsed real time: 0 01:00:02.54  0.1%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708121               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	70	10.66*	1.996E+00	1.629E+00	1.629E+00	50.48
CO-60	1173.23	4310	100.00*	2.367E+00	9.012E+00	9.043E+00	7.20
	1332.51	3933	100.00	2.135E+00	9.115E+00	9.147E+00	6.78
CS-137	661.66	4160	85.10*	3.837E+00	6.304E+00	6.308E+00	9.55
TL-208	277.36	------	6.31	6.709E+00	------	Line Not Found	------
	510.77	138	22.60	4.633E+00	6.524E-01	6.524E-01	79.80
	583.19	338	84.50*	4.219E+00	4.686E-01	4.686E-01	26.42
	763.13	------	1.81	3.420E+00	------	Line Not Found	------
	860.56	------	12.42	3.092E+00	------	Line Not Found	------
PO-209	896.60	715	0.47*	2.981E+00	2.526E+02	2.526E+02	16.52
BI-212	727.33	71	11.80*	3.555E+00	8.316E-01	8.316E-01	105.23
	785.37	------	1.10	3.340E+00	------	Line Not Found	------
	1620.50	------	1.49	1.873E+00	------	Line Not Found	------
PB-212	74.81	266	10.40	6.982E+00	1.810E+00	1.810E+00	42.84
	77.11	497	17.50	7.277E+00	1.931E+00	1.931E+00	26.78
	87.30	6790	7.81	8.344E+00	5.156E+01	5.156E+01	9.48
	238.63	952	43.30*	7.279E+00	1.494E+00	1.494E+00	11.36
	300.09	------	3.28	6.421E+00	------	Line Not Found	------
BI-214	609.31	316	46.10*	4.084E+00	8.310E-01	8.310E-01	25.42
	768.36	------	4.94	3.401E+00	------	Line Not Found	------
	806.17	------	1.22	3.268E+00	------	Line Not Found	------
	934.06	------	3.03	2.880E+00	------	Line Not Found	------
	1120.29	76	15.10	2.460E+00	1.014E+00	1.014E+00	75.93
	1155.19	------	1.63	2.397E+00	------	Line Not Found	------
	1238.11	30	5.79	2.262E+00	1.139E+00	1.139E+00	100.53
	1280.96	------	1.43	2.201E+00	------	Line Not Found	------
	1377.67	------	4.00	2.081E+00	------	Line Not Found	------
	1401.50	------	1.27	2.055E+00	------	Line Not Found	------
	1407.98	------	2.15	2.048E+00	------	Line Not Found	------
	1509.23	------	2.11	1.953E+00	------	Line Not Found	------
	1729.60	------	2.92	1.815E+00	------	Line Not Found	------
	1764.49	83	15.40	1.801E+00	1.475E+00	1.475E+00	29.37

Sample ID : G1201473813 Acquisition date : 14-DEC-2007 16:41:11

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
PB-214	74.81	266	6.44	6.982E+00	2.924E+00	2.924E+00	42.84
	77.11	497	10.80	7.277E+00	3.128E+00	3.128E+00	26.78
	87.30	6790	4.84	8.344E+00	8.319E+01	8.320E+01	9.48
	242.00	271	7.43	7.227E+00	2.501E+00	2.501E+00	39.24
	295.22	291	19.30	6.480E+00	1.153E+00	1.153E+00	32.89
	351.93	420	37.60*	5.864E+00	9.414E-01	9.414E-01	26.47
RA-223	269.46	135	13.70*	6.811E+00	7.146E-01	7.146E-01	50.08
AC-228	129.07	------	2.42	9.238E+00	------	Line Not Found	------
	209.25	77	3.89	7.801E+00	1.258E+00	1.258E+00	127.71
	270.25	135	3.46	6.811E+00	2.830E+00	2.830E+00	50.08
	338.32	204	11.27	5.994E+00	1.491E+00	1.491E+00	46.81
	409.46	88	1.92	5.357E+00	4.229E+00	4.229E+00	91.40
	463.00	------	4.40	4.946E+00	------	Line Not Found	------
	794.95	------	4.25	3.306E+00	------	Line Not Found	------
	911.20	270	25.80*	2.944E+00	1.760E+00	1.760E+00	29.53
	964.77	------	4.99	2.801E+00	------	Line Not Found	------
	968.97	130	15.80	2.790E+00	1.459E+00	1.459E+00	61.59
	1588.20	------	3.22	1.894E+00	------	Line Not Found	------
TH-234	63.29	28	4.80	5.025E+00	5.742E-01	5.742E-01	298.22
	92.58	112	5.41*	8.668E+00	1.181E+00	1.181E+00	86.11
NP-237	86.48	6790	12.40*	8.344E+00	3.247E+01	3.247E+01	9.48
AM-241	59.54	4549	35.90*	4.281E+00	1.464E+01	1.465E+01	9.06
AM-243	74.66	266	68.20*	6.982E+00	2.761E-01	2.761E-01	42.84

Flag: "*" = Keyline

Sample ID : G1201473813 Acquisition date : 14-DEC-2007 16:41:11

Total number of lines in spectrum 54
Number of unidentified lines 26
Number of lines tentatively identified by NID 28 51.85%

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	1.629E+00	1.629E+00	0.822E+00	50.48	
CO-60	1.66E+08S	1.00	9.012E+00	9.043E+00	0.651E+00	7.20	
CS-137	9.47E+08S	1.00	6.304E+00	6.308E+00	0.603E+00	9.55	
TL-208	4.43E+17S	1.00	4.686E-01	4.686E-01	1.238E-01	26.42	
PO-209	3.22E+09S	1.00	2.526E+02	2.526E+02	0.417E+02	16.52	
BI-212	4.43E+17S	1.00	8.316E-01	8.316E-01	8.750E-01	105.23	
PB-212	4.43E+17S	1.00	1.494E+00	1.494E+00	0.170E+00	11.36	
BI-214	5.05E+10S	1.00	8.310E-01	8.310E-01	2.113E-01	25.42	
PB-214	5.05E+10S	1.00	9.414E-01	9.414E-01	2.492E-01	26.47	
RA-223	1.04E+12S	1.00	7.146E-01	7.146E-01	3.579E-01	50.08	
AC-228	4.43E+17S	1.00	1.760E+00	1.760E+00	0.520E+00	29.53	
TH-234	1.41E+17S	1.00	1.181E+00	1.181E+00	1.017E+00	86.11	
NP-237	6.75E+13S	1.00	3.247E+01	3.247E+01	0.308E+01	9.48	
AM-241	1.36E+10S	1.00	1.464E+01	1.465E+01	0.133E+01	9.06	
AM-243	2.33E+11S	1.00	2.761E-01	2.761E-01	1.183E-01	42.84	
			---	---			
	Total Activity :		3.251E+02	3.252E+02			

Grand Total Activity : 3.251E+02 3.252E+02

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

Sample ID : G1201473813 Acquisition date : 14-DEC-2007 16:41:11

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
3	73.01	52	720	1.21	145.46	143	16	1.45E-02	****	6.73E+00	
0	121.88	2644	507	1.29	243.15	240	8	7.34E-01	4.9	9.28E+00	
0	136.34	311	584	1.06	272.06	268	10	8.65E-02	31.2	9.16E+00	
0	160.15	80	513	2.34	319.65	314	10	2.23E-02	****	8.74E+00	
0	165.52	1305	612	1.22	330.38	324	13	3.62E-01	9.6	8.64E+00	
0	185.31	130	637	1.15	369.94	364	13	3.62E-02	82.9	8.24E+00	
0	190.58	63	509	2.28	380.48	376	10	1.75E-02	****	8.14E+00	
0	305.48	245	928	12.78	610.20	596	31	6.79E-02	74.9	6.36E+00	
0	327.10	88	285	2.37	653.42	650	9	2.46E-02	71.7	6.11E+00	
0	391.39	732	342	1.33	781.96	776	12	2.03E-01	12.5	5.50E+00	
0	448.30	44	150	1.42	895.75	893	6	1.21E-02	93.9	5.05E+00	
0	887.37	43	146	2.91	1773.80	1770	10	1.21E-02	****	3.01E+00	
0	1025.54	7	189	0.69	2050.17	2042	13	1.99E-03	****	2.66E+00	
0	1045.47	25	132	1.88	2090.04	2087	11	6.94E-03	****	2.61E+00	
0	1068.45	42	212	4.30	2136.00	2128	15	1.18E-02	****	2.56E+00	
0	1076.85	33	181	2.93	2152.81	2144	14	9.06E-03	****	2.55E+00	
0	1222.61	21	39	0.73	2444.39	2439	12	5.72E-03	****	2.29E+00	
0	1229.22	30	35	3.38	2457.61	2451	13	8.41E-03	88.9	2.28E+00	
0	1358.10	13	45	1.80	2715.46	2706	15	3.61E-03	****	2.10E+00	
0	1425.38	46	37	4.87	2850.05	2838	22	1.27E-02	75.0	2.03E+00	
0	1699.53	16	19	3.86	3398.64	3392	12	4.55E-03	****	1.83E+00	
4	1735.81	17	6	2.88	3471.24	3468	21	4.69E-03	55.7	1.81E+00	
4	1741.71	28	2	4.17	3483.04	3468	21	7.66E-03	43.0	1.81E+00	
0	1747.49	8	10	1.28	3494.61	3488	11	2.19E-03	****	1.81E+00	
0	1811.39	11	16	4.31	3622.49	3610	17	3.01E-03	****	1.78E+00	
0	1835.06	494	0	2.92	3669.87	3660	18	1.37E-01	9.0	1.78E+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]G1201473813           *
* Acquisition date : 14-DEC-2007 16:41:11 Detector SN#    :                 *
* Detector ID      : GAM22                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 01:00:02.54     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-DEC-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G1201473813          Analyst initials: MJH1            *
* Batch Number     : 708121               Sample Quantity : 1.5173E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 22-FEB-2007 17:43:25 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	1.629E+00	8.058E-01	3.657E-01	8.058E-01
CO-60	9.043E+00	6.378E-01	5.454E-02	6.378E-01
CS-137	6.308E+00	5.905E-01	5.543E-02	5.905E-01
TL-208	4.686E-01	1.213E-01	5.423E-02	1.213E-01
PO-209	2.526E+02	4.090E+01	1.350E+01	4.090E+01
BI-212	8.316E-01	8.575E-01	4.109E-01	8.575E-01
PB-212	1.494E+00	1.663E-01	7.905E-02	1.663E-01
BI-214	8.310E-01	2.070E-01	1.010E-01	2.070E-01
PB-214	9.414E-01	2.442E-01	9.930E-02	2.442E-01
RA-223	7.146E-01	3.507E-01	2.551E-01	3.507E-01
AC-228	1.760E+00	5.095E-01	2.526E-01	5.095E-01
TH-234	1.181E+00	9.970E-01	6.316E-01	9.970E-01
NP-237	3.247E+01	3.018E+00	4.264E-01	3.018E+00
AM-241	1.465E+01	1.300E+00	2.686E-01	1.300E+00
AM-243	2.761E-01	1.159E-01	8.441E-02	1.159E-01

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
RH-101	8.706E-03	5.239E-02	4.603E-02	5.239E-02	NOT IDENT.
SB-125	-3.463E-02	1.619E-01	1.380E-01	1.619E-01	NOT IDENT.
EU-155	8.319E-02	1.764E-01	1.642E-01	1.764E-01	NOT IDENT.
BI-211	-1.024E+00	1.890E+00	1.605E+00	1.890E+00	NOT IDENT.
PA-233	-3.730E-02	1.219E-01	9.223E-02	1.219E-01	NOT IDENT.
PA-234M	4.412E-01	9.220E+00	7.824E+00	9.220E+00	NOT IDENT.
U-235	-1.382E-01	3.056E-01	2.705E-01	3.056E-01	NOT IDENT.
NP-236	8.236E-03	9.454E-02	8.732E-02	9.454E-02	NOT IDENT.
NP-239	1.944E-03	3.856E-01	3.313E-01	3.856E-01	NOT IDENT.
CM-243	1.321E-01	1.598E-01	1.500E-01	1.598E-01	NOT IDENT.
AM-246	-5.892E-02	3.401E-01	2.421E-01	3.401E-01	NOT IDENT.
CF-249	5.394E-02	8.014E-02	6.232E-02	8.014E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	1109.9993
63.29	1104.4608
74.66	1030.9243
74.81	1031.3204
74.81	1031.3204
77.11	1037.3748
77.11	1037.3748
86.48	1225.0121
87.30	1227.3401
87.30	1227.3401
92.58	566.9476
98.44	558.8553
103.76	587.2417
105.31	623.3666
129.07	514.2756
143.76	491.3821
198.00	452.6893
209.25	494.3340
228.18	475.0356
238.63	420.5423
242.00	422.1043
269.46	386.9988
270.25	395.6879
277.36	390.0558
295.22	325.9055
300.09	297.0468
312.17	361.6985
338.32	345.9071
351.93	330.7936
387.59	319.5929
409.46	296.8740
427.87	325.9214
463.00	316.3879
510.77	289.4740
583.19	264.7894
609.31	256.6728
661.66	233.1820
727.33	213.3384
763.13	238.0228
768.36	252.4104
785.37	200.6202
794.95	218.6735
806.17	215.3769
831.80	226.8792
860.56	211.4891
896.60	259.6697
911.20	266.9129
934.06	285.7751
964.77	274.4361
968.97	312.1371
1001.03	226.7744
1078.86	222.5400
1120.29	204.7297
1155.19	140.7813
1173.23	121.4896
1238.11	75.3857
1280.96	66.7764
1332.51	59.9944
1377.67	47.9921
1401.50	48.2942
1407.98	50.3494
1460.80	45.0302
1509.23	42.5345
1588.20	69.1469
1620.50	48.8704
1729.60	28.9789
1764.49	24.0447

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1201473813

Total Uranium Activity	-6.3942E-02	ug/g
Total Uranium Counting Unc.	1.4139E-01	ug/g
Total Uranium Tpu	1.4139E-07	ug/g
Total Uranium Mda	1.2515E-01	ug/g

Radiochemistry Batch Checklist, Rev 6

Batch# 708123 Product: 8S SCAN Date: 12/17/07

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.			NA
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: S. Eulard 12/17/07

Secondary Review Performed By: KBoth 12/17/07

Gamma Spec Que Sheet

12/05/2007

Batch #: 708123 **Analyst:** MJH1 **First Client DueDate:** 12/18/2007 **Internal Due Date:** 12/09/2007

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:** 12/3/08 **Vol:** 1.0mL **Nominal Concentration:** Am241-15.96 Cs137-61.03 Co60-8.52

Initials: MJH **Prep Date:** 12/5/07 **Witness:** N/A

Sample ID	Client Description / Container ID	Type	Hazard Code	RDL	Client	Matrix	Collect Date	Wet/Dry Aliquot (I g F)	Detector	Sealing Date/Time (if Applicable)
198681021-1	SB-CZ-SS-2105-BD	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00 MJH	135.49	11	
198681022-1	SB-CZ-SS-2106-BD	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00 MJH	137.03	5	
198681023-1	SB-CZ-SS-2107-BD	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00 MJH	129.47	23	
198681024-1	SB-CZ-SS-2108-BD	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00 MJH	114.75	7	
198681025-1	SB-CZ-SS-2109-BD	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00 MJH	132.75	12	
198681026-1	SB-CZ-SS-2110-BD	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00 MJH	123.46	13 3	SCE 12/17/07
198681027-1	SB-CZ-SS-2111-BA	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00 MJH	159.12	19	
198681028-1	SB-CZ-SS-2112-BA	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00 MJH	124.83	20	
198681029-1	SB-CZ-SS-2113-BA	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00 MJH	129.94	22	
198681030-1	SB-CZ-SS-2114-BA	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00 MJH	144.74	6	
198681031-1	SB-CZ-SS-2111-BD	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00 MJH	138.02	17	
198681032-1	SB-CZ-SS-2112-BD	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00 MJH	122.15	14	
198681033-1	SB-CZ-SS-2113-BD	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00 •	126.07	21	
198681034-1	SB-CZ-SS-2114-BD	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00 MJH	139.59	1	
198683001-1	SB-CZ-SS-2115-BA	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00 MJH	128.39	2	
198683002-1	SB-CZ-SS-2116-BA	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00 MJH	145.13	11	
198683003-1	SB-CZ-SS-2117-BA	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00 MJH	109.30	7	
198683004-1	SB-CZ-SS-2118-BA	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00 MJH	123.63	12	
198683005-1	SB-CZ-SS-2119-BA	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00 MJH	145.12	gamma	
198683006-1	SB-CZ-SS-2120-BA	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00 •	120.83	5	
1201473818-1	MB for batch 708123	MB		.08 pCi/g	QC ACCOUNT	SOIL	12/5/07 •	145.13	13	
1201473819-1	SB-CZ-SS-2105-BD(198681021DUP	DUP		.08 pCi/g	QC ACCOUNT	SOIL	18-OCT-07 00:00:00 •	135.53	17	
1201473820-1	LCS for batch 708123	LCS		.08 pCi/g	QC ACCOUNT	SOIL	12/5/07 MJH	155.44	23	

MJH 12/10/07

GEL Laboratories LLC, Radiochemistry Division

Data Reviewed By: S. Eulard 12/17/07

MO 12/17/07

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	Parmname	Result	MDA	RDL
708123	198681021	SAMPLE	14-DEC-07				
708123	198681022	SAMPLE	14-DEC-07				
708123	198681023	SAMPLE	14-DEC-07				
708123	198681024	SAMPLE	14-DEC-07				
708123	198681025	SAMPLE	14-DEC-07				
708123	198681026	SAMPLE	14-DEC-07				
708123	198681027	SAMPLE	14-DEC-07				
708123	198681028	SAMPLE	14-DEC-07				
708123	198681029	SAMPLE	14-DEC-07				
708123	198681030	SAMPLE	14-DEC-07				
708123	198681031	SAMPLE	14-DEC-07				
708123	198681032	SAMPLE	14-DEC-07				
708123	198681033	SAMPLE	14-DEC-07				
708123	198681034	SAMPLE	14-DEC-07				
708123	198683001	SAMPLE	14-DEC-07				
708123	198683002	SAMPLE	14-DEC-07				
708123	198683003	SAMPLE	14-DEC-07				
708123	198683004	SAMPLE	14-DEC-07				
708123	198683005	SAMPLE	14-DEC-07				
708123	198683006	SAMPLE	14-DEC-07				
708123	1201473818	MB	14-DEC-07				
708123	1201473819	DUP	14-DEC-07				
708123	1201473820	LCS	14-DEC-07	Antimony-125	-0.133	0.3283	0.200
				Bismuth-212	0.1908	1.15	0.500
				Potassium-40	0.5628	1.217	1.00
				Thorium-234	1.495	1.568	0.500
				Uranium-235	-0.1204	0.546	0.500

GEL QUALS

Batch ID: 708123

Report run on: December 17, 2007 2:36 PM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
198681021-1 14-DEC-2007 10:23	Americium-243	UI	UI	UI	Data rejected due to interference.		.1517			
	Curium-243	UI	UI	UI	Data rejected due to interference.		.09352			
	Europium-155	UI	UI	UI	Data rejected due to interference.		.1033		.5	.5
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.5343			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.2731			
198681022-1 14-DEC-2007 10:46	Americium-243	UI	UI	UI	Data rejected due to interference.		.1852			
	Curium-243	UI	UI	UI	Data rejected due to interference.		.09467			
	Europium-155	UI	UI	UI	Data rejected due to interference.		.1046		.5	.5
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.6243			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.3312			
198681023-1 14-DEC-2007 10:47	Americium-243	UI	UI	UI	Data rejected due to interference.		.1461			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.3062			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.3274			
198681024-1 14-DEC-2007 10:51	Americium-243	UI	UI	UI	Data rejected due to interference.		.2295			
	Curium-243	UI	UI	UI	Data rejected due to interference.		.09208			
	Europium-155	UI	UI	UI	Data rejected due to interference.		.1017		.5	.5
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.8845			
	Protactinium-234m	UI	UI	UI	Data rejected due to no valid peak.		5.117			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.4403			
198681025-1 14-DEC-2007 10:51	Americium-243	UI	UI	UI	Data rejected due to interference.		.1766			

GEL QUALS

Batch ID: 708123

Report run on: December 17, 2007 2:36 PM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
198681025-1 14-DEC-2007 10:51	Americium-246	UI	UI	UI	Data rejected due to interference.		.1655			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.7602			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.5256			
198681027-1 14-DEC-2007 11:35	Americium-243	UI	UI	UI	Data rejected due to interference.		.1126			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.22			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.2417			
198681028-1 14-DEC-2007 11:37	Americium-243	UI	UI	UI	Data rejected due to interference.		.1354			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.4835			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.3006			
198681029-1 14-DEC-2007 12:08	Americium-243	UI	UI	UI	Data rejected due to interference.		.1564			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.6121			
	Protactinium-234m	UI	UI	UI	Data rejected due to high peak-width.		4.566			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.2129			
198681030-1 14-DEC-2007 12:13	Americium-243	UI	UI	UI	Data rejected due to interference.		.06246			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.2625			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.2549			
198681031-1 14-DEC-2007 12:24	Americium-243	UI	UI	UI	Data rejected due to interference.		.09848			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.4242			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.3255			

GEL QUALS

Batch ID: 708123

Report run on: December 17, 2007 2:36 PM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
198681032-1 14-DEC-2007 13:02	Americium-243	UI	UI	UI	Data rejected due to interference.		.1413			
	~~Cesium-137~~	~~UI~~	~~UI~~	~~UI~~	~~Data rejected due to no valid peak.~~		~~.04767~~		.1	.1
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.4751			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.2324			
198681033-1 14-DEC-2007 13:54	Americium-243	UI	UI	UI	Data rejected due to interference.		.1545			
	~~Bismuth-212~~	~~UI~~	~~UI~~	~~UI~~	~~Data rejected due to no valid peak.~~		~~.51~~		.5	.5
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.5715			
	Polonium-209	UI	UI	UI	Data rejected due to high peak-width.		20.71			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.2545			
198681034-1 14-DEC-2007 14:26	Americium-243	UI	UI	UI	Data rejected due to interference.		.1217			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.5325			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.234			
198683001-1 14-DEC-2007 14:26	Americium-243	UI	UI	UI	Data rejected due to interference.		.1048			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.3032			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.189			
198683002-1 14-DEC-2007 14:27	Americium-243	UI	UI	UI	Data rejected due to interference.		.1408			
	Neptunium-236	UI	UI	UI	Data rejected due to interference.		.05374			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.3969			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.3857			

GEL QUALS

Batch ID: 708123

Report run on: December 17, 2007 2:36 PM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
198683003-1 14-DEC-2007 14:58	Americium-243	UI	UI	UI	Data rejected due to interference.		.2285			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.6559			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.3293			
198683004-1 14-DEC-2007 14:59	Americium-243	UI	UI	UI	Data rejected due to interference.		.2293			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.7033			
	Protactinium-234m	UI	UI	UI	Data rejected due to no valid peak.		3.926			
198683005-1 14-DEC-2007 15:36	Americium-243	UI	UI	UI	Data rejected due to interference.		.135			
	Californium-249	UI	UI	UI	Data rejected due to high peak-width.		.04293			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.5188			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.1771			
198683006-1 14-DEC-2007 16:36	Americium-243	UI	UI	UI	Data rejected due to interference.		.2784			
	Curium-243	UI	UI	UI	Data rejected due to interference.		.09828			
	Europium-155	UI	UI	UI	Data rejected due to interference.		.1086		.5	.5
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.8313			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.5459			
1201473819-1 DUP 14-DEC-2007 16:37	Americium-243	UI	UI	UI	Data rejected due to interference.		.1539			
	Neptunium-236	UI	UI	UI	Data rejected due to interference.		.04274			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.5125			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.3432			

GEL QUALS

Batch ID: 708123

Report run on: December 17, 2007 2:36 PM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
98681026-2 31-DEC-2007 10:09	Americium-243	UI	UI	UI	Data rejected due to interference.		.112			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.3843			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.3886			

Gamma Review Report based on Result > MDA for Batch:708123

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198681021	18-OCT-07 00:00	14-DEC-07 10:23	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 ✓	1.013	0.18	pCi/g	0.09333	0.800	911.4	1	1.352	IDENTIFIED	7.935	☐	
Americium-243 INT	0.1517	0.02744	pCi/g	0.03412	Y	74.78	1	0.8534	IDENTIFIED	8.622	☑ UI	
Bismuth-212 ✓	0.7429	0.2297	pCi/g	0.2035	0.500	727.6	1	1.546	IDENTIFIED	15.26	☐	
Bismuth-214 ✓	0.6269	0.08637	pCi/g	0.0519	0.200	609.3	1	1.323	IDENTIFIED	6.069	☐	
Cesium-137 ✓	0.07844	0.02447	pCi/g	0.03093	0.100	661.7	1	1.538	IDENTIFIED	15.45	☐	
Curium-243 INT	0.09352	0.06212	pCi/g	0.06889	Y	105.5	2	1.819	IDENTIFIED	33.74	☑ UI	
Europium-155 INT	0.1033	0.06862	pCi/g	0.07532	0.500	105.5	2	1.819	IDENTIFIED	33.74	☑ UI	
Lead-212 ✓	0.9903	0.07981	pCi/g	0.04349	0.100	238.6	1	0.9844	IDENTIFIED	2.876	☐	
Lead-214 ✓	0.6714	0.06873	pCi/g	0.05167	0.100	351.9	1	1.078	IDENTIFIED	4.436	☐	
Neptunium-237 INT	0.5343	0.1347	pCi/g	0.1476	Y	87.22	1	1.087	IDENTIFIED	12.33	☑ UI	
Potassium-40 ✓	6.838	0.7383	pCi/g	0.2832	1.00	1461	1	1.927	IDENTIFIED	4.245	☐	
Radium-223 INT	0.2731	0.1307	pCi/g	0.1354	Y	270.1	1	1.723	IDENTIFIED	24.23	☑ UI	
Thallium-208 ✓	0.2916	0.04444	pCi/g	0.02458	0.080	583.2	1	1.144	IDENTIFIED	6.984	☐	
Thorium-234 ✓	0.8575	0.3058	pCi/g	0.3258	0.500	92.63	1	1.096	IDENTIFIED	17.85	☐	

*** = 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
198681022	18-OCT-07 00:00	14-DEC-07 10:46	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 ✓	1.074	0.1996	pCi/g	0.14	0.800	911.6	1	1.686	IDENTIFIED	8.297	☐	
Americium-243 INT	0.1852	0.03164	pCi/g	0.03316	Y	74.67	1	1.357	IDENTIFIED	7.706	☑ UI	
Bismuth-212 ✓	0.7372	0.3342	pCi/g	0.3322	0.500	727.8	1	1.629	IDENTIFIED	22.73	☐	
Bismuth-214 ✓	0.6829	0.1131	pCi/g	0.07396	0.200	609.6	1	1.608	IDENTIFIED	7.569	☐	
Cesium-137 ✓	0.08527	0.0325	pCi/g	0.0412	0.100	661.5	1	2.549	IDENTIFIED	19.01	☐	
Curium-243 INT	0.09467	0.06264	pCi/g	0.08813	Y	105.5	2	1.131	IDENTIFIED	33.43	☑ UI	
Europium-155 INT	0.1046	0.0692	pCi/g	0.0959	0.500	105.5	2	1.131	IDENTIFIED	33.43	☑ UI	
Gross Gamma	5.205	1.318	pCi/g	2.405	N		0				☐	
Lead-212 ✓	0.9825	0.1115	pCi/g	0.0723	0.100	238.7	1	1.147	IDENTIFIED	3.975	☐	
Lead-214 ✓	0.7377	0.1006	pCi/g	0.07623	0.100	352	1	1.453	IDENTIFIED	6.372	☐	
Neptunium-237 INT	0.6243	0.1542	pCi/g	0.1639	Y	87.25	1	1.462	IDENTIFIED	11.82	☑ UI	
Potassium-40 ✓	4.859	0.7636	pCi/g	0.3118	1.00	1462	1	1.922	IDENTIFIED	6.964	☐	
Radium-223 INT	0.3312	0.1989	pCi/g	0.2045	Y	270	1	1.972	IDENTIFIED	30.45	☑ UI	
Thallium-208 ✓	0.3355	0.05881	pCi/g	0.0399	0.080	583.3	1	1.393	IDENTIFIED	8.193	☐	
Thorium-234 ✓	1.388	0.3512	pCi/g	0.382	0.500	92.71	1	1.327	IDENTIFIED	12.11	☐	

*** = 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
198681023	18-OCT-07 00:00	14-DEC-07 10:47	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 ✓	0.8717	0.177	pCi/g	0.1349	0.800	910.9	1	1.724	IDENTIFIED	9.557	☐	
Americium-243 INT	0.1461	0.03321	pCi/g	0.04403	Y	74.92	1	0.79	IDENTIFIED	11.04	☑ UI	
Bismuth-212 ✓	0.5628	0.3329	pCi/g	0.2814	0.500	727.5	1	1.522	IDENTIFIED	30	☐	
Bismuth-214 ✓	0.4743	0.08452	pCi/g	0.06545	0.200	609.1	1	1.473	IDENTIFIED	8.621	☐	
Lead-212 ✓	0.9113	0.08076	pCi/g	0.05539	0.100	238.7	1	1.014	IDENTIFIED	3.534	☐	
Lead-214 ✓	0.5391	0.08812	pCi/g	0.06628	0.100	351.8	1	1.044	IDENTIFIED	7.892	☐	
Neptunium-237 INT	0.3062	0.1624	pCi/g	0.1645	Y	86.92	1	1.111	IDENTIFIED	26.81	☑ UI	
Potassium-40 ✓	4.136	0.5724	pCi/g	0.2731	1.00	1460	1	2.03	IDENTIFIED	6.094	☐	
Radium-223 INT	0.3274	0.1598	pCi/g	0.1686	Y	269.9	1	1.393	IDENTIFIED	24.73	☑ UI	
Thallium-208 ✓	0.2655	0.04696	pCi/g	0.03901	0.080	583	1	1.405	IDENTIFIED	8.564	☐	

Thorium-234 ✓	**0.9672**	0.457	pCi/g	**0.381**	**0.500**	92.95	1	1.66	IDENTIFIED	23.83	☐

*** = 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
198681024	18-OCT-07 00:00	14-DEC-07 10:51	57.5	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 ✓	**1.399**	0.2149	pCi/g	**0.1254**	**0.800**	911.5	1	1.482	IDENTIFIED	7.066	☐	
Americium-243 INT	**0.2295**	0.03894	pCi/g	**0.04064**	**Y**	75.03	1	1.151	IDENTIFIED	7.959	☑ UI	
Bismuth-212 ✓	**0.8598**	0.2912	pCi/g	**0.2881**	**0.500**	727.5	1	1.381	IDENTIFIED	16.89	☐	
Bismuth-214 ✓	**0.7444**	0.1057	pCi/g	**0.07106**	**0.200**	609.6	1	1.681	IDENTIFIED	6.371	☐	
Curium-243 INT	**0.09208**	0.0783	pCi/g	**0.08528**	**Y**	105.5	2	0.8751	IDENTIFIED	43.23	☑ UI	
Europium-155 INT	**0.1017**	0.0865	pCi/g	**0.09213**	**0.500**	105.5	2	0.8751	IDENTIFIED	43.23	☑ UI	
Lead-212 ✓	**1.278**	0.1049	pCi/g	**0.05296**	**0.100**	238.9	1	1.122	IDENTIFIED	2.931	☐	
Lead-214 ✓	**0.7304**	0.09599	pCi/g	**0.07038**	**0.100**	352.2	1	1.232	IDENTIFIED	6.09	☐	
Neptunium-237 INT	**0.8845**	0.1754	pCi/g	**0.1761**	**Y**	87.41	1	1.401	IDENTIFIED	9.326	☑ UI	
Potassium-40 ✓	**6.662**	0.8263	pCi/g	**0.3437**	**1.00**	1461	1	1.642	IDENTIFIED	5.714	☐	
Protactinium-234m NUP	**5.117**	3.179	pCi/g	**3.596**	**Y**	1001	1	1.987	IDENTIFIED	31.53	☑ UI	
Radium-223 INT	**0.4403**	0.1547	pCi/g	**0.1778**	**Y**	270.6	1	1.57	IDENTIFIED	17.66	☑ UI	
Thallium-208 ✓	**0.3778**	0.0588	pCi/g	**0.03415**	**0.080**	583.3	1	1.393	IDENTIFIED	7.2	☐	
Thorium-234 ✓	**1.678**	0.4071	pCi/g	**0.3953**	**0.500**	93.03	1	1.356	IDENTIFIED	11.78	☐	

*** = 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
198681025	18-OCT-07 00:00	14-DEC-07 10:51	57.5	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 ✓	**1.328**	0.2146	pCi/g	**0.1216**	**0.800**	910.7	1	1.873	IDENTIFIED	6.397	☐	
Americium-243 INT	**0.1766**	0.03916	pCi/g	**0.05323**	**Y**	74.88	1	1.043	IDENTIFIED	10.72	☑ UI	
Americium-246 INT	**0.1655**	0.1121	pCi/g	**0.121**	**Y**	1079	1	0.9669	IDENTIFIED	34.33	☑ UI	
Bismuth-212 ✓	**0.911**	0.2949	pCi/g	**0.2312**	**0.500**	727.1	1	1.374	IDENTIFIED	15.83	☐	
Bismuth-214 ✓	**0.7908**	0.1158	pCi/g	**0.0687**	**0.200**	609	1	1.565	IDENTIFIED	6.25	☐	
Gross Gamma	**5.651**	1.673	pCi/g	**2.465**	**N**		0				☐	
Lead-212 ✓	**1.173**	0.09855	pCi/g	**0.05941**	**0.100**	238.6	1	1.137	IDENTIFIED	2.985	☐	
Lead-214 ✓	**0.8401**	0.1005	pCi/g	**0.07297**	**0.100**	351.7	1	1.293	IDENTIFIED	5.349	☐	
Neptunium-237 INT	**0.7602**	0.2014	pCi/g	**0.2186**	**Y**	87.25	1	1.517	IDENTIFIED	12.92	☑ UI	
Potassium-40 ✓	**7.14**	0.8396	pCi/g	**0.283**	**1.00**	1460	1	1.953	IDENTIFIED	5.167	☐	
Radium-223 INT	**0.5256**	0.1966	pCi/g	**0.182**	**Y**	270.1	1	1.77	IDENTIFIED	18.83	☑ UI	
Thallium-208 ✓	**0.3806**	0.06023	pCi/g	**0.03323**	**0.080**	582.9	1	1.473	IDENTIFIED	7.055	☐	
Thorium-234 ✓	**1.383**	0.4464	pCi/g	**0.473**	**0.500**	92.84	1	1.362	IDENTIFIED	16.02	☐	

*** = 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
198681026	18-OCT-07 00:00	14-DEC-07 11:34	57.5	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	**0.9528**	0.2192	pCi/g	**0.1272**	**0.800**	909.7	1	2.676	IDENTIFIED	10.31	☐	
Americium-243 INT	**0.1502**	0.04162	pCi/g	**0.04681**	**Y**	74.95	1	1.363	IDENTIFIED	13.59	☑ UI	
Bismuth-212	**0.4735**	0.2683	pCi/g	**0.2514**	**0.500**	726.8	1	1.849	IDENTIFIED	28.64	☐	
Bismuth-214 LA	**0.436**	0.09351	pCi/g	**0.1295**	**0.200**	608.4	1	1.889	FAIL_ABUND	10.4	☑ UI	Data rejected due to low abundance.
Cesium-137	**0.05599**	0.04607	pCi/g	**0.03604**	**0.100**	661.3	1	1.908	IDENTIFIED	41.85	☐	
Lead-212	**0.5745**	0.08577	pCi/g	**0.05451**	**0.100**	238.2	1	1.748	IDENTIFIED	3.828	☐	
Lead-214	**0.3618**	0.07968	pCi/g	**0.07055**	**0.100**	351.3	1	1.728	IDENTIFIED	10.77	☐	
Neptunium-237 INT	**0.4041**	0.1509	pCi/g	**0.2079**	**Y**	87.35	1	1.542	IDENTIFIED	18.58	☑ UI	
Radium-223 INT	**0.2993**	0.1596	pCi/g	**0.1755**	**Y**	270.1	1	1.913	IDENTIFIED	27.01	☑ UI	
Thallium-208	**0.2056**	0.0582	pCi/g	**0.03327**	**0.080**	582.8	1	2.45	IDENTIFIED	14.04	☐	
Thorium-234	**0.6675**	0.439	pCi/g	**0.4181**	**0.500**	92.7	1	1.561	IDENTIFIED	33.32	☐	

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

SLEI 12/15/07

Thorium-234	**0.9672**	0.457	pCi/g	**0.381**	**0.500**	92.95	1	1.66	IDENTIFIED	23.83	☐

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

SKEI 12/17/07

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198681024	18-OCT-07 00:00	14-DEC-07 10:51	57.5	SAMPLE	LOAD	1	SCAN	SCAN00101IGEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	**1.399**	0.2149	pCi/g	**0.1254**	**0.800**	911.5	1	1.482	IDENTIFIED	7.066	☐	
Americium-243	**0.2295**	0.03894	pCi/g	**0.04064**	**Y**	75.03	1	1.151	IDENTIFIED	7.959	☐	
Bismuth-212	**0.8598**	0.2912	pCi/g	**0.2881**	**0.500**	727.5	1	1.381	IDENTIFIED	16.89	☐	
Bismuth-214	**0.7444**	0.1057	pCi/g	**0.07106**	**0.200**	609.6	1	1.681	IDENTIFIED	6.371	☐	
Curium-243	**0.09208**	0.0783	pCi/g	**0.08528**	**Y**	105.5	2	0.8751	IDENTIFIED	43.23	☐	
Europium-155	**0.1017**	0.0865	pCi/g	**0.09213**	**0.500**	105.5	2	0.8751	IDENTIFIED	43.23	☐	
Lead-212	**1.278**	0.1049	pCi/g	**0.05296**	**0.100**	238.9	1	1.122	IDENTIFIED	2.931	☐	
Lead-214	**0.7304**	0.09599	pCi/g	**0.07038**	**0.100**	352.2	1	1.232	IDENTIFIED	6.09	☐	
Neptunium-237	**0.8845**	0.1754	pCi/g	**0.1761**	**Y**	87.41	1	1.401	IDENTIFIED	9.326	☐	
Potassium-40	**6.662**	0.8263	pCi/g	**0.3437**	**1.00**	1461	1	1.642	IDENTIFIED	5.714	☐	
Protactinium-234m	**5.117**	3.179	pCi/g	**3.596**	**Y**	1001	1	1.987	IDENTIFIED	31.53	☐	
Radium-223	**0.4403**	0.1547	pCi/g	**0.1778**	**Y**	270.6	1	1.57	IDENTIFIED	17.66	☐	
Thallium-208	**0.3778**	0.0588	pCi/g	**0.03415**	**0.080**	583.3	1	1.393	IDENTIFIED	7.2	☐	
Thorium-234	**1.678**	0.4071	pCi/g	**0.3953**	**0.500**	93.03	1	1.356	IDENTIFIED	11.78	☐	

*** = 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
198681025	18-OCT-07 00:00	14-DEC-07 10:51	57.5	SAMPLE	LOAD	1	SCAN	SCAN00101IGEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	**1.328**	0.2146	pCi/g	**0.1216**	**0.800**	910.7	1	1.873	IDENTIFIED	6.397	☐	
Americium-243	**0.1766**	0.03916	pCi/g	**0.05323**	**Y**	74.88	1	1.043	IDENTIFIED	10.72	☐	
Americium-246	**0.1655**	0.1121	pCi/g	**0.121**	**Y**	1079	1	0.9669	IDENTIFIED	34.33	☐	
Bismuth-212	**0.911**	0.2949	pCi/g	**0.2312**	**0.500**	727.1	1	1.374	IDENTIFIED	15.83	☐	
Bismuth-214	**0.7908**	0.1158	pCi/g	**0.0687**	**0.200**	609	1	1.565	IDENTIFIED	6.25	☐	
Gross Gamma	**5.651**	1.673	pCi/g	**2.465**	**N**		0				☐	
Lead-212	**1.173**	0.09855	pCi/g	**0.05941**	**0.100**	238.6	1	1.137	IDENTIFIED	2.985	☐	
Lead-214	**0.8401**	0.1005	pCi/g	**0.07297**	**0.100**	351.7	1	1.293	IDENTIFIED	5.349	☐	
Neptunium-237	**0.7602**	0.2014	pCi/g	**0.2186**	**Y**	87.25	1	1.517	IDENTIFIED	12.92	☐	
Potassium-40	**7.14**	0.8396	pCi/g	**0.283**	**1.00**	1460	1	1.953	IDENTIFIED	5.167	☐	
Radium-223	**0.5256**	0.1966	pCi/g	**0.182**	**Y**	270.1	1	1.77	IDENTIFIED	18.83	☐	
Thallium-208	**0.3806**	0.06023	pCi/g	**0.03323**	**0.080**	582.9	1	1.473	IDENTIFIED	7.055	☐	
Thorium-234	**1.383**	0.4464	pCi/g	**0.473**	**0.500**	92.84	1	1.362	IDENTIFIED	16.02	☐	

*** = 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
198681026	18-OCT-07 00:00	17-DEC-07 10:09	60.4	SAMPLE	LOAD	2	SCAN	SCAN00101IGEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228 ✓	**0.996**	0.236	pCi/g	**0.15**	**0.800**	911.6	1	1.827	IDENTIFIED	11.69	☐	
Americium-243 INT	**0.112**	0.02351	pCi/g	**0.03004**	**Y**	74.93	1	0.8336	IDENTIFIED	9.954	☑ UI	
Bismuth-212 ✓	**0.5004**	0.3381	pCi/g	**0.3458**	**0.500**	727.2	1	2.24	IDENTIFIED	34.25	☐	
Bismuth-214 ✓	**0.3211**	0.1027	pCi/g	**0.08804**	**0.200**	609.5	1	1.505	IDENTIFIED	15.88	☐	
Cesium-137 ✓	**0.06724**	0.05424	pCi/g	**0.04646**	**0.100**	662.1	1	1.427	IDENTIFIED	40.96	☐	
Lead-212 ✓	**0.739**	0.08107	pCi/g	**0.05761**	**0.100**	238.7	1	1.135	IDENTIFIED	4.484	☐	
Lead-214 ✓	**0.3328**	0.08627	pCi/g	**0.08486**	**0.100**	352.1	1	1.241	IDENTIFIED	12.96	☐	
Neptunium-237 INT	**0.3843**	0.1255	pCi/g	**0.159**	**Y**	87.21	1	1.133	IDENTIFIED	16.18	☑ UI	
Potassium-40 ✓	**3.2**	0.5723	pCi/g	**0.3393**	**1.00**	1461	1	1.515	IDENTIFIED	8.692	☐	
Radium-223 INT	**0.3886**	0.1577	pCi/g	**0.179**	**Y**	270.3	1	1.428	IDENTIFIED	20.51	☑ UI	
Thallium-208 ✓	**0.2531**	0.05551	pCi/g	**0.04216**	**0.080**	583.4	1	1.455	IDENTIFIED	10.6	☐	

*** = 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
198681027	18-OCT-07 00:00	14-DEC-07 11:35	57.5	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 ✓	0.6641	0.1371	pCi/g	0.09404	0.800	911.7	1	1.721	IDENTIFIED	9.152	☐	
Americium-243 INT	0.1126	0.03238	pCi/g	0.03742	Y	74.96	1	1.521	IDENTIFIED	14.32	☑ UI	
Bismuth-212 ✓	0.3791	0.2147	pCi/g	0.1888	0.500	728.2	1	1.851	IDENTIFIED	28.56	☐	
Bismuth-214 ✓	0.5023	0.08146	pCi/g	0.05327	0.200	609.6	1	1.583	IDENTIFIED	7.342	☐	
Cesium-137 ✓	0.2392	0.03928	pCi/g	0.02887	0.100	661.8	1	1.585	IDENTIFIED	7.342	☐	
Lead-212 ✓	0.6665	0.06549	pCi/g	0.04519	0.100	238.7	1	1.416	IDENTIFIED	3.902	☐	
Lead-214 ✓	0.5921	0.07591	pCi/g	0.05582	0.100	351.9	1	1.46	IDENTIFIED	5.811	☐	
Neptunium-237 INT	0.22	0.123	pCi/g	0.1852	Y	87.34	1	1.225	IDENTIFIED	28.32	☑ UI	
Potassium-40 ✓	4.675	0.5597	pCi/g	0.2472	1.00	1462	1	2.017	IDENTIFIED	5.256	☐	
Radium-223 INT	0.2417	0.144	pCi/g	0.147	Y	270.2	1	1.948	IDENTIFIED	30.23	☑ UI	
Thallium-208 ✓	0.2096	0.0376	pCi/g	0.02748	0.080	583.4	1	1.513	IDENTIFIED	8.373	☐	
Thorium-234 ✓	0.8745	0.3359	pCi/g	0.3619	0.500	93.03	1	1.552	IDENTIFIED	19.32	☐	

*** = 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
198681028	18-OCT-07 00:00	14-DEC-07 11:37	57.5	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 ✓	0.6601	0.1691	pCi/g	0.1122	0.800	911.7	1	1.433	IDENTIFIED	12.2	☐	
Americium-243 INT	0.1354	0.03601	pCi/g	0.03639	Y	75.04	1	1.367	IDENTIFIED	12.43	☑ UI	
Bismuth-212 ✓	0.614	0.217	pCi/g	0.2137	0.500	727.7	1	1.371	IDENTIFIED	17.63	☐	
Bismuth-214 ✓	0.5175	0.08568	pCi/g	0.05334	0.200	609.6	1	1.509	IDENTIFIED	7.798	☐	
Cesium-137 ✓	0.1557	0.03254	pCi/g	0.02957	0.100	661.9	1	1.648	IDENTIFIED	10.1	☐	
Lead-212 ✓	0.7514	0.07263	pCi/g	0.0463	0.100	238.6	1	1.29	IDENTIFIED	3.979	☐	
Lead-214 ✓	0.5691	0.08235	pCi/g	0.05863	0.100	351.9	1	1.293	IDENTIFIED	6.843	☐	
Neptunium-237 INT	0.4835	0.1397	pCi/g	0.1601	Y	87.35	1	1.3	IDENTIFIED	13.51	☑ UI	
Potassium-40 ✓	4.378	0.6291	pCi/g	0.1922	1.00	1462	1	1.979	IDENTIFIED	6.007	☐	
Radium-223 INT	0.3006	0.1357	pCi/g	0.1621	Y	270.4	1	0.9043	IDENTIFIED	22.83	☑ UI	
Thallium-208 ✓	0.2366	0.03842	pCi/g	0.02709	0.080	583.4	1	1.42	IDENTIFIED	7.657	☐	
Thorium-234 ✓	0.9441	0.3779	pCi/g	0.3536	0.500	92.84	1	1.684	IDENTIFIED	19.71	☐	

*** = 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
198681029	18-OCT-07 00:00	14-DEC-07 12:08	57.5	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 ✓	0.8568	0.1598	pCi/g	0.0965	0.800	910.6	1	2.003	IDENTIFIED	8.125	☐	
Americium-243 INT	0.1564	0.03478	pCi/g	0.03823	Y	74.73	1	1.395	IDENTIFIED	10.64	☑ UI	
Bismuth-212 ✓	0.6217	0.2085	pCi/g	0.1891	0.500	727.1	1	1.794	IDENTIFIED	16.48	☐	
Bismuth-214 ✓	0.5839	0.08476	pCi/g	0.05588	0.200	609	1	1.585	IDENTIFIED	6.209	☐	
Cesium-137 ✓	0.221	0.03267	pCi/g	0.02659	0.100	661.3	1	2.033	IDENTIFIED	6.133	☐	
Lead-212 ✓	0.7863	0.06806	pCi/g	0.04568	0.100	238.4	1	1.224	IDENTIFIED	3.25	☐	
Lead-214 ✓	0.5777	0.07513	pCi/g	0.05128	0.100	351.7	1	1.399	IDENTIFIED	5.982	☐	
Neptunium-237 INT	0.6121	0.1505	pCi/g	0.1683	Y	87.13	1	1.435	IDENTIFIED	11.77	☑ UI	
Potassium-40 ✓	6.509	0.6326	pCi/g	0.2427	1.00	1460	1	2.653	IDENTIFIED	3.994	☐	
Protactinium-234m ↑PW	4.566	2.967	pCi/g	3.116	Y	1001	1	4.313	IDENTIFIED	32.86	☑ UI	Data rejected due to high peak-width.
Radium-223 INT	0.2129	0.1206	pCi/g	0.1418	Y	270.1	1	1.307	IDENTIFIED	28.73	☑ UI	
Thallium-208 ✓	0.2268	0.04207	pCi/g	0.02565	0.080	582.8	1	1.675	IDENTIFIED	8.659	☐	
Thorium-234 ✓	0.6585	0.3242	pCi/g	0.3693	0.500	92.48	1	1.277	IDENTIFIED	24.78	☐	

*** = 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
198681030	18-OCT-07 00:00	14-DEC-07 12:13	57.5	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 ✓	0.746	0.1545	pCi/g	0.1111	0.800	910.8	1	1.631	IDENTIFIED	9.27	☐	
Americium-243 INT	0.06246	0.03547	pCi/g	0.04369	Y	74.3	1	1.448	IDENTIFIED	28.68	☑ UI	
Bismuth-212 ✓	0.4244	0.2071	pCi/g	0.2603	0.500	727	1	1.582	IDENTIFIED	24.6	☐	
Bismuth-214 ✓	0.4563	0.09042	pCi/g	0.06337	0.200	609	1	1.324	IDENTIFIED	9.537	☐	
Cesium-137 ✓	0.1289	0.03963	pCi/g	0.03754	0.100	661.1	1	1.367	IDENTIFIED	15.32	☐	
Lead-212 ✓	0.7102	0.07159	pCi/g	0.05165	0.100	238.3	1	1.145	IDENTIFIED	4.086	☐	
Lead-214 ✓	0.6127	0.09781	pCi/g	0.06524	0.100	351.7	1	1.309	IDENTIFIED	7.521	☐	
Neptunium-237 INT	0.2625	0.1422	pCi/g	0.1778	Y	86.95	1	1.301	IDENTIFIED	27.29	☑ UI	
Potassium-40 ✓	4.894	0.6535	pCi/g	0.3346	1.00	1460	1	2.021	IDENTIFIED	6.014	☐	
Radium-223 INT	0.2549	0.151	pCi/g	0.1796	Y	270	1	1.147	IDENTIFIED	30.05	☑ UI	
Thallium-208 ✓	0.2332	0.03795	pCi/g	0.03282	0.080	582.8	1	1.592	IDENTIFIED	7.601	☐	
Thorium-234 ✓	0.4799	0.456	pCi/g	0.4197	0.500	93.06	1	1.131	IDENTIFIED	48.31	☐	

*** = 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
198681031	18-OCT-07 00:00	14-DEC-07 12:24	57.5	SAMPLE	LOAD	1	SCAN	SCAN00101GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228 ✓	0.8492	0.1734	pCi/g	0.1385	0.800	911.3	1	1.621	IDENTIFIED	9.864	☐	
Americium-243 INT	0.09848	0.0213	pCi/g	0.02801	Y	74.9	1	0.765	IDENTIFIED	10.55	☑ UI	
Bismuth-212 ✓	0.7298	0.3162	pCi/g	0.2778	0.500	727.5	1	1.904	IDENTIFIED	21.8	☐	
Bismuth-214 ✓	0.533	0.1031	pCi/g	0.07691	0.200	609.5	1	1.291	IDENTIFIED	9.203	☐	
Cesium-137 ✓	0.04911	0.03818	pCi/g	0.03647	0.100	661.9	1	1.616	IDENTIFIED	39.5	☐	
Lead-212 ✓	0.6737	0.07961	pCi/g	0.05916	0.100	238.7	1	0.981	IDENTIFIED	4.528	☐	
Lead-214 ✓	0.5266	0.08904	pCi/g	0.0632	0.100	352.1	1	1.133	IDENTIFIED	7.979	☐	
Neptunium-237 INT	0.4242	0.1211	pCi/g	0.1365	Y	87.29	1	1.105	IDENTIFIED	14.17	☑ UI	
Potassium-40 ✓	4.461	0.6484	pCi/g	0.3431	1.00	1461	1	1.857	IDENTIFIED	6.901	☐	
Radium-223 INT	0.3255	0.1436	pCi/g	0.164	Y	270.6	1	1.417	IDENTIFIED	22.17	☑ UI	
Thallium-208 ✓	0.2595	0.04883	pCi/g	0.0327	0.080	583.3	1	1.281	IDENTIFIED	8.946	☐	
Thorium-234 ✓	0.8293	0.3271	pCi/g	0.3171	0.500	92.77	1	1.117	IDENTIFIED	19.8	☐	

*** = 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
198681032	18-OCT-07 00:00	14-DEC-07 13:02	57.5	SAMPLE	LOAD	1	SCAN	SCAN00101GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228 ✓	0.8491	0.1739	pCi/g	0.1113	0.800	911.3	1	1.705	IDENTIFIED	9.472	☐	
Americium-243 INT	0.1413	0.03525	pCi/g	0.03746	Y	74.92	1	1.527	IDENTIFIED	12.17	☑ UI	
Bismuth-212 ✓	0.3736	0.2708	pCi/g	0.2335	0.500	727.8	1	1.182	IDENTIFIED	36.76	☐	
Bismuth-214 ✓	0.379	0.07739	pCi/g	0.06074	0.200	609.3	1	1.989	IDENTIFIED	9.737	☐	
Cesium-137 ~~NAP~~ ✓	0.04767	0.02808	pCi/g	0.03307	0.100	662	1	2.145	IDENTIFIED	29.8	~~☑ UI~~	
Lead-212 ✓	0.7438	0.07535	pCi/g	0.04948	0.100	238.5	1	1.449	IDENTIFIED	4.123	☐	
Lead-214 ✓	0.4123	0.07725	pCi/g	0.058	0.100	351.9	1	1.322	IDENTIFIED	9.083	☐	
Neptunium-237 INT	0.4751	0.2031	pCi/g	0.1685	Y	87.18	1	2.26	IDENTIFIED	21.42	☑ UI	
Potassium-40 ✓	3.604	0.6129	pCi/g	0.3333	1.00	1461	1	2.025	IDENTIFIED	8.22	☐	
Radium-223 INT	0.2324	0.1531	pCi/g	0.1477	Y	269.8	1	2.397	IDENTIFIED	33.46	☑ UI	
Thallium-208 ✓	0.2117	0.04374	pCi/g	0.03006	0.080	583.2	1	1.401	IDENTIFIED	9.91	☐	
Thorium-234 ✓	1.293	0.4672	pCi/g	0.3721	0.500	93.04	1	2.272	IDENTIFIED	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
198681033	18-OCT-07 00:00	14-DEC-07 13:54	57.6	SAMPLE	LOAD	1	SCAN	SCAN00101GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228 ✓	1.119	0.2315	pCi/g	0.1776	0.800	911.5	1	2.07	IDENTIFIED	9.998	☐	
Americium-243 INT	0.1545	0.02785	pCi/g	0.03162	Y	74.95	1	1.419	IDENTIFIED	8.52	☑ UI	
Bismuth-212 ~~NAP~~ ✓	0.51	0.3247	pCi/g	0.3835	0.500	728.7	1	1.111	IDENTIFIED	32.24	~~☑ UI~~	
Bismuth-214 ✓	0.7301	0.1165	pCi/g	0.08118	0.200	609.4	1	1.301	IDENTIFIED	7.201	☐	

Gross Gamma	**5.16**	1.378	pCi/g	**2.916**	**N**		0				☐	
Lead-212 ✓	**0.9072**	0.08648	pCi/g	**0.05902**	**0.100**	238.7	1	1.382	IDENTIFIED	3.779	☐	
Lead-214 ✓	**0.7241**	0.1089	pCi/g	**0.07883**	**0.100**	352	1	1.633	IDENTIFIED	7.221	☐	
Neptunium-237 INT	**0.5715**	0.1411	pCi/g	**0.1443**	**Y**	87.27	1	1.692	IDENTIFIED	12.05	☑ UI	
Polonium-209 APW	**20.71**	16.61	pCi/g	**9.298**	**Y**	895.1	1	15.86	IDENTIFIED	40.78	☑ UI	Data rejected due to high peak-width.
Potassium-40 ✓	**5.2**	0.8794	pCi/g	**0.3275**	**1.00**	1461	1	1.826	IDENTIFIED	8.173	☐	
Radium-223 INT	**0.2545**	0.1677	pCi/g	**0.1991**	**Y**	270.2	1	1.387	IDENTIFIED	33.5	☑ UI	
Thallium-208 ✓	**0.3146**	0.05496	pCi/g	**0.04164**	**0.080**	583.4	1	1.637	IDENTIFIED	8.133	☐	
Thorium-234 ✓	**1.189**	0.3091	pCi/g	**0.3357**	**0.500**	92.87	1	1.51	IDENTIFIED	12.71	☐	

*** = 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
198681034	18-OCT-07 00:00	14-DEC-07 14:26	57.6	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 ✓	**0.8778**	0.1674	pCi/g	**0.1192**	**0.800**	911.3	1	2.042	IDENTIFIED	8.444	☐	
Americium-243 INT	**0.1217**	0.04143	pCi/g	**0.04793**	**Y**	75.12	1	1.628	IDENTIFIED	16.92	☑ UI	
Bismuth-212 ✓	**0.6544**	0.2872	pCi/g	**0.2485**	**0.500**	727.6	1	1.508	IDENTIFIED	22.01	☐	
Bismuth-214 ✓	**0.5783**	0.0997	pCi/g	**0.06503**	**0.200**	609.6	1	1.613	IDENTIFIED	8.003	☐	
Cesium-137 ✓	**0.04767**	0.03151	pCi/g	**0.03063**	**0.100**	661.9	1	0.9208	IDENTIFIED	33.51	☐	
Lead-212 ✓	**0.6887**	0.07318	pCi/g	**0.05388**	**0.100**	238.7	1	1.4	IDENTIFIED	4.186	☐	
Lead-214 ✓	**0.5555**	0.09235	pCi/g	**0.06433**	**0.100**	352	1	1.43	IDENTIFIED	7.876	☐	
Neptunium-237 INT	**0.5325**	0.1853	pCi/g	**0.2063**	**Y**	87.4	1	1.812	IDENTIFIED	17.25	☑ UI	
Potassium-40 ✓	**6.814**	0.7976	pCi/g	**0.2862**	**1.00**	1461	1	2.18	IDENTIFIED	5.217	☐	
Radium-223 INT	**0.234**	0.1539	pCi/g	**0.1697**	**Y**	270.4	1	1.695	IDENTIFIED	33.38	☑ UI	
Thallium-208 ✓	**0.2325**	0.04871	pCi/g	**0.03349**	**0.080**	583.4	1	1.639	IDENTIFIED	10.08	☐	
Thorium-234 ✓	**1.189**	0.4229	pCi/g	**0.4442**	**0.500**	92.81	1	1.821	IDENTIFIED	17.71	☐	

*** = 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
198683001	18-OCT-07 00:00	14-DEC-07 14:26	57.6	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 ✓	**0.6757**	0.1431	pCi/g	**0.1099**	**0.800**	910.9	1	1.626	IDENTIFIED	10.08	☐	
Americium-243 INT	**0.1048**	0.03806	pCi/g	**0.04537**	**Y**	74.83	1	0.9973	IDENTIFIED	18.05	☑ UI	
Bismuth-212 ✓	**0.4933**	0.2422	pCi/g	**0.2231**	**0.500**	727.3	1	1.417	IDENTIFIED	24.83	☐	
Bismuth-214 ✓	**0.4775**	0.07876	pCi/g	**0.06372**	**0.200**	609.4	1	1.547	IDENTIFIED	7.856	☐	
Cesium-137 ✓	**0.11**	0.03562	pCi/g	**0.03321**	**0.100**	661.8	1	1.327	IDENTIFIED	16.23	☐	
Lead-212 ✓	**0.6079**	0.06446	pCi/g	**0.04768**	**0.100**	238.6	1	1.045	IDENTIFIED	4.441	☐	
Lead-214 ✓	**0.4237**	0.08102	pCi/g	**0.05778**	**0.100**	352	1	1.263	IDENTIFIED	9.299	☐	
Neptunium-237 INT	**0.3032**	0.1497	pCi/g	**0.187**	**Y**	87.24	1	1.125	IDENTIFIED	24.82	☑ UI	
Potassium-40 ✓	**4.348**	0.6472	pCi/g	**0.2479**	**1.00**	1460	1	1.418	IDENTIFIED	6.843	☐	
Radium-223 INT	**0.189**	0.09673	pCi/g	**0.1445**	**Y**	270.1	1	1.332	IDENTIFIED	25.9	☑ UI	
Thallium-208 ✓	**0.1873**	0.04431	pCi/g	**0.03002**	**0.080**	583	1	1.475	IDENTIFIED	11.7	☐	
Thorium-234 ✓	**0.5344**	0.3684	pCi/g	**0.3982**	**0.500**	92.67	1	1.028	IDENTIFIED	34.95	☐	

*** = 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
198683002	18-OCT-07 00:00	14-DEC-07 14:27	57.6	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 ✓	**0.7928**	0.1387	pCi/g	**0.09001**	**0.800**	911.4	1	1.797	IDENTIFIED	7.771	☐	
Americium-243 INT	**0.1408**	0.02595	pCi/g	**0.02937**	**Y**	74.78	1	1.069	IDENTIFIED	8.808	☑ UI	
Bismuth-212 ✓	**0.4821**	0.2299	pCi/g	**0.1836**	**0.500**	728	1	1.202	IDENTIFIED	24	☐	
Bismuth-214 ✓	**0.5566**	0.08254	pCi/g	**0.04826**	**0.200**	609.4	1	1.204	IDENTIFIED	6.684	☐	
Cesium-137 ✓	**0.1478**	0.03952	pCi/g	**0.02538**	**0.100**	661.6	1	1.5	IDENTIFIED	13.1	☐	
Lead-212 ✓	**0.7426**	0.06342	pCi/g	**0.03695**	**0.100**	238.6	1	1.01	IDENTIFIED	3.217	☐	
Lead-214 ✓	**0.6414**	0.06565	pCi/g	**0.0477**	**0.100**	351.9	1	1.214	IDENTIFIED	4.435	☐	
Neptunium-236 INT	**0.05374**	0.03251	pCi/g	**0.0386**	**Y**	99.25	1	2.196	IDENTIFIED	30.69	☑ UI	

Neptunium-237	INT	**0.3969**	0.1192	pCi/g	**0.1369**	Y	87.24	1	1.098	IDENTIFIED	14.87	☑	UI
Potassium-40	✓	**6.361**	0.6848	pCi/g	**0.2391**	**1.00**	1461	1	2.013	IDENTIFIED	4.225	☐	
Radium-223	INT	**0.3857**	0.1741	pCi/g	**0.1152**	Y	270.4	1	1.828	IDENTIFIED	22.82	☑	UI
Thallium-208	✓	**0.2197**	0.03444	pCi/g	**0.02689**	**0.080**	583.2	1	1.194	IDENTIFIED	7.233	☐	
Thorium-234	✓	**0.7351**	0.2815	pCi/g	**0.302**	**0.500**	92.72	1	1.166	IDENTIFIED	19.22	☐	

*** = 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
198683003	18-OCT-07 00:00	14-DEC-07 14:58	57.6	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	✓	**1.34**	0.2199	pCi/g	**0.1275**	**0.800**	911.6	1	1.425	IDENTIFIED	7.653	☐	
Americium-243	INT	**0.2285**	0.0394	pCi/g	**0.04038**	Y	75.04	1	1.132	IDENTIFIED	8.112	☑	UI
Bismuth-212	✓	**0.9735**	0.2691	pCi/g	**0.2965**	**0.500**	727.7	1	1.763	IDENTIFIED	13.62	☐	
Bismuth-214	✓	**0.9229**	0.1223	pCi/g	**0.07217**	**0.200**	609.6	1	1.364	IDENTIFIED	5.817	☐	
Lead-212	✓	**1.204**	0.1019	pCi/g	**0.056**	**0.100**	238.9	1	1.175	IDENTIFIED	3.117	☐	
Lead-214	✓	**0.8942**	0.118	pCi/g	**0.07226**	**0.100**	352.2	1	1.239	IDENTIFIED	6.119	☐	
Neptunium-237	INT	**0.6559**	0.1514	pCi/g	**0.1859**	Y	87.38	1	1.069	IDENTIFIED	11.1	☑	UI
Potassium-40	✓	**7.637**	0.7944	pCi/g	**0.3093**	**1.00**	1461	1	1.519	IDENTIFIED	4.557	☐	
Radium-223	INT	**0.3293**	0.1721	pCi/g	**0.1829**	Y	270.2	1	1.834	IDENTIFIED	26.49	☑	UI
Thallium-208	✓	**0.3341**	0.05497	pCi/g	**0.03656**	**0.080**	583.5	1	1.389	IDENTIFIED	7.697	☐	
Thorium-234	✓	**1.198**	0.3992	pCi/g	**0.4173**	**0.500**	92.92	1	1.154	IDENTIFIED	16.57	☐	

*** = 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
198683004	18-OCT-07 00:00	14-DEC-07 14:59	57.6	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	✓	**0.9791**	0.2026	pCi/g	**0.1299**	**0.800**	910.9	1	1.271	IDENTIFIED	9.188	☐	
Americium-243	INT	**0.2293**	0.04904	pCi/g	**0.05358**	Y	74.97	1	1.304	IDENTIFIED	10.29	☑	UI
Bismuth-212	✓	**0.8877**	0.2639	pCi/g	**0.2416**	**0.500**	727.2	1	1.548	IDENTIFIED	14.43	☐	
Bismuth-214	✓	**0.9416**	0.1248	pCi/g	**0.06389**	**0.200**	609	1	1.551	IDENTIFIED	5.386	☐	
Cesium-137	✓	**0.1043**	0.04224	pCi/g	**0.03569**	**0.100**	661.3	1	1.495	IDENTIFIED	20.18	☐	
Gross Gamma		**5.546**	1.545	pCi/g	**2.403**	N		0				☐	
Lead-212	✓	**0.987**	0.08972	pCi/g	**0.05666**	**0.100**	238.6	1	1.195	IDENTIFIED	3.471	☐	
Lead-214	✓	**1.084**	0.1148	pCi/g	**0.07139**	**0.100**	351.8	1	1.226	IDENTIFIED	4.539	☐	
Neptunium-237	INT	**0.7033**	0.171	pCi/g	**0.2222**	Y	87.22	1	1.114	IDENTIFIED	11.75	☑	UI
Potassium-40	✓	**4.646**	0.6948	pCi/g	**0.345**	**1.00**	1460	1	1.906	IDENTIFIED	6.993	☐	
Protactinium-234m	NUP	**3.926**	3.505	pCi/g	**3.904**	Y	1001	1	2.004	IDENTIFIED	45.32	☑	UI
Thallium-208	✓	**0.3201**	0.0569	pCi/g	**0.03372**	**0.080**	583.1	1	1.389	IDENTIFIED	8.175	☐	
Thorium-234	✓	**1.262**	0.4547	pCi/g	**0.481**	**0.500**	92.89	1	1.349	IDENTIFIED	17.98	☐	

*** = 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
198683005	18-OCT-07 00:00	14-DEC-07 15:36	57.7	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	✓	**0.7818**	0.1551	pCi/g	**0.09289**	**0.800**	911.1	1	1.663	IDENTIFIED	8.737	☐	
Americium-243	INT	**0.135**	0.03129	pCi/g	**0.03385**	Y	74.91	1	1.331	IDENTIFIED	11.14	☑	UI
Bismuth-212	✓	**0.2919**	0.1887	pCi/g	**0.1917**	**0.500**	727.4	1	1.225	IDENTIFIED	32.69	☐	
Bismuth-214	✓	**0.8284**	0.09515	pCi/g	**0.04856**	**0.200**	609.2	1	1.566	IDENTIFIED	4.457	☐	
Californium-249	NPW	**0.04293**	0.03888	pCi/g	**0.03007**	Y	386.2	1	6.168	IDENTIFIED	46.12	☑	UI Data rejected due to high peak-width.
Cesium-137	✓	**0.1674**	0.02816	pCi/g	**0.02707**	**0.100**	661.5	1	1.499	IDENTIFIED	7.588	☐	
Lead-212	✓	**0.7584**	0.07081	pCi/g	**0.0452[illegible]**	**0.100**	238.7	1	1.248	IDENTIFIED	3.524	☐	
Lead-214	✓	**0.865**	0.08647	pCi/g	**0.05424**	**0.100**	351.9	1	1.345	IDENTIFIED	4.09	☐	
Neptunium-237	INT	**0.5188**	0.1254	pCi/g	**0.1478**	Y	87.28	1	1.343	IDENTIFIED	11.57	☑	UI
Potassium-40	✓	**4.539**	0.4557	pCi/g	**0.2231**	**1.00**	1461	1	2.243	IDENTIFIED	4.16	☐	
Radium-223	INT	**0.1771**	0.1479	pCi/g	**0.1403**	Y	271.1	1	1.749	IDENTIFIED	42.48	☑	UI
Thallium-208	✓	**0.2644**	0.03988	pCi/g	**0.02423**	**0.080**	583.1	1	1.58	IDENTIFIED	6.749	☐	

Thorium-234 ✓	**1.014**	0.3949	pCi/g	**0.3273**	**0.500**	92.85	1	1.599	IDENTIFIED	19.45	☐	

*** = 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
198683006	18-OCT-07 00:00	14-DEC-07 16:36	57.7	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 ✓	**1.286**	0.2068	pCi/g	**0.1329**	**0.800**	911.5	1	1.849	IDENTIFIED	6.793	☐	
Americium-243 INT	**0.2784**	0.03385	pCi/g	**0.02802**	**Y**	74.7	1	1.29	IDENTIFIED	4.683	☑ UI	
Bismuth-212 ✓	**0.9172**	0.2987	pCi/g	**0.2475**	**0.500**	727.7	1	1.736	IDENTIFIED	16.06	☐	
Bismuth-214 ✓	**1.138**	0.1237	pCi/g	**0.06633**	**0.200**	609.7	1	1.521	IDENTIFIED	4.081	☐	
Cesium-137 ✓	**0.2381**	0.0438	pCi/g	**0.03807**	**0.100**	661.9	1	1.532	IDENTIFIED	8.45	☐	
Curium-243 INT	**0.09828**	0.05395	pCi/g	**0.07357**	**Y**	105.3	2	1.186	IDENTIFIED	27.61	☑ UI	
Europium-155 INT	**0.1086**	0.0596	pCi/g	**0.08279**	**0.500**	105.3	2	1.186	IDENTIFIED	27.61	☑ UI	
Gross Gamma	**7.536**	1.223	pCi/g	**2.012**	**N**		0				☐	
Lead-212 ✓	**1.486**	0.136	pCi/g	**0.04831**	**0.100**	238.7	1	1.23	IDENTIFIED	2.015	☐	
Lead-214 ✓	**1.134**	0.1012	pCi/g	**0.06456**	**0.100**	352.1	1	1.273	IDENTIFIED	3.597	☐	
Neptunium-237 INT	**0.8313**	0.1327	pCi/g	**0.1412**	**Y**	87.13	1	1.182	IDENTIFIED	6.866	☑ UI	
Potassium-40 ✓	**8.786**	0.8954	pCi/g	**0.2594**	**1.00**	1462	1	1.847	IDENTIFIED	3.355	☐	
Radium-223 INT	**0.5459**	0.1606	pCi/g	**0.1584**	**Y**	270.1	1	1.503	IDENTIFIED	14.6	☑ UI	
Thallium-208 ✓	**0.4664**	0.05624	pCi/g	**0.0336**	**0.080**	583.3	1	1.599	IDENTIFIED	4.998	☐	
Thorium-234 ✓	**2.008**	0.3482	pCi/g	**0.3293**	**0.500**	92.67	1	1.356	IDENTIFIED	7.637	☐	

*** = 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
1201473818		14-DEC-07 16:36	0	MB	LOAD	1		GEL	N	RGSP

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1201473819	18-OCT-07 00:00	14-DEC-07 16:37	57.7	DUP	LOAD	1		SCAN00101|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓	**1.055**	0.1538	pCi/g	**0.1048**	**0.800**	911.3	1	1.439	IDENTIFIED	6.641	☐	
Americium-243 INT	**0.1539**	0.01919	pCi/g	**0.0213**	**Y**	74.92	1	0.8217	IDENTIFIED	5.475	☑ UI	
Bismuth-212 ✓	**0.8535**	0.222	pCi/g	**0.2062**	**0.500**	727.2	1	1.109	IDENTIFIED	12.75	☐	
Bismuth-214 ✓	**0.6044**	0.08376	pCi/g	**0.04859**	**0.200**	609.4	1	1.305	IDENTIFIED	6.111	☐	
Cesium-137 ✓	**0.08397**	0.02995	pCi/g	**0.02609**	**0.100**	661.8	1	1.402	IDENTIFIED	17.82	☐	
Lead-212 ✓	**0.9571**	0.08789	pCi/g	**0.03746**	**0.100**	238.8	1	0.9823	IDENTIFIED	2.472	☐	
Lead-214 ✓	**0.5862**	0.07951	pCi/g	**0.04665**	**0.100**	352.1	1	1.175	IDENTIFIED	6.094	☐	
Neptunium-236 INT	**0.04274**	0.02869	pCi/g	**0.02936**	**Y**	99.13	1	1.817	IDENTIFIED	34.03	☑ UI	
Neptunium-237 INT	**0.5125**	0.09663	pCi/g	**0.111**	**Y**	87.33	1	1.112	IDENTIFIED	9.01	☑ UI	
Potassium-40 ✓	**6.847**	0.6227	pCi/g	**0.2305**	**1.00**	1461	1	1.951	IDENTIFIED	3.761	☐	
Radium-223 INT	**0.3432**	0.1024	pCi/g	**0.1164**	**Y**	270.4	1	1.493	IDENTIFIED	14.72	☑ UI	
Thallium-208 ✓	**0.3114**	0.03931	pCi/g	**0.02649**	**0.080**	583.3	1	1.33	IDENTIFIED	5.417	☐	
Thorium-234 ✓	**1.436**	0.2754	pCi/g	**0.2579**	**0.500**	92.79	1	1.144	IDENTIFIED	9.103	☐	

*** = 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
1201473820		14-DEC-07 16:00	0	LCS	LOAD	1		GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	**1.152**	0.5255	pCi/g	**0.8197**	**0.800**	910.3	1	2.367	FAIL_ABUND	22.92	☐	
Americium-241	**14.27**	1.41	pCi/g	**0.6353**	**0.200**	59.55	1	0.8054	IDENTIFIED	3.14	☐	
Bismuth-214	**0.521**	0.2619	pCi/g	**0.3526**	**0.200**	609.1	1	1.281	FAIL_ABUND	25.48	☐	
Cesium-137	**5.643**	0.4415	pCi/g	**0.1411**	**0.100**	661.4	1	1.451	IDENTIFIED	2.688	☐	
Cobalt-60	**8.353**	0.6218	pCi/g	**0.1487**	**0.100**	1173	1	1.894	IDENTIFIED	2.395	☐	
Gross Gamma	**38.97**	10.99	pCi/g	**6.855**	**N**		0				☐	
Lead-212	**0.995**	0.1546	pCi/g	**0.2104**	**0.100**	238.6	1	0.9284	IDENTIFIED	7.41	☐	
Lead-214	**0.6571**	0.2881	pCi/g	**0.2383**	**0.100**	351.9	1	1.43	IDENTIFIED	22.2	☐	
Neptunium-237	**30.62**	2.456	pCi/g	**0.8445**	**Y**	88.1	1	0.8534	IDENTIFIED	1.691	☐	

Polonium-209	**238.6**	46.27	pCi/g	**35.47**	**Y**	897.6	1	1.256	IDENTIFIED	9.037	☐
Thallium-208	**0.3697**	0.1176	pCi/g	**0.133**	**0.080**	583.1	1	1.535	IDENTIFIED	15.98	☐

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

VAX/VMS Nuclide Identification Report Generated 14-DEC-2007 14:23:36.65

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681021.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 14-DEC-2007 10:23:10
Sample ID        : G198681021           Sample quantity  : 1.35490E+02 GRAM
Detector name    : GAM11                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:02.29  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708123               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*	96	504	0.99	92.15	87	10	6.66E-03	47.6	
2	0	63.20*	129	499	0.67	125.90	122	8	8.94E-03	33.4	
3	4	74.78*	455	434	0.85	149.07	145	16	3.16E-02	8.6	8.64E-01
4	4	77.02*	755	413	0.90	153.55	145	16	5.25E-02	5.7	
5	5	84.24*	108	356	0.82	168.01	165	28	7.52E-03	29.9	1.77E+00
6	5	87.22*	340	476	1.09	173.97	165	28	2.36E-02	12.3	
7	5	89.81	225	392	0.96	179.15	165	28	1.56E-02	15.5	
8	5	92.63*	247	431	1.10	184.80	165	28	1.71E-02	17.8	
9	0	105.54	119	459	1.82	210.65	206	9	8.27E-03	33.7	
10	0	129.00	76	493	0.89	257.61	253	9	5.25E-03	54.1	
11	0	143.45*	53	387	0.75	286.53	283	8	3.70E-03	69.0	
12	0	153.57	17	298	0.46	306.79	304	5	1.19E-03	152.2	
13	0	185.63*	393	460	1.10	370.96	365	12	2.73E-02	12.7	
14	0	209.24	182	351	0.93	418.21	415	9	1.27E-02	19.9	
15	4	238.57*	1733	249	0.98	476.92	472	15	1.20E-01	2.9	3.35E+00
16	4	241.45	360	280	1.57	482.70	472	15	2.50E-02	11.9	
17	0	270.13*	139	266	1.72	540.10	535	10	9.63E-03	24.2	
18	0	277.14	86	171	1.02	554.14	551	7	5.96E-03	27.4	
19	0	284.08	48	142	1.55	568.02	565	6	3.35E-03	41.7	
20	0	295.16*	434	265	1.06	590.21	586	10	3.01E-02	8.9	
21	0	300.46	105	318	1.38	600.82	596	12	7.27E-03	35.6	
22	0	328.39	62	209	1.32	656.72	653	9	4.32E-03	43.7	
23	0	338.29	332	239	1.06	676.53	672	10	2.31E-02	10.3	
24	0	346.25	20	169	3.29	692.46	689	9	1.41E-03	116.8	
25	2	351.86*	769	124	1.08	703.69	699	12	5.34E-02	4.4	6.73E-01
26	0	405.32	43	121	1.43	810.69	808	8	3.00E-03	46.8	
27	7	409.54	40	98	1.49	819.14	816	13	2.79E-03	43.5	1.81E+00
28	7	412.87	26	93	1.46	825.80	816	13	1.83E-03	63.2	
29	0	463.29*	56	158	0.99	926.72	921	10	3.91E-03	44.9	
30	0	499.26	22	51	1.37	998.70	995	6	1.53E-03	55.6	
31	0	510.74*	153	170	1.61	1021.68	1016	15	1.07E-02	25.6	
32	0	562.38	57	87	2.81	1125.03	1120	10	3.94E-03	33.6	
33	0	583.17*	502	133	1.14	1166.65	1160	13	3.48E-02	7.0	
34	0	609.33*	567	131	1.32	1219.01	1214	12	3.94E-02	6.1	
35	0	641.16	26	84	3.14	1282.70	1275	12	1.80E-03	75.2	
36	0	645.61	45	45	2.89	1291.61	1287	10	3.10E-03	31.9	
37	0	651.18*	37	71	1.09	1302.77	1298	11	2.56E-03	51.2	
38	1	661.65	122	72	1.54	1323.72	1318	16	8.44E-03	15.5	9.48E-01

Sample ID : G198681021 Acquisition date : 14-DEC-2007 10:23:10

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	1	664.91	29	48	1.54	1330.23	1318	16	2.04E-03	45.1	
40	0	703.98	29	98	0.82	1408.43	1402	11	2.01E-03	69.6	
41	0	717.97	16	72	1.00	1436.42	1433	8	1.13E-03	92.5	
42	0	727.61	148	85	1.55	1455.72	1452	13	1.02E-02	15.3	
43	0	768.39	47	87	1.02	1537.33	1531	11	3.23E-03	41.7	
44	0	795.04	94	61	1.15	1590.66	1585	13	6.50E-03	20.1	
45	0	804.09*	63	71	6.52	1608.77	1599	20	4.41E-03	36.4	
46	0	812.43	8	29	1.23	1625.46	1619	8	5.76E-04	118.7	
47	0	860.80*	84	64	1.24	1722.26	1716	13	5.82E-03	24.2	
48	0	911.37*	360	86	1.35	1823.46	1816	15	2.50E-02	7.9	
49	0	934.78	45	59	1.79	1870.30	1863	14	3.14E-03	39.1	
50	1	964.77	84	29	1.75	1930.32	1923	22	5.81E-03	16.6	1.26E+00
51	1	969.07	227	29	1.75	1938.93	1923	22	1.57E-02	8.4	
52	0	1029.04	18	26	0.93	2058.93	2053	9	1.25E-03	57.0	
53	0	1067.25	14	51	3.24	2135.38	2128	12	9.59E-04	106.9	
54	0	1120.65*	109	81	1.78	2242.25	2235	17	7.59E-03	21.6	
55	0	1148.64	6	43	0.61	2298.25	2293	11	3.92E-04	225.9	
56	0	1156.36	25	40	1.63	2313.70	2309	8	1.71E-03	50.1	
57	0	1195.84	21	79	5.18	2392.69	2379	21	1.43E-03	110.0	
58	0	1238.47	47	35	0.88	2477.99	2474	8	3.28E-03	25.9	
59	0	1309.39	7	48	3.34	2619.90	2605	16	4.58E-04	246.1	
60	0	1358.66	10	10	0.62	2718.49	2715	6	6.91E-04	60.1	
61	0	1377.95	28	30	1.79	2757.07	2752	10	1.94E-03	41.2	
62	0	1382.29	9	14	0.52	2765.76	2762	7	6.05E-04	81.6	
63	0	1385.36	15	17	1.53	2771.91	2768	9	1.05E-03	54.5	
64	0	1409.37	43	24	0.97	2819.94	2813	17	3.00E-03	30.6	
65	0	1450.04	11	12	0.71	2901.31	2897	8	7.88E-04	60.4	
66	0	1461.00*	666	19	1.93	2923.24	2916	15	4.63E-02	4.2	
67	0	1474.92	10	9	0.66	2951.10	2947	7	6.74E-04	63.0	
68	0	1510.56	17	18	0.77	3022.40	3014	13	1.19E-03	58.1	
69	0	1548.63	8	23	3.20	3098.57	3086	16	5.31E-04	147.4	
70	0	1574.42	11	4	1.03	3150.16	3147	7	7.69E-04	41.5	
71	0	1588.36	33	17	2.18	3178.05	3171	12	2.26E-03	31.3	
72	0	1592.18	16	15	1.63	3185.70	3183	8	1.11E-03	48.2	
73	0	1621.94	36	21	2.87	3245.22	3237	21	2.50E-03	35.9	
74	0	1631.30	26	9	1.33	3263.95	3258	13	1.79E-03	31.7	
75	0	1649.95	18	7	3.35	3301.28	3293	14	1.26E-03	38.9	
76	0	1723.87	6	10	1.22	3449.15	3445	8	3.86E-04	107.9	
77	0	1729.72	30	6	1.42	3460.85	3455	11	2.05E-03	24.0	
78	0	1747.35	8	1	1.47	3496.12	3493	7	5.29E-04	45.6	
79	0	1764.66	135	9	2.06	3530.76	3524	12	9.35E-03	9.7	
80	0	1848.86*	8	14	1.80	3699.21	3693	9	5.46E-04	105.9	
81	0	1867.42	12	0	1.18	3736.33	3732	8	8.33E-04	28.9	
82	0	1872.47	12	4	1.50	3746.42	3741	10	8.03E-04	46.2	
83	0	2032.97	6	10	1.44	4067.50	4060	10	4.17E-04	106.7	

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]G198681021       *
* Acquisition date : 14-DEC-2007 10:23:10 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 04:00:02.29     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681021           Analyst initials: MJH1            *
* Batch Number     : 708123               Sample Quantity : 1.3549E+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    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	6.838E+00	7.383E-01	2.832E-01	0.000E+00
CS-137	7.844E-02	2.447E-02	3.093E-02	0.000E+00
EU-155	1.033E-01	6.862E-02	7.532E-02	0.000E+00
TL-208	2.916E-01	4.444E-02	2.458E-02	0.000E+00
BI-212	7.429E-01	2.297E-01	2.035E-01	0.000E+00
PB-212	9.903E-01	7.981E-02	4.349E-02	0.000E+00
BI-214	6.269E-01	8.637E-02	5.190E-02	0.000E+00
PB-214	6.714E-01	6.873E-02	5.167E-02	0.000E+00
RA-223	2.731E-01	1.307E-01	1.354E-01	0.000E+00
AC-228	1.013E+00	1.800E-01	9.333E-02	0.000E+00
TH-234	8.575E-01	3.058E-01	3.258E-01	0.000E+00
U-235	9.074E-02	1.228E-01	1.473E-01	0.000E+00
NP-237	5.343E-01	1.347E-01	1.476E-01	0.000E+00
AM-243	1.517E-01	2.744E-02	3.412E-02	0.000E+00
CM-243	9.352E-02	6.212E-02	6.889E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
CO-60	-7.414E-03	1.832E-02	2.954E-02	0.000E+00	NOT IDENT.
RH-101	8.482E-03	1.559E-02	2.648E-02	0.000E+00	NOT IDENT.
SB-125	2.347E-02	3.874E-02	7.027E-02	0.000E+00	NOT IDENT.
PO-209	9.187E-01	3.427E+00	5.392E+00	0.000E+00	NOT IDENT.
BI-211	1.088E-01	4.511E-01	7.993E-01	0.000E+00	NOT IDENT.
PA-233	1.639E-02	2.789E-02	4.824E-02	0.000E+00	NOT IDENT.
PA-234M	1.064E+00	2.177E+00	3.776E+00	0.000E+00	NOT IDENT.
NP-236	1.233E-02	2.754E-02	4.384E-02	0.000E+00	NOT IDENT.
NP-239	-1.622E-02	9.257E-02	1.574E-01	0.000E+00	NOT IDENT.
AM-241	4.015E-02	5.167E-02	8.385E-02	0.000E+00	NOT IDENT.
AM-246	2.410E-02	5.682E-02	1.004E-01	0.000E+00	NOT IDENT.
CF-249	1.383E-02	1.642E-02	3.031E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 14-DEC-2007 14:23:37.66

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681021.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 14-DEC-2007 10:23:10
Sample ID        : G198681021           Sample quantity  : 1.35490E+02 GRAM
Detector name    : GAM11                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:02.29  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708123               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	666	10.66*	1.266E+00	6.838E+00	6.838E+00	11.02
CS-137	661.66	122	85.10*	2.532E+00	7.815E-02	7.844E-02	31.83
EU-155	105.31	119	21.20*	7.701E+00	1.011E-01	1.033E-01	67.78
TL-208	277.36	86	6.31	5.039E+00	3.741E-01	3.741E-01	55.16
	510.77	153	22.60	3.148E+00	2.988E-01	2.988E-01	51.51
	583.19	502	84.50*	2.820E+00	2.916E-01	2.916E-01	15.55
	763.13	------	1.81	2.235E+00	------	Line Not Found	------
	860.56	84	12.42	2.006E+00	4.656E-01	4.656E-01	49.11
BI-212	727.33	148	11.80*	2.331E+00	7.429E-01	7.429E-01	31.56
	785.37	------	1.10	2.178E+00	------	Line Not Found	------
	1620.50	36	1.49	1.175E+00	2.849E+00	2.849E+00	72.15
PB-212	74.81	455	10.40	6.096E+00	9.947E-01	9.947E-01	18.46
	77.11	755	17.50	6.322E+00	9.460E-01	9.460E-01	13.14
	87.30	340	7.81	7.100E+00	8.483E-01	8.483E-01	25.73
	238.63	1733	43.30*	5.600E+00	9.903E-01	9.903E-01	8.22
	300.09	105	3.28	4.751E+00	9.308E-01	9.308E-01	71.36
BI-214	609.31	567	46.10*	2.718E+00	6.269E-01	6.269E-01	14.06
	768.36	47	4.94	2.221E+00	5.878E-01	5.878E-01	83.72
	806.17	------	1.22	2.128E+00	------	Line Not Found	------
	934.06	45	3.03	1.862E+00	1.110E+00	1.110E+00	78.62
	1120.29	109	15.10	1.582E+00	6.337E-01	6.338E-01	43.70
	1155.19	25	1.63	1.538E+00	1.364E+00	1.364E+00	100.34
	1238.11	47	5.79	1.449E+00	7.793E-01	7.793E-01	52.24
	1280.96	------	1.43	1.408E+00	------	Line Not Found	------
	1377.67	28	4.00	1.326E+00	7.313E-01	7.313E-01	82.68
	1401.50	------	1.27	1.308E+00	------	Line Not Found	------
	1407.98	43	2.15	1.302E+00	2.139E+00	2.139E+00	61.66
	1509.23	17	2.11	1.235E+00	9.074E-01	9.075E-01	116.41
	1729.60	30	2.92	1.128E+00	1.241E+00	1.241E+00	48.41
	1764.49	135	15.40	1.115E+00	1.087E+00	1.087E+00	20.36
PB-214	74.81	455	6.44	6.096E+00	1.606E+00	1.606E+00	18.46
	77.11	755	10.80	6.322E+00	1.533E+00	1.533E+00	13.14

Sample ID : G198681021 Acquisition date : 14-DEC-2007 10:23:10

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	340	4.84	7.100E+00	1.369E+00	1.369E+00	25.73
	242.00	360	7.43	5.554E+00	1.208E+00	1.208E+00	24.59
	295.22	434	19.30	4.814E+00	6.471E-01	6.471E-01	18.81
	351.93	769	37.60*	4.222E+00	6.714E-01	6.714E-01	10.45
RA-223	269.46	139	13.70*	5.133E+00	2.731E-01	2.731E-01	48.84
AC-228	129.07	76	2.42	7.655E+00	5.657E-01	5.657E-01	108.43
	209.25	182	3.89	6.108E+00	1.063E+00	1.063E+00	40.13
	270.25	139	3.46	5.133E+00	1.081E+00	1.081E+00	48.84
	338.32	332	11.27	4.350E+00	9.383E-01	9.383E-01	21.38
	409.46	40	1.92	3.756E+00	7.724E-01	7.724E-01	87.22
	463.00	56	4.40	3.407E+00	5.204E-01	5.204E-01	90.06
	794.95	94	4.25	2.154E+00	1.416E+00	1.416E+00	41.15
	911.20	360	25.80*	1.905E+00	1.013E+00	1.013E+00	18.13
	964.77	84	4.99	1.810E+00	1.284E+00	1.284E+00	34.19
	968.97	227	15.80	1.802E+00	1.103E+00	1.103E+00	18.77
	1588.20	33	3.22	1.192E+00	1.177E+00	1.177E+00	62.93
TH-234	63.29	129	4.80	4.581E+00	8.110E-01	8.110E-01	67.02
	92.58	247	5.41*	7.367E+00	8.575E-01	8.575E-01	36.39
U-235	143.76	53	10.96*	7.428E+00	9.074E-02	9.074E-02	138.14
NP-237	86.48	340	12.40*	7.100E+00	5.343E-01	5.343E-01	25.73
AM-243	74.66	455	68.20*	6.096E+00	1.517E-01	1.517E-01	18.46
CM-243	103.76	119	23.00*	7.701E+00	9.316E-02	9.352E-02	67.78

Flag: "*" = Keyline

Sample ID : G198681021 Acquisition date : 14-DEC-2007 10:23:10

Total number of lines in spectrum 83
Number of unidentified lines 41
Number of lines tentatively identified by NID 42 50.60%

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	6.838E+00	6.838E+00	0.753E+00	11.02	
CS-137	9.47E+08S	1.00	7.815E-02	7.844E-02	2.497E-02	31.83	
EU-155	1.57E+08S	1.02	1.011E-01	1.033E-01	0.700E-01	67.78	
TL-208	4.43E+17S	1.00	2.916E-01	2.916E-01	0.453E-01	15.55	
BI-212	4.43E+17S	1.00	7.429E-01	7.429E-01	2.344E-01	31.56	
PB-212	4.43E+17S	1.00	9.903E-01	9.903E-01	0.814E-01	8.22	
BI-214	5.05E+10S	1.00	6.269E-01	6.269E-01	0.881E-01	14.06	
PB-214	5.05E+10S	1.00	6.714E-01	6.714E-01	0.701E-01	10.45	
RA-223	1.04E+12S	1.00	2.731E-01	2.731E-01	1.333E-01	48.84	
AC-228	4.43E+17S	1.00	1.013E+00	1.013E+00	0.184E+00	18.13	
TH-234	1.41E+17S	1.00	8.575E-01	8.575E-01	3.120E-01	36.39	
U-235	2.22E+16S	1.00	9.074E-02	9.074E-02	12.54E-02	138.14	
NP-237	6.75E+13S	1.00	5.343E-01	5.343E-01	1.375E-01	25.73	
AM-243	2.33E+11S	1.00	1.517E-01	1.517E-01	0.280E-01	18.46	
CM-243	8.99E+08S	1.00	9.316E-02	9.352E-02	6.339E-02	67.78	
			---	---			
	Total Activity :		1.335E+01	1.336E+01			

Grand Total Activity : 1.335E+01 1.336E+01

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

Sample ID : G198681021 Acquisition date : 14-DEC-2007 10:23:10

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.34	96	504	0.99	92.15	87	10	6.66E-03	95.1	1.72E+00	
5	84.24	108	356	0.82	168.01	165	28	7.52E-03	59.7	6.91E+00	
5	89.81	225	392	0.96	179.15	165	28	1.56E-02	31.1	7.24E+00	
0	153.57	17	298	0.46	306.79	304	5	1.19E-03	****	7.23E+00	
0	185.63	393	460	1.10	370.96	365	12	2.73E-02	25.4	6.57E+00	
0	284.08	48	142	1.55	568.02	565	6	3.35E-03	83.5	4.95E+00	
0	328.39	62	209	1.32	656.72	653	9	4.32E-03	87.3	4.45E+00	
0	346.25	20	169	3.29	692.46	689	9	1.41E-03	****	4.27E+00	
0	405.32	43	121	1.43	810.69	808	8	3.00E-03	93.6	3.79E+00	
7	412.87	26	93	1.46	825.80	816	13	1.83E-03	****	3.73E+00	
0	499.26	22	51	1.37	998.70	995	6	1.53E-03	****	3.21E+00	
0	562.38	57	87	2.81	1125.03	1120	10	3.94E-03	67.2	2.91E+00	
0	641.16	26	84	3.14	1282.70	1275	12	1.80E-03	****	2.60E+00	
0	645.61	45	45	2.89	1291.61	1287	10	3.10E-03	63.7	2.59E+00	
0	651.18	37	71	1.09	1302.77	1298	11	2.56E-03	****	2.57E+00	
1	664.91	29	48	1.54	1330.23	1318	16	2.04E-03	90.1	2.52E+00	
0	703.98	29	98	0.82	1408.43	1402	11	2.01E-03	****	2.40E+00	
0	717.97	16	72	1.00	1436.42	1433	8	1.13E-03	****	2.36E+00	
0	804.09	63	71	6.52	1608.77	1599	20	4.41E-03	72.8	2.13E+00	
0	812.43	8	29	1.23	1625.46	1619	8	5.76E-04	****	2.11E+00	
0	1029.04	18	26	0.93	2058.93	2053	9	1.25E-03	****	1.71E+00	
0	1067.25	14	51	3.24	2135.38	2128	12	9.59E-04	****	1.65E+00	
0	1148.64	6	43	0.61	2298.25	2293	11	3.92E-04	****	1.55E+00	
0	1195.84	21	79	5.18	2392.69	2379	21	1.43E-03	****	1.49E+00	
0	1309.39	7	48	3.34	2619.90	2605	16	4.58E-04	****	1.38E+00	
0	1358.66	10	10	0.62	2718.49	2715	6	6.91E-04	****	1.34E+00	
0	1382.29	9	14	0.52	2765.76	2762	7	6.05E-04	****	1.32E+00	
0	1385.36	15	17	1.53	2771.91	2768	9	1.05E-03	****	1.32E+00	
0	1450.04	11	12	0.71	2901.31	2897	8	7.88E-04	****	1.27E+00	
0	1474.92	10	9	0.66	2951.10	2947	7	6.74E-04	****	1.26E+00	
0	1548.63	8	23	3.20	3098.57	3086	16	5.31E-04	****	1.21E+00	
0	1574.42	11	4	1.03	3150.16	3147	7	7.69E-04	83.1	1.20E+00	
0	1592.18	16	15	1.63	3185.70	3183	8	1.11E-03	96.3	1.19E+00	
0	1631.30	26	9	1.33	3263.95	3258	13	1.79E-03	63.4	1.17E+00	
0	1649.95	18	7	3.35	3301.28	3293	14	1.26E-03	77.8	1.16E+00	
0	1723.87	6	10	1.22	3449.15	3445	8	3.86E-04	****	1.13E+00	
0	1747.35	8	1	1.47	3496.12	3493	7	5.29E-04	91.3	1.12E+00	
0	1848.86	8	14	1.80	3699.21	3693	9	5.46E-04	****	1.09E+00	
0	1867.42	12	0	1.18	3736.33	3732	8	8.33E-04	57.7	1.08E+00	
0	1872.47	12	4	1.50	3746.42	3741	10	8.03E-04	92.3	1.08E+00	
0	2032.97	6	10	1.44	4067.50	4060	10	4.17E-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]G198681021            *
* Acquisition date : 14-DEC-2007 10:23:10 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 04:00:02.29     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681021           Analyst initials: MJH1            *
* Batch Number     : 708123               Sample Quantity : 1.3549E+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	6.838E+00	7.383E-01	1.417E-01	7.383E-01
CS-137	7.844E-02	2.447E-02	1.548E-02	2.447E-02
EU-155	1.033E-01	6.862E-02	3.768E-02	6.862E-02
TL-208	2.916E-01	4.444E-02	1.230E-02	4.444E-02
BI-212	7.429E-01	2.297E-01	1.018E-01	2.297E-01
PB-212	9.903E-01	7.981E-02	2.176E-02	7.981E-02
BI-214	6.269E-01	8.637E-02	2.597E-02	8.637E-02
PB-214	6.714E-01	6.873E-02	2.585E-02	6.873E-02
RA-223	2.731E-01	1.307E-01	6.776E-02	1.307E-01
AC-228	1.013E+00	1.800E-01	4.669E-02	1.800E-01
TH-234	8.575E-01	3.058E-01	1.630E-01	3.058E-01
U-235	9.074E-02	1.228E-01	7.368E-02	1.228E-01
NP-237	5.343E-01	1.347E-01	7.385E-02	1.347E-01
AM-243	1.517E-01	2.744E-02	1.707E-02	2.744E-02
CM-243	9.352E-02	6.212E-02	3.446E-02	6.212E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	-7.414E-03	1.832E-02	1.478E-02	1.832E-02	NOT IDENT.
RH-101	8.482E-03	1.559E-02	1.325E-02	1.559E-02	NOT IDENT.
SB-125	2.347E-02	3.874E-02	3.515E-02	3.874E-02	NOT IDENT.
PO-209	9.187E-01	3.427E+00	2.697E+00	3.427E+00	NOT IDENT.
BI-211	1.088E-01	4.511E-01	3.999E-01	4.511E-01	NOT IDENT.
PA-233	1.639E-02	2.789E-02	2.413E-02	2.789E-02	NOT IDENT.
PA-234M	1.064E+00	2.177E+00	1.889E+00	2.177E+00	NOT IDENT.
NP-236	1.233E-02	2.754E-02	2.193E-02	2.754E-02	NOT IDENT.
NP-239	-1.622E-02	9.257E-02	7.877E-02	9.257E-02	NOT IDENT.
AM-241	4.015E-02	5.167E-02	4.195E-02	5.167E-02	NOT IDENT.
AM-246	2.410E-02	5.682E-02	5.023E-02	5.682E-02	NOT IDENT.
CF-249	1.383E-02	1.642E-02	1.516E-02	1.642E-02	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
59.54	266.6422
63.29	331.2290
74.66	431.1147
74.81	431.2602
74.81	431.2602
77.11	433.5032
77.11	433.5032
86.48	360.9449
87.30	361.5536
87.30	361.5536
92.58	365.4137
98.44	300.4425
103.76	319.5347
105.31	315.0499
129.07	323.2029
143.76	316.1140
198.00	265.2732
209.25	254.1466
228.18	221.2503
238.63	249.3070
242.00	219.0140
269.46	205.0004
270.25	205.1517
277.36	184.2778
295.22	191.1358
300.09	205.5205
312.17	146.4089
338.32	148.9108
351.93	152.9429
387.59	114.4336
409.46	106.9375
427.87	104.5061
463.00	127.8148
510.77	99.0659
583.19	79.5187
609.31	98.1166
661.66	102.6954
727.33	73.2334
763.13	74.3326
768.36	108.1886
785.37	72.5458
794.95	51.9848
806.17	45.0122
831.80	64.5518
860.56	56.0616
896.60	43.7642
911.20	49.6086
934.06	55.6668
964.77	57.2065
968.97	57.2886
1001.03	48.2495
1078.86	41.5406
1120.29	42.0636
1155.19	47.7022
1173.23	53.9084
1238.11	61.1088
1280.96	30.3863
1332.51	24.4263
1377.67	34.0185
1401.50	26.2447
1407.98	41.4910
1460.80	35.0812
1509.23	22.1768
1588.20	22.5762
1620.50	22.7373
1729.60	18.9065
1764.49	16.7397

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198681021

Total Uranium Activity	4.1986E-02	ug/g
Total Uranium Counting Unc.	5.6841E-02	ug/g
Total Uranium Tpu	5.6841E-08	ug/g
Total Uranium Mda	3.4093E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 14-DEC-2007 14:47:23.71

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681022.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 14-DEC-2007 10:46:45
Sample ID        : G198681022           Sample quantity  : 1.37030E+02 GRAM
Detector name    : GAM05                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:02.68  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708123               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	46.27*	58	428	1.13	93.32	90	9	4.00E-03	82.6	
2	0	53.45	64	413	1.44	107.68	104	8	4.44E-03	56.7	
3	0	62.81*	124	613	1.03	126.38	123	9	8.63E-03	39.4	
4	1	74.67*	676	604	1.36	150.08	144	17	4.70E-02	7.7	3.19E+00
5	1	77.02*	1020	497	1.12	154.78	144	17	7.08E-02	5.3	
6	2	84.06*	163	575	1.52	168.85	161	32	1.13E-02	28.5	1.55E+00
7	2	87.25*	406	543	1.46	175.22	161	32	2.82E-02	11.8	
8	2	89.91	314	456	1.29	180.55	161	32	2.18E-02	13.4	
9	2	92.71*	389	430	1.33	186.15	161	32	2.70E-02	12.1	
10	0	105.49	109	410	1.13	211.70	209	8	7.57E-03	33.4	
11	0	124.89*	33	462	0.69	250.47	246	9	2.31E-03	122.9	
12	0	128.69	88	438	0.97	258.06	255	8	6.10E-03	42.5	
13	0	143.03*	31	436	0.81	286.72	284	8	2.16E-03	123.9	
14	0	152.77	68	520	1.60	306.19	303	10	4.70E-03	64.0	
15	0	185.93*	217	564	1.37	372.47	366	12	1.51E-02	24.6	
16	0	209.19	173	427	1.01	418.96	413	11	1.20E-02	24.3	
17	0	238.74*	1387	481	1.15	478.01	474	8	9.63E-02	4.0	
18	0	241.98	247	306	1.15	484.48	482	7	1.72E-02	13.7	
19	0	270.00	135	364	1.97	540.49	534	13	9.35E-03	30.4	
20	2	295.33*	446	157	1.42	591.11	586	21	3.10E-02	7.3	1.11E+00
21	2	300.52	162	194	1.91	601.49	586	21	1.12E-02	18.9	
22	1	324.20	50	245	1.77	648.81	644	18	3.45E-03	62.5	1.63E+00
23	1	327.96	76	250	1.77	656.32	644	18	5.25E-03	42.3	
24	0	338.50*	343	278	1.31	677.39	671	14	2.38E-02	12.0	
25	0	352.03*	663	211	1.45	704.41	699	13	4.60E-02	6.4	
26	0	409.83	36	209	0.90	819.92	815	11	2.47E-03	80.9	
27	0	436.98	36	209	4.52	874.18	866	15	2.50E-03	89.3	
28	0	463.72	79	153	1.39	927.60	922	14	5.48E-03	35.2	
29	0	511.27*	222	158	2.28	1022.61	1015	18	1.54E-02	18.5	
30	0	583.34	436	169	1.39	1166.61	1159	16	3.03E-02	8.2	
31	0	609.62*	466	138	1.61	1219.13	1213	15	3.24E-02	7.6	
32	0	651.71	31	94	4.28	1303.20	1293	14	2.12E-03	70.0	
33	3	661.51	100	73	2.55	1322.79	1317	29	6.92E-03	19.0	2.55E+00
34	3	665.41	37	95	2.32	1330.57	1317	29	2.54E-03	61.0	
35	3	670.39	42	76	2.56	1340.52	1317	29	2.95E-03	41.8	
36	9	704.12	10	40	1.41	1407.91	1406	13	7.03E-04	92.6	2.42E+00
37	9	707.03	21	91	2.61	1413.72	1406	13	1.44E-03	89.2	
38	0	727.78	110	116	1.63	1455.18	1448	14	7.67E-03	22.7	

Sample ID : G198681022 Acquisition date : 14-DEC-2007 10:46:45

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	3	768.40	56	53	2.66	1536.33	1531	18	3.91E-03	27.8	2.26E+00
40	3	772.89	28	35	1.50	1545.30	1531	18	1.97E-03	39.2	
41	0	786.71	71	110	5.18	1572.90	1563	21	4.94E-03	38.7	
42	0	795.88	44	61	1.67	1591.23	1585	10	3.08E-03	35.5	
43	0	837.01	30	93	1.14	1673.37	1667	14	2.08E-03	70.0	
44	0	861.40	52	98	1.76	1722.10	1716	16	3.58E-03	44.8	
45	0	911.58*	291	63	1.69	1822.33	1816	12	2.02E-02	8.3	
46	0	952.87	17	23	0.79	1904.80	1900	8	1.17E-03	57.1	
47	2	965.04	89	39	2.56	1929.11	1922	29	6.21E-03	18.0	1.04E+00
48	2	969.41	209	36	1.96	1937.83	1922	29	1.45E-02	9.0	
49	0	1001.37	26	33	1.02	2001.67	1998	9	1.78E-03	44.3	
50	0	1031.33	20	24	2.07	2061.51	2055	10	1.40E-03	51.2	
51	0	1044.98	13	36	0.67	2088.76	2082	10	8.80E-04	96.3	
52	0	1075.68	34	43	6.31	2150.09	2140	17	2.38E-03	46.8	
53	0	1120.94*	101	61	1.86	2240.48	2234	13	7.03E-03	19.6	
54	0	1131.84	23	24	1.67	2262.23	2258	10	1.61E-03	43.7	
55	0	1248.82	61	165	14.71	2495.84	2471	42	4.27E-03	74.6	
56	0	1370.51	22	52	9.00	2738.82	2721	26	1.53E-03	92.3	
57	0	1377.56	49	17	4.04	2752.90	2746	17	3.40E-03	24.0	
58	0	1423.66	25	18	1.45	2844.94	2838	15	1.73E-03	42.8	
59	0	1434.88	23	12	6.08	2867.34	2859	16	1.59E-03	39.7	
60	0	1461.51*	369	43	1.92	2920.50	2912	20	2.56E-02	7.0	
61	0	1510.21	26	5	1.21	3017.73	3013	10	1.81E-03	25.4	
62	0	1630.25	24	13	1.26	3257.37	3248	17	1.70E-03	39.1	
63	0	1731.10	22	22	0.99	3458.68	3453	12	1.53E-03	48.9	
64	0	1758.49	14	9	0.91	3513.35	3502	17	9.37E-04	56.5	
65	0	1765.11*	83	8	2.01	3526.55	3519	16	5.74E-03	15.0	
66	0	1802.60	7	9	1.26	3601.37	3594	9	4.60E-04	97.0	
67	0	1819.48	10	5	1.58	3635.08	3628	12	6.71E-04	59.4	

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]G198681022       *
* Acquisition date : 14-DEC-2007 10:46:45 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 04:00:02.68     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681022           Analyst initials: MJH1            *
* Batch Number     : 708123               Sample Quantity : 1.3703E+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	4.859E+00	7.636E-01	3.118E-01	0.000E+00
CS-137	8.527E-02	3.250E-02	4.120E-02	0.000E+00
EU-155	1.046E-01	6.920E-02	9.590E-02	0.000E+00
TL-208	3.355E-01	5.881E-02	3.990E-02	0.000E+00
BI-212	7.372E-01	3.342E-01	3.322E-01	0.000E+00
PB-212	9.825E-01	1.115E-01	7.230E-02	0.000E+00
BI-214	6.829E-01	1.131E-01	7.396E-02	0.000E+00
PB-214	7.377E-01	1.006E-01	7.623E-02	0.000E+00
RA-223	3.312E-01	1.989E-01	2.045E-01	0.000E+00
AC-228	1.074E+00	1.996E-01	1.400E-01	0.000E+00
PA-234M	3.153E+00	2.751E+00	4.509E+00	0.000E+00
TH-234	1.388E+00	3.512E-01	3.820E-01	0.000E+00
U-235	6.353E-02	1.544E-01	2.154E-01	0.000E+00
NP-237	6.243E-01	1.542E-01	1.639E-01	0.000E+00
AM-243	1.852E-01	3.164E-02	3.316E-02	0.000E+00
CM-243	9.467E-02	6.264E-02	8.813E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error	MDA (pCi/GRAM)		Ided
CO-60	1.437E-02	2.450E-02	4.390E-02	0.000E+00	NOT IDENT.
RH-101	4.053E-03	2.373E-02	3.738E-02	0.000E+00	NOT IDENT.
SB-125	-2.634E-02	6.224E-02	1.009E-01	0.000E+00	NOT IDENT.
PO-209	9.858E-01	5.127E+00	8.749E+00	0.000E+00	NOT IDENT.
BI-211	2.664E-01	7.090E-01	1.076E+00	0.000E+00	NOT IDENT.
PA-233	-4.718E-02	4.057E-02	6.716E-02	0.000E+00	NOT IDENT.
NP-236	5.255E-02	3.407E-02	5.660E-02	0.000E+00	NOT IDENT.
NP-239	-2.204E-02	1.464E-01	2.466E-01	0.000E+00	NOT IDENT.
AM-241	4.180E-02	3.169E-02	5.403E-02	0.000E+00	NOT IDENT.
AM-246	3.269E-02	9.671E-02	1.483E-01	0.000E+00	NOT IDENT.
CF-249	4.745E-03	2.628E-02	4.574E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 14-DEC-2007 14:47:24.74

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681022.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 14-DEC-2007 10:46:45
Sample ID        : G198681022           Sample quantity  : 1.37030E+02 GRAM
Detector name    : GAM05                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:02.68  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708123               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	369	10.66*	9.765E-01	4.859E+00	4.859E+00	16.03
CS-137	661.66	100	85.10*	1.888E+00	8.496E-02	8.527E-02	38.89
EU-155	105.31	109	21.20*	6.881E+00	1.023E-01	1.046E-01	67.52
TL-208	277.36	------	6.31	3.981E+00	------	Line Not Found	------
	510.77	222	22.60	2.366E+00	5.692E-01	5.692E-01	37.44
	583.19	436	84.50*	2.107E+00	3.355E-01	3.355E-01	17.89
	763.13	------	1.81	1.670E+00	------	Line Not Found	------
	860.56	52	12.42	1.507E+00	3.773E-01	3.773E-01	90.11
BI-212	727.33	110	11.80*	1.739E+00	7.372E-01	7.372E-01	46.27
	785.37	71	1.10	1.627E+00	5.448E+00	5.448E+00	77.95
	1620.50	------	1.49	8.967E-01	------	Line Not Found	------
PB-212	74.81	676	10.40	7.332E+00	1.215E+00	1.215E+00	17.43
	77.11	1020	17.50	7.311E+00	1.092E+00	1.092E+00	13.37
	87.30	406	7.81	7.188E+00	9.911E-01	9.911E-01	25.21
	238.63	1387	43.30*	4.465E+00	9.825E-01	9.825E-01	11.58
	300.09	162	3.28	3.733E+00	1.809E+00	1.809E+00	38.34
BI-214	609.31	466	46.10*	2.028E+00	6.829E-01	6.829E-01	16.90
	768.36	56	4.94	1.660E+00	9.403E-01	9.403E-01	56.33
	806.17	------	1.22	1.594E+00	------	Line Not Found	------
	934.06	------	3.03	1.408E+00	------	Line Not Found	------
	1120.29	101	15.10	1.212E+00	7.578E-01	7.578E-01	39.69
	1155.19	------	1.63	1.183E+00	------	Line Not Found	------
	1238.11	------	5.79	1.118E+00	------	Line Not Found	------
	1280.96	------	1.43	1.087E+00	------	Line Not Found	------
	1377.67	49	4.00	1.025E+00	1.637E+00	1.637E+00	48.70
	1401.50	------	1.27	1.011E+00	------	Line Not Found	------
	1407.98	------	2.15	1.007E+00	------	Line Not Found	------
	1509.23	26	2.11	9.506E-01	1.776E+00	1.776E+00	51.32
	1729.60	22	2.92	8.483E-01	1.219E+00	1.219E+00	97.93
	1764.49	83	15.40	8.344E-01	8.812E-01	8.812E-01	30.71
PB-214	74.81	676	6.44	7.332E+00	1.962E+00	1.962E+00	17.43
	77.11	1020	10.80	7.311E+00	1.769E+00	1.769E+00	13.37

Sample ID : G198681022 Acquisition date : 14-DEC-2007 10:46:45

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	406	4.84	7.188E+00	1.599E+00	1.599E+00	25.21
	242.00	247	7.43	4.421E+00	1.031E+00	1.031E+00	28.56
	295.22	446	19.30	3.787E+00	8.360E-01	8.360E-01	15.81
	351.93	663	37.60*	3.273E+00	7.376E-01	7.377E-01	13.91
RA-223	269.46	135	13.70*	4.066E+00	3.312E-01	3.312E-01	61.29
AC-228	129.07	88	2.42	6.417E+00	7.751E-01	7.751E-01	85.70
	209.25	173	3.89	4.904E+00	1.246E+00	1.246E+00	49.46
	270.25	135	3.46	4.066E+00	1.311E+00	1.311E+00	61.29
	338.32	343	11.27	3.383E+00	1.232E+00	1.232E+00	24.61
	409.46	36	1.92	2.872E+00	8.835E-01	8.835E-01	161.80
	463.00	79	4.40	2.578E+00	9.524E-01	9.524E-01	70.63
	794.95	44	4.25	1.611E+00	8.881E-01	8.881E-01	71.61
	911.20	291	25.80*	1.437E+00	1.074E+00	1.074E+00	18.97
	964.77	89	4.99	1.371E+00	1.792E+00	1.792E+00	37.11
	968.97	209	15.80	1.366E+00	1.325E+00	1.325E+00	19.94
	1588.20	------	3.22	9.118E-01	------	Line Not Found	------
PA-234M	1001.03	26	0.84*	1.329E+00	3.153E+00	3.153E+00	89.05
TH-234	63.29	124	4.80	7.386E+00	4.803E-01	4.803E-01	79.23
	92.58	389	5.41*	7.105E+00	1.388E+00	1.388E+00	25.82
U-235	143.76	31	10.96*	6.122E+00	6.353E-02	6.353E-02	247.93
NP-237	86.48	406	12.40*	7.188E+00	6.243E-01	6.243E-01	25.21
AM-243	74.66	676	68.20*	7.332E+00	1.852E-01	1.852E-01	17.43
CM-243	103.76	109	23.00*	6.881E+00	9.430E-02	9.467E-02	67.52

Flag: "*" = Keyline

Sample ID : G198681022 Acquisition date : 14-DEC-2007 10:46:45

Total number of lines in spectrum 67
Number of unidentified lines 30
Number of lines tentatively identified by NID 37 55.22%

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	4.859E+00	4.859E+00	0.779E+00	16.03	
CS-137	9.47E+08S	1.00	8.496E-02	8.527E-02	3.316E-02	38.89	
EU-155	1.57E+08S	1.02	1.023E-01	1.046E-01	0.706E-01	67.52	
TL-208	4.43E+17S	1.00	3.355E-01	3.355E-01	0.600E-01	17.89	
BI-212	4.43E+17S	1.00	7.372E-01	7.372E-01	3.411E-01	46.27	
PB-212	4.43E+17S	1.00	9.825E-01	9.825E-01	1.138E-01	11.58	
BI-214	5.05E+10S	1.00	6.829E-01	6.829E-01	1.154E-01	16.90	
PB-214	5.05E+10S	1.00	7.376E-01	7.377E-01	1.026E-01	13.91	
RA-223	1.04E+12S	1.00	3.312E-01	3.312E-01	2.030E-01	61.29	
AC-228	4.43E+17S	1.00	1.074E+00	1.074E+00	0.204E+00	18.97	
PA-234M	1.41E+17S	1.00	3.153E+00	3.153E+00	2.808E+00	89.05	
TH-234	1.41E+17S	1.00	1.388E+00	1.388E+00	0.358E+00	25.82	
U-235	2.22E+16S	1.00	6.353E-02	6.353E-02	15.75E-02	247.93	
NP-237	6.75E+13S	1.00	6.243E-01	6.243E-01	1.574E-01	25.21	
AM-243	2.33E+11S	1.00	1.852E-01	1.852E-01	0.323E-01	17.43	
CM-243	8.99E+08S	1.00	9.430E-02	9.467E-02	6.392E-02	67.52	
			---	---			
	Total Activity :		1.544E+01	1.544E+01			

Grand Total Activity : 1.544E+01 1.544E+01

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

Sample ID : G198681022 Acquisition date : 14-DEC-2007 10:46:45

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.27	58	428	1.13	93.32	90	9	4.00E-03	****	7.29E+00	
0	53.45	64	413	1.44	107.68	104	8	4.44E-03	****	7.36E+00	
2	84.06	163	575	1.52	168.85	161	32	1.13E-02	57.0	7.23E+00	
2	89.91	314	456	1.29	180.55	161	32	2.18E-02	26.9	7.15E+00	
0	124.89	33	462	0.69	250.47	246	9	2.31E-03	****	6.50E+00	
0	152.77	68	520	1.60	306.19	303	10	4.70E-03	****	5.92E+00	
0	185.93	217	564	1.37	372.47	366	12	1.51E-02	49.1	5.30E+00	
1	324.20	50	245	1.77	648.81	644	18	3.45E-03	****	3.51E+00	
1	327.96	76	250	1.77	656.32	644	18	5.25E-03	84.6	3.47E+00	
0	436.98	36	209	4.52	874.18	866	15	2.50E-03	****	2.72E+00	
0	651.71	31	94	4.28	1303.20	1293	14	2.12E-03	****	1.91E+00	
3	665.41	37	95	2.32	1330.57	1317	29	2.54E-03	****	1.88E+00	
3	670.39	42	76	2.56	1340.52	1317	29	2.95E-03	83.6	1.87E+00	
9	704.12	10	40	1.41	1407.91	1406	13	7.03E-04	****	1.79E+00	
9	707.03	21	91	2.61	1413.72	1406	13	1.44E-03	****	1.78E+00	
3	772.89	28	35	1.50	1545.30	1531	18	1.97E-03	78.3	1.65E+00	
0	837.01	30	93	1.14	1673.37	1667	14	2.08E-03	****	1.54E+00	
0	952.87	17	23	0.79	1904.80	1900	8	1.17E-03	****	1.39E+00	
0	1031.33	20	24	2.07	2061.51	2055	10	1.40E-03	****	1.30E+00	
0	1044.98	13	36	0.67	2088.76	2082	10	8.80E-04	****	1.28E+00	
0	1075.68	34	43	6.31	2150.09	2140	17	2.38E-03	93.5	1.25E+00	
0	1131.84	23	24	1.67	2262.23	2258	10	1.61E-03	87.4	1.20E+00	
0	1248.82	61	165	14.71	2495.84	2471	42	4.27E-03	****	1.11E+00	
0	1370.51	22	52	9.00	2738.82	2721	26	1.53E-03	****	1.03E+00	
0	1423.66	25	18	1.45	2844.94	2838	15	1.73E-03	85.5	9.98E-01	
0	1434.88	23	12	6.08	2867.34	2859	16	1.59E-03	79.4	9.91E-01	
0	1630.25	24	13	1.26	3257.37	3248	17	1.70E-03	78.2	8.92E-01	
0	1758.49	14	9	0.91	3513.35	3502	17	9.37E-04	****	8.37E-01	
0	1802.60	7	9	1.26	3601.37	3594	9	4.60E-04	****	8.20E-01	
0	1819.48	10	5	1.58	3635.08	3628	12	6.71E-04	****	8.13E-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]G198681022            *
* Acquisition date : 14-DEC-2007 10:46:45 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 04:00:02.68     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681022           Analyst initials: MJH1            *
* Batch Number     : 708123               Sample Quantity : 1.3703E+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	4.859E+00	7.636E-01	1.560E-01	7.636E-01
CS-137	8.527E-02	3.250E-02	2.061E-02	3.250E-02
EU-155	1.046E-01	6.920E-02	4.798E-02	6.920E-02
TL-208	3.355E-01	5.881E-02	1.996E-02	5.881E-02
BI-212	7.372E-01	3.342E-01	1.662E-01	3.342E-01
PB-212	9.825E-01	1.115E-01	3.617E-02	1.115E-01
BI-214	6.829E-01	1.131E-01	3.700E-02	1.131E-01
PB-214	7.377E-01	1.006E-01	3.814E-02	1.006E-01
RA-223	3.312E-01	1.989E-01	1.023E-01	1.989E-01
AC-228	1.074E+00	1.996E-01	7.003E-02	1.996E-01
PA-234M	3.153E+00	2.751E+00	2.256E+00	2.751E+00
TH-234	1.388E+00	3.512E-01	1.911E-01	3.512E-01
U-235	6.353E-02	1.544E-01	1.078E-01	1.544E-01
NP-237	6.243E-01	1.542E-01	8.201E-02	1.542E-01
AM-243	1.852E-01	3.164E-02	1.659E-02	3.164E-02
CM-243	9.467E-02	6.264E-02	4.409E-02	6.264E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	1.437E-02	2.450E-02	2.196E-02	2.450E-02	NOT IDENT.
RH-101	4.053E-03	2.373E-02	1.870E-02	2.373E-02	NOT IDENT.
SB-125	-2.634E-02	6.224E-02	5.048E-02	6.224E-02	NOT IDENT.
PO-209	9.858E-01	5.127E+00	4.377E+00	5.127E+00	NOT IDENT.
BI-211	2.664E-01	7.090E-01	5.385E-01	7.090E-01	NOT IDENT.
PA-233	-4.718E-02	4.057E-02	3.360E-02	4.057E-02	NOT IDENT.
NP-236	5.255E-02	3.407E-02	2.832E-02	3.407E-02	NOT IDENT.
NP-239	-2.204E-02	1.464E-01	1.234E-01	1.464E-01	NOT IDENT.
AM-241	4.180E-02	3.169E-02	2.703E-02	3.169E-02	NOT IDENT.
AM-246	3.269E-02	9.671E-02	7.418E-02	9.671E-02	NOT IDENT.
CF-249	4.745E-03	2.628E-02	2.288E-02	2.628E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	364.7180
63.29	501.1406
74.66	602.3968
74.81	602.5657
74.81	602.5657
77.11	605.1343
77.11	605.1343
86.48	471.6163
87.30	472.2733
87.30	472.2733
92.58	476.4246
98.44	400.7482
103.76	432.0080
105.31	415.8822
129.07	426.6882
143.76	466.4382
198.00	363.1669
209.25	352.8130
228.18	350.0092
238.63	446.8686
242.00	873.6772
269.46	299.0628
270.25	299.2501
277.36	290.8675
295.22	215.2835
300.09	216.0517
312.17	251.3878
338.32	222.8585
351.93	204.2447
387.59	185.7610
409.46	222.0913
427.87	164.4746
463.00	195.6012
510.77	139.5873
583.19	119.4074
609.31	113.2923
661.66	103.3550
727.33	110.9447
763.13	69.9254
768.36	121.3206
785.37	96.2734
794.95	106.9496
806.17	76.7747
831.80	62.8933
860.56	98.7793
896.60	81.2040
911.20	64.8457
934.06	68.4714
964.77	66.9901
968.97	67.0746
1001.03	61.2664
1078.86	56.0427
1120.29	60.9643
1155.19	64.4132
1173.23	49.2622
1238.11	46.3931
1280.96	57.5469
1332.51	47.2049
1377.67	26.6391
1401.50	40.8119
1407.98	42.9141
1460.80	25.8423
1509.23	34.4652
1588.20	41.3994
1620.50	21.6060
1729.60	27.1580
1764.49	0.0000

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198681022

Total Uranium Activity	2.9397E-02	ug/g
Total Uranium Counting Unc.	7.1428E-02	ug/g
Total Uranium Tpu	7.1428E-08	ug/g
Total Uranium Mda	4.9868E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 14-DEC-2007 14:48:19.59

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681023.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 14-DEC-2007 10:47:38
Sample ID        : G198681023           Sample quantity  : 1.29470E+02 GRAM
Detector name    : GAM23                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:08.53  0.1%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708123               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.58*	49	455	0.85	127.11	123	9	3.38E-03	86.5	
2	2	74.92	286	314	0.79	149.78	144	15	1.99E-02	11.0	8.12E-01
3	2	77.15*	421	319	0.80	154.24	144	15	2.92E-02	8.5	
4	0	82.89*	17	520	1.85	165.73	165	8	1.19E-03	245.2	
5	0	86.92	140	471	1.11	173.79	172	7	9.73E-03	26.8	
6	7	90.02	123	231	0.94	179.99	178	15	8.54E-03	19.0	4.07E+00
7	7	92.95*	208	504	1.66	185.87	178	15	1.45E-02	23.8	
8	0	104.83	58	352	1.48	209.61	208	7	4.00E-03	55.2	
9	0	129.07	75	379	0.73	258.11	254	8	5.18E-03	46.8	
10	0	154.08	48	249	1.23	308.13	305	6	3.32E-03	54.4	
11	0	186.00*	185	403	1.16	371.98	368	9	1.28E-02	23.0	
12	0	198.82*	52	300	2.45	397.62	394	8	3.60E-03	64.9	
13	0	209.42	114	313	1.05	418.84	415	8	7.91E-03	28.7	
14	6	238.66*	1297	277	1.01	477.32	473	15	9.01E-02	3.5	3.12E+00
15	6	241.60	259	317	1.61	483.20	473	15	1.80E-02	18.1	
16	0	261.26	12	179	1.15	522.53	519	6	8.23E-04	182.1	
17	0	269.86	134	277	1.39	539.73	534	10	9.33E-03	24.7	
18	0	277.53	25	173	1.18	555.08	553	6	1.75E-03	85.1	
19	0	295.18*	300	206	1.13	590.38	586	9	2.08E-02	11.4	
20	0	300.01	55	268	1.01	600.04	596	10	3.80E-03	57.6	
21	0	327.59	84	202	1.20	655.22	651	10	5.80E-03	33.6	
22	0	338.28	242	267	1.26	676.61	671	12	1.68E-02	15.0	
23	0	351.78*	494	227	1.04	703.61	698	12	3.43E-02	7.9	
24	0	364.93	78	160	2.10	729.92	725	11	5.38E-03	33.5	
25	0	409.40	56	127	2.20	818.87	815	8	3.92E-03	37.1	
26	0	462.62	74	99	0.83	925.35	922	8	5.16E-03	25.9	
27	5	483.58	23	37	1.50	967.28	965	15	1.61E-03	43.4	2.31E+00
28	5	486.84	53	82	2.26	973.81	965	15	3.67E-03	38.0	
29	0	510.73*	115	229	1.91	1021.58	1014	16	8.02E-03	37.4	
30	0	529.76	11	149	1.31	1059.67	1054	12	7.84E-04	218.8	
31	0	569.53*	4	150	1.28	1139.22	1133	13	2.73E-04	922.5	
32	0	582.96*	362	121	1.40	1166.09	1161	12	2.52E-02	8.6	
33	0	609.13*	340	102	1.47	1218.44	1212	12	2.36E-02	8.6	
34	0	614.20*	23	78	3.70	1228.60	1224	10	1.63E-03	85.5	
35	0	661.56*	28	102	2.05	1323.35	1318	11	1.93E-03	76.2	
36	0	727.47	89	126	1.52	1455.22	1447	15	6.16E-03	30.0	
37	4	767.66	40	71	2.43	1535.62	1530	21	2.75E-03	43.4	1.27E+00
38	4	772.12	43	63	2.43	1544.54	1530	21	2.97E-03	44.5	

Sample ID : G198681023 Acquisition date : 14-DEC-2007 10:47:38

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	1	791.17	22	24	1.51	1582.66	1580	15	1.54E-03	39.5	1.84E+00
40	1	794.27	48	59	1.85	1588.86	1580	15	3.30E-03	34.8	
41	0	859.45	63	81	1.74	1719.29	1713	13	4.37E-03	32.1	
42	0	910.85*	245	63	1.72	1822.13	1816	12	1.70E-02	9.6	
43	3	964.35	76	31	2.40	1929.18	1921	23	5.28E-03	21.4	1.36E+00
44	3	968.56	168	35	2.17	1937.60	1921	23	1.16E-02	10.9	
45	0	1063.30*	7	59	1.72	2127.18	2122	15	4.85E-04	418.5	
46	0	1094.32	14	21	1.72	2189.25	2185	7	9.99E-04	58.9	
47	0	1119.47	94	33	2.91	2239.58	2232	13	6.49E-03	16.3	
48	0	1139.80	27	65	9.37	2280.25	2266	22	1.91E-03	77.6	
49	0	1152.07	18	34	1.49	2304.81	2300	12	1.26E-03	67.6	
50	0	1207.98	15	27	1.87	2416.68	2412	9	1.08E-03	67.0	
51	2	1375.91	14	18	1.78	2752.74	2750	20	9.94E-04	47.3	2.73E+00
52	2	1378.53	18	35	2.08	2758.00	2750	20	1.28E-03	70.3	
53	0	1407.40	14	8	1.02	2815.77	2810	11	9.41E-04	49.4	
54	0	1426.36	8	21	0.73	2853.72	2846	11	5.84E-04	112.4	
55	0	1459.92*	316	5	2.03	2920.88	2911	17	2.19E-02	6.1	
56	0	1502.13	33	10	7.41	3005.36	2994	21	2.29E-03	30.1	
57	0	1589.34	22	44	1.36	3179.89	3171	16	1.51E-03	71.4	
58	0	1631.00	31	4	1.15	3263.28	3255	19	2.16E-03	24.4	
59	0	1656.27	9	6	1.48	3313.86	3306	11	6.48E-04	58.8	
60	0	1678.48	10	4	2.79	3358.30	3354	9	7.24E-04	47.1	
61	0	1763.83	75	3	1.01	3529.14	3523	12	5.21E-03	12.4	
62	0	1769.32	51	3	2.23	3540.13	3535	12	3.52E-03	15.7	
63	0	1855.44	10	0	1.41	3712.50	3708	9	6.94E-04	31.6	
64	0	1869.55	12	6	5.99	3740.76	3732	15	8.06E-04	58.5	
65	0	1883.90	11	9	1.41	3769.48	3763	12	7.60E-04	62.6	
66	0	1933.79	13	7	2.63	3869.35	3864	10	8.84E-04	48.9	
67	0	2001.80	17	0	0.73	4005.47	3997	15	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]G198681023       *
* Acquisition date : 14-DEC-2007 10:47:38 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 04:00:08.53     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681023           Analyst initials: MJH1            *
* Batch Number     : 708123               Sample Quantity : 1.2947E+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	4.136E+00	5.724E-01	2.731E-01	0.000E+00
RH-101	1.966E-02	2.501E-02	3.038E-02	0.000E+00
CS-137	2.258E-02	3.376E-02	3.701E-02	0.000E+00
EU-155	6.395E-02	6.937E-02	9.138E-02	0.000E+00
TL-208	2.655E-01	4.696E-02	3.901E-02	0.000E+00
BI-212	5.628E-01	3.329E-01	2.814E-01	0.000E+00
PB-212	9.113E-01	8.076E-02	5.539E-02	0.000E+00
BI-214	4.743E-01	8.452E-02	6.545E-02	0.000E+00
PB-214	5.391E-01	8.812E-02	6.628E-02	0.000E+00
RA-223	3.274E-01	1.598E-01	1.686E-01	0.000E+00
AC-228	8.717E-01	1.770E-01	1.349E-01	0.000E+00
TH-234	9.672E-01	4.570E-01	3.810E-01	0.000E+00
NP-237	3.062E-01	1.624E-01	1.645E-01	0.000E+00
AM-243	1.461E-01	3.321E-02	4.403E-02	0.000E+00
CM-243	5.789E-02	6.280E-02	7.937E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
CO-60	5.618E-03	2.045E-02	3.567E-02	0.000E+00	NOT IDENT.
SB-125	3.876E-02	5.284E-02	9.420E-02	0.000E+00	NOT IDENT.
PO-209	3.692E-01	4.228E+00	7.115E+00	0.000E+00	NOT IDENT.
BI-211	3.595E-01	6.380E-01	1.120E+00	0.000E+00	NOT IDENT.
PA-233	3.681E-03	3.612E-02	6.393E-02	0.000E+00	NOT IDENT.
PA-234M	1.408E-01	2.783E+00	4.258E+00	0.000E+00	NOT IDENT.
U-235	-6.666E-02	1.188E-01	1.781E-01	0.000E+00	NOT IDENT.
NP-236	1.768E-02	3.133E-02	5.259E-02	0.000E+00	NOT IDENT.
NP-239	-7.620E-03	1.194E-01	2.010E-01	0.000E+00	NOT IDENT.
AM-241	-4.452E-02	9.006E-02	1.366E-01	0.000E+00	NOT IDENT.
AM-246	3.035E-03	7.197E-02	1.237E-01	0.000E+00	NOT IDENT.
CF-249	8.402E-03	2.332E-02	4.100E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 14-DEC-2007 14:48:20.57

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681023.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 14-DEC-2007 10:47:38
Sample ID        : G198681023           Sample quantity  : 1.29470E+02 GRAM
Detector name    : GAM23                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:08.53  0.1%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708123               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	316	10.66*	1.038E+00	4.136E+00	4.136E+00	14.12
RH-101	198.00	52	73.00*	5.420E+00	1.902E-02	1.966E-02	129.81
CS-137	661.66	28	85.10*	2.102E+00	2.249E-02	2.258E-02	152.60
EU-155	105.31	58	21.20*	6.290E+00	6.257E-02	6.395E-02	110.69
TL-208	277.36	25	6.31	4.251E+00	1.360E-01	1.360E-01	170.33
	510.77	115	22.60	2.615E+00	2.833E-01	2.833E-01	75.03
	583.19	362	84.50*	2.342E+00	2.655E-01	2.655E-01	18.05
	763.13	------	1.81	1.854E+00	------	Line Not Found	------
	860.56	63	12.42	1.666E+00	4.408E-01	4.408E-01	64.68
BI-212	727.33	89	11.80*	1.935E+00	5.628E-01	5.628E-01	60.36
	785.37	------	1.10	1.807E+00	------	Line Not Found	------
	1620.50	------	1.49	9.597E-01	------	Line Not Found	------
PB-212	74.81	286	10.40	4.161E+00	9.583E-01	9.583E-01	23.19
	77.11	421	17.50	4.417E+00	7.893E-01	7.893E-01	18.50
	87.30	140	7.81	5.348E+00	4.862E-01	4.862E-01	54.13
	238.63	1297	43.30*	4.766E+00	9.113E-01	9.113E-01	9.04
	300.09	55	3.28	4.002E+00	6.041E-01	6.041E-01	115.30
BI-214	609.31	340	46.10*	2.256E+00	4.743E-01	4.743E-01	18.18
	768.36	40	4.94	1.844E+00	6.309E-01	6.310E-01	87.03
	806.17	------	1.22	1.765E+00	------	Line Not Found	------
	934.06	------	3.03	1.544E+00	------	Line Not Found	------
	1120.29	94	15.10	1.307E+00	6.869E-01	6.869E-01	33.16
	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	18	4.00	1.087E+00	6.125E-01	6.126E-01	140.81
	1401.50	------	1.27	1.073E+00	------	Line Not Found	------
	1407.98	14	2.15	1.069E+00	8.544E-01	8.545E-01	98.97
	1509.23	------	2.11	1.011E+00	------	Line Not Found	------
	1729.60	------	2.92	9.196E-01	------	Line Not Found	------
	1764.49	75	15.40	9.089E-01	7.767E-01	7.767E-01	25.64
PB-214	74.81	286	6.44	4.161E+00	1.548E+00	1.548E+00	23.19

Sample ID : G198681023 Acquisition date : 14-DEC-2007 10:47:38

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	421	10.80	4.417E+00	1.279E+00	1.279E+00	18.50
	87.30	140	4.84	5.348E+00	7.846E-01	7.846E-01	54.13
	242.00	259	7.43	4.723E+00	1.070E+00	1.070E+00	36.62
	295.22	300	19.30	4.053E+00	5.553E-01	5.553E-01	23.55
	351.93	494	37.60*	3.530E+00	5.390E-01	5.391E-01	16.68
RA-223	269.46	134	13.70*	4.344E+00	3.274E-01	3.274E-01	49.81
AC-228	129.07	75	2.42	6.529E+00	6.841E-01	6.841E-01	93.86
	209.25	114	3.89	5.234E+00	8.111E-01	8.111E-01	57.60
	270.25	134	3.46	4.344E+00	1.296E+00	1.296E+00	49.81
	338.32	242	11.27	3.641E+00	8.541E-01	8.541E-01	30.45
	409.46	56	1.92	3.128E+00	1.362E+00	1.362E+00	74.41
	463.00	74	4.40	2.835E+00	8.629E-01	8.629E-01	52.01
	794.95	48	4.25	1.789E+00	9.060E-01	9.060E-01	69.88
	911.20	245	25.80*	1.580E+00	8.717E-01	8.717E-01	20.72
	964.77	76	4.99	1.499E+00	1.473E+00	1.473E+00	43.56
	968.97	168	15.80	1.493E+00	1.030E+00	1.030E+00	23.12
	1588.20	22	3.22	9.729E-01	1.008E+00	1.008E+00	143.06
TH-234	63.29	49	4.80	2.668E+00	5.510E-01	5.510E-01	173.21
	92.58	208	5.41*	5.766E+00	9.672E-01	9.672E-01	48.21
NP-237	86.48	140	12.40*	5.348E+00	3.062E-01	3.062E-01	54.13
AM-243	74.66	286	68.20*	4.161E+00	1.461E-01	1.461E-01	23.19
CM-243	103.76	58	23.00*	6.290E+00	5.767E-02	5.789E-02	110.69

Flag: "*" = Keyline

Sample ID : G198681023 Acquisition date : 14-DEC-2007 10:47:38

Total number of lines in spectrum 67
Number of unidentified lines 31
Number of lines tentatively identified by NID 36 53.73%

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	4.136E+00	4.136E+00	0.584E+00	14.12	
RH-101	1.04E+08S	1.03	1.902E-02	1.966E-02	2.552E-02	129.81	
CS-137	9.47E+08S	1.00	2.249E-02	2.258E-02	3.445E-02	152.60	
EU-155	1.57E+08S	1.02	6.257E-02	6.395E-02	7.079E-02	110.69	
TL-208	4.43E+17S	1.00	2.655E-01	2.655E-01	0.479E-01	18.05	
BI-212	4.43E+17S	1.00	5.628E-01	5.628E-01	3.397E-01	60.36	
PB-212	4.43E+17S	1.00	9.113E-01	9.113E-01	0.824E-01	9.04	
BI-214	5.05E+10S	1.00	4.743E-01	4.743E-01	0.862E-01	18.18	
PB-214	5.05E+10S	1.00	5.390E-01	5.391E-01	0.899E-01	16.68	
RA-223	1.04E+12S	1.00	3.274E-01	3.274E-01	1.631E-01	49.81	
AC-228	4.43E+17S	1.00	8.717E-01	8.717E-01	1.806E-01	20.72	
TH-234	1.41E+17S	1.00	9.672E-01	9.672E-01	4.663E-01	48.21	
NP-237	6.75E+13S	1.00	3.062E-01	3.062E-01	1.658E-01	54.13	
AM-243	2.33E+11S	1.00	1.461E-01	1.461E-01	0.339E-01	23.19	
CM-243	8.99E+08S	1.00	5.767E-02	5.789E-02	6.408E-02	110.69	
			---	---			
	Total Activity :		9.669E+00	9.671E+00			

Grand Total Activity : 9.669E+00 9.671E+00

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

Sample ID : G198681023 Acquisition date : 14-DEC-2007 10:47:38

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	82.89	17	520	1.85	165.73	165	8	1.19E-03	****	5.00E+00	
7	90.02	123	231	0.94	179.99	178	15	8.54E-03	38.0	5.58E+00	
0	154.08	48	249	1.23	308.13	305	6	3.32E-03	****	6.23E+00	
0	186.00	185	403	1.16	371.98	368	9	1.28E-02	46.0	5.65E+00	
0	261.26	12	179	1.15	522.53	519	6	8.23E-04	****	4.45E+00	
0	327.59	84	202	1.20	655.22	651	10	5.80E-03	67.1	3.73E+00	
0	364.93	78	160	2.10	729.92	725	11	5.38E-03	67.1	3.43E+00	
5	483.58	23	37	1.50	967.28	965	15	1.61E-03	86.8	2.73E+00	
5	486.84	53	82	2.26	973.81	965	15	3.67E-03	76.0	2.72E+00	
0	529.76	11	149	1.31	1059.67	1054	12	7.84E-04	****	2.54E+00	
0	569.53	4	150	1.28	1139.22	1133	13	2.73E-04	****	2.39E+00	
0	614.20	23	78	3.70	1228.60	1224	10	1.63E-03	****	2.24E+00	
4	772.12	43	63	2.43	1544.54	1530	21	2.97E-03	89.1	1.83E+00	
1	791.17	22	24	1.51	1582.66	1580	15	1.54E-03	79.1	1.80E+00	
0	1063.30	7	59	1.72	2127.18	2122	15	4.85E-04	****	1.37E+00	
0	1094.32	14	21	1.72	2189.25	2185	7	9.99E-04	****	1.33E+00	
0	1139.80	27	65	9.37	2280.25	2266	22	1.91E-03	****	1.29E+00	
0	1152.07	18	34	1.49	2304.81	2300	12	1.26E-03	****	1.27E+00	
0	1207.98	15	27	1.87	2416.68	2412	9	1.08E-03	****	1.22E+00	
2	1375.91	14	18	1.78	2752.74	2750	20	9.94E-04	94.5	1.09E+00	
0	1426.36	8	21	0.73	2853.72	2846	11	5.84E-04	****	1.06E+00	
0	1502.13	33	10	7.41	3005.36	2994	21	2.29E-03	60.2	1.01E+00	
0	1631.00	31	4	1.15	3263.28	3255	19	2.16E-03	48.8	9.55E-01	
0	1656.27	9	6	1.48	3313.86	3306	11	6.48E-04	****	9.45E-01	
0	1678.48	10	4	2.79	3358.30	3354	9	7.24E-04	94.2	9.37E-01	
0	1769.32	51	3	2.23	3540.13	3535	12	3.52E-03	31.3	9.07E-01	
0	1855.44	10	0	1.41	3712.50	3708	9	6.94E-04	63.2	8.84E-01	
0	1869.55	12	6	5.99	3740.76	3732	15	8.06E-04	****	8.81E-01	
0	1883.90	11	9	1.41	3769.48	3763	12	7.60E-04	****	8.78E-01	
0	1933.79	13	7	2.63	3869.35	3864	10	8.84E-04	97.8	8.68E-01	
0	2001.80	17	0	0.73	4005.47	3997	15	1.18E-03	48.5	8.56E-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]G198681023            *
* Acquisition date : 14-DEC-2007 10:47:38 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 04:00:08.53     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681023           Analyst initials: MJH1            *
* Batch Number     : 708123               Sample Quantity : 1.2947E+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	4.136E+00	5.724E-01	1.366E-01	5.724E-01
RH-101	1.966E-02	2.501E-02	1.520E-02	2.501E-02
CS-137	2.258E-02	3.376E-02	1.852E-02	3.376E-02
EU-155	6.395E-02	6.937E-02	4.572E-02	6.937E-02
TL-208	2.655E-01	4.696E-02	1.951E-02	4.696E-02
BI-212	5.628E-01	3.329E-01	1.408E-01	3.329E-01
PB-212	9.113E-01	8.076E-02	2.771E-02	8.076E-02
BI-214	4.743E-01	8.452E-02	3.275E-02	8.452E-02
PB-214	5.391E-01	8.812E-02	3.316E-02	8.812E-02
RA-223	3.274E-01	1.598E-01	8.435E-02	1.598E-01
AC-228	8.717E-01	1.770E-01	6.751E-02	1.770E-01
TH-234	9.672E-01	4.570E-01	1.906E-01	4.570E-01
NP-237	3.062E-01	1.624E-01	8.230E-02	1.624E-01
AM-243	1.461E-01	3.321E-02	2.203E-02	3.321E-02
CM-243	5.789E-02	6.280E-02	3.971E-02	6.280E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	5.618E-03	2.045E-02	1.785E-02	2.045E-02	NOT IDENT.
SB-125	3.876E-02	5.284E-02	4.713E-02	5.284E-02	NOT IDENT.
PO-209	3.692E-01	4.228E+00	3.560E+00	4.228E+00	NOT IDENT.
BI-211	3.595E-01	6.380E-01	5.603E-01	6.380E-01	NOT IDENT.
PA-233	3.681E-03	3.612E-02	3.198E-02	3.612E-02	NOT IDENT.
PA-234M	1.408E-01	2.783E+00	2.130E+00	2.783E+00	NOT IDENT.
U-235	-6.666E-02	1.188E-01	8.910E-02	1.188E-01	NOT IDENT.
NP-236	1.768E-02	3.133E-02	2.631E-02	3.133E-02	NOT IDENT.
NP-239	-7.620E-03	1.194E-01	1.006E-01	1.194E-01	NOT IDENT.
AM-241	-4.452E-02	9.006E-02	6.836E-02	9.006E-02	NOT IDENT.
AM-246	3.035E-03	7.197E-02	6.187E-02	7.197E-02	NOT IDENT.
CF-249	8.402E-03	2.332E-02	2.051E-02	2.332E-02	NOT IDENT.

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*****************************************************************************
*                          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	253.1102
74.66	307.8979
74.81	308.0452
74.81	308.0452
77.11	310.2853
77.11	310.2853
86.48	236.1718
87.30	392.8612
87.30	392.8612
92.58	282.3891
98.44	267.3496
103.76	261.7842
105.31	288.7634
129.07	283.4484
143.76	302.5280
198.00	280.3766
209.25	256.2402
228.18	237.8736
238.63	271.1889
242.00	272.3704
269.46	210.1265
270.25	209.7449
277.36	235.3667
295.22	192.5695
300.09	182.1160
312.17	187.9096
338.32	142.5970
351.93	162.4113
387.59	152.1390
409.46	146.0512
427.87	116.9965
463.00	120.2233
510.77	105.1142
583.19	127.0526
609.31	98.9943
661.66	93.2137
727.33	88.7117
763.13	77.7386
768.36	87.5531
785.37	71.4692
794.95	73.8937
806.17	84.0740
831.80	72.7681
860.56	72.6694
896.60	60.0991
911.20	65.4200
934.06	49.2625
964.77	53.1284
968.97	45.2525
1001.03	37.3900
1078.86	46.2226
1120.29	42.6653
1155.19	66.4286
1173.23	37.0367
1238.11	42.8040
1280.96	28.2495
1332.51	45.0903
1377.67	49.8457
1401.50	34.0558
1407.98	19.7533
1460.80	20.0457
1509.23	18.4633
1588.20	22.6164
1620.50	22.1680
1729.60	10.7303
1764.49	0.0000

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198681023

Total Uranium Activity	-3.0845E-02	ug/g
Total Uranium Counting Unc.	5.4957E-02	ug/g
Total Uranium Tpu	5.4957E-08	ug/g
Total Uranium Mda	4.1225E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 14-DEC-2007 14:52:01.54

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681024.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 14-DEC-2007 10:51:07
Sample ID        : G198681024           Sample quantity  : 1.14750E+02 GRAM
Detector name    : GAM07                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:27.44  0.2%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708123               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.45*	83	327	1.12	92.42	89	7	5.78E-03	43.0	
2	0	50.25	64	413	1.10	100.01	97	8	4.43E-03	56.4	
3	0	53.83	57	322	1.36	107.17	105	6	3.98E-03	51.2	
4	0	63.25*	98	622	1.12	126.00	122	9	6.80E-03	49.5	
5	4	73.34*	49	682	1.31	146.18	142	17	3.42E-03	101.5	9.88E-01
6	4	75.03*	618	582	1.15	149.56	142	17	4.29E-02	8.0	
7	4	77.28*	844	475	1.03	154.05	142	17	5.86E-02	5.7	
8	6	84.75*	188	562	1.79	168.98	165	27	1.31E-02	25.0	1.22E+00
9	6	87.41	478	488	1.40	174.32	165	27	3.32E-02	9.3	
10	6	90.11	242	355	1.02	179.71	165	27	1.68E-02	14.1	
11	6	93.03*	405	462	1.36	185.54	165	27	2.81E-02	11.8	
12	0	105.52*	96	463	0.88	210.52	206	9	6.66E-03	43.2	
13	0	109.15	78	414	0.79	217.78	215	8	5.39E-03	46.7	
14	0	115.37	53	367	1.25	230.22	227	7	3.66E-03	62.2	
15	0	129.44	137	397	1.02	258.35	254	8	9.54E-03	26.7	
16	0	131.67*	13	289	1.35	262.80	262	6	8.93E-04	221.5	
17	0	139.56	81	420	1.88	278.57	275	9	5.59E-03	47.2	
18	0	143.66*	20	402	0.77	286.78	283	8	1.40E-03	183.6	
19	2	152.50	62	184	1.17	304.46	302	22	4.33E-03	35.3	1.34E+00
20	2	154.48	120	299	1.36	308.41	302	22	8.33E-03	27.4	
21	2	158.47	53	309	1.28	316.38	302	22	3.66E-03	60.5	
22	2	160.06	51	234	0.96	319.57	302	22	3.53E-03	50.1	
23	0	186.10*	224	386	1.21	371.64	367	9	1.55E-02	18.5	
24	0	209.79	198	392	1.29	419.00	414	11	1.38E-02	20.6	
25	4	238.88*	1757	208	1.12	477.16	469	23	1.22E-01	2.9	1.73E+00
26	4	241.77	417	259	1.78	482.94	469	23	2.90E-02	11.3	
27	0	270.62	175	221	1.57	540.61	536	10	1.22E-02	17.7	
28	0	277.57	126	216	1.93	554.52	550	10	8.74E-03	23.7	
29	0	295.55*	421	377	1.22	590.47	583	14	2.92E-02	11.3	
30	0	300.36	88	206	0.90	600.10	597	8	6.10E-03	30.2	
31	0	328.28*	105	289	1.16	655.92	649	13	7.28E-03	35.7	
32	0	338.50*	335	201	1.38	676.34	672	9	2.33E-02	9.8	
33	0	352.17*	655	205	1.23	703.69	698	11	4.55E-02	6.1	
34	0	410.35	37	138	0.72	820.02	816	8	2.57E-03	58.0	
35	0	463.06	174	122	1.37	925.41	918	14	1.20E-02	15.5	
36	0	468.63	24	72	1.74	936.54	933	7	1.70E-03	60.8	
37	0	503.38	17	97	0.60	1006.02	1004	8	1.21E-03	99.9	
38	0	511.13*	124	207	1.81	1021.53	1015	17	8.61E-03	34.2	

Sample ID : G198681024 Acquisition date : 14-DEC-2007 10:51:07

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	520.77	44	67	2.41	1040.80	1036	9	3.07E-03	36.7	
40	0	570.39*	7	59	1.48	1140.02	1136	7	4.74E-04	215.0	
41	0	583.33*	507	140	1.39	1165.89	1158	16	3.52E-02	7.2	
42	0	609.60*	524	120	1.68	1218.41	1212	12	3.64E-02	6.4	
43	0	727.51	133	93	1.38	1454.18	1448	12	9.24E-03	16.9	
44	0	756.39	16	58	1.41	1511.94	1507	8	1.08E-03	89.6	
45	0	770.37	91	95	1.46	1539.89	1533	15	6.32E-03	26.1	
46	0	785.80	62	72	0.99	1570.74	1564	14	4.33E-03	31.7	
47	0	796.69	24	84	1.44	1592.52	1585	11	1.64E-03	78.2	
48	0	821.35	23	36	0.87	1641.83	1638	9	1.60E-03	51.4	
49	0	842.81	9	72	1.55	1684.74	1677	10	6.31E-04	178.3	
50	0	855.92	17	91	3.68	1710.96	1698	17	1.17E-03	133.5	
51	0	861.00*	76	37	1.63	1721.10	1716	12	5.25E-03	22.5	
52	0	911.51*	387	64	1.48	1822.10	1815	15	2.69E-02	7.1	
53	0	935.45	32	73	1.61	1869.97	1865	14	2.23E-03	58.3	
54	7	964.95*	105	59	3.48	1928.97	1920	28	7.28E-03	24.4	1.47E+00
55	7	969.39	211	30	1.57	1937.85	1920	28	1.47E-02	8.5	
56	7	972.82	15	24	1.87	1944.71	1920	28	1.06E-03	59.9	
57	1	997.94	17	10	1.62	1994.94	1993	15	1.16E-03	34.8	1.88E+00
58	1	1001.15	42	33	1.99	2001.36	1993	15	2.95E-03	31.5	
59	0	1008.41	20	15	1.67	2015.86	2013	7	1.37E-03	40.2	
60	0	1042.14	18	68	3.47	2083.32	2074	18	1.23E-03	111.4	
61	0	1120.80*	114	71	2.31	2240.61	2233	17	7.92E-03	19.9	
62	0	1238.37	81	55	2.14	2475.72	2468	19	5.62E-03	24.2	
63	0	1283.39	35	63	6.94	2565.75	2553	23	2.44E-03	61.1	
64	0	1339.86	16	20	1.81	2678.67	2670	12	1.08E-03	63.9	
65	0	1381.15	11	68	0.80	2761.24	2753	18	7.93E-04	184.4	
66	0	1402.11	30	8	1.28	2803.15	2797	11	2.08E-03	26.0	
67	0	1461.36*	506	59	1.64	2921.64	2914	15	3.51E-02	5.7	
68	0	1470.16	10	17	0.69	2939.23	2933	11	6.83E-04	90.9	
69	0	1482.01	25	21	7.78	2962.92	2952	21	1.74E-03	50.0	
70	0	1510.68	13	12	1.28	3020.27	3013	10	8.72E-04	59.7	
71	0	1582.61	11	17	2.77	3164.10	3157	10	7.38E-04	79.7	
72	0	1588.68	42	24	1.53	3176.25	3167	14	2.91E-03	29.4	
73	0	1593.53	15	24	1.55	3185.94	3180	9	1.02E-03	66.2	
74	0	1621.24	20	11	1.75	3241.35	3234	13	1.36E-03	43.6	
75	0	1662.79	18	6	1.63	3324.45	3320	9	1.26E-03	34.4	
76	0	1667.73	8	12	1.39	3334.33	3328	10	5.26E-04	94.5	
77	5	1671.16	12	0	1.80	3341.20	3339	14	8.26E-04	25.2	3.35E-01
78	5	1675.05	13	0	1.95	3348.96	3339	14	8.71E-04	25.2	
79	0	1730.53	32	8	1.70	3459.92	3454	12	2.23E-03	25.4	
80	0	1765.19*	95	8	1.99	3529.24	3522	15	6.60E-03	13.3	
81	0	1808.14	20	23	0.70	3615.13	3606	22	1.40E-03	63.4	
82	0	1849.23	11	17	0.63	3697.29	3688	11	7.73E-04	80.9	
83	0	1953.77	7	2	1.47	3906.36	3902	8	4.98E-04	50.3	
84	0	1957.84	6	9	1.68	3914.51	3910	10	3.96E-04	101.9	
85	0	1989.86	22	3	2.07	3978.55	3973	11	1.55E-03	25.5	
86	0	2034.87*	5	15	5.01	4068.56	4059	14	3.32E-04	182.1	

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]G198681024       *
* Acquisition date : 14-DEC-2007 10:51:07 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 04:00:27.44     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681024           Analyst initials: MJH1            *
* Batch Number     : 708123               Sample Quantity : 1.1475E+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	6.662E+00	8.263E-01	3.437E-01	0.000E+00
EU-155	1.017E-01	8.650E-02	9.213E-02	0.000E+00
TL-208	3.778E-01	5.880E-02	3.415E-02	0.000E+00
BI-212	8.598E-01	2.912E-01	2.881E-01	0.000E+00
PB-212	1.278E+00	1.049E-01	5.296E-02	0.000E+00
BI-214	7.444E-01	1.057E-01	7.106E-02	0.000E+00
PB-214	7.304E-01	9.599E-02	7.038E-02	0.000E+00
RA-223	4.403E-01	1.547E-01	1.778E-01	0.000E+00
AC-228	1.399E+00	2.149E-01	1.254E-01	0.000E+00
PA-234M	5.117E+00	3.179E+00	3.596E+00	0.000E+00
TH-234	1.678E+00	4.071E-01	3.953E-01	0.000E+00
U-235	4.318E-02	1.554E-01	1.883E-01	0.000E+00
NP-237	8.845E-01	1.754E-01	1.761E-01	0.000E+00
AM-243	2.295E-01	3.894E-02	4.064E-02	0.000E+00
CM-243	9.208E-02	7.830E-02	8.528E-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	3.071E-02	3.996E-02	0.000E+00	NOT IDENT.
RH-101	-1.237E-02	2.038E-02	3.256E-02	0.000E+00	NOT IDENT.
SB-125	3.740E-02	5.648E-02	9.771E-02	0.000E+00	NOT IDENT.
CS-137	-1.428E-02	2.446E-02	3.742E-02	0.000E+00	NOT IDENT.
PO-209	1.805E+00	4.570E+00	7.833E+00	0.000E+00	NOT IDENT.
BI-211	-8.117E-02	6.825E-01	1.129E+00	0.000E+00	NOT IDENT.
PA-233	-4.405E-03	3.801E-02	6.435E-02	0.000E+00	NOT IDENT.
NP-236	1.342E-02	3.530E-02	5.451E-02	0.000E+00	NOT IDENT.
NP-239	-6.716E-02	1.259E-01	2.140E-01	0.000E+00	NOT IDENT.
AM-241	2.426E-02	5.693E-02	9.050E-02	0.000E+00	NOT IDENT.
AM-246	1.002E-01	6.891E-02	1.334E-01	0.000E+00	NOT IDENT.
CF-249	1.150E-02	2.471E-02	3.994E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 14-DEC-2007 14:52:02.75

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681024.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 14-DEC-2007 10:51:07
Sample ID        : G198681024           Sample quantity  : 1.14750E+02 GRAM
Detector name    : GAM07                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:27.44  0.2%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708123               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	506	10.66*	1.166E+00	6.662E+00	6.662E+00	12.66
EU-155	105.31	96	21.20*	7.434E+00	9.952E-02	1.017E-01	86.77
TL-208	277.36	126	6.31	4.667E+00	6.994E-01	6.994E-01	47.84
	510.77	124	22.60	2.898E+00	3.094E-01	3.094E-01	68.76
	583.19	507	84.50*	2.595E+00	3.778E-01	3.778E-01	15.88
	763.13	------	1.81	2.057E+00	------	Line Not Found	------
	860.56	76	12.42	1.848E+00	5.388E-01	5.388E-01	45.58
BI-212	727.33	133	11.80*	2.145E+00	8.598E-01	8.598E-01	34.55
	785.37	62	1.10	2.004E+00	4.627E+00	4.627E+00	63.84
	1620.50	20	1.49	1.077E+00	2.003E+00	2.003E+00	87.31
PB-212	74.81	618	10.40	6.459E+00	1.505E+00	1.505E+00	17.31
	77.11	844	17.50	6.621E+00	1.191E+00	1.191E+00	13.37
	87.30	478	7.81	7.135E+00	1.404E+00	1.404E+00	20.24
	238.63	1757	43.30*	5.193E+00	1.278E+00	1.278E+00	8.37
	300.09	88	3.28	4.403E+00	9.949E-01	9.949E-01	60.63
BI-214	609.31	524	46.10*	2.500E+00	7.443E-01	7.444E-01	14.49
	768.36	------	4.94	2.045E+00	------	Line Not Found	------
	806.17	------	1.22	1.959E+00	------	Line Not Found	------
	934.06	32	3.03	1.716E+00	1.010E+00	1.010E+00	116.81
	1120.29	114	15.10	1.460E+00	8.463E-01	8.464E-01	40.27
	1155.19	------	1.63	1.422E+00	------	Line Not Found	------
	1238.11	81	5.79	1.338E+00	1.708E+00	1.708E+00	48.75
	1280.96	------	1.43	1.300E+00	------	Line Not Found	------
	1377.67	------	4.00	1.223E+00	------	Line Not Found	------
	1401.50	30	1.27	1.205E+00	3.200E+00	3.200E+00	52.30
	1407.98	------	2.15	1.201E+00	------	Line Not Found	------
	1509.23	13	2.11	1.136E+00	8.573E-01	8.574E-01	119.55
	1729.60	32	2.92	1.029E+00	1.751E+00	1.751E+00	51.21
	1764.49	95	15.40	1.015E+00	9.942E-01	9.942E-01	27.27
PB-214	74.81	618	6.44	6.459E+00	2.431E+00	2.431E+00	17.31
	77.11	844	10.80	6.621E+00	1.930E+00	1.930E+00	13.37
	87.30	478	4.84	7.135E+00	2.266E+00	2.266E+00	20.24

Sample ID : G198681024 Acquisition date : 14-DEC-2007 10:51:07

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	242.00	417	7.43	5.150E+00	1.783E+00	1.784E+00	23.44
	295.22	421	19.30	4.456E+00	8.002E-01	8.002E-01	23.35
	351.93	655	37.60*	3.902E+00	7.304E-01	7.304E-01	13.41
RA-223	269.46	175	13.70*	4.753E+00	4.403E-01	4.403E-01	35.85
AC-228	129.07	137	2.42	7.220E+00	1.285E+00	1.285E+00	53.77
	209.25	198	3.89	5.667E+00	1.470E+00	1.470E+00	41.67
	270.25	175	3.46	4.753E+00	1.743E+00	1.743E+00	35.85
	338.32	335	11.27	4.023E+00	1.210E+00	1.210E+00	20.43
	409.46	37	1.92	3.462E+00	9.089E-01	9.089E-01	116.12
	463.00	174	4.40	3.142E+00	2.053E+00	2.053E+00	31.55
	794.95	24	4.25	1.980E+00	4.600E-01	4.600E-01	156.55
	911.20	387	25.80*	1.756E+00	1.399E+00	1.399E+00	15.68
	964.77	105	4.99	1.669E+00	2.060E+00	2.060E+00	49.33
	968.97	211	15.80	1.662E+00	1.317E+00	1.317E+00	18.18
	1588.20	42	3.22	1.093E+00	1.950E+00	1.950E+00	58.98
PA-234M	1001.03	42	0.84*	1.614E+00	5.117E+00	5.117E+00	63.40
TH-234	63.29	98	4.80	5.267E+00	6.330E-01	6.330E-01	99.23
	92.58	405	5.41*	7.296E+00	1.678E+00	1.678E+00	24.76
U-235	143.76	20	10.96*	6.963E+00	4.318E-02	4.318E-02	367.27
NP-237	86.48	478	12.40*	7.135E+00	8.845E-01	8.845E-01	20.24
AM-243	74.66	618	68.20*	6.459E+00	2.295E-01	2.295E-01	17.31
CM-243	103.76	96	23.00*	7.434E+00	9.173E-02	9.208E-02	86.77

Flag: "*" = Keyline

Sample ID : G198681024 Acquisition date : 14-DEC-2007 10:51:07

Total number of lines in spectrum	86	
Number of unidentified lines	46	
Number of lines tentatively identified by NID	40	46.51%

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	6.662E+00	6.662E+00	0.843E+00	12.66	
EU-155	1.57E+08S	1.02	9.952E-02	1.017E-01	0.883E-01	86.77	
TL-208	4.43E+17S	1.00	3.778E-01	3.778E-01	0.600E-01	15.88	
BI-212	4.43E+17S	1.00	8.598E-01	8.598E-01	2.971E-01	34.55	
PB-212	4.43E+17S	1.00	1.278E+00	1.278E+00	0.107E+00	8.37	
BI-214	5.05E+10S	1.00	7.443E-01	7.444E-01	1.079E-01	14.49	
PB-214	5.05E+10S	1.00	7.304E-01	7.304E-01	0.979E-01	13.41	
RA-223	1.04E+12S	1.00	4.403E-01	4.403E-01	1.578E-01	35.85	
AC-228	4.43E+17S	1.00	1.399E+00	1.399E+00	0.219E+00	15.68	
PA-234M	1.41E+17S	1.00	5.117E+00	5.117E+00	3.244E+00	63.40	
TH-234	1.41E+17S	1.00	1.678E+00	1.678E+00	0.415E+00	24.76	
U-235	2.22E+16S	1.00	4.318E-02	4.318E-02	15.86E-02	367.27	
NP-237	6.75E+13S	1.00	8.845E-01	8.845E-01	1.790E-01	20.24	
AM-243	2.33E+11S	1.00	2.295E-01	2.295E-01	0.397E-01	17.31	
CM-243	8.99E+08S	1.00	9.173E-02	9.208E-02	7.990E-02	86.77	
			---	---			
		Total Activity :	2.064E+01	2.064E+01			

Grand Total Activity : 2.064E+01 2.064E+01

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

Sample ID : G198681024 Acquisition date : 14-DEC-2007 10:51:07

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.45	83	327	1.12	92.42	89	7	5.78E-03	86.1	2.59E+00	
0	50.25	64	413	1.10	100.01	97	8	4.43E-03	****	3.26E+00	
0	53.83	57	322	1.36	107.17	105	6	3.98E-03	****	3.87E+00	
4	73.34	49	682	1.31	146.18	142	17	3.42E-03	****	6.32E+00	
6	84.75	188	562	1.79	168.98	165	27	1.31E-02	50.0	7.03E+00	
6	90.11	242	355	1.02	179.71	165	27	1.68E-02	28.2	7.22E+00	
0	109.15	78	414	0.79	217.78	215	8	5.39E-03	93.4	7.43E+00	
0	115.37	53	367	1.25	230.22	227	7	3.66E-03	****	7.40E+00	
0	131.67	13	289	1.35	262.80	262	6	8.93E-04	****	7.18E+00	
0	139.56	81	420	1.88	278.57	275	9	5.59E-03	94.5	7.04E+00	
2	152.50	62	184	1.17	304.46	302	22	4.33E-03	70.6	6.79E+00	
2	154.48	120	299	1.36	308.41	302	22	8.33E-03	54.8	6.75E+00	
2	158.47	53	309	1.28	316.38	302	22	3.66E-03	****	6.66E+00	
2	160.06	51	234	0.96	319.57	302	22	3.53E-03	****	6.63E+00	
0	186.10	224	386	1.21	371.64	367	9	1.55E-02	37.0	6.11E+00	
0	328.28	105	289	1.16	655.92	649	13	7.28E-03	71.4	4.12E+00	
0	468.63	24	72	1.74	936.54	933	7	1.70E-03	****	3.11E+00	
0	503.38	17	97	0.60	1006.02	1004	8	1.21E-03	****	2.94E+00	
0	520.77	44	67	2.41	1040.80	1036	9	3.07E-03	73.3	2.85E+00	
0	570.39	7	59	1.48	1140.02	1136	7	4.74E-04	****	2.64E+00	
0	756.39	16	58	1.41	1511.94	1507	8	1.08E-03	****	2.07E+00	
0	770.37	91	95	1.46	1539.89	1533	15	6.32E-03	52.3	2.04E+00	
0	821.35	23	36	0.87	1641.83	1638	9	1.60E-03	****	1.93E+00	
0	842.81	9	72	1.55	1684.74	1677	10	6.31E-04	****	1.88E+00	
0	855.92	17	91	3.68	1710.96	1698	17	1.17E-03	****	1.86E+00	
7	972.82	15	24	1.87	1944.71	1920	28	1.06E-03	****	1.66E+00	
1	997.94	17	10	1.62	1994.94	1993	15	1.16E-03	69.7	1.62E+00	
0	1008.41	20	15	1.67	2015.86	2013	7	1.37E-03	80.5	1.60E+00	
0	1042.14	18	68	3.47	2083.32	2074	18	1.23E-03	****	1.56E+00	
0	1283.39	35	63	6.94	2565.75	2553	23	2.44E-03	****	1.30E+00	
0	1339.86	16	20	1.81	2678.67	2670	12	1.08E-03	****	1.25E+00	
0	1381.15	11	68	0.80	2761.24	2753	18	7.93E-04	****	1.22E+00	
0	1470.16	10	17	0.69	2939.23	2933	11	6.83E-04	****	1.16E+00	
0	1482.01	25	21	7.78	2962.92	2952	21	1.74E-03	****	1.15E+00	
0	1582.61	11	17	2.77	3164.10	3157	10	7.38E-04	****	1.10E+00	
0	1593.53	15	24	1.55	3185.94	3180	9	1.02E-03	****	1.09E+00	
0	1662.79	18	6	1.63	3324.45	3320	9	1.26E-03	68.8	1.06E+00	
0	1667.73	8	12	1.39	3334.33	3328	10	5.26E-04	****	1.06E+00	
5	1671.16	12	0	1.80	3341.20	3339	14	8.26E-04	50.4	1.05E+00	
5	1675.05	13	0	1.95	3348.96	3339	14	8.71E-04	50.4	1.05E+00	
0	1808.14	20	23	0.70	3615.13	3606	22	1.40E-03	****	1.00E+00	
0	1849.23	11	17	0.63	3697.29	3688	11	7.73E-04	****	9.86E-01	
0	1953.77	7	2	1.47	3906.36	3902	8	4.98E-04	****	9.56E-01	
0	1957.84	6	9	1.68	3914.51	3910	10	3.96E-04	****	9.55E-01	
0	1989.86	22	3	2.07	3978.55	3973	11	1.55E-03	51.0	9.47E-01	
0	2034.87	5	15	5.01	4068.56	4059	14	3.32E-04	****	9.36E-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]G198681024            *
* Acquisition date : 14-DEC-2007 10:51:07 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 04:00:27.44     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681024           Analyst initials: MJH1            *
* Batch Number     : 708123               Sample Quantity : 1.1475E+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	6.662E+00	8.263E-01	1.719E-01	8.263E-01
EU-155	1.017E-01	8.650E-02	4.609E-02	8.650E-02
TL-208	3.778E-01	5.880E-02	1.708E-02	5.880E-02
BI-212	8.598E-01	2.912E-01	1.441E-01	2.912E-01
PB-212	1.278E+00	1.049E-01	2.649E-02	1.049E-01
BI-214	7.444E-01	1.057E-01	3.555E-02	1.057E-01
PB-214	7.304E-01	9.599E-02	3.521E-02	9.599E-02
RA-223	4.403E-01	1.547E-01	8.898E-02	1.547E-01
AC-228	1.399E+00	2.149E-01	6.274E-02	2.149E-01
PA-234M	5.117E+00	3.179E+00	1.799E+00	3.179E+00
TH-234	1.678E+00	4.071E-01	1.977E-01	4.071E-01
U-235	4.318E-02	1.554E-01	9.419E-02	1.554E-01
NP-237	8.845E-01	1.754E-01	8.809E-02	1.754E-01
AM-243	2.295E-01	3.894E-02	2.033E-02	3.894E-02
CM-243	9.208E-02	7.830E-02	4.267E-02	7.830E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	-1.852E-02	3.071E-02	1.999E-02	3.071E-02	NOT IDENT.
RH-101	-1.237E-02	2.038E-02	1.629E-02	2.038E-02	NOT IDENT.
SB-125	3.740E-02	5.648E-02	4.889E-02	5.648E-02	NOT IDENT.
CS-137	-1.428E-02	2.446E-02	1.872E-02	2.446E-02	NOT IDENT.
PO-209	1.805E+00	4.570E+00	3.919E+00	4.570E+00	NOT IDENT.
BI-211	-8.117E-02	6.825E-01	5.650E-01	6.825E-01	NOT IDENT.
PA-233	-4.405E-03	3.801E-02	3.220E-02	3.801E-02	NOT IDENT.
NP-236	1.342E-02	3.530E-02	2.727E-02	3.530E-02	NOT IDENT.
NP-239	-6.716E-02	1.259E-01	1.070E-01	1.259E-01	NOT IDENT.
AM-241	2.426E-02	5.693E-02	4.528E-02	5.693E-02	NOT IDENT.
AM-246	1.002E-01	6.891E-02	6.674E-02	6.891E-02	NOT IDENT.
CF-249	1.150E-02	2.471E-02	1.998E-02	2.471E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	367.5840
63.29	409.4717
74.66	523.7236
74.81	523.8878
74.81	523.8878
77.11	526.3632
77.11	526.3632
86.48	397.2477
87.30	397.8598
87.30	397.8598
92.58	401.7298
98.44	364.9966
103.76	349.4974
105.31	334.6830
129.07	322.6858
143.76	344.2777
198.00	316.6376
209.25	288.0727
228.18	279.8199
238.63	239.1984
242.00	239.9453
269.46	227.8271
270.25	206.1328
277.36	195.9036
295.22	226.5139
300.09	183.0028
312.17	195.5384
338.32	185.3472
351.93	181.0813
387.59	129.5357
409.46	169.8186
427.87	127.5385
463.00	105.8922
510.77	108.1925
583.19	96.0908
609.31	115.0452
661.66	97.6570
727.33	91.5083
763.13	95.5133
768.36	98.3237
785.37	53.3390
794.95	65.6522
806.17	87.2241
831.80	90.0926
860.56	41.3711
896.60	64.9274
911.20	55.7768
934.06	61.8567
964.77	61.0468
968.97	61.1289
1001.03	41.1654
1078.86	28.6488
1120.29	43.0202
1155.19	47.2188
1173.23	52.2003
1238.11	62.7677
1280.96	39.0544
1332.51	49.1661
1377.67	44.5660
1401.50	35.1937
1407.98	20.7171
1460.80	31.8068
1509.23	37.1001
1588.20	69.1931
1620.50	20.0545
1729.60	16.1871
1764.49	11.4088

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198681024

Total Uranium Activity	1.9982E-02	ug/g
Total Uranium Counting Unc.	7.1918E-02	ug/g
Total Uranium Tpu	7.1918E-08	ug/g
Total Uranium Mda	4.3582E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 14-DEC-2007 14:52:47.87

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681025.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 14-DEC-2007 10:51:57
Sample ID        : G198681025           Sample quantity  : 1.32750E+02 GRAM
Detector name    : GAM12                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:02.20  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708123               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.37*	33	487	0.99	125.97	123	7	2.27E-03	123.6	
2	3	74.88*	397	548	1.04	148.99	145	12	2.76E-02	10.7	1.76E+00
3	3	77.16	661	531	1.08	153.55	145	12	4.59E-02	7.3	
4	3	84.13*	123	666	1.51	167.50	163	30	8.52E-03	39.3	1.76E+00
5	3	87.25	380	632	1.52	173.75	163	30	2.64E-02	12.9	
6	3	90.00	203	532	1.36	179.24	163	30	1.41E-02	21.6	
7	3	92.84*	318	496	1.36	184.94	163	30	2.21E-02	16.0	
8	0	128.53	189	654	1.66	256.33	251	12	1.31E-02	28.0	
9	0	144.18*	55	353	1.25	287.65	284	7	3.85E-03	61.6	
10	0	185.79*	321	500	1.41	370.90	366	10	2.23E-02	15.4	
11	0	209.00	144	400	1.22	417.34	414	9	1.00E-02	26.3	
12	0	213.77	50	353	0.89	426.88	423	8	3.49E-03	66.4	
13	4	238.56*	1779	297	1.14	476.48	469	19	1.24E-01	3.0	9.60E-01
14	4	241.45	358	395	1.64	482.27	469	19	2.48E-02	14.5	
15	0	270.10*	231	360	1.77	539.59	532	13	1.61E-02	18.8	
16	0	277.21	74	307	1.13	553.80	551	10	5.14E-03	45.5	
17	3	295.11*	489	217	1.23	589.62	585	21	3.39E-02	7.1	5.43E-01
18	3	300.13	137	220	1.41	599.66	585	21	9.52E-03	20.8	
19	0	327.51	109	205	1.65	654.44	651	8	7.57E-03	24.6	
20	0	338.16	386	171	1.21	675.74	672	8	2.68E-02	7.8	
21	0	351.71*	834	275	1.29	702.85	697	11	5.79E-02	5.3	
22	0	360.92	48	125	2.17	721.27	718	7	3.30E-03	41.7	
23	0	462.88	76	160	1.53	925.24	920	10	5.30E-03	33.1	
24	0	485.48	11	143	2.85	970.45	965	10	7.85E-04	199.9	
25	0	510.59*	222	223	1.88	1020.67	1012	18	1.54E-02	20.5	
26	0	582.89*	569	188	1.47	1165.29	1157	16	3.95E-02	7.1	
27	0	609.01*	622	160	1.56	1217.55	1212	14	4.32E-02	6.2	
28	0	623.78	45	69	3.35	1247.09	1242	10	3.15E-03	37.5	
29	0	649.26	29	98	1.61	1298.04	1293	11	2.03E-03	67.9	
30	0	727.07	158	99	1.37	1453.67	1447	15	1.09E-02	15.8	
31	0	755.74	29	113	6.63	1511.00	1503	16	2.04E-03	82.8	
32	0	768.36*	75	136	2.06	1536.25	1529	18	5.23E-03	38.3	
33	0	785.51	33	56	2.02	1570.56	1567	9	2.27E-03	45.4	
34	0	794.47	81	67	0.92	1588.48	1583	11	5.60E-03	22.8	
35	0	805.16	30	98	1.34	1609.86	1603	14	2.07E-03	73.9	
36	2	860.02	91	57	2.05	1719.57	1714	20	6.33E-03	18.6	1.19E+00
37	2	863.41	24	50	1.91	1726.35	1714	20	1.65E-03	69.0	
38	0	872.81	20	58	1.13	1745.14	1740	12	1.40E-03	78.0	

Sample ID : G198681025 Acquisition date : 14-DEC-2007 10:51:57

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	894.32	18	104	4.68	1788.15	1772	19	1.23E-03	140.1	
40	1	903.91	27	69	1.93	1807.33	1797	47	1.86E-03	60.8	1.04E+00
41	1	910.73*	412	52	1.87	1820.97	1797	47	2.86E-02	6.4	
42	2	964.01	52	82	2.16	1927.52	1921	23	3.62E-03	38.8	1.30E+00
43	2	968.44	240	70	1.92	1936.38	1921	23	1.67E-02	9.6	
44	0	977.46	11	52	1.02	1954.41	1944	12	7.46E-04	139.6	
45	0	1001.55*	11	50	0.93	2002.60	1994	12	7.56E-04	151.4	
46	0	1019.42	18	42	0.87	2038.32	2033	11	1.28E-03	71.5	
47	0	1078.82	48	47	0.97	2157.10	2150	14	3.30E-03	34.3	
48	0	1119.25*	162	57	1.67	2237.95	2229	17	1.13E-02	14.0	
49	0	1153.85	35	55	1.59	2307.12	2300	13	2.41E-03	47.4	
50	0	1229.67	18	63	2.99	2458.73	2446	15	1.24E-03	100.2	
51	0	1238.72	38	87	0.88	2476.81	2467	17	2.65E-03	58.9	
52	0	1377.03	41	33	1.19	2753.34	2746	12	2.85E-03	32.1	
53	0	1459.99*	610	55	1.95	2919.19	2910	20	4.24E-02	5.2	
54	0	1474.86	16	12	0.92	2948.91	2944	10	1.10E-03	48.5	
55	0	1508.73	36	9	3.34	3016.62	3011	12	2.48E-03	23.7	
56	0	1587.28	34	18	1.42	3173.63	3169	10	2.37E-03	28.6	
57	0	1661.30	23	19	6.88	3321.59	3314	18	1.58E-03	48.7	
58	0	1729.35	27	17	3.40	3457.61	3450	15	1.87E-03	39.7	
59	0	1763.42*	107	10	2.32	3525.72	3515	18	7.42E-03	13.2	
60	0	1797.14	3	16	4.51	3593.11	3588	10	2.41E-04	228.0	
61	0	1811.17	8	5	2.26	3621.15	3616	9	5.34E-04	69.0	
62	0	1848.93*	0	23	1.72	3696.63	3687	12	2.27E-05	*****	
63	0	1872.04	13	3	0.93	3742.81	3736	12	9.07E-04	38.3	
64	0	1981.03	8	9	2.78	3960.61	3953	12	5.70E-04	80.8	
65	0	2005.12	12	0	0.83	4008.75	4005	8	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]G198681025       *
* Acquisition date : 14-DEC-2007 10:51:57 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 04:00:02.20     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681025           Analyst initials: MJH1            *
* Batch Number     : 708123               Sample Quantity : 1.3275E+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	7.140E+00	8.396E-01	2.830E-01	0.000E+00
TL-208	3.806E-01	6.023E-02	3.323E-02	0.000E+00
BI-212	9.110E-01	2.949E-01	2.312E-01	0.000E+00
PB-212	1.173E+00	9.855E-02	5.941E-02	0.000E+00
BI-214	7.908E-01	1.158E-01	6.870E-02	0.000E+00
PB-214	8.401E-01	1.005E-01	7.297E-02	0.000E+00
RA-223	5.256E-01	1.966E-01	1.820E-01	0.000E+00
AC-228	1.328E+00	2.146E-01	1.216E-01	0.000E+00
PA-234M	1.174E+00	3.484E+00	3.776E+00	0.000E+00
TH-234	1.383E+00	4.464E-01	4.730E-01	0.000E+00
U-235	1.108E-01	1.339E-01	2.063E-01	0.000E+00
NP-237	7.602E-01	2.014E-01	2.186E-01	0.000E+00
AM-243	1.766E-01	3.916E-02	5.323E-02	0.000E+00
AM-246	1.655E-01	1.121E-01	1.210E-01	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	-4.432E-04		2.281E-02	3.901E-02	0.000E+00	NOT IDENT.
RH-101	2.129E-03		2.110E-02	3.637E-02	0.000E+00	NOT IDENT.
SB-125	1.488E-02		5.476E-02	9.304E-02	0.000E+00	NOT IDENT.
CS-137	-1.869E-02		2.419E-02	3.661E-02	0.000E+00	NOT IDENT.
EU-155	2.151E-03		6.232E-02	1.132E-01	0.000E+00	NOT IDENT.
PO-209	1.629E+00		6.599E+00	6.726E+00	0.000E+00	NOT IDENT.
BI-211	-5.074E-01		6.572E-01	1.042E+00	0.000E+00	NOT IDENT.
PA-233	1.484E-02		3.799E-02	6.608E-02	0.000E+00	NOT IDENT.
NP-236	4.582E-02		4.092E-02	6.462E-02	0.000E+00	NOT IDENT.
NP-239	2.012E-02		1.307E-01	2.289E-01	0.000E+00	NOT IDENT.
AM-241	9.448E-02		9.304E-02	1.503E-01	0.000E+00	NOT IDENT.
CM-243	-2.635E-02		5.946E-02	9.880E-02	0.000E+00	NOT IDENT.
CF-249	-1.234E-02		2.373E-02	3.880E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 14-DEC-2007 14:52:49.14

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681025.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 14-DEC-2007 10:51:57
Sample ID        : G198681025           Sample quantity  : 1.32750E+02 GRAM
Detector name    : GAM12                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:02.20  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708123               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	610	10.66*	1.134E+00	7.140E+00	7.140E+00	12.00
TL-208	277.36	74	6.31	4.455E+00	3.725E-01	3.725E-01	91.27
	510.77	222	22.60	2.787E+00	4.972E-01	4.972E-01	41.49
	583.19	569	84.50*	2.500E+00	3.806E-01	3.806E-01	16.15
	763.13	------	1.81	1.987E+00	------	Line Not Found	------
	860.56	91	12.42	1.788E+00	5.807E-01	5.807E-01	38.69
BI-212	727.33	158	11.80*	2.072E+00	9.110E-01	9.110E-01	33.03
	785.37	33	1.10	1.937E+00	2.169E+00	2.169E+00	91.40
	1620.50	------	1.49	1.052E+00	------	Line Not Found	------
PB-212	74.81	397	10.40	4.663E+00	1.158E+00	1.158E+00	22.63
	77.11	661	17.50	4.892E+00	1.091E+00	1.091E+00	16.33
	87.30	380	7.81	5.701E+00	1.207E+00	1.207E+00	27.04
	238.63	1779	43.30*	4.950E+00	1.173E+00	1.173E+00	8.57
	300.09	137	3.28	4.205E+00	1.405E+00	1.405E+00	42.11
BI-214	609.31	622	46.10*	2.411E+00	7.908E-01	7.908E-01	14.94
	768.36	75	4.94	1.975E+00	1.092E+00	1.092E+00	77.16
	806.17	30	1.22	1.896E+00	1.818E+00	1.818E+00	148.16
	934.06	------	3.03	1.662E+00	------	Line Not Found	------
	1120.29	162	15.10	1.415E+00	1.074E+00	1.074E+00	28.95
	1155.19	35	1.63	1.378E+00	2.181E+00	2.181E+00	94.99
	1238.11	38	5.79	1.296E+00	7.185E-01	7.186E-01	117.92
	1280.96	------	1.43	1.260E+00	------	Line Not Found	------
	1377.67	41	4.00	1.187E+00	1.220E+00	1.220E+00	64.47
	1401.50	------	1.27	1.171E+00	------	Line Not Found	------
	1407.98	------	2.15	1.166E+00	------	Line Not Found	------
	1509.23	36	2.11	1.106E+00	2.165E+00	2.166E+00	47.85
	1729.60	27	2.92	1.009E+00	1.292E+00	1.292E+00	79.65
	1764.49	107	15.40	9.977E-01	9.829E-01	9.830E-01	27.00
PB-214	74.81	397	6.44	4.663E+00	1.870E+00	1.870E+00	22.63
	77.11	661	10.80	4.892E+00	1.768E+00	1.769E+00	16.33
	87.30	380	4.84	5.701E+00	1.948E+00	1.948E+00	27.04
	242.00	358	7.43	4.910E+00	1.386E+00	1.386E+00	29.62

Sample ID : G198681025 Acquisition date : 14-DEC-2007 10:51:57

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	295.22	489	19.30	4.257E+00	8.409E-01	8.410E-01	15.38
	351.93	834	37.60*	3.734E+00	8.400E-01	8.401E-01	12.20
RA-223	269.46	231	13.70*	4.539E+00	5.256E-01	5.256E-01	38.17
AC-228	129.07	189	2.42	6.597E+00	1.672E+00	1.672E+00	56.40
	209.25	144	3.89	5.397E+00	9.708E-01	9.708E-01	53.00
	270.25	231	3.46	4.539E+00	2.081E+00	2.081E+00	38.17
	338.32	386	11.27	3.847E+00	1.258E+00	1.258E+00	16.67
	409.46	------	1.92	3.322E+00	------	Line Not Found	------
	463.00	76	4.40	3.016E+00	8.130E-01	8.130E-01	66.41
	794.95	81	4.25	1.918E+00	1.398E+00	1.398E+00	46.61
	911.20	412	25.80*	1.700E+00	1.328E+00	1.328E+00	16.49
	964.77	52	4.99	1.616E+00	9.137E-01	9.137E-01	78.30
	968.97	240	15.80	1.609E+00	1.335E+00	1.335E+00	21.47
	1588.20	34	3.22	1.067E+00	1.407E+00	1.407E+00	57.57
PA-234M	1001.03	11	0.84*	1.561E+00	1.174E+00	1.174E+00	302.92
TH-234	63.29	33	4.80	3.267E+00	2.942E-01	2.942E-01	247.36
	92.58	318	5.41*	6.016E+00	1.383E+00	1.383E+00	32.94
U-235	143.76	55	10.96*	6.451E+00	1.108E-01	1.108E-01	123.28
NP-237	86.48	380	12.40*	5.701E+00	7.602E-01	7.602E-01	27.04
AM-243	74.66	397	68.20*	4.663E+00	1.766E-01	1.766E-01	22.63
AM-246	1078.86	48	27.80*	1.462E+00	1.655E-01	1.655E-01	69.12

Flag: "*" = Keyline

Sample ID : G198681025 Acquisition date : 14-DEC-2007 10:51:57

Total number of lines in spectrum 65
Number of unidentified lines 25
Number of lines tentatively identified by NID 40 61.54%

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	7.140E+00	7.140E+00	0.857E+00	12.00	
TL-208	4.43E+17S	1.00	3.806E-01	3.806E-01	0.615E-01	16.15	
BI-212	4.43E+17S	1.00	9.110E-01	9.110E-01	3.009E-01	33.03	
PB-212	4.43E+17S	1.00	1.173E+00	1.173E+00	0.101E+00	8.57	
BI-214	5.05E+10S	1.00	7.908E-01	7.908E-01	1.182E-01	14.94	
PB-214	5.05E+10S	1.00	8.400E-01	8.401E-01	1.025E-01	12.20	
RA-223	1.04E+12S	1.00	5.256E-01	5.256E-01	2.006E-01	38.17	
AC-228	4.43E+17S	1.00	1.328E+00	1.328E+00	0.219E+00	16.49	
PA-234M	1.41E+17S	1.00	1.174E+00	1.174E+00	3.555E+00	302.92	
TH-234	1.41E+17S	1.00	1.383E+00	1.383E+00	0.456E+00	32.94	
U-235	2.22E+16S	1.00	1.108E-01	1.108E-01	1.366E-01	123.28	
NP-237	6.75E+13S	1.00	7.602E-01	7.602E-01	2.056E-01	27.04	
AM-243	2.33E+11S	1.00	1.766E-01	1.766E-01	0.400E-01	22.63	
AM-246	2.18E+11S	1.00	1.655E-01	1.655E-01	1.144E-01	69.12	
			---	---			
	Total Activity :		1.686E+01	1.686E+01			

Grand Total Activity : 1.686E+01 1.686E+01

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

Sample ID : G198681025 Acquisition date : 14-DEC-2007 10:51:57

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
3	84.13	123	666	1.51	167.50	163	30	8.52E-03	78.6	5.49E+00	
3	90.00	203	532	1.36	179.24	163	30	1.41E-02	43.2	5.87E+00	
0	185.79	321	500	1.41	370.90	366	10	2.23E-02	30.8	5.78E+00	
0	213.77	50	353	0.89	426.88	423	8	3.49E-03	****	5.32E+00	
0	327.51	109	205	1.65	654.44	651	8	7.57E-03	49.3	3.94E+00	
0	360.92	48	125	2.17	721.27	718	7	3.30E-03	83.4	3.66E+00	
0	485.48	11	143	2.85	970.45	965	10	7.85E-04	****	2.90E+00	
0	623.78	45	69	3.35	1247.09	1242	10	3.15E-03	75.0	2.36E+00	
0	649.26	29	98	1.61	1298.04	1293	11	2.03E-03	****	2.28E+00	
0	755.74	29	113	6.63	1511.00	1503	16	2.04E-03	****	2.00E+00	
2	863.41	24	50	1.91	1726.35	1714	20	1.65E-03	****	1.78E+00	
0	872.81	20	58	1.13	1745.14	1740	12	1.40E-03	****	1.77E+00	
0	894.32	18	104	4.68	1788.15	1772	19	1.23E-03	****	1.73E+00	
1	903.91	27	69	1.93	1807.33	1797	47	1.86E-03	****	1.71E+00	
0	977.46	11	52	1.02	1954.41	1944	12	7.46E-04	****	1.60E+00	
0	1019.42	18	42	0.87	2038.32	2033	11	1.28E-03	****	1.54E+00	
0	1229.67	18	63	2.99	2458.73	2446	15	1.24E-03	****	1.30E+00	
0	1474.86	16	12	0.92	2948.91	2944	10	1.10E-03	97.1	1.13E+00	
0	1661.30	23	19	6.88	3321.59	3314	18	1.58E-03	97.4	1.03E+00	
0	1797.14	3	16	4.51	3593.11	3588	10	2.41E-04	****	9.87E-01	
0	1811.17	8	5	2.26	3621.15	3616	9	5.34E-04	****	9.83E-01	
0	1872.04	13	3	0.93	3742.81	3736	12	9.07E-04	76.6	9.66E-01	
0	1981.03	8	9	2.78	3960.61	3953	12	5.70E-04	****	9.42E-01	
0	2005.12	12	0	0.83	4008.75	4005	8	8.33E-04	57.7	9.38E-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]G198681025            *
* Acquisition date : 14-DEC-2007 10:51:57 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 04:00:02.20     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681025           Analyst initials: MJH1            *
* Batch Number     : 708123               Sample Quantity : 1.3275E+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	7.140E+00	8.396E-01	1.416E-01	8.396E-01
TL-208	3.806E-01	6.023E-02	1.662E-02	6.023E-02
BI-212	9.110E-01	2.949E-01	1.157E-01	2.949E-01
PB-212	1.173E+00	9.855E-02	2.972E-02	9.855E-02
BI-214	7.908E-01	1.158E-01	3.437E-02	1.158E-01
PB-214	8.401E-01	1.005E-01	3.651E-02	1.005E-01
RA-223	5.256E-01	1.966E-01	9.107E-02	1.966E-01
AC-228	1.328E+00	2.146E-01	6.082E-02	2.146E-01
PA-234M	1.174E+00	3.484E+00	1.889E+00	3.484E+00
TH-234	1.383E+00	4.464E-01	2.366E-01	4.464E-01
U-235	1.108E-01	1.339E-01	1.032E-01	1.339E-01
NP-237	7.602E-01	2.014E-01	1.094E-01	2.014E-01
AM-243	1.766E-01	3.916E-02	2.663E-02	3.916E-02
AM-246	1.655E-01	1.121E-01	6.053E-02	1.121E-01

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	-4.432E-04	2.281E-02	1.952E-02	2.281E-02	NOT IDENT.
RH-101	2.129E-03	2.110E-02	1.820E-02	2.110E-02	NOT IDENT.
SB-125	1.488E-02	5.476E-02	4.655E-02	5.476E-02	NOT IDENT.
CS-137	-1.869E-02	2.419E-02	1.831E-02	2.419E-02	NOT IDENT.
EU-155	2.151E-03	6.232E-02	5.664E-02	6.232E-02	NOT IDENT.
PO-209	1.629E+00	6.599E+00	3.365E+00	6.599E+00	NOT IDENT.
BI-211	-5.074E-01	6.572E-01	5.211E-01	6.572E-01	NOT IDENT.
PA-233	1.484E-02	3.799E-02	3.306E-02	3.799E-02	NOT IDENT.
NP-236	4.582E-02	4.092E-02	3.233E-02	4.092E-02	NOT IDENT.
NP-239	2.012E-02	1.307E-01	1.145E-01	1.307E-01	NOT IDENT.
AM-241	9.448E-02	9.304E-02	7.521E-02	9.304E-02	NOT IDENT.
CM-243	-2.635E-02	5.946E-02	4.943E-02	5.946E-02	NOT IDENT.
CF-249	-1.234E-02	2.373E-02	1.941E-02	2.373E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	385.0475
63.29	485.9503
74.66	591.2366
74.81	591.3735
74.81	591.3735
77.11	500.7162
77.11	500.7162
86.48	491.0482
87.30	491.6094
87.30	491.6094
92.58	495.1717
98.44	418.5415
103.76	470.9193
105.31	480.8797
129.07	429.4799
143.76	453.5339
198.00	420.7904
209.25	390.8953
228.18	333.4859
238.63	350.9373
242.00	351.7935
269.46	279.5544
270.25	279.7061
277.36	276.9514
295.22	243.0689
300.09	243.8107
312.17	220.6436
338.32	239.9198
351.93	230.0570
387.59	193.2589
409.46	183.3519
427.87	151.7858
463.00	144.1875
510.77	138.0679
583.19	109.9706
609.31	130.2293
661.66	121.0302
727.33	71.8734
763.13	70.6938
768.36	92.0553
785.37	90.5166
794.95	57.8039
806.17	68.2406
831.80	112.4435
860.56	64.5036
896.60	57.8171
911.20	64.3881
934.06	66.9206
964.77	73.1931
968.97	73.2748
1001.03	55.8722
1078.86	55.1440
1120.29	52.5178
1155.19	65.7899
1173.23	62.0361
1238.11	53.4137
1280.96	49.1012
1332.51	36.9872
1377.67	38.7371
1401.50	43.4378
1407.98	34.5970
1460.80	26.9681
1509.23	24.1963
1588.20	36.8306
1620.50	25.7263
1729.60	15.7324
1764.49	19.8945

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198681025

Total Uranium Activity	5.1285E-02	ug/g
Total Uranium Counting Unc.	6.1960E-02	ug/g
Total Uranium Tpu	6.1960E-08	ug/g
Total Uranium Mda	4.7748E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 17-DEC-2007 14:10:00.68

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681026.CNF;2
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 17-DEC-2007 10:09:34
Sample ID        : G198681026           Sample quantity  : 1.23460E+02 GRAM
Detector name    : GAM13                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:03.93  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708123               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.71*	27	490	0.94	92.87	90	8	1.90E-03	165.7	
2	0	53.28*	30	477	0.95	106.01	103	7	2.05E-03	139.5	
3	0	63.46*	17	665	0.93	126.40	122	8	1.15E-03	345.4	
4	3	74.93	387	533	0.83	149.36	145	21	2.69E-02	10.0	1.14E+00
5	3	77.18*	705	472	0.90	153.86	145	21	4.89E-02	6.4	
6	3	80.87*	26	549	1.10	161.24	145	21	1.80E-03	177.6	
7	0	84.33*	90	475	1.25	168.17	166	6	6.23E-03	43.9	
8	0	87.21	238	498	1.13	173.94	172	6	1.65E-02	16.2	
9	0	92.89*	76	1046	1.16	185.31	181	11	5.25E-03	97.8	
10	0	98.91*	90	467	2.46	197.36	194	8	6.26E-03	46.4	
11	0	129.51*	82	459	1.18	258.62	254	8	5.69E-03	49.2	
12	0	144.12*	23	517	1.01	287.86	284	9	1.58E-03	198.3	
13	0	162.59*	19	384	1.21	324.82	322	8	1.33E-03	197.4	
14	0	185.88*	229	476	1.13	371.45	366	11	1.59E-02	23.4	
15	0	205.31*	19	273	1.78	410.33	408	7	1.29E-03	173.3	
16	0	209.41*	157	382	2.29	418.54	414	10	1.09E-02	26.5	
17	5	238.68*	1015	268	1.14	477.14	471	18	7.05E-02	4.5	1.71E+00
18	5	241.68	204	340	1.57	483.15	471	18	1.42E-02	20.1	
19	0	259.85	25	255	1.25	519.51	515	8	1.71E-03	115.2	
20	2	268.31	42	50	0.98	536.45	535	12	2.95E-03	22.7	2.38E+00
21	2	270.33	154	245	1.43	540.50	535	12	1.07E-02	20.5	
22	0	277.75	23	308	1.43	555.34	549	9	1.58E-03	141.2	
23	0	295.32*	192	339	1.01	590.50	586	10	1.33E-02	20.3	
24	0	299.53	33	241	1.03	598.93	598	7	2.26E-03	80.6	
25	0	328.38	40	238	1.28	656.68	653	8	2.79E-03	68.4	
26	0	338.33*	270	228	1.39	676.60	671	12	1.87E-02	13.9	
27	0	352.13*	293	266	1.24	704.21	699	10	2.04E-02	13.0	
28	0	404.21	25	201	3.46	808.45	805	10	1.75E-03	107.1	
29	0	409.46	71	166	1.43	818.96	815	9	4.93E-03	34.8	
30	0	445.68	11	157	0.99	891.45	886	8	7.91E-04	192.3	
31	0	463.42	77	163	1.84	926.94	922	10	5.35E-03	33.1	
32	0	510.89*	54	245	2.05	1021.95	1015	14	3.77E-03	82.5	
33	0	522.56	44	124	2.96	1045.30	1041	9	3.04E-03	48.3	
34	0	583.35*	324	165	1.46	1166.96	1160	13	2.25E-02	10.6	
35	0	609.47*	216	201	1.51	1219.23	1214	12	1.50E-02	15.9	
36	0	662.06*	77	180	1.43	1324.46	1316	15	5.37E-03	41.0	
37	3	721.97	38	90	2.23	1444.35	1440	26	2.66E-03	45.3	1.11E+00
38	3	727.17*	74	113	2.24	1454.75	1440	26	5.12E-03	34.2	

Sample ID : G198681026 Acquisition date : 17-DEC-2007 10:09:34

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	755.66	53	99	2.07	1511.76	1507	12	3.65E-03	40.3	
40	0	795.63	54	135	0.96	1591.75	1586	13	3.77E-03	46.4	
41	0	860.71	91	131	2.30	1721.96	1713	20	6.35E-03	32.3	
42	0	911.58*	264	105	1.83	1823.73	1816	17	1.83E-02	11.7	
43	0	919.61	27	82	0.73	1839.81	1833	13	1.88E-03	71.2	
44	1	964.86	69	96	2.07	1930.34	1925	22	4.82E-03	26.1	4.10E+00
45	1	969.30	126	87	2.07	1939.22	1925	22	8.73E-03	18.3	
46	0	1001.62*	3	63	2.08	2003.88	1998	11	1.82E-04	764.3	
47	0	1027.91	94	135	6.70	2056.48	2044	31	6.51E-03	37.7	
48	0	1064.18	13	58	2.22	2129.04	2120	11	9.24E-04	114.0	
49	0	1106.31	20	74	0.84	2213.33	2204	14	1.41E-03	92.6	
50	0	1120.90	63	85	1.63	2242.51	2235	15	4.34E-03	34.7	
51	0	1214.67	14	48	0.88	2430.09	2425	10	9.72E-04	96.0	
52	0	1378.27	20	42	2.94	2757.35	2749	12	1.39E-03	65.0	
53	0	1460.74*	238	27	1.51	2922.31	2913	18	1.65E-02	8.7	
54	0	1588.29	25	20	1.70	3177.40	3172	11	1.76E-03	39.1	
55	0	1600.78	11	19	0.83	3202.39	3193	13	7.48E-04	89.7	
56	0	1747.26	9	11	1.01	3495.32	3490	10	6.41E-04	77.6	
57	0	1765.72*	66	20	3.06	3532.23	3523	23	4.57E-03	24.5	
58	0	1791.35	14	19	1.37	3583.50	3574	19	9.72E-04	79.3	
59	0	1798.93	11	20	3.00	3598.65	3592	13	7.83E-04	86.2	
60	0	1807.95	23	7	1.03	3616.68	3608	16	1.57E-03	34.8	
61	0	1915.74	11	11	1.33	3832.23	3821	16	7.47E-04	77.8	
62	0	1961.70	8	9	1.36	3924.13	3916	10	5.51E-04	81.6	
63	0	2015.15	9	10	0.79	4031.00	4025	11	6.23E-04	78.2	

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]G198681026       *
* Acquisition date : 17-DEC-2007 10:09:34 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 04:00:03.93     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681026           Analyst initials: MJH1            *
* Batch Number     : 708123               Sample Quantity : 1.2346E+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	3.200E+00	5.723E-01	3.393E-01	0.000E+00
CS-137	6.724E-02	5.424E-02	4.646E-02	0.000E+00
TL-208	2.531E-01	5.551E-02	4.216E-02	0.000E+00
BI-212	5.004E-01	3.381E-01	3.458E-01	0.000E+00
PB-212	7.390E-01	8.107E-02	5.761E-02	0.000E+00
BI-214	3.211E-01	1.027E-01	8.804E-02	0.000E+00
PB-214	3.328E-01	8.627E-02	8.486E-02	0.000E+00
RA-223	3.886E-01	1.577E-01	1.790E-01	0.000E+00
AC-228	9.960E-01	2.360E-01	1.500E-01	0.000E+00
PA-234M	3.289E-01	4.926E+00	5.570E+00	0.000E+00
TH-234	2.828E-01	5.423E-01	4.130E-01	0.000E+00
U-235	4.851E-02	1.886E-01	1.824E-01	0.000E+00
NP-236	4.856E-02	4.433E-02	4.868E-02	0.000E+00
NP-237	3.843E-01	1.255E-01	1.590E-01	0.000E+00
AM-243	1.120E-01	2.351E-02	3.004E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
CO-60	1.128E-02	3.033E-02	5.222E-02	0.000E+00	NOT IDENT.
RH-101	6.395E-04	2.210E-02	3.476E-02	0.000E+00	NOT IDENT.
SB-125	8.828E-04	6.090E-02	1.028E-01	0.000E+00	NOT IDENT.
EU-155	3.459E-02	5.096E-02	9.291E-02	0.000E+00	NOT IDENT.
PO-209	-1.799E+00	5.732E+00	9.216E+00	0.000E+00	NOT IDENT.
BI-211	-3.333E-01	8.056E-01	1.299E+00	0.000E+00	NOT IDENT.
PA-233	2.903E-02	4.053E-02	7.271E-02	0.000E+00	NOT IDENT.
NP-239	-5.980E-02	1.354E-01	2.214E-01	0.000E+00	NOT IDENT.
AM-241	3.770E-03	3.283E-02	5.130E-02	0.000E+00	NOT IDENT.
CM-243	-3.260E-02	4.725E-02	7.844E-02	0.000E+00	NOT IDENT.
AM-246	-5.877E-02	9.656E-02	1.550E-01	0.000E+00	NOT IDENT.
CF-249	-3.125E-03	2.743E-02	4.649E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 17-DEC-2007 14:10:01.69

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681026.CNF;2
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 17-DEC-2007 10:09:34
Sample ID        : G198681026           Sample quantity  : 1.23460E+02 GRAM
Detector name    : GAM13                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:03.93  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708123               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	238	10.66*	1.060E+00	3.200E+00	3.200E+00	18.25
CS-137	661.66	77	85.10*	2.062E+00	6.699E-02	6.724E-02	82.31
TL-208	277.36	23	6.31	4.310E+00	1.270E-01	1.270E-01	282.41
	510.77	54	22.60	2.590E+00	1.409E-01	1.409E-01	165.02
	583.19	324	84.50*	2.305E+00	2.531E-01	2.531E-01	22.38
	763.13	------	1.81	1.821E+00	------	Line Not Found	------
	860.56	91	12.42	1.642E+00	6.817E-01	6.817E-01	64.93
BI-212	727.33	74	11.80*	1.900E+00	5.004E-01	5.004E-01	68.93
	785.37	------	1.10	1.777E+00	------	Line Not Found	------
	1620.50	------	1.49	9.772E-01	------	Line Not Found	------
PB-212	74.81	387	10.40	7.694E+00	7.347E-01	7.347E-01	21.41
	77.11	705	17.50	7.684E+00	7.967E-01	7.967E-01	15.08
	87.30	238	7.81	7.593E+00	6.101E-01	6.101E-01	33.32
	238.63	1015	43.30*	4.822E+00	7.390E-01	7.390E-01	11.19
	300.09	33	3.28	4.064E+00	3.710E-01	3.710E-01	161.25
BI-214	609.31	216	46.10*	2.218E+00	3.211E-01	3.211E-01	32.62
	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	63	15.10	1.314E+00	4.793E-01	4.793E-01	69.66
	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	20	4.00	1.111E+00	6.865E-01	6.866E-01	130.08
	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	66	15.40	9.138E-01	7.105E-01	7.105E-01	49.39
PB-214	74.81	387	6.44	7.694E+00	1.187E+00	1.187E+00	21.41
	77.11	705	10.80	7.684E+00	1.291E+00	1.291E+00	15.08
	87.30	238	4.84	7.593E+00	9.845E-01	9.846E-01	33.32

Sample ID : G198681026 Acquisition date : 17-DEC-2007 10:09:34

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	242.00	204	7.43	4.779E+00	8.754E-01	8.754E-01	40.71
	295.22	192	19.30	4.110E+00	3.681E-01	3.681E-01	40.97
	351.93	293	37.60*	3.565E+00	3.328E-01	3.328E-01	26.45
RA-223	269.46	154	13.70*	4.400E+00	3.886E-01	3.886E-01	41.42
AC-228	129.07	82	2.42	6.822E+00	7.545E-01	7.545E-01	98.89
	209.25	157	3.89	5.275E+00	1.162E+00	1.162E+00	53.45
	270.25	154	3.46	4.400E+00	1.539E+00	1.539E+00	41.42
	338.32	270	11.27	3.685E+00	9.877E-01	9.877E-01	28.21
	409.46	71	1.92	3.139E+00	1.792E+00	1.792E+00	69.82
	463.00	77	4.40	2.821E+00	9.440E-01	9.440E-01	66.55
	794.95	54	4.25	1.757E+00	1.104E+00	1.104E+00	93.04
	911.20	264	25.80*	1.563E+00	9.960E-01	9.960E-01	24.17
	964.77	69	4.99	1.489E+00	1.421E+00	1.421E+00	52.51
	968.97	126	15.80	1.484E+00	8.149E-01	8.149E-01	37.08
	1588.20	25	3.22	9.927E-01	1.203E+00	1.203E+00	78.43
PA-234M	1001.03	3	0.84*	1.443E+00	3.289E-01	3.289E-01	1528.57
TH-234	63.29	17	4.80	7.667E+00	6.835E-02	6.835E-02	690.91
	92.58	76	5.41*	7.517E+00	2.828E-01	2.828E-01	195.68
U-235	143.76	23	10.96*	6.515E+00	4.851E-02	4.851E-02	396.68
NP-236	98.44	90	38.00*	7.422E+00	4.856E-02	4.856E-02	93.14
NP-237	86.48	238	12.40*	7.593E+00	3.843E-01	3.843E-01	33.32
AM-243	74.66	387	68.20*	7.694E+00	1.120E-01	1.120E-01	21.41

Flag: "*" = Keyline

Sample ID : G198681026 Acquisition date : 17-DEC-2007 10:09:34

Total number of lines in spectrum 63
Number of unidentified lines 28
Number of lines tentatively identified by NID 35 55.56%

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	3.200E+00	3.200E+00	0.584E+00	18.25	
CS-137	9.47E+08S	1.00	6.699E-02	6.724E-02	5.535E-02	82.31	
TL-208	4.43E+17S	1.00	2.531E-01	2.531E-01	0.566E-01	22.38	
BI-212	4.43E+17S	1.00	5.004E-01	5.004E-01	3.450E-01	68.93	
PB-212	4.43E+17S	1.00	7.390E-01	7.390E-01	0.827E-01	11.19	
BI-214	5.05E+10S	1.00	3.211E-01	3.211E-01	1.047E-01	32.62	
PB-214	5.05E+10S	1.00	3.328E-01	3.328E-01	0.880E-01	26.45	
RA-223	1.04E+12S	1.00	3.886E-01	3.886E-01	1.609E-01	41.42	
AC-228	4.43E+17S	1.00	9.960E-01	9.960E-01	2.408E-01	24.17	
PA-234M	1.41E+17S	1.00	3.289E-01	3.289E-01	50.27E-01	1528.57	
TH-234	1.41E+17S	1.00	2.828E-01	2.828E-01	5.533E-01	195.68	
U-235	2.22E+16S	1.00	4.851E-02	4.851E-02	19.24E-02	396.68	
NP-236	4.89E+12S	1.00	4.856E-02	4.856E-02	4.523E-02	93.14	
NP-237	6.75E+13S	1.00	3.843E-01	3.843E-01	1.280E-01	33.32	
AM-243	2.33E+11S	1.00	1.120E-01	1.120E-01	0.240E-01	21.41	
			---	---			
		Total Activity :	8.002E+00	8.003E+00			

Grand Total Activity : 8.002E+00 8.003E+00

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

Sample ID : G198681026 Acquisition date : 17-DEC-2007 10:09:34

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.71	27	490	0.94	92.87	90	8	1.90E-03	****	7.27E+00	
0	53.28	30	477	0.95	106.01	103	7	2.05E-03	****	7.49E+00	
3	80.87	26	549	1.10	161.24	145	21	1.80E-03	****	7.66E+00	
0	84.33	90	475	1.25	168.17	166	6	6.23E-03	87.8	7.63E+00	
0	162.59	19	384	1.21	324.82	322	8	1.33E-03	****	6.14E+00	
0	185.88	229	476	1.13	371.45	366	11	1.59E-02	46.7	5.69E+00	
0	205.31	19	273	1.78	410.33	408	7	1.29E-03	****	5.34E+00	
0	259.85	25	255	1.25	519.51	515	8	1.71E-03	****	4.53E+00	
2	268.31	42	50	0.98	536.45	535	12	2.95E-03	45.4	4.43E+00	
0	328.38	40	238	1.28	656.68	653	8	2.79E-03	****	3.78E+00	
0	404.21	25	201	3.46	808.45	805	10	1.75E-03	****	3.17E+00	
0	445.68	11	157	0.99	891.45	886	8	7.91E-04	****	2.92E+00	
0	522.56	44	124	2.96	1045.30	1041	9	3.04E-03	96.7	2.54E+00	
3	721.97	38	90	2.23	1444.35	1440	26	2.66E-03	90.7	1.91E+00	
0	755.66	53	99	2.07	1511.76	1507	12	3.65E-03	80.5	1.84E+00	
0	919.61	27	82	0.73	1839.81	1833	13	1.88E-03	****	1.55E+00	
0	1027.91	94	135	6.70	2056.48	2044	31	6.51E-03	75.4	1.41E+00	
0	1064.18	13	58	2.22	2129.04	2120	11	9.24E-04	****	1.37E+00	
0	1106.31	20	74	0.84	2213.33	2204	14	1.41E-03	****	1.33E+00	
0	1214.67	14	48	0.88	2430.09	2425	10	9.72E-04	****	1.23E+00	
0	1600.78	11	19	0.83	3202.39	3193	13	7.48E-04	****	9.87E-01	
0	1747.26	9	11	1.01	3495.32	3490	10	6.41E-04	****	9.21E-01	
0	1791.35	14	19	1.37	3583.50	3574	19	9.72E-04	****	9.04E-01	
0	1798.93	11	20	3.00	3598.65	3592	13	7.83E-04	****	9.01E-01	
0	1807.95	23	7	1.03	3616.68	3608	16	1.57E-03	69.7	8.97E-01	
0	1915.74	11	11	1.33	3832.23	3821	16	7.47E-04	****	8.58E-01	
0	1961.70	8	9	1.36	3924.13	3916	10	5.51E-04	****	8.42E-01	
0	2015.15	9	10	0.79	4031.00	4025	11	6.23E-04	****	8.25E-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]G198681026            *
* Acquisition date : 17-DEC-2007 10:09:34 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 04:00:03.93     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681026           Analyst initials: MJH1            *
* Batch Number     : 708123               Sample Quantity : 1.2346E+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	3.200E+00	5.723E-01	1.698E-01	5.723E-01
CS-137	6.724E-02	5.424E-02	2.324E-02	5.424E-02
TL-208	2.531E-01	5.551E-02	2.109E-02	5.551E-02
BI-212	5.004E-01	3.381E-01	1.730E-01	3.381E-01
PB-212	7.390E-01	8.107E-02	2.882E-02	8.107E-02
BI-214	3.211E-01	1.027E-01	4.404E-02	1.027E-01
PB-214	3.328E-01	8.627E-02	4.246E-02	8.627E-02
RA-223	3.886E-01	1.577E-01	8.953E-02	1.577E-01
AC-228	9.960E-01	2.360E-01	7.503E-02	2.360E-01
PA-234M	3.289E-01	4.926E+00	2.786E+00	4.926E+00
TH-234	2.828E-01	5.423E-01	2.066E-01	5.423E-01
U-235	4.851E-02	1.886E-01	9.125E-02	1.886E-01
NP-236	4.856E-02	4.433E-02	2.435E-02	4.433E-02
NP-237	3.843E-01	1.255E-01	7.956E-02	1.255E-01
AM-243	1.120E-01	2.351E-02	1.503E-02	2.351E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	1.128E-02	3.033E-02	2.612E-02	3.033E-02	NOT IDENT.
RH-101	6.395E-04	2.210E-02	1.739E-02	2.210E-02	NOT IDENT.
SB-125	8.828E-04	6.090E-02	5.145E-02	6.090E-02	NOT IDENT.
EU-155	3.459E-02	5.096E-02	4.648E-02	5.096E-02	NOT IDENT.
PO-209	-1.799E+00	5.732E+00	4.611E+00	5.732E+00	NOT IDENT.
BI-211	-3.333E-01	8.056E-01	6.500E-01	8.056E-01	NOT IDENT.
PA-233	2.903E-02	4.053E-02	3.638E-02	4.053E-02	NOT IDENT.
NP-239	-5.980E-02	1.354E-01	1.108E-01	1.354E-01	NOT IDENT.
AM-241	3.770E-03	3.283E-02	2.567E-02	3.283E-02	NOT IDENT.
CM-243	-3.260E-02	4.725E-02	3.924E-02	4.725E-02	NOT IDENT.
AM-246	-5.877E-02	9.656E-02	7.755E-02	9.656E-02	NOT IDENT.
CF-249	-3.125E-03	2.743E-02	2.326E-02	2.743E-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	356.3108
63.29	392.2935
74.66	461.0144
74.81	461.2492
74.81	461.2492
77.11	464.8442
77.11	464.8442
86.48	418.4626
87.30	557.2390
87.30	557.2390
92.58	526.7643
98.44	352.8824
103.76	361.1886
105.31	335.9045
129.07	351.1158
143.76	320.7000
198.00	301.2745
209.25	244.6198
228.18	289.5070
238.63	276.7289
242.00	277.9973
269.46	224.2720
270.25	224.4924
277.36	274.5891
295.22	243.4041
300.09	267.2725
312.17	205.5756
338.32	193.1539
351.93	250.0871
387.59	201.5183
409.46	163.5547
427.87	152.6368
463.00	148.4765
510.77	156.0862
583.19	132.0642
609.31	158.8207
661.66	129.6945
727.33	118.2740
763.13	132.5723
768.36	136.2765
785.37	96.8258
794.95	88.9138
806.17	108.3260
831.80	116.0374
860.56	103.5586
896.60	101.9435
911.20	72.4927
934.06	93.7567
964.77	82.7363
968.97	82.8778
1001.03	90.6300
1078.86	82.5576
1120.29	78.8232
1155.19	64.6484
1173.23	74.2000
1238.11	64.4042
1280.96	87.4175
1332.51	53.5136
1377.67	40.6845
1401.50	51.5069
1407.98	44.0969
1460.80	29.5285
1509.23	33.7891
1588.20	49.2972
1620.50	27.8379
1729.60	29.6241
1764.49	18.5412

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198681026

Total Uranium Activity	2.2444E-02	ug/g
Total Uranium Counting Unc.	8.7250E-02	ug/g
Total Uranium Tpu	8.7250E-08	ug/g
Total Uranium Mda	4.2220E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 14-DEC-2007 15:35:54.88

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681027.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 14-DEC-2007 11:35:20
Sample ID        : G198681027           Sample quantity  : 1.59120E+02 GRAM
Detector name    : GAM19                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:02.16  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708123               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*	16	400	1.88	92.85	89	9	1.10E-03	249.4	
2	0	63.04*	79	489	1.38	125.68	122	9	5.51E-03	55.6	
3	2	74.96*	331	518	1.52	149.51	141	20	2.30E-02	14.3	2.34E+00
4	2	77.29*	599	447	1.32	154.16	141	20	4.16E-02	7.9	
5	0	87.34	143	541	1.23	174.25	171	7	9.90E-03	28.3	
6	2	90.09	105	294	1.27	179.73	178	17	7.30E-03	24.0	1.05E+00
7	2	93.03*	260	561	1.55	185.61	178	17	1.81E-02	19.3	
8	0	129.22	102	356	1.01	257.94	254	9	7.09E-03	35.0	
9	0	144.02*	65	307	1.01	287.50	285	7	4.49E-03	49.7	
10	0	154.50	36	365	1.13	308.45	304	8	2.51E-03	93.2	
11	0	186.11*	192	492	1.07	371.63	366	12	1.33E-02	25.9	
12	0	209.30	127	567	2.12	417.97	411	14	8.85E-03	40.6	
13	1	238.70*	1257	280	1.42	476.71	470	19	8.73E-02	3.9	2.51E+00
14	1	241.75	327	284	1.57	482.81	470	19	2.27E-02	12.2	
15	0	270.19	132	344	1.95	539.65	534	13	9.18E-03	30.2	
16	0	278.34	16	290	0.51	555.94	549	10	1.11E-03	200.7	
17	0	295.27*	414	254	1.40	589.77	585	11	2.87E-02	9.2	
18	0	300.67	112	224	3.47	600.56	596	10	7.78E-03	26.7	
19	0	327.06	101	346	1.35	653.32	646	15	7.03E-03	41.2	
20	0	338.40	238	249	1.01	675.98	671	11	1.65E-02	14.3	
21	0	351.88*	731	246	1.46	702.91	698	11	5.08E-02	5.8	
22	0	409.74	50	166	1.57	818.56	815	10	3.49E-03	49.8	
23	0	437.04	36	97	1.00	873.12	870	8	2.47E-03	50.7	
24	0	463.65	148	174	3.08	926.32	918	17	1.03E-02	22.0	
25	0	480.45	17	116	1.19	959.89	956	9	1.19E-03	115.6	
26	0	486.98	19	151	1.07	972.94	967	12	1.35E-03	128.9	
27	0	510.96*	132	209	2.12	1020.87	1011	19	9.14E-03	32.9	
28	0	568.49*	141	132	2.47	1135.88	1128	14	9.78E-03	20.1	
29	0	583.37*	392	140	1.51	1165.61	1159	13	2.72E-02	8.4	
30	0	609.56*	494	161	1.58	1217.96	1212	13	3.43E-02	7.3	
31	0	661.79	404	93	1.58	1322.38	1313	16	2.81E-02	7.3	
32	0	716.89	21	65	0.56	1432.54	1428	9	1.45E-03	73.6	
33	0	728.22	82	102	1.85	1455.18	1448	14	5.71E-03	28.6	
34	3	768.99	77	63	2.31	1536.69	1527	26	5.33E-03	25.8	1.22E+00
35	3	773.22	33	63	2.32	1545.15	1527	26	2.29E-03	57.2	
36	0	787.16	21	109	0.78	1573.02	1567	15	1.44E-03	112.1	
37	0	796.23	31	73	1.70	1591.15	1583	11	2.15E-03	55.4	
38	1	861.04	40	78	1.96	1720.73	1715	36	2.76E-03	42.7	1.35E+00

Sample ID : G198681027 Acquisition date : 14-DEC-2007 11:35:20

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	1	872.86	24	45	1.96	1744.36	1715	36	1.65E-03	69.6	
40	0	911.75*	259	60	1.72	1822.12	1816	12	1.80E-02	9.2	
41	0	934.60	34	36	1.27	1867.80	1862	11	2.37E-03	37.9	
42	0	949.06	36	30	0.98	1896.72	1890	10	2.53E-03	32.6	
43	1	964.89	41	64	2.00	1928.36	1919	26	2.84E-03	41.7	3.05E+00
44	1	969.64	169	58	2.01	1937.87	1919	26	1.18E-02	12.3	
45	0	1003.51	35	77	2.77	2005.59	1997	16	2.46E-03	58.6	
46	0	1036.76	14	23	3.32	2072.09	2066	9	9.46E-04	72.6	
47	0	1121.38	122	44	1.00	2241.30	2235	16	8.44E-03	15.6	
48	0	1238.59	86	34	2.12	2475.69	2467	17	6.00E-03	18.8	
49	0	1337.83	9	27	2.29	2674.16	2668	10	6.35E-04	112.0	
50	1	1378.44	46	11	2.17	2755.39	2748	32	3.18E-03	23.1	1.77E+00
51	1	1381.74	24	13	1.98	2762.00	2748	32	1.70E-03	37.2	
52	0	1409.51*	24	27	1.49	2817.53	2812	15	1.70E-03	53.4	
53	0	1461.74*	502	30	2.02	2922.00	2913	17	3.49E-02	5.3	
54	0	1509.95	31	15	2.48	3018.45	3011	12	2.14E-03	31.0	
55	0	1519.98	33	28	3.42	3038.51	3028	22	2.31E-03	43.8	
56	0	1583.02	18	23	3.95	3164.60	3157	15	1.22E-03	63.7	
57	0	1615.57	8	12	1.44	3229.72	3223	10	5.40E-04	92.1	
58	0	1643.68	14	12	3.89	3285.95	3279	13	9.64E-04	63.9	
59	0	1765.32	128	24	1.82	3529.31	3520	19	8.91E-03	12.7	
60	0	1848.76	19	21	1.13	3696.25	3689	12	1.30E-03	54.2	
61	0	1920.11	6	11	0.66	3839.00	3831	11	4.17E-04	114.6	
62	0	1945.99	8	8	1.71	3890.80	3885	8	5.60E-04	70.2	

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]G198681027       *
* Acquisition date : 14-DEC-2007 11:35:20 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 04:00:02.16     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681027           Analyst initials: MJH1            *
* Batch Number     : 708123               Sample Quantity : 1.5912E+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	4.675E+00	5.597E-01	2.472E-01	0.000E+00
CS-137	2.392E-01	3.928E-02	2.887E-02	0.000E+00
TL-208	2.096E-01	3.760E-02	2.748E-02	0.000E+00
BI-212	3.791E-01	2.147E-01	1.888E-01	0.000E+00
PB-212	6.665E-01	6.549E-02	4.519E-02	0.000E+00
BI-214	5.023E-01	8.146E-02	5.327E-02	0.000E+00
PB-214	5.921E-01	7.591E-02	5.582E-02	0.000E+00
RA-223	2.417E-01	1.440E-01	1.470E-01	0.000E+00
AC-228	6.641E-01	1.371E-01	9.404E-02	0.000E+00
TH-234	8.745E-01	3.359E-01	3.619E-01	0.000E+00
U-235	1.024E-01	1.000E-01	1.659E-01	0.000E+00
NP-237	2.200E-01	1.230E-01	1.852E-01	0.000E+00
AM-243	1.126E-01	3.238E-02	3.742E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
CO-60	1.411E-02	1.659E-02	3.078E-02	0.000E+00	NOT IDENT.
RH-101	-1.855E-02	1.658E-02	2.635E-02	0.000E+00	NOT IDENT.
SB-125	-6.372E-03	4.159E-02	7.358E-02	0.000E+00	NOT IDENT.
EU-155	-3.244E-03	4.630E-02	8.475E-02	0.000E+00	NOT IDENT.
PO-209	-2.175E+00	3.286E+00	5.200E+00	0.000E+00	NOT IDENT.
BI-211	-5.286E-01	4.598E-01	6.979E-01	0.000E+00	NOT IDENT.
PA-233	-1.348E-02	2.934E-02	4.928E-02	0.000E+00	NOT IDENT.
PA-234M	1.602E+00	2.373E+00	3.759E+00	0.000E+00	NOT IDENT.
NP-236	-2.508E-02	3.154E-02	4.720E-02	0.000E+00	NOT IDENT.
NP-239	4.878E-02	1.020E-01	1.826E-01	0.000E+00	NOT IDENT.
AM-241	6.102E-02	6.665E-02	1.151E-01	0.000E+00	NOT IDENT.
CM-243	-1.737E-02	4.212E-02	7.626E-02	0.000E+00	NOT IDENT.
AM-246	2.717E-02	5.566E-02	1.008E-01	0.000E+00	NOT IDENT.
CF-249	9.337E-03	1.764E-02	3.249E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 14-DEC-2007 15:35:56.20

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681027.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 14-DEC-2007 11:35:20
Sample ID        : G198681027           Sample quantity  : 1.59120E+02 GRAM
Detector name    : GAM19                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:02.16  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708123               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	502	10.66*	1.188E+00	4.675E+00	4.675E+00	12.22
CS-137	661.66	404	85.10*	2.351E+00	2.383E-01	2.392E-01	16.76
TL-208	277.36	16	6.31	4.608E+00	6.491E-02	6.491E-02	401.41
	510.77	132	22.60	2.904E+00	2.364E-01	2.364E-01	66.24
	583.19	392	84.50*	2.610E+00	2.096E-01	2.096E-01	18.31
	763.13	------	1.81	2.083E+00	------	Line Not Found	------
	860.56	40	12.42	1.874E+00	2.017E-01	2.017E-01	86.02
BI-212	727.33	82	11.80*	2.168E+00	3.791E-01	3.791E-01	57.78
	785.37	21	1.10	2.027E+00	1.094E+00	1.094E+00	224.35
	1620.50	------	1.49	1.102E+00	------	Line Not Found	------
PB-212	74.81	331	10.40	5.078E+00	7.385E-01	7.385E-01	29.34
	77.11	599	17.50	5.325E+00	7.582E-01	7.582E-01	17.03
	87.30	143	7.81	6.164E+00	3.494E-01	3.494E-01	57.04
	238.63	1257	43.30*	5.139E+00	6.665E-01	6.665E-01	10.03
	300.09	112	3.28	4.355E+00	9.254E-01	9.254E-01	53.86
BI-214	609.31	494	46.10*	2.518E+00	5.023E-01	5.023E-01	16.55
	768.36	77	4.94	2.069E+00	8.863E-01	8.864E-01	52.47
	806.17	------	1.22	1.986E+00	------	Line Not Found	------
	934.06	34	3.03	1.743E+00	7.637E-01	7.638E-01	76.55
	1120.29	122	15.10	1.483E+00	6.401E-01	6.401E-01	31.96
	1155.19	------	1.63	1.445E+00	------	Line Not Found	------
	1238.11	86	5.79	1.361E+00	1.294E+00	1.294E+00	38.13
	1280.96	------	1.43	1.322E+00	------	Line Not Found	------
	1377.67	46	4.00	1.245E+00	1.085E+00	1.085E+00	46.69
	1401.50	------	1.27	1.228E+00	------	Line Not Found	------
	1407.98	24	2.15	1.223E+00	1.099E+00	1.099E+00	107.06
	1509.23	31	2.11	1.159E+00	1.485E+00	1.485E+00	62.27
	1729.60	------	2.92	1.057E+00	------	Line Not Found	------
	1764.49	128	15.40	1.045E+00	9.409E-01	9.409E-01	26.03
PB-214	74.81	331	6.44	5.078E+00	1.193E+00	1.193E+00	29.34
	77.11	599	10.80	5.325E+00	1.228E+00	1.229E+00	17.03
	87.30	143	4.84	6.164E+00	5.637E-01	5.638E-01	57.04

Sample ID : G198681027 Acquisition date : 14-DEC-2007 11:35:20

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	242.00	327	7.43	5.094E+00	1.020E+00	1.020E+00	25.21
	295.22	414	19.30	4.413E+00	5.733E-01	5.733E-01	19.53
	351.93	731	37.60*	3.874E+00	5.920E-01	5.921E-01	13.08
RA-223	269.46	132	13.70*	4.708E+00	2.417E-01	2.417E-01	60.79
AC-228	129.07	102	2.42	6.983E+00	7.122E-01	7.122E-01	70.20
	209.25	127	3.89	5.612E+00	6.886E-01	6.886E-01	81.46
	270.25	132	3.46	4.708E+00	9.568E-01	9.568E-01	60.79
	338.32	238	11.27	3.989E+00	6.250E-01	6.250E-01	29.33
	409.46	50	1.92	3.450E+00	8.960E-01	8.960E-01	99.80
	463.00	148	4.40	3.135E+00	1.269E+00	1.269E+00	44.36
	794.95	31	4.25	2.007E+00	4.272E-01	4.271E-01	111.23
	911.20	259	25.80*	1.782E+00	6.641E-01	6.641E-01	21.06
	964.77	41	4.99	1.695E+00	5.700E-01	5.700E-01	83.92
	968.97	169	15.80	1.687E+00	7.491E-01	7.491E-01	26.46
	1588.20	------	3.22	1.118E+00	------	Line Not Found	------
TH-234	63.29	79	4.80	3.515E+00	5.547E-01	5.547E-01	111.45
	92.58	260	5.41*	6.489E+00	8.745E-01	8.745E-01	39.19
U-235	143.76	65	10.96*	6.801E+00	1.024E-01	1.024E-01	99.66
NP-237	86.48	143	12.40*	6.164E+00	2.200E-01	2.200E-01	57.04
AM-243	74.66	331	68.20*	5.078E+00	1.126E-01	1.126E-01	29.34

Flag: "*" = Keyline

Sample ID : G198681027 Acquisition date : 14-DEC-2007 11:35:20

Total number of lines in spectrum	62	
Number of unidentified lines	24	
Number of lines tentatively identified by NID	38	61.29%

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	4.675E+00	4.675E+00	0.571E+00	12.22	
CS-137	9.47E+08S	1.00	2.383E-01	2.392E-01	0.401E-01	16.76	
TL-208	4.43E+17S	1.00	2.096E-01	2.096E-01	0.384E-01	18.31	
BI-212	4.43E+17S	1.00	3.791E-01	3.791E-01	2.191E-01	57.78	
PB-212	4.43E+17S	1.00	6.665E-01	6.665E-01	0.668E-01	10.03	
BI-214	5.05E+10S	1.00	5.023E-01	5.023E-01	0.831E-01	16.55	
PB-214	5.05E+10S	1.00	5.920E-01	5.921E-01	0.775E-01	13.08	
RA-223	1.04E+12S	1.00	2.417E-01	2.417E-01	1.469E-01	60.79	
AC-228	4.43E+17S	1.00	6.641E-01	6.641E-01	1.399E-01	21.06	
TH-234	1.41E+17S	1.00	8.745E-01	8.745E-01	3.427E-01	39.19	
U-235	2.22E+16S	1.00	1.024E-01	1.024E-01	1.020E-01	99.66	
NP-237	6.75E+13S	1.00	2.200E-01	2.200E-01	1.255E-01	57.04	
AM-243	2.33E+11S	1.00	1.126E-01	1.126E-01	0.330E-01	29.34	
			---	---			
		Total Activity :	9.479E+00	9.480E+00			

Grand Total Activity : 9.479E+00 9.480E+00

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

Sample ID : G198681027 Acquisition date : 14-DEC-2007 11:35:20

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.61	16	400	1.88	92.85	89	9	1.10E-03	****	1.10E+00	
2	90.09	105	294	1.27	179.73	178	17	7.30E-03	48.0	6.33E+00	
0	154.50	36	365	1.13	308.45	304	8	2.51E-03	****	6.63E+00	
0	186.11	192	492	1.07	371.63	366	12	1.33E-02	51.8	6.03E+00	
0	327.06	101	346	1.35	653.32	646	15	7.03E-03	82.4	4.09E+00	
0	437.04	36	97	1.00	873.12	870	8	2.47E-03	****	3.28E+00	
0	480.45	17	116	1.19	959.89	956	9	1.19E-03	****	3.05E+00	
0	486.98	19	151	1.07	972.94	967	12	1.35E-03	****	3.02E+00	
0	568.49	141	132	2.47	1135.88	1128	14	9.78E-03	40.1	2.67E+00	
0	716.89	21	65	0.56	1432.54	1428	9	1.45E-03	****	2.20E+00	
3	773.22	33	63	2.32	1545.15	1527	26	2.29E-03	****	2.06E+00	
1	872.86	24	45	1.96	1744.36	1715	36	1.65E-03	****	1.85E+00	
0	949.06	36	30	0.98	1896.72	1890	10	2.53E-03	65.1	1.72E+00	
0	1003.51	35	77	2.77	2005.59	1997	16	2.46E-03	****	1.64E+00	
0	1036.76	14	23	3.32	2072.09	2066	9	9.46E-04	****	1.59E+00	
0	1337.83	9	27	2.29	2674.16	2668	10	6.35E-04	****	1.28E+00	
1	1381.74	24	13	1.98	2762.00	2748	32	1.70E-03	74.5	1.24E+00	
0	1519.98	33	28	3.42	3038.51	3028	22	2.31E-03	87.7	1.15E+00	
0	1583.02	18	23	3.95	3164.60	3157	15	1.22E-03	****	1.12E+00	
0	1615.57	8	12	1.44	3229.72	3223	10	5.40E-04	****	1.10E+00	
0	1643.68	14	12	3.89	3285.95	3279	13	9.64E-04	****	1.09E+00	
0	1848.76	19	21	1.13	3696.25	3689	12	1.30E-03	****	1.02E+00	
0	1920.11	6	11	0.66	3839.00	3831	11	4.17E-04	****	1.00E+00	
0	1945.99	8	8	1.71	3890.80	3885	8	5.60E-04	****	9.95E-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]G198681027            *
* Acquisition date : 14-DEC-2007 11:35:20 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 04:00:02.16     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681027           Analyst initials: MJH1            *
* Batch Number     : 708123               Sample Quantity : 1.5912E+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	4.675E+00	5.597E-01	1.237E-01	5.597E-01
CS-137	2.392E-01	3.928E-02	1.444E-02	3.928E-02
TL-208	2.096E-01	3.760E-02	1.375E-02	3.760E-02
BI-212	3.791E-01	2.147E-01	9.444E-02	2.147E-01
PB-212	6.665E-01	6.549E-02	2.261E-02	6.549E-02
BI-214	5.023E-01	8.146E-02	2.665E-02	8.146E-02
PB-214	5.921E-01	7.591E-02	2.793E-02	7.591E-02
RA-223	2.417E-01	1.440E-01	7.353E-02	1.440E-01
AC-228	6.641E-01	1.371E-01	4.705E-02	1.371E-01
TH-234	8.745E-01	3.359E-01	1.811E-01	3.359E-01
U-235	1.024E-01	1.000E-01	8.300E-02	1.000E-01
NP-237	2.200E-01	1.230E-01	9.264E-02	1.230E-01
AM-243	1.126E-01	3.238E-02	1.872E-02	3.238E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	1.411E-02	1.659E-02	1.540E-02	1.659E-02	NOT IDENT.
RH-101	-1.855E-02	1.658E-02	1.318E-02	1.658E-02	NOT IDENT.
SB-125	-6.372E-03	4.159E-02	3.681E-02	4.159E-02	NOT IDENT.
EU-155	-3.244E-03	4.630E-02	4.240E-02	4.630E-02	NOT IDENT.
PO-209	-2.175E+00	3.286E+00	2.601E+00	3.286E+00	NOT IDENT.
BI-211	-5.286E-01	4.598E-01	3.492E-01	4.598E-01	NOT IDENT.
PA-233	-1.348E-02	2.934E-02	2.465E-02	2.934E-02	NOT IDENT.
PA-234M	1.602E+00	2.373E+00	1.880E+00	2.373E+00	NOT IDENT.
NP-236	-2.508E-02	3.154E-02	2.362E-02	3.154E-02	NOT IDENT.
NP-239	4.878E-02	1.020E-01	9.137E-02	1.020E-01	NOT IDENT.
AM-241	6.102E-02	6.665E-02	5.760E-02	6.665E-02	NOT IDENT.
CM-243	-1.737E-02	4.212E-02	3.815E-02	4.212E-02	NOT IDENT.
AM-246	2.717E-02	5.566E-02	5.044E-02	5.566E-02	NOT IDENT.
CF-249	9.337E-03	1.764E-02	1.625E-02	1.764E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	360.9663
63.29	423.6796
74.66	458.7788
74.81	458.8587
74.81	458.8587
77.11	460.0718
77.11	460.0718
86.48	548.2573
87.30	626.6864
87.30	626.6864
92.58	448.7789
98.44	446.7841
103.76	428.3089
105.31	418.2405
129.07	360.6017
143.76	438.2952
198.00	379.1682
209.25	352.4156
228.18	294.7457
238.63	297.6042
242.00	298.1747
269.46	267.1129
270.25	267.2253
277.36	243.4397
295.22	224.1817
300.09	207.9113
312.17	212.4735
338.32	199.0969
351.93	198.5062
387.59	161.0760
409.46	188.8354
427.87	155.2927
463.00	130.8322
510.77	131.1590
583.19	113.5962
609.31	118.5090
661.66	103.1779
727.33	73.1563
763.13	65.8846
768.36	64.5854
785.37	57.5472
794.95	69.9251
806.17	73.6316
831.80	91.0433
860.56	67.5190
896.60	77.4193
911.20	59.3425
934.06	36.8771
964.77	72.0812
968.97	72.1488
1001.03	50.3259
1078.86	49.4266
1120.29	69.3231
1155.19	39.7715
1173.23	42.7625
1238.11	52.9120
1280.96	56.2394
1332.51	40.2623
1377.67	27.6172
1401.50	23.7686
1407.98	30.5922
1460.80	32.0065
1509.23	24.1943
1588.20	38.4969
1620.50	15.8266
1729.60	27.1077
1764.49	20.9570

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198681027

Total Uranium Activity	4.7380E-02	ug/g
Total Uranium Counting Unc.	4.6274E-02	ug/g
Total Uranium Tpu	4.6274E-08	ug/g
Total Uranium Mda	3.8403E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 14-DEC-2007 15:38:57.11

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681028.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 14-DEC-2007 11:37:20
Sample ID        : G198681028           Sample quantity  : 1.24830E+02 GRAM
Detector name    : GAM20                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:01:01.25  0.4%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708123               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.93*	1	347	0.90	93.83	91	7	7.46E-05	*****	
2	0	63.26*	104	508	0.92	126.45	122	9	7.20E-03	43.2	
3	2	75.04*	384	532	1.37	149.99	142	18	2.67E-02	12.4	1.08E+00
4	2	77.21*	602	445	1.18	154.31	142	18	4.18E-02	7.7	
5	5	84.36*	164	318	1.84	168.61	165	27	1.14E-02	21.4	9.52E-01
6	5	87.35*	287	361	1.30	174.57	165	27	1.99E-02	13.5	
7	5	89.98	236	405	1.55	179.83	165	27	1.64E-02	17.7	
8	5	92.84*	253	447	1.68	185.53	165	27	1.76E-02	19.7	
9	0	129.47	80	462	1.37	258.71	254	10	5.57E-03	51.4	
10	0	185.51*	191	494	1.50	370.67	364	13	1.33E-02	27.2	
11	0	199.52*	26	283	1.58	398.67	395	8	1.79E-03	124.3	
12	0	209.39	171	313	1.58	418.38	414	9	1.19E-02	20.3	
13	2	238.64*	1210	288	1.29	476.82	471	26	8.40E-02	4.0	4.09E-01
14	2	241.63	258	288	1.58	482.78	471	26	1.79E-02	15.5	
15	0	270.42	141	252	0.90	540.32	535	10	9.77E-03	22.8	
16	0	295.17*	311	236	1.31	589.78	585	10	2.16E-02	11.4	
17	0	299.92	84	203	1.55	599.26	595	9	5.84E-03	32.5	
18	0	314.35	26	128	1.13	628.10	625	7	1.78E-03	75.9	
19	0	327.77	53	228	1.11	654.92	651	9	3.65E-03	53.5	
20	0	338.21	225	223	1.25	675.77	671	10	1.56E-02	14.1	
21	0	351.86*	606	237	1.29	703.06	698	12	4.21E-02	6.8	
22	0	463.22	99	96	0.76	925.61	921	10	6.89E-03	21.1	
23	0	510.97*	74	193	2.17	1021.06	1014	16	5.15E-03	54.2	
24	0	583.35*	382	96	1.42	1165.75	1161	12	2.65E-02	7.7	
25	0	598.32	28	47	1.17	1195.67	1193	6	1.96E-03	42.5	
26	0	609.63*	439	127	1.51	1218.29	1211	15	3.05E-02	7.8	
27	0	647.58	38	74	1.38	1294.16	1286	13	2.63E-03	49.8	
28	1	661.95	227	82	1.65	1322.89	1316	18	1.57E-02	10.1	2.41E+00
29	1	665.35	51	69	1.73	1329.69	1316	18	3.51E-03	39.5	
30	0	727.68*	115	63	1.37	1454.33	1448	11	7.96E-03	17.6	
31	0	787.28	36	80	2.07	1573.51	1567	14	2.49E-03	55.5	
32	0	838.89*	25	120	4.86	1676.72	1666	19	1.77E-03	107.0	
33	0	861.76*	40	71	1.49	1722.47	1716	13	2.76E-03	48.9	
34	0	870.54	19	80	1.99	1740.02	1729	16	1.30E-03	109.1	
35	0	911.65*	220	97	1.43	1822.27	1814	15	1.53E-02	12.2	
36	2	965.23	56	24	1.74	1929.44	1926	19	3.87E-03	18.9	2.12E+00
37	2	969.40	138	47	1.82	1937.77	1926	19	9.57E-03	13.0	
38	0	1121.29*	116	37	1.75	2241.67	2235	17	8.06E-03	16.0	

Sample ID : G198681028 Acquisition date : 14-DEC-2007 11:37:20

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1155.47	27	20	1.91	2310.06	2305	9	1.88E-03	35.5	
40	0	1243.83	103	65	11.99	2486.89	2468	35	7.12E-03	27.2	
41	0	1284.04	22	43	3.81	2567.36	2553	19	1.54E-03	76.8	
42	0	1337.03	22	11	0.58	2673.43	2667	14	1.52E-03	38.3	
43	0	1342.49	11	8	1.43	2684.35	2681	7	7.40E-04	55.0	
44	0	1350.89	17	11	0.88	2701.18	2697	9	1.18E-03	42.9	
45	0	1379.84	33	32	1.76	2759.13	2751	18	2.28E-03	43.7	
46	0	1407.92	15	10	0.99	2815.33	2809	10	1.04E-03	47.1	
47	0	1411.66	9	16	1.43	2822.81	2818	9	6.24E-04	86.6	
48	0	1435.38	12	31	5.32	2870.31	2856	18	8.66E-04	108.9	
49	0	1461.50*	399	25	1.98	2922.60	2914	17	2.77E-02	6.0	
50	0	1588.96	27	19	2.53	3177.81	3171	13	1.89E-03	38.4	
51	5	1593.85	28	3	3.13	3187.62	3183	21	1.95E-03	20.8	8.81E-01
52	5	1599.69	19	1	3.14	3199.31	3183	21	1.35E-03	23.0	
53	0	1630.73	24	9	1.57	3261.47	3255	12	1.67E-03	32.2	
54	0	1649.43	8	8	1.71	3298.92	3292	10	5.21E-04	77.5	
55	0	1668.29	3	13	0.80	3336.70	3327	11	1.93E-04	263.8	
56	0	1714.10	8	10	1.03	3428.44	3423	13	5.40E-04	90.6	
57	0	1722.42	8	2	1.48	3445.09	3441	7	5.87E-04	42.8	
58	0	1765.63*	65	23	1.44	3531.64	3524	14	4.51E-03	21.9	
59	0	1852.80	12	15	1.32	3706.27	3699	12	8.64E-04	72.3	
60	0	1905.39	6	16	0.70	3811.64	3802	15	4.36E-04	141.0	
61	0	1919.48	7	4	0.55	3839.87	3835	9	4.99E-04	64.0	
62	0	2004.11	15	7	0.46	4009.45	4003	13	1.01E-03	44.8	

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]G198681028       *
* Acquisition date : 14-DEC-2007 11:37:20 Detector SN#    :                 *
* Detector ID      : GAM20                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 04:01:01.25     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681028           Analyst initials: MJH1            *
* Batch Number     : 708123               Sample Quantity : 1.2483E+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	4.378E+00	6.291E-01	1.922E-01	0.000E+00
RH-101	8.742E-03	2.131E-02	2.733E-02	0.000E+00
CS-137	1.557E-01	3.254E-02	2.957E-02	0.000E+00
TL-208	2.366E-01	3.842E-02	2.709E-02	0.000E+00
BI-212	6.140E-01	2.170E-01	2.137E-01	0.000E+00
PB-212	7.514E-01	7.263E-02	4.630E-02	0.000E+00
BI-214	5.175E-01	8.568E-02	5.334E-02	0.000E+00
PB-214	5.691E-01	8.235E-02	5.863E-02	0.000E+00
RA-223	3.006E-01	1.357E-01	1.621E-01	0.000E+00
AC-228	6.601E-01	1.691E-01	1.122E-01	0.000E+00
TH-234	9.441E-01	3.779E-01	3.536E-01	0.000E+00
NP-237	4.835E-01	1.397E-01	1.601E-01	0.000E+00
AM-243	1.354E-01	3.601E-02	3.639E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	-7.894E-04		1.926E-02	3.163E-02	0.000E+00	NOT IDENT.
SB-125	2.104E-02		4.707E-02	8.085E-02	0.000E+00	NOT IDENT.
EU-155	1.192E-02		4.706E-02	8.513E-02	0.000E+00	NOT IDENT.
PO-209	3.939E-01		3.215E+00	5.476E+00	0.000E+00	NOT IDENT.
BI-211	2.927E-01		5.260E-01	8.246E-01	0.000E+00	NOT IDENT.
PA-233	-1.655E-02		3.574E-02	5.145E-02	0.000E+00	NOT IDENT.
PA-234M	-5.822E-01		2.264E+00	3.485E+00	0.000E+00	NOT IDENT.
U-235	-1.761E-02		1.050E-01	1.732E-01	0.000E+00	NOT IDENT.
NP-236	1.325E-02		3.324E-02	4.914E-02	0.000E+00	NOT IDENT.
NP-239	5.579E-02		1.098E-01	1.941E-01	0.000E+00	NOT IDENT.
AM-241	6.190E-02		5.876E-02	9.377E-02	0.000E+00	NOT IDENT.
CM-243	-2.258E-02		4.226E-02	7.439E-02	0.000E+00	NOT IDENT.
AM-246	3.179E-02		5.671E-02	1.000E-01	0.000E+00	NOT IDENT.
CF-249	-1.018E-04		2.001E-02	3.364E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 14-DEC-2007 15:38:58.11

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681028.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 14-DEC-2007 11:37:20
Sample ID        : G198681028           Sample quantity  : 1.24830E+02 GRAM
Detector name    : GAM20                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:01:01.25  0.4%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708123               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	399	10.66*	1.286E+00	4.378E+00	4.378E+00	14.66
RH-101	198.00	26	73.00*	6.267E+00	8.457E-03	8.742E-03	248.69
CS-137	661.66	227	85.10*	2.582E+00	1.551E-01	1.557E-01	21.32
TL-208	277.36	------	6.31	5.045E+00	------	Line Not Found	------
	510.77	74	22.60	3.200E+00	1.543E-01	1.543E-01	108.54
	583.19	382	84.50*	2.872E+00	2.366E-01	2.366E-01	16.57
	763.13	------	1.81	2.279E+00	------	Line Not Found	------
	860.56	40	12.42	2.043E+00	2.358E-01	2.358E-01	98.29
BI-212	727.33	115	11.80*	2.377E+00	6.140E-01	6.140E-01	36.07
	785.37	36	1.10	2.217E+00	2.215E+00	2.215E+00	111.33
	1620.50	------	1.49	1.195E+00	------	Line Not Found	------
PB-212	74.81	384	10.40	6.250E+00	8.878E-01	8.878E-01	27.14
	77.11	602	17.50	6.462E+00	7.999E-01	7.999E-01	18.90
	87.30	287	7.81	7.202E+00	7.677E-01	7.677E-01	29.48
	238.63	1210	43.30*	5.590E+00	7.514E-01	7.514E-01	9.86
	300.09	84	3.28	4.775E+00	8.068E-01	8.068E-01	65.35
BI-214	609.31	439	46.10*	2.769E+00	5.174E-01	5.175E-01	16.89
	768.36	------	4.94	2.266E+00	------	Line Not Found	------
	806.17	------	1.22	2.170E+00	------	Line Not Found	------
	934.06	------	3.03	1.899E+00	------	Line Not Found	------
	1120.29	116	15.10	1.608E+00	7.187E-01	7.188E-01	32.63
	1155.19	27	1.63	1.565E+00	1.596E+00	1.596E+00	71.27
	1238.11	------	5.79	1.473E+00	------	Line Not Found	------
	1280.96	------	1.43	1.431E+00	------	Line Not Found	------
	1377.67	------	4.00	1.347E+00	------	Line Not Found	------
	1401.50	------	1.27	1.329E+00	------	Line Not Found	------
	1407.98	15	2.15	1.324E+00	7.924E-01	7.925E-01	94.67
	1509.23	------	2.11	1.256E+00	------	Line Not Found	------
	1729.60	------	2.92	1.149E+00	------	Line Not Found	------
	1764.49	65	15.40	1.136E+00	5.578E-01	5.579E-01	44.38
PB-214	74.81	384	6.44	6.250E+00	1.434E+00	1.434E+00	27.14
	77.11	602	10.80	6.462E+00	1.296E+00	1.296E+00	18.90

Sample ID : G198681028 Acquisition date : 14-DEC-2007 11:37:20

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	287	4.84	7.202E+00	1.239E+00	1.239E+00	29.48
	242.00	258	7.43	5.544E+00	9.417E-01	9.417E-01	31.55
	295.22	311	19.30	4.829E+00	5.015E-01	5.015E-01	23.68
	351.93	606	37.60*	4.256E+00	5.690E-01	5.691E-01	14.77
RA-223	269.46	141	13.70*	5.134E+00	3.006E-01	3.006E-01	46.07
AC-228	129.07	80	2.42	7.639E+00	6.526E-01	6.526E-01	102.87
	209.25	171	3.89	6.083E+00	1.087E+00	1.087E+00	40.90
	270.25	141	3.46	5.134E+00	1.190E+00	1.190E+00	46.07
	338.32	225	11.27	4.380E+00	6.853E-01	6.853E-01	28.74
	409.46	------	1.92	3.801E+00	------ Line Not Found		------
	463.00	99	4.40	3.458E+00	9.804E-01	9.804E-01	42.58
	794.95	------	4.25	2.198E+00	------ Line Not Found		------
	911.20	220	25.80*	1.941E+00	6.601E-01	6.601E-01	26.14
	964.77	56	4.99	1.842E+00	9.110E-01	9.110E-01	38.87
	968.97	138	15.80	1.835E+00	7.147E-01	7.147E-01	27.44
	1588.20	27	3.22	1.211E+00	1.051E+00	1.051E+00	77.12
TH-234	63.29	104	4.80	4.722E+00	6.873E-01	6.873E-01	87.12
	92.58	253	5.41*	7.453E+00	9.441E-01	9.441E-01	40.85
NP-237	86.48	287	12.40*	7.202E+00	4.835E-01	4.835E-01	29.48
AM-243	74.66	384	68.20*	6.250E+00	1.354E-01	1.354E-01	27.14

Flag: "*" = Keyline

Sample ID : G198681028 Acquisition date : 14-DEC-2007 11:37:20

Total number of lines in spectrum 62
Number of unidentified lines 30
Number of lines tentatively identified by NID 32 51.61%

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	4.378E+00	4.378E+00	0.642E+00	14.66	
RH-101	1.04E+08S	1.03	8.457E-03	8.742E-03	21.74E-03	248.69	
CS-137	9.47E+08S	1.00	1.551E-01	1.557E-01	0.332E-01	21.32	
TL-208	4.43E+17S	1.00	2.366E-01	2.366E-01	0.392E-01	16.57	
BI-212	4.43E+17S	1.00	6.140E-01	6.140E-01	2.215E-01	36.07	
PB-212	4.43E+17S	1.00	7.514E-01	7.514E-01	0.741E-01	9.86	
BI-214	5.05E+10S	1.00	5.174E-01	5.175E-01	0.874E-01	16.89	
PB-214	5.05E+10S	1.00	5.690E-01	5.691E-01	0.840E-01	14.77	
RA-223	1.04E+12S	1.00	3.006E-01	3.006E-01	1.385E-01	46.07	
AC-228	4.43E+17S	1.00	6.601E-01	6.601E-01	1.726E-01	26.14	
TH-234	1.41E+17S	1.00	9.441E-01	9.441E-01	3.856E-01	40.85	
NP-237	6.75E+13S	1.00	4.835E-01	4.835E-01	1.425E-01	29.48	
AM-243	2.33E+11S	1.00	1.354E-01	1.354E-01	0.367E-01	27.14	
			---	---			
	Total Activity :		9.753E+00	9.754E+00			

Grand Total Activity : 9.753E+00 9.754E+00

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

Sample ID : G198681028 Acquisition date : 14-DEC-2007 11:37:20

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.93	1	347	0.90	93.83	91	7	7.46E-05	****	1.88E+00	
5	84.36	164	318	1.84	168.61	165	27	1.14E-02	42.8	7.02E+00	
5	89.98	236	405	1.55	179.83	165	27	1.64E-02	35.4	7.33E+00	
0	185.51	191	494	1.50	370.67	364	13	1.33E-02	54.4	6.54E+00	
0	314.35	26	128	1.13	628.10	625	7	1.78E-03	****	4.62E+00	
0	327.77	53	228	1.11	654.92	651	9	3.65E-03	****	4.48E+00	
0	598.32	28	47	1.17	1195.67	1193	6	1.96E-03	85.0	2.81E+00	
0	647.58	38	74	1.38	1294.16	1286	13	2.63E-03	99.6	2.63E+00	
1	665.35	51	69	1.73	1329.69	1316	18	3.51E-03	79.1	2.57E+00	
0	838.89	25	120	4.86	1676.72	1666	19	1.77E-03	****	2.09E+00	
0	870.54	19	80	1.99	1740.02	1729	16	1.30E-03	****	2.02E+00	
0	1243.83	103	65	11.99	2486.89	2468	35	7.12E-03	54.5	1.47E+00	
0	1284.04	22	43	3.81	2567.36	2553	19	1.54E-03	****	1.43E+00	
0	1337.03	22	11	0.58	2673.43	2667	14	1.52E-03	76.6	1.38E+00	
0	1342.49	11	8	1.43	2684.35	2681	7	7.40E-04	****	1.38E+00	
0	1350.89	17	11	0.88	2701.18	2697	9	1.18E-03	85.8	1.37E+00	
0	1379.84	33	32	1.76	2759.13	2751	18	2.28E-03	87.4	1.35E+00	
0	1411.66	9	16	1.43	2822.81	2818	9	6.24E-04	****	1.32E+00	
0	1435.38	12	31	5.32	2870.31	2856	18	8.66E-04	****	1.30E+00	
5	1593.85	28	3	3.13	3187.62	3183	21	1.95E-03	41.5	1.21E+00	
5	1599.69	19	1	3.14	3199.31	3183	21	1.35E-03	45.9	1.21E+00	
0	1630.73	24	9	1.57	3261.47	3255	12	1.67E-03	64.4	1.19E+00	
0	1649.43	8	8	1.71	3298.92	3292	10	5.21E-04	****	1.18E+00	
0	1668.29	3	13	0.80	3336.70	3327	11	1.93E-04	****	1.17E+00	
0	1714.10	8	10	1.03	3428.44	3423	13	5.40E-04	****	1.15E+00	
0	1722.42	8	2	1.48	3445.09	3441	7	5.87E-04	85.5	1.15E+00	
0	1852.80	12	15	1.32	3706.27	3699	12	8.64E-04	****	1.11E+00	
0	1905.39	6	16	0.70	3811.64	3802	15	4.36E-04	****	1.10E+00	
0	1919.48	7	4	0.55	3839.87	3835	9	4.99E-04	****	1.09E+00	
0	2004.11	15	7	0.46	4009.45	4003	13	1.01E-03	89.5	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]G198681028            *
* Acquisition date : 14-DEC-2007 11:37:20 Detector SN#    :                 *
* Detector ID      : GAM20                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 04:01:01.25     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681028           Analyst initials: MJH1            *
* Batch Number     : 708123               Sample Quantity : 1.2483E+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	4.378E+00	6.291E-01	9.617E-02	6.291E-01
RH-101	8.742E-03	2.131E-02	1.367E-02	2.131E-02
CS-137	1.557E-01	3.254E-02	1.479E-02	3.254E-02
TL-208	2.366E-01	3.842E-02	1.355E-02	3.842E-02
BI-212	6.140E-01	2.170E-01	1.069E-01	2.170E-01
PB-212	7.514E-01	7.263E-02	2.316E-02	7.263E-02
BI-214	5.175E-01	8.568E-02	2.669E-02	8.568E-02
PB-214	5.691E-01	8.235E-02	2.933E-02	8.235E-02
RA-223	3.006E-01	1.357E-01	8.109E-02	1.357E-01
AC-228	6.601E-01	1.691E-01	5.611E-02	1.691E-01
TH-234	9.441E-01	3.779E-01	1.769E-01	3.779E-01
NP-237	4.835E-01	1.397E-01	8.008E-02	1.397E-01
AM-243	1.354E-01	3.601E-02	1.821E-02	3.601E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	-7.894E-04	1.926E-02	1.582E-02	1.926E-02	NOT IDENT.
SB-125	2.104E-02	4.707E-02	4.045E-02	4.707E-02	NOT IDENT.
EU-155	1.192E-02	4.706E-02	4.259E-02	4.706E-02	NOT IDENT.
PO-209	3.939E-01	3.215E+00	2.740E+00	3.215E+00	NOT IDENT.
BI-211	2.927E-01	5.260E-01	4.126E-01	5.260E-01	NOT IDENT.
PA-233	-1.655E-02	3.574E-02	2.574E-02	3.574E-02	NOT IDENT.
PA-234M	-5.822E-01	2.264E+00	1.744E+00	2.264E+00	NOT IDENT.
U-235	-1.761E-02	1.050E-01	8.666E-02	1.050E-01	NOT IDENT.
NP-236	1.325E-02	3.324E-02	2.458E-02	3.324E-02	NOT IDENT.
NP-239	5.579E-02	1.098E-01	9.713E-02	1.098E-01	NOT IDENT.
AM-241	6.190E-02	5.876E-02	4.691E-02	5.876E-02	NOT IDENT.
CM-243	-2.258E-02	4.226E-02	3.722E-02	4.226E-02	NOT IDENT.
AM-246	3.179E-02	5.671E-02	5.005E-02	5.671E-02	NOT IDENT.
CF-249	-1.018E-04	2.001E-02	1.683E-02	2.001E-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	299.5120
63.29	366.1076
74.66	448.6620
74.81	448.7521
74.81	448.7521
77.11	450.1225
77.11	450.1225
86.48	382.2565
87.30	382.6404
87.30	382.6404
92.58	385.0663
98.44	339.5094
103.76	356.4153
105.31	342.9841
129.07	353.1879
143.76	325.2308
198.00	286.2800
209.25	328.1305
228.18	258.5439
238.63	244.6671
242.00	245.1973
269.46	255.3867
270.25	229.5543
277.36	218.4956
295.22	187.9393
300.09	185.2027
312.17	186.4329
338.32	205.1875
351.93	173.2164
387.59	152.8748
409.46	112.5959
427.87	128.6564
463.00	114.1324
510.77	97.3201
583.19	86.3992
609.31	92.7515
661.66	83.9959
727.33	72.2461
763.13	73.9905
768.36	79.9520
785.37	58.7886
794.95	50.3516
806.17	63.0766
831.80	52.9375
860.56	63.3534
896.60	49.4821
911.20	63.8598
934.06	48.9375
964.77	49.6549
968.97	56.5616
1001.03	43.5289
1078.86	33.7687
1120.29	39.0514
1155.19	26.8286
1173.23	47.4010
1238.11	36.0341
1280.96	40.3835
1332.51	34.9658
1377.67	20.8394
1401.50	32.2042
1407.98	0.0000
1460.80	14.2426
1509.23	22.9854
1588.20	28.2914
1620.50	23.4258
1729.60	11.9214
1764.49	20.5488

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198681028

Total Uranium Activity	-8.1460E-03	ug/g
Total Uranium Counting Unc.	4.8598E-02	ug/g
Total Uranium Tpu	4.8598E-08	ug/g
Total Uranium Mda	4.0098E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 14-DEC-2007 16:09:20.12

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681029.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 14-DEC-2007 12:08:43
Sample ID        : G198681029           Sample quantity  : 1.29940E+02 GRAM
Detector name    : GAM22                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:02.69  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708123               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*	56	413	0.99	92.14	89	7	3.87E-03	68.5	
2	0	53.17*	59	334	1.64	105.79	103	6	4.09E-03	55.8	
3	0	62.53*	118	858	1.06	124.51	120	11	8.20E-03	51.7	
4	2	74.73*	515	722	1.39	148.89	143	21	3.58E-02	10.6	1.02E+00
5	2	76.97*	758	629	1.16	153.37	143	21	5.26E-02	7.0	
6	2	83.82*	183	720	1.43	167.05	163	31	1.27E-02	28.0	3.67E+00
7	2	87.13	435	687	1.43	173.68	163	31	3.02E-02	11.8	
8	2	89.80	222	511	1.18	179.01	163	31	1.54E-02	18.7	
9	2	92.48*	213	548	1.28	184.38	163	31	1.48E-02	24.8	
10	0	105.42	90	465	1.50	210.25	206	8	6.23E-03	43.0	
11	0	129.33	130	761	0.93	258.04	253	11	9.02E-03	42.1	
12	0	139.55*	56	624	1.12	278.48	273	10	3.88E-03	88.3	
13	0	143.60*	73	528	1.60	286.57	283	9	5.05E-03	61.7	
14	1	181.32	58	352	1.41	361.97	359	19	4.03E-03	51.0	1.67E+00
15	1	185.78*	300	488	1.55	370.88	359	19	2.08E-02	17.1	
16	0	208.98	203	440	1.65	417.26	413	9	1.41E-02	20.0	
17	0	227.17*	43	304	1.05	453.63	451	7	2.99E-03	75.0	
18	3	238.45*	1715	370	1.22	476.18	471	17	1.19E-01	3.3	5.92E-01
19	3	241.36	447	501	1.91	482.00	471	17	3.11E-02	13.9	
20	0	270.05	138	380	1.31	539.36	534	11	9.55E-03	28.7	
21	0	277.44	45	239	0.90	554.14	551	7	3.14E-03	59.0	
22	1	294.97*	609	266	1.61	589.19	583	25	4.23E-02	6.8	3.47E+00
23	1	299.72	158	324	1.76	598.69	583	25	1.10E-02	23.1	
24	0	317.79	46	210	1.41	634.80	632	8	3.20E-03	56.6	
25	0	328.72	27	340	0.71	656.66	650	10	1.88E-03	129.1	
26	0	338.02*	331	363	1.66	675.26	670	11	2.30E-02	12.9	
27	0	351.67*	881	410	1.40	702.54	696	13	6.12E-02	6.0	
28	0	409.19	63	290	3.83	817.55	814	13	4.40E-03	56.6	
29	0	445.78	50	106	1.13	890.71	887	7	3.48E-03	37.3	
30	0	463.40	98	226	1.21	925.95	921	11	6.82E-03	31.5	
31	7	477.55	52	104	3.12	954.24	950	26	3.62E-03	38.1	3.49E+00
32	7	480.32	47	173	2.44	959.77	950	26	3.23E-03	65.5	
33	7	484.65	91	173	3.58	968.43	950	26	6.31E-03	33.4	
34	7	486.90	27	69	1.05	972.94	950	26	1.87E-03	53.5	
35	0	510.50*	116	352	2.70	1020.12	1011	19	8.03E-03	48.7	
36	0	521.75	36	82	1.04	1042.62	1040	7	2.50E-03	44.9	
37	0	536.72	51	102	2.84	1072.55	1068	10	3.57E-03	39.4	
38	0	562.88	33	202	1.08	1124.85	1121	13	2.27E-03	92.0	

Sample ID : G198681029 Acquisition date : 14-DEC-2007 12:08:43

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	570.25*	49	216	3.10	1139.59	1133	16	3.41E-03	70.7	
40	0	582.81*	560	304	1.67	1164.71	1157	17	3.89E-02	8.6	
41	0	609.00*	761	266	1.59	1217.09	1210	16	5.29E-02	6.2	
42	2	661.27	498	115	2.03	1321.61	1316	29	3.46E-02	6.1	2.18E+00
43	2	667.96	64	87	2.04	1335.00	1316	29	4.43E-03	34.9	
44	2	671.19	40	40	1.65	1341.45	1316	29	2.75E-03	32.1	
45	0	727.11	181	155	1.79	1453.28	1446	14	1.25E-02	16.5	
46	5	767.90	75	131	2.98	1534.87	1529	19	5.20E-03	32.3	2.64E+00
47	5	772.46	29	66	1.61	1543.98	1529	19	1.99E-03	57.7	
48	0	835.08	4	126	1.07	1669.23	1664	11	2.83E-04	536.2	
49	0	841.97	82	157	4.19	1683.01	1674	19	5.68E-03	38.3	
50	0	860.24*	87	84	1.80	1719.54	1712	13	6.01E-03	28.3	
51	0	878.30	29	85	1.40	1755.67	1749	11	2.00E-03	64.7	
52	0	910.59*	451	120	2.00	1820.24	1810	19	3.13E-02	8.1	
53	1	964.19	115	132	2.53	1927.46	1921	22	7.99E-03	21.5	1.97E+00
54	1	968.44*	312	106	2.23	1935.95	1921	22	2.17E-02	9.7	
55	0	995.17	14	78	1.36	1989.43	1979	13	1.00E-03	128.7	
56	0	1000.94*	72	63	4.31	2000.96	1993	15	5.00E-03	32.9	
57	0	1015.17	38	68	3.98	2029.42	2024	14	2.67E-03	47.9	
58	0	1119.46*	155	120	1.62	2238.05	2230	17	1.08E-02	18.9	
59	0	1238.35*	32	132	3.33	2475.88	2464	16	2.25E-03	84.1	
60	0	1353.97	34	41	4.33	2707.18	2699	18	2.36E-03	47.1	
61	0	1377.02	77	43	3.59	2753.31	2746	15	5.32E-03	22.2	
62	0	1460.05*	959	63	2.65	2919.43	2908	23	6.66E-02	4.0	
63	0	1586.71	100	55	3.65	3172.87	3158	28	6.92E-03	23.5	
64	0	1630.00	31	66	0.70	3259.49	3245	22	2.16E-03	68.9	
65	0	1663.46	60	9	5.31	3326.45	3317	23	4.17E-03	19.3	
66	0	1728.59	48	36	1.80	3456.79	3447	18	3.33E-03	32.7	
67	0	1763.93	221	27	2.88	3527.51	3516	27	1.53E-02	9.4	
68	1	1844.91	32	1	3.20	3689.58	3685	44	2.23E-03	19.0	1.56E+00
69	1	1846.91*	11	4	3.21	3693.58	3685	44	7.47E-04	95.2	
70	1	1863.11	31	6	2.92	3726.00	3685	44	2.17E-03	15.5	

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]G198681029       *
* Acquisition date : 14-DEC-2007 12:08:43 Detector SN#    :                 *
* Detector ID      : GAM22                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 04:00:02.69     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681029           Analyst initials: MJH1            *
* Batch Number     : 708123               Sample Quantity : 1.2994E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 22-FEB-2007 17:43:25 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	6.509E+00	6.326E-01	2.427E-01	0.000E+00
CS-137	2.210E-01	3.267E-02	2.659E-02	0.000E+00
EU-155	6.825E-02	5.768E-02	8.266E-02	0.000E+00
TL-208	2.268E-01	4.207E-02	2.563E-02	0.000E+00
BI-212	6.217E-01	2.085E-01	1.891E-01	0.000E+00
PB-212	7.863E-01	6.806E-02	4.568E-02	0.000E+00
BI-214	5.839E-01	8.476E-02	5.588E-02	0.000E+00
PB-214	5.777E-01	7.513E-02	5.128E-02	0.000E+00
RA-223	2.129E-01	1.206E-01	1.418E-01	0.000E+00
AC-228	8.568E-01	1.598E-01	9.650E-02	0.000E+00
PA-234M	4.566E+00	2.967E+00	3.116E+00	0.000E+00
TH-234	6.585E-01	3.242E-01	3.693E-01	0.000E+00
U-235	1.059E-01	1.282E-01	1.546E-01	0.000E+00
NP-237	6.121E-01	1.505E-01	1.683E-01	0.000E+00
NP-239	7.737E-02	1.138E-01	1.766E-01	0.000E+00
AM-243	1.564E-01	3.478E-02	3.823E-02	0.000E+00
CM-243	6.178E-02	5.221E-02	7.509E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error	MDA (pCi/GRAM)		Ided
CO-60	1.624E-02	1.740E-02	3.076E-02	0.000E+00	NOT IDENT.
RH-101	-4.211E-03	1.849E-02	2.886E-02	0.000E+00	NOT IDENT.
SB-125	-2.023E-03	4.085E-02	6.874E-02	0.000E+00	NOT IDENT.
PO-209	6.383E-01	3.180E+00	5.498E+00	0.000E+00	NOT IDENT.
BI-211	4.026E-01	4.899E-01	7.710E-01	0.000E+00	NOT IDENT.
PA-233	2.177E-02	3.053E-02	5.153E-02	0.000E+00	NOT IDENT.
NP-236	3.161E-02	3.232E-02	4.980E-02	0.000E+00	NOT IDENT.
AM-241	8.347E-02	6.299E-02	1.019E-01	0.000E+00	NOT IDENT.
AM-246	1.259E-02	5.387E-02	9.186E-02	0.000E+00	NOT IDENT.
CF-249	1.173E-02	1.701E-02	2.984E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 14-DEC-2007 16:09:21.24

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681029.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 14-DEC-2007 12:08:43
Sample ID        : G198681029           Sample quantity  : 1.29940E+02 GRAM
Detector name    : GAM22                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:02.69  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708123               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	959	10.66*	1.997E+00	6.509E+00	6.509E+00	9.92
CS-137	661.66	498	85.10*	3.836E+00	2.202E-01	2.210E-01	15.08
EU-155	105.31	90	21.20*	9.147E+00	6.677E-02	6.825E-02	86.23
TL-208	277.36	45	6.31	6.708E+00	1.545E-01	1.545E-01	118.11
	510.77	116	22.60	4.633E+00	1.596E-01	1.596E-01	97.56
	583.19	560	84.50*	4.219E+00	2.268E-01	2.268E-01	18.93
	763.13	------	1.81	3.420E+00	------	Line Not Found	------
	860.56	87	12.42	3.093E+00	3.255E-01	3.255E-01	57.36
BI-212	727.33	181	11.80*	3.558E+00	6.217E-01	6.217E-01	34.22
	785.37	------	1.10	3.340E+00	------	Line Not Found	------
	1620.50	------	1.49	1.873E+00	------	Line Not Found	------
PB-212	74.81	515	10.40	6.971E+00	1.026E+00	1.026E+00	22.68
	77.11	758	17.50	7.264E+00	8.608E-01	8.608E-01	16.11
	87.30	435	7.81	8.286E+00	9.719E-01	9.719E-01	25.10
	238.63	1715	43.30*	7.278E+00	7.863E-01	7.863E-01	8.83
	300.09	158	3.28	6.425E+00	1.082E+00	1.082E+00	46.53
BI-214	609.31	761	46.10*	4.085E+00	5.838E-01	5.839E-01	14.81
	768.36	75	4.94	3.403E+00	6.439E-01	6.439E-01	65.23
	806.17	------	1.22	3.268E+00	------	Line Not Found	------
	934.06	------	3.03	2.880E+00	------	Line Not Found	------
	1120.29	155	15.10	2.462E+00	6.042E-01	6.042E-01	38.42
	1155.19	------	1.63	2.397E+00	------	Line Not Found	------
	1238.11	32	5.79	2.262E+00	3.574E-01	3.575E-01	168.24
	1280.96	------	1.43	2.201E+00	------	Line Not Found	------
	1377.67	77	4.00	2.082E+00	1.330E+00	1.330E+00	44.72
	1401.50	------	1.27	2.055E+00	------	Line Not Found	------
	1407.98	------	2.15	2.048E+00	------	Line Not Found	------
	1509.23	------	2.11	1.953E+00	------	Line Not Found	------
	1729.60	48	2.92	1.816E+00	1.308E+00	1.308E+00	65.60
	1764.49	221	15.40	1.801E+00	1.151E+00	1.151E+00	19.60
PB-214	74.81	515	6.44	6.971E+00	1.657E+00	1.657E+00	22.68
	77.11	758	10.80	7.264E+00	1.395E+00	1.395E+00	16.11

Sample ID : G198681029 Acquisition date : 14-DEC-2007 12:08:43

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	435	4.84	8.286E+00	1.568E+00	1.568E+00	25.10
	242.00	447	7.43	7.232E+00	1.202E+00	1.202E+00	28.47
	295.22	609	19.30	6.483E+00	7.029E-01	7.029E-01	14.80
	351.93	881	37.60*	5.862E+00	5.776E-01	5.777E-01	13.27
RA-223	269.46	138	13.70*	6.808E+00	2.129E-01	2.129E-01	57.77
AC-228	129.07	130	2.42	9.236E+00	8.394E-01	8.394E-01	84.49
	209.25	203	3.89	7.785E+00	9.680E-01	9.680E-01	40.35
	270.25	138	3.46	6.808E+00	8.432E-01	8.432E-01	57.77
	338.32	331	11.27	5.999E+00	7.065E-01	7.065E-01	26.53
	409.46	63	1.92	5.350E+00	8.905E-01	8.905E-01	113.25
	463.00	98	4.40	4.943E+00	6.525E-01	6.525E-01	63.36
	794.95	------	4.25	3.306E+00	------	Line Not Found	------
	911.20	451	25.80*	2.945E+00	8.568E-01	8.568E-01	19.03
	964.77	115	4.99	2.802E+00	1.188E+00	1.188E+00	43.97
	968.97	312	15.80	2.791E+00	1.023E+00	1.023E+00	21.44
	1588.20	100	3.22	1.895E+00	2.357E+00	2.357E+00	47.33
PA-234M	1001.03	72	0.84*	2.712E+00	4.566E+00	4.566E+00	66.32
TH-234	63.29	118	4.80	4.933E+00	7.206E-01	7.206E-01	103.69
	92.58	213	5.41*	8.648E+00	6.585E-01	6.585E-01	50.24
U-235	143.76	73	10.96*	9.047E+00	1.059E-01	1.059E-01	123.56
NP-237	86.48	435	12.40*	8.286E+00	6.121E-01	6.121E-01	25.10
NP-239	228.18	43	10.76*	7.464E+00	7.737E-02	7.737E-02	150.02
AM-243	74.66	515	68.20*	6.971E+00	1.564E-01	1.564E-01	22.68
CM-243	103.76	90	23.00*	9.147E+00	6.155E-02	6.178E-02	86.23

Flag: "*" = Keyline

Sample ID : G198681029 Acquisition date : 14-DEC-2007 12:08:43

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	6.509E+00	6.509E+00	0.645E+00	9.92	
CS-137	9.47E+08S	1.00	2.202E-01	2.210E-01	0.333E-01	15.08	
EU-155	1.57E+08S	1.02	6.677E-02	6.825E-02	5.885E-02	86.23	
TL-208	4.43E+17S	1.00	2.268E-01	2.268E-01	0.429E-01	18.93	
BI-212	4.43E+17S	1.00	6.217E-01	6.217E-01	2.127E-01	34.22	
PB-212	4.43E+17S	1.00	7.863E-01	7.863E-01	0.695E-01	8.83	
BI-214	5.05E+10S	1.00	5.838E-01	5.839E-01	0.865E-01	14.81	
PB-214	5.05E+10S	1.00	5.776E-01	5.777E-01	0.767E-01	13.27	
RA-223	1.04E+12S	1.00	2.129E-01	2.129E-01	1.230E-01	57.77	
AC-228	4.43E+17S	1.00	8.568E-01	8.568E-01	1.631E-01	19.03	
PA-234M	1.41E+17S	1.00	4.566E+00	4.566E+00	3.028E+00	66.32	
TH-234	1.41E+17S	1.00	6.585E-01	6.585E-01	3.308E-01	50.24	
U-235	2.22E+16S	1.00	1.059E-01	1.059E-01	1.308E-01	123.56	
NP-237	6.75E+13S	1.00	6.121E-01	6.121E-01	1.536E-01	25.10	
NP-239	2.33E+11S	1.00	7.737E-02	7.737E-02	11.61E-02	150.02	
AM-243	2.33E+11S	1.00	1.564E-01	1.564E-01	0.355E-01	22.68	
CM-243	8.99E+08S	1.00	6.155E-02	6.178E-02	5.327E-02	86.23	
			---	---			
	Total Activity :		1.690E+01	1.690E+01			

Grand Total Activity : 1.690E+01 1.690E+01

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

Sample ID : G198681029 Acquisition date : 14-DEC-2007 12:08:43

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.34	56	413	0.99	92.14	89	7	3.87E-03	****	1.66E+00	
0	53.17	59	334	1.64	105.79	103	6	4.09E-03	****	3.01E+00	
2	83.82	183	720	1.43	167.05	163	31	1.27E-02	55.9	8.00E+00	
2	89.80	222	511	1.18	179.01	163	31	1.54E-02	37.4	8.48E+00	
0	139.55	56	624	1.12	278.48	273	10	3.88E-03	****	9.11E+00	
1	181.32	58	352	1.41	361.97	359	19	4.03E-03	****	8.32E+00	
1	185.78	300	488	1.55	370.88	359	19	2.08E-02	34.1	8.23E+00	
0	317.79	46	210	1.41	634.80	632	8	3.20E-03	****	6.22E+00	
0	328.72	27	340	0.71	656.66	650	10	1.88E-03	****	6.10E+00	
0	445.78	50	106	1.13	890.71	887	7	3.48E-03	74.6	5.07E+00	
7	477.55	52	104	3.12	954.24	950	26	3.62E-03	76.2	4.85E+00	
7	480.32	47	173	2.44	959.77	950	26	3.23E-03	****	4.83E+00	
7	484.65	91	173	3.58	968.43	950	26	6.31E-03	66.9	4.80E+00	
7	486.90	27	69	1.05	972.94	950	26	1.87E-03	****	4.78E+00	
0	521.75	36	82	1.04	1042.62	1040	7	2.50E-03	89.7	4.56E+00	
0	536.72	51	102	2.84	1072.55	1068	10	3.57E-03	78.8	4.48E+00	
0	562.88	33	202	1.08	1124.85	1121	13	2.27E-03	****	4.33E+00	
0	570.25	49	216	3.10	1139.59	1133	16	3.41E-03	****	4.29E+00	
2	667.96	64	87	2.04	1335.00	1316	29	4.43E-03	69.8	3.81E+00	
2	671.19	40	40	1.65	1341.45	1316	29	2.75E-03	64.2	3.79E+00	
5	772.46	29	66	1.61	1543.98	1529	19	1.99E-03	****	3.39E+00	
0	835.08	4	126	1.07	1669.23	1664	11	2.83E-04	****	3.17E+00	
0	841.97	82	157	4.19	1683.01	1674	19	5.68E-03	76.7	3.15E+00	
0	878.30	29	85	1.40	1755.67	1749	11	2.00E-03	****	3.04E+00	
0	995.17	14	78	1.36	1989.43	1979	13	1.00E-03	****	2.73E+00	
0	1015.17	38	68	3.98	2029.42	2024	14	2.67E-03	95.8	2.68E+00	
0	1353.97	34	41	4.33	2707.18	2699	18	2.36E-03	94.2	2.11E+00	
0	1630.00	31	66	0.70	3259.49	3245	22	2.16E-03	****	1.87E+00	
0	1663.46	60	9	5.31	3326.45	3317	23	4.17E-03	38.7	1.85E+00	
1	1844.91	32	1	3.20	3689.58	3685	44	2.23E-03	38.0	1.77E+00	
1	1846.91	11	4	3.21	3693.58	3685	44	7.47E-04	****	1.77E+00	
1	1863.11	31	6	2.92	3726.00	3685	44	2.17E-03	31.1	1.77E+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]G198681029            *
* Acquisition date : 14-DEC-2007 12:08:43 Detector SN#    :                 *
* Detector ID      : GAM22                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 04:00:02.69     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681029           Analyst initials: MJH1            *
* Batch Number     : 708123               Sample Quantity : 1.2994E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 22-FEB-2007 17:43:25 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	6.509E+00	6.326E-01	1.214E-01	6.326E-01
CS-137	2.210E-01	3.267E-02	1.330E-02	3.267E-02
EU-155	6.825E-02	5.768E-02	4.136E-02	5.768E-02
TL-208	2.268E-01	4.207E-02	1.282E-02	4.207E-02
BI-212	6.217E-01	2.085E-01	9.458E-02	2.085E-01
PB-212	7.863E-01	6.806E-02	2.285E-02	6.806E-02
BI-214	5.839E-01	8.476E-02	2.795E-02	8.476E-02
PB-214	5.777E-01	7.513E-02	2.565E-02	7.513E-02
RA-223	2.129E-01	1.206E-01	7.095E-02	1.206E-01
AC-228	8.568E-01	1.598E-01	4.828E-02	1.598E-01
PA-234M	4.566E+00	2.967E+00	1.559E+00	2.967E+00
TH-234	6.585E-01	3.242E-01	1.848E-01	3.242E-01
U-235	1.059E-01	1.282E-01	7.737E-02	1.282E-01
NP-237	6.121E-01	1.505E-01	8.422E-02	1.505E-01
NP-239	7.737E-02	1.138E-01	8.833E-02	1.138E-01
AM-243	1.564E-01	3.478E-02	1.913E-02	3.478E-02
CM-243	6.178E-02	5.221E-02	3.756E-02	5.221E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	1.624E-02	1.740E-02	1.539E-02	1.740E-02	NOT IDENT.
RH-101	-4.211E-03	1.849E-02	1.444E-02	1.849E-02	NOT IDENT.
SB-125	-2.023E-03	4.085E-02	3.439E-02	4.085E-02	NOT IDENT.
PO-209	6.383E-01	3.180E+00	2.751E+00	3.180E+00	NOT IDENT.
BI-211	4.026E-01	4.899E-01	3.857E-01	4.899E-01	NOT IDENT.
PA-233	2.177E-02	3.053E-02	2.578E-02	3.053E-02	NOT IDENT.
NP-236	3.161E-02	3.232E-02	2.492E-02	3.232E-02	NOT IDENT.
AM-241	8.347E-02	6.299E-02	5.097E-02	6.299E-02	NOT IDENT.
AM-246	1.259E-02	5.387E-02	4.596E-02	5.387E-02	NOT IDENT.
CF-249	1.173E-02	1.701E-02	1.493E-02	1.701E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	412.5221
63.29	544.9716
74.66	663.4775
74.81	663.7324
74.81	663.7324
77.11	667.6289
77.11	667.6289
86.48	597.5669
87.30	598.7025
87.30	598.7025
92.58	605.8982
98.44	477.7665
103.76	499.3401
105.31	500.1753
129.07	527.8347
143.76	482.8449
198.00	500.9618
209.25	471.0533
228.18	417.1858
238.63	432.2490
242.00	373.5969
269.46	367.4628
270.25	367.7570
277.36	399.0155
295.22	299.5150
300.09	300.8796
312.17	291.8617
338.32	303.9489
351.93	269.6469
387.59	221.6531
409.46	261.9476
427.87	225.0663
463.00	215.2742
510.77	177.4195
583.19	179.1222
609.31	237.9159
661.66	161.1997
727.33	136.2497
763.13	142.0850
768.36	145.9081
785.37	111.5749
794.95	107.7209
806.17	135.2870
831.80	113.2052
860.56	127.7944
896.60	123.1027
911.20	117.0162
934.06	112.1643
964.77	108.4923
968.97	91.6162
1001.03	110.1404
1078.86	86.1445
1120.29	85.4772
1155.19	100.8583
1173.23	85.5709
1238.11	80.4115
1280.96	88.7173
1332.51	59.0267
1377.67	60.9424
1401.50	82.7900
1407.98	77.9922
1460.80	59.0396
1509.23	60.7635
1588.20	46.4420
1620.50	44.3646
1729.60	47.7299
1764.49	35.3038

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198681029

Total Uranium Activity	4.8988E-02	ug/g
Total Uranium Counting Unc.	5.9317E-02	ug/g
Total Uranium Tpu	5.9317E-08	ug/g
Total Uranium Mda	3.5799E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 14-DEC-2007 16:14:14.21

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681030.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 14-DEC-2007 12:13:43
Sample ID        : G198681030           Sample quantity  : 1.44740E+02 GRAM
Detector name    : GAM06                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.59  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708123               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	53.06	59	410	1.38	106.18	102	9	4.10E-03	63.2	
2	0	62.97*	6	391	0.79	125.98	123	7	4.28E-04	580.7	
3	10	74.30*	135	430	1.45	148.63	145	15	9.37E-03	28.7	5.14E+00
4	10	76.78*	404	333	1.01	153.58	145	15	2.81E-02	9.1	
5	0	83.51*	63	315	0.99	167.02	165	6	4.35E-03	49.3	
6	0	86.95	130	417	1.30	173.89	171	7	9.06E-03	27.3	
7	0	93.06*	111	675	1.13	186.10	180	10	7.70E-03	48.3	
8	0	104.52	80	363	2.17	209.01	205	8	5.54E-03	42.7	
9	0	112.48	36	273	0.93	224.90	223	6	2.47E-03	75.6	
10	0	128.75*	60	285	0.95	257.42	255	7	4.16E-03	51.1	
11	0	158.90	40	348	0.99	317.66	314	8	2.80E-03	81.4	
12	0	185.39*	209	504	1.11	370.59	365	12	1.45E-02	24.0	
13	0	209.51	123	370	1.04	418.78	414	10	8.56E-03	30.7	
14	0	226.66	37	216	0.72	453.06	450	7	2.54E-03	68.9	
15	0	229.71	59	243	1.47	459.14	456	8	4.11E-03	47.4	
16	4	238.30*	1043	198	1.14	476.31	470	18	7.24E-02	4.1	1.62E+00
17	4	241.21	265	288	1.79	482.13	470	18	1.84E-02	16.3	
18	0	270.05	108	267	1.15	539.75	536	10	7.51E-03	30.1	
19	0	276.95	57	176	1.12	553.54	550	7	3.98E-03	40.5	
20	0	294.71*	294	236	1.22	589.04	584	11	2.04E-02	12.5	
21	0	300.06	61	235	0.72	599.73	595	10	4.27E-03	48.3	
22	0	327.14	44	204	0.66	653.85	651	9	3.08E-03	59.5	
23	0	338.04*	229	199	0.97	675.62	671	11	1.59E-02	14.2	
24	0	351.65*	585	269	1.31	702.83	697	14	4.06E-02	7.5	
25	0	408.43	70	105	1.04	816.29	812	10	4.86E-03	29.9	
26	0	462.72	39	125	0.97	924.79	920	9	2.73E-03	53.8	
27	0	510.55*	83	214	1.86	1020.40	1012	18	5.77E-03	51.2	
28	1	562.38	37	74	1.53	1124.00	1118	15	2.58E-03	45.0	2.97E+00
29	1	565.04	27	77	1.38	1129.31	1118	15	1.86E-03	57.5	
30	2	582.77*	335	70	1.59	1164.74	1158	17	2.32E-02	7.6	2.91E+00
31	2	586.45	27	37	1.86	1172.10	1158	17	1.89E-03	36.3	
32	0	609.01*	344	128	1.32	1217.20	1211	14	2.39E-02	9.5	
33	0	646.17	7	60	0.78	1291.46	1286	7	4.51E-04	200.7	
34	0	661.08	167	125	1.37	1321.28	1317	12	1.16E-02	15.3	
35	0	726.96	70	66	1.58	1452.96	1449	10	4.88E-03	24.6	
36	0	769.92	33	69	0.59	1538.84	1533	12	2.29E-03	54.0	
37	0	785.82	37	71	2.34	1570.62	1562	13	2.55E-03	50.2	
38	0	794.22	54	41	1.16	1587.41	1582	11	3.73E-03	26.9	

Sample ID : G198681030 Acquisition date : 14-DEC-2007 12:13:43

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	807.04	12	48	1.58	1613.05	1607	10	8.35E-04	111.2	
40	0	841.01	59	62	2.39	1680.96	1673	18	4.11E-03	35.6	
41	1	850.36	23	19	1.91	1699.65	1691	35	1.57E-03	47.6	1.59E+00
42	1	860.64	30	25	1.91	1720.21	1691	35	2.06E-03	38.8	
43	0	910.79*	219	31	1.63	1820.47	1813	14	1.52E-02	9.3	
44	0	934.13	26	60	1.51	1867.13	1862	13	1.84E-03	62.8	
45	2	964.52	42	43	2.18	1927.90	1923	19	2.94E-03	30.7	2.24E+00
46	2	968.67*	89	44	1.84	1936.18	1923	19	6.20E-03	20.4	
47	0	1044.81	20	48	3.41	2088.43	2075	17	1.38E-03	84.6	
48	0	1119.99*	79	66	0.84	2238.75	2232	17	5.46E-03	27.2	
49	0	1237.80	43	29	0.79	2474.33	2468	13	2.99E-03	30.0	
50	0	1293.53	29	32	6.91	2585.78	2577	18	2.02E-03	48.8	
51	4	1321.46	12	10	1.94	2641.64	2639	14	8.19E-04	49.1	4.06E-01
52	4	1325.32	15	9	2.16	2649.36	2639	14	1.02E-03	41.6	
53	0	1353.59	15	16	5.35	2705.89	2698	15	1.05E-03	66.7	
54	0	1359.38	11	7	0.53	2717.48	2713	9	7.64E-04	52.4	
55	0	1378.36	32	36	1.18	2755.44	2744	16	2.23E-03	45.4	
56	0	1426.14	21	7	4.37	2851.00	2843	15	1.46E-03	35.7	
57	0	1460.20*	386	19	2.02	2919.12	2911	15	2.68E-02	6.0	
58	0	1488.13	13	11	2.85	2974.97	2966	15	9.07E-04	62.3	
59	0	1569.72	20	11	3.18	3138.17	3129	16	1.38E-03	44.7	
60	0	1578.44	17	3	3.62	3155.62	3150	12	1.17E-03	32.1	
61	0	1599.16	13	11	0.61	3197.06	3189	13	8.91E-04	63.4	
62	0	1612.11*	8	7	1.45	3222.96	3215	13	5.60E-04	83.8	
63	0	1638.50	17	7	2.74	3275.76	3269	13	1.15E-03	40.3	
64	0	1695.81	8	17	5.96	3390.41	3378	17	5.43E-04	126.1	
65	0	1730.48	29	13	2.50	3459.77	3451	18	2.01E-03	35.0	
66	0	1764.45*	52	19	1.83	3527.72	3521	16	3.61E-03	26.7	
67	0	1854.06	10	5	0.50	3707.00	3701	11	6.76E-04	56.4	
68	0	1935.69	11	7	0.93	3870.32	3862	14	7.64E-04	59.3	
69	0	1989.33	9	5	0.62	3977.64	3971	10	6.30E-04	56.7	

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]G198681030       *
* Acquisition date : 14-DEC-2007 12:13:43 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 04:00:01.59     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681030           Analyst initials: MJH1            *
* Batch Number     : 708123               Sample Quantity : 1.4474E+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	4.894E+00	6.535E-01	3.346E-01	0.000E+00
CS-137	1.289E-01	3.963E-02	3.754E-02	0.000E+00
EU-155	8.410E-02	7.070E-02	9.555E-02	0.000E+00
TL-208	2.332E-01	3.795E-02	3.282E-02	0.000E+00
BI-212	4.244E-01	2.071E-01	2.603E-01	0.000E+00
PB-212	7.102E-01	7.159E-02	5.165E-02	0.000E+00
BI-214	4.563E-01	9.042E-02	6.337E-02	0.000E+00
PB-214	6.127E-01	9.781E-02	6.524E-02	0.000E+00
RA-223	2.549E-01	1.510E-01	1.796E-01	0.000E+00
AC-228	7.460E-01	1.545E-01	1.111E-01	0.000E+00
TH-234	4.799E-01	4.560E-01	4.197E-01	0.000E+00
NP-237	2.625E-01	1.422E-01	1.778E-01	0.000E+00
NP-239	9.657E-02	1.305E-01	1.876E-01	0.000E+00
AM-243	6.246E-02	3.547E-02	4.369E-02	0.000E+00
CM-243	7.612E-02	6.400E-02	8.008E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	-8.210E-03		2.475E-02	3.979E-02	0.000E+00	NOT IDENT.
RH-101	1.053E-02		1.760E-02	3.270E-02	0.000E+00	NOT IDENT.
SB-125	-1.053E-02		5.062E-02	8.531E-02	0.000E+00	NOT IDENT.
PO-209	-8.497E-01		3.719E+00	6.109E+00	0.000E+00	NOT IDENT.
BI-211	-2.504E-01		5.463E-01	8.585E-01	0.000E+00	NOT IDENT.
PA-233	-1.241E-02		3.426E-02	5.905E-02	0.000E+00	NOT IDENT.
PA-234M	2.422E-01		2.676E+00	4.022E+00	0.000E+00	NOT IDENT.
U-235	7.967E-02		1.031E-01	1.844E-01	0.000E+00	NOT IDENT.
NP-236	1.890E-02		3.034E-02	5.357E-02	0.000E+00	NOT IDENT.
AM-241	2.473E-02		8.504E-02	1.426E-01	0.000E+00	NOT IDENT.
AM-246	-6.106E-02		6.482E-02	1.002E-01	0.000E+00	NOT IDENT.
CF-249	2.814E-03		2.238E-02	3.887E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 14-DEC-2007 16:14:15.17

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681030.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 14-DEC-2007 12:13:43
Sample ID        : G198681030           Sample quantity  : 1.44740E+02 GRAM
Detector name    : GAM06                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.59  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708123               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	386	10.66*	9.605E-01	4.894E+00	4.894E+00	13.63
CS-137	661.66	167	85.10*	1.978E+00	1.284E-01	1.289E-01	31.38
EU-155	105.31	80	21.20*	5.932E+00	8.227E-02	8.410E-02	85.78
TL-208	277.36	57	6.31	3.941E+00	2.990E-01	2.990E-01	81.24
	510.77	83	22.60	2.457E+00	1.941E-01	1.941E-01	102.60
	583.19	335	84.50*	2.203E+00	2.332E-01	2.332E-01	16.61
	763.13	------	1.81	1.741E+00	------	Line Not Found	------
	860.56	30	12.42	1.558E+00	1.988E-01	1.988E-01	78.17
BI-212	727.33	70	11.80*	1.819E+00	4.244E-01	4.244E-01	49.79
	785.37	37	1.10	1.695E+00	2.559E+00	2.559E+00	100.66
	1620.50	------	1.49	8.878E-01	------	Line Not Found	------
PB-212	74.81	135	10.40	4.108E+00	4.096E-01	4.096E-01	57.95
	77.11	404	17.50	4.363E+00	6.861E-01	6.861E-01	20.09
	87.30	130	7.81	5.196E+00	4.168E-01	4.168E-01	55.27
	238.63	1043	43.30*	4.398E+00	7.102E-01	7.102E-01	10.29
	300.09	61	3.28	3.712E+00	6.548E-01	6.548E-01	96.90
BI-214	609.31	344	46.10*	2.122E+00	4.562E-01	4.563E-01	20.22
	768.36	33	4.94	1.727E+00	5.017E-01	5.017E-01	108.39
	806.17	12	1.22	1.654E+00	7.727E-01	7.728E-01	222.54
	934.06	26	3.03	1.443E+00	7.844E-01	7.844E-01	126.02
	1120.29	79	15.10	1.216E+00	5.554E-01	5.554E-01	54.81
	1155.19	------	1.63	1.181E+00	------	Line Not Found	------
	1238.11	43	5.79	1.108E+00	8.697E-01	8.697E-01	60.40
	1280.96	------	1.43	1.075E+00	------	Line Not Found	------
	1377.67	32	4.00	1.008E+00	1.032E+00	1.032E+00	91.02
	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	29	2.92	8.507E-01	1.512E+00	1.512E+00	70.26
	1764.49	52	15.40	8.410E-01	5.210E-01	5.211E-01	53.71
PB-214	74.81	135	6.44	4.108E+00	6.614E-01	6.615E-01	57.95
	77.11	404	10.80	4.363E+00	1.112E+00	1.112E+00	20.09

Sample ID : G198681030 Acquisition date : 14-DEC-2007 12:13:43

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	130	4.84	5.196E+00	6.726E-01	6.726E-01	55.27
	242.00	265	7.43	4.359E+00	1.062E+00	1.062E+00	33.17
	295.22	294	19.30	3.762E+00	5.251E-01	5.251E-01	25.77
	351.93	585	37.60*	3.292E+00	6.126E-01	6.127E-01	16.29
RA-223	269.46	108	13.70*	4.015E+00	2.549E-01	2.549E-01	60.44
AC-228	129.07	60	2.42	6.053E+00	5.300E-01	5.300E-01	102.44
	209.25	123	3.89	4.809E+00	8.548E-01	8.548E-01	61.63
	270.25	108	3.46	4.015E+00	1.009E+00	1.009E+00	60.44
	338.32	229	11.27	3.392E+00	7.783E-01	7.783E-01	29.02
	409.46	70	1.92	2.933E+00	1.612E+00	1.612E+00	60.07
	463.00	39	4.40	2.659E+00	4.361E-01	4.361E-01	107.70
	794.95	54	4.25	1.679E+00	9.752E-01	9.752E-01	54.51
	911.20	219	25.80*	1.478E+00	7.460E-01	7.460E-01	21.14
	964.77	42	4.99	1.400E+00	7.868E-01	7.868E-01	62.09
	968.97	89	15.80	1.395E+00	5.252E-01	5.252E-01	41.82
	1588.20	------	3.22	9.005E-01	------	Line Not Found	------
TH-234	63.29	6	4.80	2.722E+00	6.110E-02	6.110E-02	1161.44
	92.58	111	5.41*	5.541E+00	4.799E-01	4.799E-01	96.96
NP-237	86.48	130	12.40*	5.196E+00	2.625E-01	2.625E-01	55.27
NP-239	228.18	37	10.76*	4.556E+00	9.657E-02	9.657E-02	137.94
AM-243	74.66	135	68.20*	4.108E+00	6.246E-02	6.246E-02	57.95
CM-243	103.76	80	23.00*	5.932E+00	7.583E-02	7.612E-02	85.78

Flag: "*" = Keyline

Sample ID : G198681030 Acquisition date : 14-DEC-2007 12:13:43

Total number of lines in spectrum 69
Number of unidentified lines 30
Number of lines tentatively identified by NID 39 56.52%

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	4.894E+00	4.894E+00	0.667E+00	13.63	
CS-137	9.47E+08S	1.00	1.284E-01	1.289E-01	0.404E-01	31.38	
EU-155	1.57E+08S	1.02	8.227E-02	8.410E-02	7.214E-02	85.78	
TL-208	4.43E+17S	1.00	2.332E-01	2.332E-01	0.387E-01	16.61	
BI-212	4.43E+17S	1.00	4.244E-01	4.244E-01	2.113E-01	49.79	
PB-212	4.43E+17S	1.00	7.102E-01	7.102E-01	0.730E-01	10.29	
BI-214	5.05E+10S	1.00	4.562E-01	4.563E-01	0.923E-01	20.22	
PB-214	5.05E+10S	1.00	6.126E-01	6.127E-01	0.998E-01	16.29	
RA-223	1.04E+12S	1.00	2.549E-01	2.549E-01	1.541E-01	60.44	
AC-228	4.43E+17S	1.00	7.460E-01	7.460E-01	1.577E-01	21.14	
TH-234	1.41E+17S	1.00	4.799E-01	4.799E-01	4.653E-01	96.96	
NP-237	6.75E+13S	1.00	2.625E-01	2.625E-01	1.451E-01	55.27	
NP-239	2.33E+11S	1.00	9.657E-02	9.657E-02	13.32E-02	137.94	
AM-243	2.33E+11S	1.00	6.246E-02	6.246E-02	3.620E-02	57.95	
CM-243	8.99E+08S	1.00	7.583E-02	7.612E-02	6.530E-02	85.78	
			---	---			
		Total Activity :	9.519E+00	9.522E+00			

Grand Total Activity : 9.519E+00 9.522E+00

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

Sample ID : G198681030 Acquisition date : 14-DEC-2007 12:13:43

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	53.06	59	410	1.38	106.18	102	9	4.10E-03	****	1.41E+00	
0	83.51	63	315	0.99	167.02	165	6	4.35E-03	98.7	4.95E+00	
0	112.48	36	273	0.93	224.90	223	6	2.47E-03	****	6.05E+00	
0	158.90	40	348	0.99	317.66	314	8	2.80E-03	****	5.65E+00	
0	185.39	209	504	1.11	370.59	365	12	1.45E-02	48.0	5.20E+00	
0	229.71	59	243	1.47	459.14	456	8	4.11E-03	94.7	4.51E+00	
0	327.14	44	204	0.66	653.85	651	9	3.08E-03	****	3.48E+00	
1	562.38	37	74	1.53	1124.00	1118	15	2.58E-03	90.1	2.27E+00	
1	565.04	27	77	1.38	1129.31	1118	15	1.86E-03	****	2.26E+00	
2	586.45	27	37	1.86	1172.10	1158	17	1.89E-03	72.5	2.19E+00	
0	646.17	7	60	0.78	1291.46	1286	7	4.51E-04	****	2.02E+00	
0	841.01	59	62	2.39	1680.96	1673	18	4.11E-03	71.2	1.59E+00	
1	850.36	23	19	1.91	1699.65	1691	35	1.57E-03	95.3	1.58E+00	
0	1044.81	20	48	3.41	2088.43	2075	17	1.38E-03	****	1.30E+00	
0	1293.53	29	32	6.91	2585.78	2577	18	2.02E-03	97.7	1.07E+00	
4	1321.46	12	10	1.94	2641.64	2639	14	8.19E-04	98.2	1.05E+00	
4	1325.32	15	9	2.16	2649.36	2639	14	1.02E-03	83.2	1.04E+00	
0	1353.59	15	16	5.35	2705.89	2698	15	1.05E-03	****	1.02E+00	
0	1359.38	11	7	0.53	2717.48	2713	9	7.64E-04	****	1.02E+00	
0	1426.14	21	7	4.37	2851.00	2843	15	1.46E-03	71.5	9.79E-01	
0	1488.13	13	11	2.85	2974.97	2966	15	9.07E-04	****	9.46E-01	
0	1569.72	20	11	3.18	3138.17	3129	16	1.38E-03	89.5	9.08E-01	
0	1578.44	17	3	3.62	3155.62	3150	12	1.17E-03	64.1	9.05E-01	
0	1599.16	13	11	0.61	3197.06	3189	13	8.91E-04	****	8.96E-01	
0	1612.11	8	7	1.45	3222.96	3215	13	5.60E-04	****	8.91E-01	
0	1638.50	17	7	2.74	3275.76	3269	13	1.15E-03	80.5	8.81E-01	
0	1695.81	8	17	5.96	3390.41	3378	17	5.43E-04	****	8.61E-01	
0	1854.06	10	5	0.50	3707.00	3701	11	6.76E-04	****	8.19E-01	
0	1935.69	11	7	0.93	3870.32	3862	14	7.64E-04	****	8.04E-01	
0	1989.33	9	5	0.62	3977.64	3971	10	6.30E-04	****	7.96E-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]G198681030            *
* Acquisition date : 14-DEC-2007 12:13:43 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 04:00:01.59     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681030           Analyst initials: MJH1            *
* Batch Number     : 708123               Sample Quantity : 1.4474E+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	4.894E+00	6.535E-01	1.674E-01	6.535E-01
CS-137	1.289E-01	3.963E-02	1.878E-02	3.963E-02
EU-155	8.410E-02	7.070E-02	4.780E-02	7.070E-02
TL-208	2.332E-01	3.795E-02	1.642E-02	3.795E-02
BI-212	4.244E-01	2.071E-01	1.302E-01	2.071E-01
PB-212	7.102E-01	7.159E-02	2.584E-02	7.159E-02
BI-214	4.563E-01	9.042E-02	3.170E-02	9.042E-02
PB-214	6.127E-01	9.781E-02	3.264E-02	9.781E-02
RA-223	2.549E-01	1.510E-01	8.986E-02	1.510E-01
AC-228	7.460E-01	1.545E-01	5.559E-02	1.545E-01
TH-234	4.799E-01	4.560E-01	2.100E-01	4.560E-01
NP-237	2.625E-01	1.422E-01	8.893E-02	1.422E-01
NP-239	9.657E-02	1.305E-01	9.386E-02	1.305E-01
AM-243	6.246E-02	3.547E-02	2.186E-02	3.547E-02
CM-243	7.612E-02	6.400E-02	4.006E-02	6.400E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	-8.210E-03	2.475E-02	1.991E-02	2.475E-02	NOT IDENT.
RH-101	1.053E-02	1.760E-02	1.636E-02	1.760E-02	NOT IDENT.
SB-125	-1.053E-02	5.062E-02	4.268E-02	5.062E-02	NOT IDENT.
PO-209	-8.497E-01	3.719E+00	3.056E+00	3.719E+00	NOT IDENT.
BI-211	-2.504E-01	5.463E-01	4.295E-01	5.463E-01	NOT IDENT.
PA-233	-1.241E-02	3.426E-02	2.954E-02	3.426E-02	NOT IDENT.
PA-234M	2.422E-01	2.676E+00	2.012E+00	2.676E+00	NOT IDENT.
U-235	7.967E-02	1.031E-01	9.227E-02	1.031E-01	NOT IDENT.
NP-236	1.890E-02	3.034E-02	2.680E-02	3.034E-02	NOT IDENT.
AM-241	2.473E-02	8.504E-02	7.133E-02	8.504E-02	NOT IDENT.
AM-246	-6.106E-02	6.482E-02	5.013E-02	6.482E-02	NOT IDENT.
CF-249	2.814E-03	2.238E-02	1.944E-02	2.238E-02	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
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ENERGY	MDA COUNTS
59.54	301.1850
63.29	346.3166
74.66	364.4418
74.81	364.5648
74.81	364.5648
77.11	366.4297
77.11	366.4297
86.48	311.4592
87.30	511.0475
87.30	511.0475
92.58	378.3057
98.44	284.3773
103.76	285.1119
105.31	336.6270
129.07	317.6110
143.76	308.2790
198.00	301.9908
209.25	288.0770
228.18	209.8057
238.63	242.1882
242.00	242.9969
269.46	246.9289
270.25	231.6648
277.36	201.6788
295.22	197.1281
300.09	167.0098
312.17	184.4953
338.32	166.4165
351.93	166.1179
387.59	152.8508
409.46	132.4832
427.87	129.4109
463.00	105.8058
510.77	104.7560
583.19	97.2609
609.31	100.3961
661.66	103.8498
727.33	82.1307
763.13	81.7725
768.36	82.1851
785.37	67.5456
794.95	64.4111
806.17	68.4378
831.80	65.3280
860.56	45.1784
896.60	53.8675
911.20	47.7751
934.06	47.0841
964.77	51.9012
968.97	43.3115
1001.03	47.0522
1078.86	49.5258
1120.29	37.8434
1155.19	44.9212
1173.23	48.9974
1238.11	31.8610
1280.96	33.6417
1332.51	27.3482
1377.67	26.0805
1401.50	30.6067
1407.98	29.6337
1460.80	31.9332
1509.23	19.8860
1588.20	25.5684
1620.50	17.5568
1729.60	17.8788
1764.49	17.0583

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198681030

Total Uranium Activity	3.6865E-02	ug/g
Total Uranium Counting Unc.	4.7684E-02	ug/g
Total Uranium Tpu	4.7684E-08	ug/g
Total Uranium Mda	4.2694E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 14-DEC-2007 16:24:34.97

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681031.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 14-DEC-2007 12:24:01
Sample ID        : G198681031           Sample quantity  : 1.38020E+02 GRAM
Detector name    : GAM17                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:05.38  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708123               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*	72	333	0.84	93.71	90	8	5.03E-03	52.8	
2	0	53.41*	60	388	0.84	107.30	104	8	4.19E-03	61.8	
3	0	63.45*	83	571	0.88	127.37	123	9	5.78E-03	60.3	
4	3	74.90*	350	423	0.76	150.25	146	13	2.43E-02	10.6	3.01E+00
5	3	77.24*	700	356	0.80	154.92	146	13	4.86E-02	6.0	
6	2	84.25*	74	411	1.10	168.92	165	27	5.16E-03	50.0	1.85E+00
7	2	87.29*	272	397	1.11	175.00	165	27	1.89E-02	14.2	
8	2	90.13	188	384	1.11	180.66	165	27	1.31E-02	18.8	
9	2	92.77*	230	364	1.12	185.95	165	27	1.60E-02	19.8	
10	0	105.65*	32	332	0.72	211.69	209	7	2.25E-03	101.0	
11	0	129.03	94	348	0.98	258.41	255	8	6.53E-03	36.0	
12	0	143.80*	26	254	1.22	287.93	285	6	1.80E-03	114.7	
13	0	153.84	93	344	1.08	307.98	304	9	6.46E-03	37.4	
14	0	186.02*	130	359	1.01	372.28	367	10	9.03E-03	31.7	
15	0	209.05	59	319	0.71	418.30	415	9	4.12E-03	55.6	
16	0	238.75*	949	243	0.98	477.64	474	7	6.59E-02	4.5	
17	0	241.58	123	287	2.27	483.30	482	8	8.53E-03	27.0	
18	0	270.58	132	200	1.42	541.26	537	10	9.14E-03	22.2	
19	0	277.07	34	149	0.93	554.22	551	6	2.38E-03	59.0	
20	0	295.57*	301	209	1.24	591.20	587	11	2.09E-02	11.6	
21	0	300.45	84	180	1.24	600.95	598	9	5.83E-03	30.6	
22	0	328.64	44	214	2.73	657.28	651	11	3.07E-03	65.8	
23	0	338.49*	131	235	1.06	676.96	672	10	9.08E-03	25.2	
24	0	352.10*	467	189	1.13	704.17	699	12	3.25E-02	8.0	
25	0	410.09	40	116	0.92	820.05	815	9	2.75E-03	51.6	
26	0	462.69	72	141	1.05	925.18	919	12	4.98E-03	35.2	
27	0	498.30	25	111	3.29	996.34	988	13	1.70E-03	90.8	
28	0	511.33*	111	164	1.99	1022.38	1014	17	7.67E-03	34.8	
29	0	563.66	28	101	1.86	1126.97	1121	11	1.92E-03	73.1	
30	0	583.35*	325	106	1.28	1166.32	1160	13	2.26E-02	8.9	
31	0	609.46*	349	137	1.29	1218.52	1214	12	2.43E-02	9.2	
32	1	661.88*	55	104	1.62	1323.29	1304	34	3.80E-03	39.5	1.62E+00
33	1	664.89	27	94	1.62	1329.29	1304	34	1.87E-03	74.5	
34	0	727.49	104	89	1.90	1454.43	1447	14	7.21E-03	21.8	
35	0	768.65	29	68	0.58	1536.69	1531	10	2.04E-03	55.6	
36	0	794.93	62	60	1.57	1589.23	1582	12	4.30E-03	28.1	
37	0	805.44	31	50	4.25	1610.24	1604	11	2.17E-03	47.9	
38	0	860.90	55	65	1.66	1721.09	1714	12	3.83E-03	32.3	

Sample ID : G198681031 Acquisition date : 14-DEC-2007 12:24:01

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	911.32*	215	46	1.62	1821.87	1817	12	1.49E-02	9.9	
40	3	964.80	55	52	2.20	1928.77	1923	23	3.83E-03	27.0	3.57E+00
41	3	969.18*	120	48	1.96	1937.52	1923	23	8.32E-03	15.8	
42	0	1002.46*	6	51	3.96	2004.05	1998	13	3.95E-04	296.7	
43	0	1027.64	18	30	1.18	2054.39	2050	10	1.25E-03	61.6	
44	0	1120.27*	68	42	1.87	2239.57	2234	13	4.72E-03	25.7	
45	0	1237.81	51	18	2.01	2474.55	2468	12	3.54E-03	21.8	
46	0	1366.85	9	16	0.63	2732.55	2725	9	5.90E-04	90.7	
47	0	1460.90*	312	24	1.86	2920.59	2914	16	2.17E-02	6.9	
48	0	1540.19	27	14	0.85	3079.13	3071	18	1.88E-03	37.3	
49	0	1569.05	5	10	1.23	3136.84	3130	9	3.47E-04	127.0	
50	0	1587.82	33	13	2.87	3174.36	3168	13	2.30E-03	28.4	
51	0	1593.48	7	17	1.07	3185.68	3180	9	4.85E-04	119.5	
52	0	1630.63	15	7	1.49	3259.96	3255	9	1.07E-03	39.8	
53	0	1670.38	5	8	0.92	3339.45	3332	9	3.47E-04	115.3	
54	0	1675.04	21	0	3.25	3348.76	3342	14	1.46E-03	21.8	
55	0	1685.28	9	11	3.59	3369.26	3361	12	5.94E-04	87.5	
56	0	1711.80	8	7	0.85	3422.27	3418	7	5.56E-04	68.8	
57	0	1715.21	10	7	1.82	3429.09	3426	8	6.84E-04	54.7	
58	0	1731.80*	16	16	4.48	3462.26	3451	17	1.10E-03	67.5	
59	0	1764.85*	60	12	2.42	3528.36	3521	20	4.18E-03	20.6	
60	0	1837.61	8	5	1.62	3673.87	3669	9	5.72E-04	58.4	
61	0	1848.17*	18	5	1.10	3694.99	3690	10	1.23E-03	40.7	
62	0	1899.42	5	11	1.01	3797.47	3788	12	3.39E-04	147.9	
63	0	1930.74	17	0	1.75	3860.12	3855	11	1.18E-03	24.3	
64	0	1941.34	9	15	4.87	3881.32	3870	16	5.96E-04	109.3	
65	0	1961.72	11	2	0.72	3922.08	3918	8	7.75E-04	37.0	
66	0	1966.82	8	2	1.43	3932.27	3927	9	5.42E-04	49.8	
67	0	1976.85	10	4	1.87	3952.32	3948	8	7.24E-04	45.0	

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]G198681031       *
* Acquisition date : 14-DEC-2007 12:24:01 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 04:00:05.38     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681031           Analyst initials: MJH1            *
* Batch Number     : 708123               Sample Quantity : 1.3802E+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	4.461E+00	6.484E-01	3.431E-01	0.000E+00
CS-137	4.911E-02	3.818E-02	3.647E-02	0.000E+00
EU-155	3.132E-02	6.204E-02	8.049E-02	0.000E+00
TL-208	2.595E-01	4.883E-02	3.270E-02	0.000E+00
BI-212	7.298E-01	3.162E-01	2.778E-01	0.000E+00
PB-212	6.737E-01	7.961E-02	5.916E-02	0.000E+00
BI-214	5.330E-01	1.031E-01	7.691E-02	0.000E+00
PB-214	5.266E-01	8.904E-02	6.320E-02	0.000E+00
RA-223	3.255E-01	1.436E-01	1.640E-01	0.000E+00
AC-228	8.492E-01	1.734E-01	1.385E-01	0.000E+00
PA-234M	7.519E-01	4.372E+00	4.602E+00	0.000E+00
TH-234	8.293E-01	3.271E-01	3.171E-01	0.000E+00
U-235	5.289E-02	1.190E-01	1.693E-01	0.000E+00
NP-237	4.242E-01	1.211E-01	1.365E-01	0.000E+00
AM-243	9.848E-02	2.130E-02	2.801E-02	0.000E+00
CM-243	2.835E-02	5.615E-02	7.427E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error	MDA (pCi/GRAM)		Ided
CO-60	-8.500E-03	2.426E-02	3.889E-02	0.000E+00	NOT IDENT.
RH-101	1.699E-03	1.906E-02	3.083E-02	0.000E+00	NOT IDENT.
SB-125	3.208E-02	5.017E-02	9.065E-02	0.000E+00	NOT IDENT.
PO-209	1.113E-01	4.299E+00	7.386E+00	0.000E+00	NOT IDENT.
BI-211	-1.066E-01	6.712E-01	1.144E+00	0.000E+00	NOT IDENT.
PA-233	-4.602E-03	3.198E-02	5.654E-02	0.000E+00	NOT IDENT.
NP-236	-1.323E-03	2.797E-02	4.466E-02	0.000E+00	NOT IDENT.
NP-239	-8.502E-02	1.087E-01	1.764E-01	0.000E+00	NOT IDENT.
AM-241	2.875E-02	2.786E-02	4.880E-02	0.000E+00	NOT IDENT.
AM-246	-1.065E-02	7.773E-02	1.288E-01	0.000E+00	NOT IDENT.
CF-249	-5.056E-03	2.282E-02	3.947E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 14-DEC-2007 16:24:35.97

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681031.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 14-DEC-2007 12:24:01
Sample ID        : G198681031           Sample quantity  : 1.38020E+02 GRAM
Detector name    : GAM17                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:05.38  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708123               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	312	10.66*	8.924E-01	4.461E+00	4.461E+00	14.83
CS-137	661.66	55	85.10*	1.789E+00	4.893E-02	4.911E-02	79.34
EU-155	105.31	32	21.20*	6.790E+00	3.064E-02	3.132E-02	202.10
TL-208	277.36	34	6.31	3.935E+00	1.875E-01	1.875E-01	118.22
	510.77	111	22.60	2.280E+00	2.917E-01	2.917E-01	69.89
	583.19	325	84.50*	2.014E+00	2.595E-01	2.595E-01	19.20
	763.13	------	1.81	1.568E+00	------	Line Not Found	------
	860.56	55	12.42	1.404E+00	4.303E-01	4.303E-01	65.02
BI-212	727.33	104	11.80*	1.638E+00	7.298E-01	7.298E-01	44.21
	785.37	------	1.10	1.527E+00	------	Line Not Found	------
	1620.50	------	1.49	8.223E-01	------	Line Not Found	------
PB-212	74.81	350	10.40	7.088E+00	6.458E-01	6.458E-01	22.08
	77.11	700	17.50	7.087E+00	7.670E-01	7.670E-01	13.64
	87.30	272	7.81	7.032E+00	6.736E-01	6.736E-01	29.13
	238.63	949	43.30*	4.423E+00	6.737E-01	6.737E-01	12.06
	300.09	84	3.28	3.681E+00	9.464E-01	9.464E-01	61.56
BI-214	609.31	349	46.10*	1.933E+00	5.330E-01	5.330E-01	19.73
	768.36	29	4.94	1.557E+00	5.188E-01	5.188E-01	111.34
	806.17	31	1.22	1.492E+00	2.337E+00	2.337E+00	96.11
	934.06	------	3.03	1.304E+00	------	Line Not Found	------
	1120.29	68	15.10	1.112E+00	5.509E-01	5.509E-01	51.77
	1155.19	------	1.63	1.083E+00	------	Line Not Found	------
	1238.11	51	5.79	1.022E+00	1.170E+00	1.170E+00	43.92
	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	------	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	60	15.40	7.700E-01	6.907E-01	6.907E-01	41.54
PB-214	74.81	350	6.44	7.088E+00	1.043E+00	1.043E+00	22.08
	77.11	700	10.80	7.087E+00	1.243E+00	1.243E+00	13.64

Sample ID : G198681031 Acquisition date : 14-DEC-2007 12:24:01

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	272	4.84	7.032E+00	1.087E+00	1.087E+00	29.13
	242.00	123	7.43	4.383E+00	5.128E-01	5.128E-01	54.55
	295.22	301	19.30	3.731E+00	5.689E-01	5.689E-01	24.43
	351.93	467	37.60*	3.209E+00	5.266E-01	5.266E-01	17.25
RA-223	269.46	132	13.70*	4.012E+00	3.255E-01	3.255E-01	45.02
AC-228	129.07	94	2.42	6.358E+00	8.315E-01	8.315E-01	72.76
	209.25	59	3.89	4.868E+00	4.261E-01	4.261E-01	111.40
	270.25	132	3.46	4.012E+00	1.289E+00	1.289E+00	45.02
	338.32	131	11.27	3.323E+00	4.749E-01	4.749E-01	50.92
	409.46	40	1.92	2.798E+00	1.004E+00	1.004E+00	103.39
	463.00	72	4.40	2.503E+00	8.854E-01	8.854E-01	70.61
	794.95	62	4.25	1.510E+00	1.312E+00	1.312E+00	56.61
	911.20	215	25.80*	1.334E+00	8.492E-01	8.492E-01	20.83
	964.77	55	4.99	1.267E+00	1.185E+00	1.185E+00	54.30
	968.97	120	15.80	1.262E+00	8.174E-01	8.174E-01	32.27
	1588.20	33	3.22	8.354E-01	1.674E+00	1.674E+00	57.02
PA-234M	1001.03	6	0.84*	1.225E+00	7.519E-01	7.519E-01	593.41
TH-234	63.29	83	4.80	7.003E+00	3.368E-01	3.368E-01	120.85
	92.58	230	5.41*	6.975E+00	8.293E-01	8.293E-01	40.25
U-235	143.76	26	10.96*	6.064E+00	5.289E-02	5.289E-02	229.50
NP-237	86.48	272	12.40*	7.032E+00	4.242E-01	4.242E-01	29.13
AM-243	74.66	350	68.20*	7.088E+00	9.847E-02	9.848E-02	22.08
CM-243	103.76	32	23.00*	6.790E+00	2.824E-02	2.835E-02	202.10

Flag: "*" = Keyline

Sample ID : G198681031 Acquisition date : 14-DEC-2007 12:24:01

Total number of lines in spectrum 67
Number of unidentified lines 30
Number of lines tentatively identified by NID 37 55.22%

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	4.461E+00	4.461E+00	0.662E+00	14.83	
CS-137	9.47E+08S	1.00	4.893E-02	4.911E-02	3.896E-02	79.34	
EU-155	1.57E+08S	1.02	3.064E-02	3.132E-02	6.330E-02	202.10	
TL-208	4.43E+17S	1.00	2.595E-01	2.595E-01	0.498E-01	19.20	
BI-212	4.43E+17S	1.00	7.298E-01	7.298E-01	3.226E-01	44.21	
PB-212	4.43E+17S	1.00	6.737E-01	6.737E-01	0.812E-01	12.06	
BI-214	5.05E+10S	1.00	5.330E-01	5.330E-01	1.052E-01	19.73	
PB-214	5.05E+10S	1.00	5.266E-01	5.266E-01	0.909E-01	17.25	
RA-223	1.04E+12S	1.00	3.255E-01	3.255E-01	1.465E-01	45.02	
AC-228	4.43E+17S	1.00	8.492E-01	8.492E-01	1.769E-01	20.83	
PA-234M	1.41E+17S	1.00	7.519E-01	7.519E-01	44.62E-01	593.41	
TH-234	1.41E+17S	1.00	8.293E-01	8.293E-01	3.338E-01	40.25	
U-235	2.22E+16S	1.00	5.289E-02	5.289E-02	12.14E-02	229.50	
NP-237	6.75E+13S	1.00	4.242E-01	4.242E-01	1.236E-01	29.13	
AM-243	2.33E+11S	1.00	9.847E-02	9.848E-02	2.174E-02	22.08	
CM-243	8.99E+08S	1.00	2.824E-02	2.835E-02	5.730E-02	202.10	
		Total Activity :	1.062E+01	1.062E+01			

Grand Total Activity : 1.062E+01 1.062E+01

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

Sample ID : G198681031 Acquisition date : 14-DEC-2007 12:24:01

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.61	72	333	0.84	93.71	90	8	5.03E-03	****	6.48E+00	
0	53.41	60	388	0.84	107.30	104	8	4.19E-03	****	6.76E+00	
2	84.25	74	411	1.10	168.92	165	27	5.16E-03	99.9	7.06E+00	
2	90.13	188	384	1.11	180.66	165	27	1.31E-02	37.7	7.00E+00	
0	153.84	93	344	1.08	307.98	304	9	6.46E-03	74.9	5.86E+00	
0	186.02	130	359	1.01	372.28	367	10	9.03E-03	63.3	5.26E+00	
0	328.64	44	214	2.73	657.28	651	11	3.07E-03	****	3.41E+00	
0	498.30	25	111	3.29	996.34	988	13	1.70E-03	****	2.34E+00	
0	563.66	28	101	1.86	1126.97	1121	11	1.92E-03	****	2.08E+00	
1	664.89	27	94	1.62	1329.29	1304	34	1.87E-03	****	1.78E+00	
0	1027.64	18	30	1.18	2054.39	2050	10	1.25E-03	****	1.20E+00	
0	1366.85	9	16	0.63	2732.55	2725	9	5.90E-04	****	9.42E-01	
0	1540.19	27	14	0.85	3079.13	3071	18	1.88E-03	74.6	8.56E-01	
0	1569.05	5	10	1.23	3136.84	3130	9	3.47E-04	****	8.43E-01	
0	1593.48	7	17	1.07	3185.68	3180	9	4.85E-04	****	8.33E-01	
0	1630.63	15	7	1.49	3259.96	3255	9	1.07E-03	79.5	8.18E-01	
0	1670.38	5	8	0.92	3339.45	3332	9	3.47E-04	****	8.03E-01	
0	1675.04	21	0	3.25	3348.76	3342	14	1.46E-03	43.6	8.01E-01	
0	1685.28	9	11	3.59	3369.26	3361	12	5.94E-04	****	7.98E-01	
0	1711.80	8	7	0.85	3422.27	3418	7	5.56E-04	****	7.88E-01	
0	1715.21	10	7	1.82	3429.09	3426	8	6.84E-04	****	7.87E-01	
0	1731.80	16	16	4.48	3462.26	3451	17	1.10E-03	****	7.81E-01	
0	1837.61	8	5	1.62	3673.87	3669	9	5.72E-04	****	7.47E-01	
0	1848.17	18	5	1.10	3694.99	3690	10	1.23E-03	81.5	7.44E-01	
0	1899.42	5	11	1.01	3797.47	3788	12	3.39E-04	****	7.29E-01	
0	1930.74	17	0	1.75	3860.12	3855	11	1.18E-03	48.5	7.20E-01	
0	1941.34	9	15	4.87	3881.32	3870	16	5.96E-04	****	7.17E-01	
0	1961.72	11	2	0.72	3922.08	3918	8	7.75E-04	73.9	7.11E-01	
0	1966.82	8	2	1.43	3932.27	3927	9	5.42E-04	99.5	7.10E-01	
0	1976.85	10	4	1.87	3952.32	3948	8	7.24E-04	90.0	7.07E-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]G198681031            *
* Acquisition date : 14-DEC-2007 12:24:01 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 04:00:05.38     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681031           Analyst initials: MJH1            *
* Batch Number     : 708123               Sample Quantity : 1.3802E+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	4.461E+00	6.484E-01	1.716E-01	6.484E-01
CS-137	4.911E-02	3.818E-02	1.824E-02	3.818E-02
EU-155	3.132E-02	6.204E-02	4.027E-02	6.204E-02
TL-208	2.595E-01	4.883E-02	1.636E-02	4.883E-02
BI-212	7.298E-01	3.162E-01	1.390E-01	3.162E-01
PB-212	6.737E-01	7.961E-02	2.960E-02	7.961E-02
BI-214	5.330E-01	1.031E-01	3.848E-02	1.031E-01
PB-214	5.266E-01	8.904E-02	3.162E-02	8.904E-02
RA-223	3.255E-01	1.436E-01	8.205E-02	1.436E-01
AC-228	8.492E-01	1.734E-01	6.928E-02	1.734E-01
PA-234M	7.519E-01	4.372E+00	2.302E+00	4.372E+00
TH-234	8.293E-01	3.271E-01	1.586E-01	3.271E-01
U-235	5.289E-02	1.190E-01	8.472E-02	1.190E-01
NP-237	4.242E-01	1.211E-01	6.828E-02	1.211E-01
AM-243	9.848E-02	2.130E-02	1.401E-02	2.130E-02
CM-243	2.835E-02	5.615E-02	3.716E-02	5.615E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	-8.500E-03	2.426E-02	1.946E-02	2.426E-02	NOT IDENT.
RH-101	1.699E-03	1.906E-02	1.543E-02	1.906E-02	NOT IDENT.
SB-125	3.208E-02	5.017E-02	4.535E-02	5.017E-02	NOT IDENT.
PO-209	1.113E-01	4.299E+00	3.695E+00	4.299E+00	NOT IDENT.
BI-211	-1.066E-01	6.712E-01	5.726E-01	6.712E-01	NOT IDENT.
PA-233	-4.602E-03	3.198E-02	2.829E-02	3.198E-02	NOT IDENT.
NP-236	-1.323E-03	2.797E-02	2.234E-02	2.797E-02	NOT IDENT.
NP-239	-8.502E-02	1.087E-01	8.827E-02	1.087E-01	NOT IDENT.
AM-241	2.875E-02	2.786E-02	2.442E-02	2.786E-02	NOT IDENT.
AM-246	-1.065E-02	7.773E-02	6.446E-02	7.773E-02	NOT IDENT.
CF-249	-5.056E-03	2.282E-02	1.974E-02	2.282E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	271.4199
63.29	341.0742
74.66	406.2148
74.81	406.3485
74.81	406.3485
77.11	408.3917
77.11	408.3917
86.48	316.1825
87.30	316.6996
87.30	316.6996
92.58	319.9700
98.44	297.5778
103.76	302.1326
105.31	288.7987
129.07	275.6625
143.76	287.6627
198.00	246.7428
209.25	238.9533
228.18	204.9483
238.63	297.2048
242.00	249.3277
269.46	190.1099
270.25	182.1732
277.36	158.9581
295.22	149.8596
300.09	113.5605
312.17	146.0424
338.32	160.9314
351.93	136.7062
387.59	145.8766
409.46	127.8351
427.87	97.2595
463.00	102.3556
510.77	91.9109
583.19	74.2404
609.31	112.7898
661.66	73.7372
727.33	69.7437
763.13	64.3364
768.36	96.7072
785.37	62.1239
794.95	52.7390
806.17	46.7358
831.80	76.4477
860.56	60.0930
896.60	53.1416
911.20	55.3551
934.06	48.9392
964.77	47.4680
968.97	47.5336
1001.03	55.0363
1078.86	44.0834
1120.29	44.6293
1155.19	40.8872
1173.23	47.4192
1238.11	39.3343
1280.96	42.3154
1332.51	34.0849
1377.67	35.2122
1401.50	29.8255
1407.98	28.9389
1460.80	26.4699
1509.23	26.7673
1588.20	23.3516
1620.50	15.6771
1729.60	20.0472
1764.49	8.0755

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198681031

Total Uranium Activity	2.4472E-02	ug/g
Total Uranium Counting Unc.	5.5040E-02	ug/g
Total Uranium Tpu	5.5040E-08	ug/g
Total Uranium Mda	3.9200E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 14-DEC-2007 17:02:33.08

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681032.CNF;1
Sample date       : 18-OCT-2007 00:00:00 Acquisition date : 14-DEC-2007 13:02:01
Sample ID         : G198681032           Sample quantity  : 1.22150E+02 GRAM
Detector name     : GAM14                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00         Elapsed real time: 0 04:00:01.65  0.0%
Energy tolerance : 2.00000 keV           Analyst Initials : MJH1
Abundance limit  : 75.00000              Sensitivity      : 3.00000
Batch ID          : 708123               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.25*	37	384	3.05	92.47	87	11	2.57E-03	113.7	
2	0	63.47*	58	511	1.44	126.90	123	10	4.04E-03	78.5	
3	1	74.92*	402	480	1.53	149.79	144	16	2.79E-02	12.2	1.26E+00
4	1	77.16*	530	465	1.53	154.28	144	16	3.68E-02	9.5	
5	5	84.18	104	476	1.38	168.32	163	30	7.20E-03	35.7	3.62E+00
6	5	87.18	283	750	2.26	174.30	163	30	1.97E-02	21.4	
7	5	93.04*	349	611	2.27	186.02	163	30	2.42E-02	18.0	
8	0	104.82	46	315	1.32	209.57	207	8	3.18E-03	68.5	
9	0	154.53	26	401	0.98	308.96	304	10	1.79E-03	146.7	
10	0	185.98*	211	312	1.69	371.84	367	10	1.47E-02	19.2	
11	0	208.69	132	428	1.54	417.25	412	14	9.18E-03	34.3	
12	4	238.49*	1183	255	1.45	476.85	471	17	8.22E-02	4.1	1.08E+00
13	4	241.35	286	242	2.27	482.56	471	17	1.98E-02	14.2	
14	0	248.11	32	216	1.31	496.08	492	10	2.23E-03	87.6	
15	0	252.29	40	171	0.65	504.43	502	8	2.78E-03	58.7	
16	0	269.83	107	278	2.40	539.51	534	13	7.43E-03	33.5	
17	0	277.20	64	226	0.92	554.24	550	11	4.47E-03	46.7	
18	0	295.14*	240	249	1.75	590.12	583	12	1.67E-02	15.1	
19	0	299.22	79	210	1.45	598.28	595	10	5.46E-03	36.0	
20	0	319.88	49	228	1.32	639.58	633	13	3.41E-03	64.9	
21	0	329.17	96	213	4.18	658.17	652	13	6.68E-03	33.2	
22	0	338.22	238	233	1.48	676.26	671	12	1.65E-02	14.3	
23	0	351.87*	426	208	1.32	703.56	698	12	2.96E-02	9.1	
24	0	392.96	7	102	0.76	785.73	783	8	5.06E-04	242.7	
25	0	409.22	84	125	2.79	818.24	812	12	5.83E-03	29.1	
26	0	462.99	75	95	1.85	925.78	921	10	5.19E-03	27.2	
27	0	505.23	26	99	3.77	1010.25	1002	12	1.82E-03	79.0	
28	0	510.88*	155	125	2.01	1021.55	1014	19	1.08E-02	24.2	
29	0	548.11	8	75	1.33	1096.00	1094	8	5.25E-04	200.9	
30	0	569.63*	169	90	3.12	1139.05	1132	17	1.17E-02	18.2	
31	0	583.23*	325	132	1.40	1166.25	1160	14	2.26E-02	9.9	
32	0	609.33*	306	114	1.99	1218.45	1213	13	2.12E-02	9.7	
33	0	662.04	66	84	2.15	1323.89	1317	11	4.57E-03	29.8	
34	0	669.79	30	48	1.48	1339.38	1335	8	2.10E-03	44.2	
35	0	727.78	66	117	1.18	1455.38	1448	14	4.58E-03	36.8	
36	0	786.44	34	51	1.96	1572.72	1565	11	2.35E-03	44.6	
37	0	795.12	67	65	2.15	1590.08	1580	17	4.64E-03	30.7	
38	0	804.58	17	80	0.75	1609.01	1601	14	1.18E-03	115.0	

Sample ID : G198681032 Acquisition date : 14-DEC-2007 13:02:01

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	860.49	64	38	3.07	1720.86	1715	11	4.44E-03	22.5	
40	0	911.33*	266	66	1.70	1822.56	1816	17	1.85E-02	9.5	
41	2	964.64	51	46	2.32	1929.21	1920	25	3.53E-03	32.6	1.24E+00
42	2	969.13*	162	36	2.22	1938.19	1920	25	1.13E-02	12.0	
43	0	1002.56*	4	42	1.46	2005.08	1997	10	2.68E-04	369.2	
44	0	1065.62	17	25	0.66	2131.25	2125	9	1.20E-03	57.0	
45	1	1086.68	23	9	2.16	2173.39	2170	35	1.63E-03	24.2	2.08E+00
46	1	1096.28	27	6	2.16	2192.61	2170	35	1.89E-03	33.6	
47	4	1117.24	16	16	1.44	2234.54	2232	19	1.11E-03	41.0	2.31E+00
48	4	1120.40	61	37	2.89	2240.87	2232	19	4.22E-03	27.7	
49	0	1239.95	23	55	2.35	2480.08	2472	13	1.61E-03	69.0	
50	5	1275.32	22	33	3.26	2550.87	2539	36	1.50E-03	71.8	1.75E+00
51	5	1284.68	17	21	2.23	2569.59	2539	36	1.20E-03	54.8	
52	0	1368.70	9	11	1.47	2737.74	2734	9	6.48E-04	72.2	
53	0	1378.69	29	3	1.37	2757.73	2752	13	2.03E-03	22.3	
54	3	1430.61	13	9	2.07	2861.64	2859	13	8.93E-04	34.8	2.85E+00
55	3	1433.69	15	13	1.91	2867.80	2859	13	1.06E-03	49.9	
56	0	1461.17*	307	59	2.02	2922.81	2915	16	2.13E-02	8.2	
57	0	1512.92	13	14	2.85	3026.38	3019	11	8.87E-04	66.6	
58	0	1591.82	47	27	3.49	3184.30	3171	26	3.26E-03	36.0	
59	0	1620.60*	6	20	0.87	3241.92	3236	13	4.07E-04	209.1	
60	0	1639.63	20	12	3.43	3280.02	3274	13	1.40E-03	42.7	
61	0	1765.10*	58	13	2.08	3531.18	3524	13	4.03E-03	21.4	
62	0	1856.77	10	15	1.14	3714.70	3706	13	6.97E-04	87.9	
63	0	1885.53	32	5	8.29	3772.29	3763	20	2.21E-03	24.8	
64	0	1954.52	17	0	1.16	3910.41	3903	14	1.18E-03	24.3	
65	0	2035.40	10	3	1.35	4072.36	4065	13	6.84E-04	49.3	
66	0	2043.30	5	6	0.98	4088.19	4085	6	3.22E-04	96.5	

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]G198681032       *
* Acquisition date : 14-DEC-2007 13:02:01 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 04:00:01.65     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681032           Analyst initials: MJH1            *
* Batch Number     : 708123               Sample Quantity : 1.2215E+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	3.604E+00	6.129E-01	3.333E-01	0.000E+00
CS-137	4.767E-02	2.808E-02	3.307E-02	0.000E+00
EU-155	4.279E-02	5.751E-02	8.433E-02	0.000E+00
TL-208	2.117E-01	4.374E-02	3.006E-02	0.000E+00
BI-212	3.736E-01	2.708E-01	2.335E-01	0.000E+00
PB-212	7.438E-01	7.535E-02	4.948E-02	0.000E+00
BI-214	3.790E-01	7.739E-02	6.074E-02	0.000E+00
PB-214	4.123E-01	7.725E-02	5.800E-02	0.000E+00
RA-223	2.324E-01	1.531E-01	1.477E-01	0.000E+00
AC-228	8.491E-01	1.739E-01	1.113E-01	0.000E+00
PA-234M	4.134E-01	2.992E+00	3.727E+00	0.000E+00
TH-234	1.293E+00	4.672E-01	3.721E-01	0.000E+00
NP-237	4.751E-01	2.031E-01	1.685E-01	0.000E+00
AM-243	1.413E-01	3.525E-02	3.746E-02	0.000E+00
CM-243	3.874E-02	5.205E-02	7.856E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
CO-60	-5.348E-03	2.045E-02	3.204E-02	0.000E+00	NOT IDENT.
RH-101	1.131E-02	1.654E-02	2.976E-02	0.000E+00	NOT IDENT.
SB-125	3.140E-02	4.762E-02	8.405E-02	0.000E+00	NOT IDENT.
PO-209	-2.538E-01	3.466E+00	5.885E+00	0.000E+00	NOT IDENT.
BI-211	-5.275E-01	4.882E-01	7.543E-01	0.000E+00	NOT IDENT.
PA-233	1.328E-02	3.372E-02	5.616E-02	0.000E+00	NOT IDENT.
U-235	-4.688E-02	1.127E-01	1.712E-01	0.000E+00	NOT IDENT.
NP-236	4.385E-02	3.143E-02	5.002E-02	0.000E+00	NOT IDENT.
NP-239	-3.074E-02	1.119E-01	1.935E-01	0.000E+00	NOT IDENT.
AM-241	7.883E-02	6.861E-02	1.027E-01	0.000E+00	NOT IDENT.
AM-246	2.905E-02	7.323E-02	1.256E-01	0.000E+00	NOT IDENT.
CF-249	6.011E-03	2.193E-02	3.469E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 14-DEC-2007 17:02:34.06

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681032.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 14-DEC-2007 13:02:01
Sample ID        : G198681032           Sample quantity  : 1.22150E+02 GRAM
Detector name    : GAM14                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.65  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708123               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*	1.229E+00	3.604E+00	3.604E+00	17.36
CS-137	661.66	66	85.10*	2.501E+00	4.750E-02	4.767E-02	60.10
EU-155	105.31	46	21.20*	7.937E+00	4.186E-02	4.279E-02	137.12
TL-208	277.36	64	6.31	5.065E+00	3.093E-01	3.093E-01	93.62
	510.77	155	22.60	3.128E+00	3.377E-01	3.377E-01	48.76
	583.19	325	84.50*	2.795E+00	2.117E-01	2.117E-01	21.09
	763.13	------	1.81	2.201E+00	------	Line Not Found	------
	860.56	64	12.42	1.971E+00	4.016E-01	4.016E-01	45.92
BI-212	727.33	66	11.80*	2.298E+00	3.736E-01	3.736E-01	73.96
	785.37	34	1.10	2.141E+00	2.211E+00	2.211E+00	89.65
	1620.50	6	1.49	1.140E+00	5.297E-01	5.297E-01	418.23
PB-212	74.81	402	10.40	6.411E+00	9.266E-01	9.266E-01	25.45
	77.11	530	17.50	6.636E+00	7.006E-01	7.006E-01	20.53
	87.30	283	7.81	7.386E+00	7.543E-01	7.543E-01	43.63
	238.63	1183	43.30*	5.646E+00	7.438E-01	7.438E-01	10.34
	300.09	79	3.28	4.784E+00	7.704E-01	7.704E-01	72.24
BI-214	609.31	306	46.10*	2.691E+00	3.790E-01	3.790E-01	20.83
	768.36	------	4.94	2.187E+00	------	Line Not Found	------
	806.17	17	1.22	2.097E+00	1.017E+00	1.017E+00	230.09
	934.06	------	3.03	1.826E+00	------	Line Not Found	------
	1120.29	61	15.10	1.544E+00	4.009E-01	4.009E-01	55.91
	1155.19	------	1.63	1.502E+00	------	Line Not Found	------
	1238.11	23	5.79	1.410E+00	4.376E-01	4.376E-01	138.19
	1280.96	------	1.43	1.371E+00	------	Line Not Found	------
	1377.67	29	4.00	1.288E+00	8.723E-01	8.724E-01	44.94
	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	58	15.40	1.080E+00	5.355E-01	5.355E-01	43.19
PB-214	74.81	402	6.44	6.411E+00	1.496E+00	1.496E+00	25.45
	77.11	530	10.80	6.636E+00	1.135E+00	1.135E+00	20.53

Sample ID : G198681032 Acquisition date : 14-DEC-2007 13:02:01

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	283	4.84	7.386E+00	1.217E+00	1.217E+00	43.63
	242.00	286	7.43	5.599E+00	1.055E+00	1.055E+00	28.98
	295.22	240	19.30	4.834E+00	3.953E-01	3.953E-01	30.84
	351.93	426	37.60*	4.226E+00	4.123E-01	4.123E-01	19.12
RA-223	269.46	107	13.70*	5.166E+00	2.324E-01	2.324E-01	67.22
AC-228	129.07	------	2.42	7.836E+00	------	Line Not Found	------
	209.25	132	3.89	6.184E+00	8.446E-01	8.446E-01	68.83
	270.25	107	3.46	5.166E+00	9.200E-01	9.200E-01	67.22
	338.32	238	11.27	4.357E+00	7.453E-01	7.453E-01	29.28
	409.46	84	1.92	3.751E+00	1.792E+00	1.792E+00	58.42
	463.00	75	4.40	3.394E+00	7.683E-01	7.683E-01	54.83
	794.95	67	4.25	2.120E+00	1.139E+00	1.139E+00	62.03
	911.20	266	25.80*	1.869E+00	8.491E-01	8.491E-01	20.90
	964.77	51	4.99	1.773E+00	8.828E-01	8.828E-01	65.82
	968.97	162	15.80	1.765E+00	8.943E-01	8.943E-01	25.44
	1588.20	------	3.22	1.156E+00	------	Line Not Found	------
PA-234M	1001.03	4	0.84*	1.710E+00	4.134E-01	4.134E-01	738.36
TH-234	63.29	58	4.80	4.899E+00	3.805E-01	3.805E-01	157.09
	92.58	349	5.41*	7.660E+00	1.293E+00	1.293E+00	36.87
NP-237	86.48	283	12.40*	7.386E+00	4.751E-01	4.751E-01	43.63
AM-243	74.66	402	68.20*	6.411E+00	1.413E-01	1.413E-01	25.45
CM-243	103.76	46	23.00*	7.937E+00	3.859E-02	3.874E-02	137.12

Flag: "*" = Keyline

Sample ID : G198681032 Acquisition date : 14-DEC-2007 13:02:01

Total number of lines in spectrum 66
Number of unidentified lines 30
Number of lines tentatively identified by NID 36 54.55%

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	3.604E+00	3.604E+00	0.625E+00	17.36	
CS-137	9.47E+08S	1.00	4.750E-02	4.767E-02	2.865E-02	60.10	
EU-155	1.57E+08S	1.02	4.186E-02	4.279E-02	5.868E-02	137.12	
TL-208	4.43E+17S	1.00	2.117E-01	2.117E-01	0.446E-01	21.09	
BI-212	4.43E+17S	1.00	3.736E-01	3.736E-01	2.763E-01	73.96	
PB-212	4.43E+17S	1.00	7.438E-01	7.438E-01	0.769E-01	10.34	
BI-214	5.05E+10S	1.00	3.790E-01	3.790E-01	0.790E-01	20.83	
PB-214	5.05E+10S	1.00	4.123E-01	4.123E-01	0.788E-01	19.12	
RA-223	1.04E+12S	1.00	2.324E-01	2.324E-01	1.562E-01	67.22	
AC-228	4.43E+17S	1.00	8.491E-01	8.491E-01	1.775E-01	20.90	
PA-234M	1.41E+17S	1.00	4.134E-01	4.134E-01	30.53E-01	738.36	
TH-234	1.41E+17S	1.00	1.293E+00	1.293E+00	0.477E+00	36.87	
NP-237	6.75E+13S	1.00	4.751E-01	4.751E-01	2.073E-01	43.63	
AM-243	2.33E+11S	1.00	1.413E-01	1.413E-01	0.360E-01	25.45	
CM-243	8.99E+08S	1.00	3.859E-02	3.874E-02	5.311E-02	137.12	
		Total Activity :	9.256E+00	9.258E+00			

Grand Total Activity : 9.256E+00 9.258E+00

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

Sample ID : G198681032 Acquisition date : 14-DEC-2007 13:02:01

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.25	37	384	3.05	92.47	87	11	2.57E-03	****	1.85E+00	
5	84.18	104	476	1.38	168.32	163	30	7.20E-03	71.4	7.20E+00	
0	154.53	26	401	0.98	308.96	304	10	1.79E-03	****	7.34E+00	
0	185.98	211	312	1.69	371.84	367	10	1.47E-02	38.4	6.65E+00	
0	248.11	32	216	1.31	496.08	492	10	2.23E-03	****	5.49E+00	
0	252.29	40	171	0.65	504.43	502	8	2.78E-03	****	5.42E+00	
0	319.88	49	228	1.32	639.58	633	13	3.41E-03	****	4.55E+00	
0	329.17	96	213	4.18	658.17	652	13	6.68E-03	66.3	4.45E+00	
0	392.96	7	102	0.76	785.73	783	8	5.06E-04	****	3.87E+00	
0	505.23	26	99	3.77	1010.25	1002	12	1.82E-03	****	3.16E+00	
0	548.11	8	75	1.33	1096.00	1094	8	5.25E-04	****	2.95E+00	
0	569.63	169	90	3.12	1139.05	1132	17	1.17E-02	36.5	2.85E+00	
0	669.79	30	48	1.48	1339.38	1335	8	2.10E-03	88.4	2.48E+00	
0	1065.62	17	25	0.66	2131.25	2125	9	1.20E-03	****	1.62E+00	
1	1086.68	23	9	2.16	2173.39	2170	35	1.63E-03	48.5	1.59E+00	
1	1096.28	27	6	2.16	2192.61	2170	35	1.89E-03	67.2	1.57E+00	
4	1117.24	16	16	1.44	2234.54	2232	19	1.11E-03	82.0	1.55E+00	
5	1275.32	22	33	3.26	2550.87	2539	36	1.50E-03	****	1.38E+00	
5	1284.68	17	21	2.23	2569.59	2539	36	1.20E-03	****	1.37E+00	
0	1368.70	9	11	1.47	2737.74	2734	9	6.48E-04	****	1.30E+00	
3	1430.61	13	9	2.07	2861.64	2859	13	8.93E-04	69.6	1.25E+00	
3	1433.69	15	13	1.91	2867.80	2859	13	1.06E-03	99.8	1.25E+00	
0	1512.92	13	14	2.85	3026.38	3019	11	8.87E-04	****	1.20E+00	
0	1591.82	47	27	3.49	3184.30	3171	26	3.26E-03	72.0	1.15E+00	
0	1639.63	20	12	3.43	3280.02	3274	13	1.40E-03	85.4	1.13E+00	
0	1856.77	10	15	1.14	3714.70	3706	13	6.97E-04	****	1.05E+00	
0	1885.53	32	5	8.29	3772.29	3763	20	2.21E-03	49.5	1.04E+00	
0	1954.52	17	0	1.16	3910.41	3903	14	1.18E-03	48.5	1.03E+00	
0	2035.40	10	3	1.35	4072.36	4065	13	6.84E-04	98.6	1.01E+00	
0	2043.30	5	6	0.98	4088.19	4085	6	3.22E-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]G198681032            *
* Acquisition date : 14-DEC-2007 13:02:01 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 04:00:01.65     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681032           Analyst initials: MJH1            *
* Batch Number     : 708123               Sample Quantity : 1.2215E+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	3.604E+00	6.129E-01	1.667E-01	6.129E-01
CS-137	4.767E-02	2.808E-02	1.655E-02	2.808E-02
EU-155	4.279E-02	5.751E-02	4.219E-02	5.751E-02
TL-208	2.117E-01	4.374E-02	1.504E-02	4.374E-02
BI-212	3.736E-01	2.708E-01	1.168E-01	2.708E-01
PB-212	7.438E-01	7.535E-02	2.476E-02	7.535E-02
BI-214	3.790E-01	7.739E-02	3.039E-02	7.739E-02
PB-214	4.123E-01	7.725E-02	2.902E-02	7.725E-02
RA-223	2.324E-01	1.531E-01	7.389E-02	1.531E-01
AC-228	8.491E-01	1.739E-01	5.567E-02	1.739E-01
PA-234M	4.134E-01	2.992E+00	1.865E+00	2.992E+00
TH-234	1.293E+00	4.672E-01	1.861E-01	4.672E-01
NP-237	4.751E-01	2.031E-01	8.432E-02	2.031E-01
AM-243	1.413E-01	3.525E-02	1.874E-02	3.525E-02
CM-243	3.874E-02	5.205E-02	3.930E-02	5.205E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	-5.348E-03	2.045E-02	1.603E-02	2.045E-02	NOT IDENT.
RH-101	1.131E-02	1.654E-02	1.489E-02	1.654E-02	NOT IDENT.
SB-125	3.140E-02	4.762E-02	4.205E-02	4.762E-02	NOT IDENT.
PO-209	-2.538E-01	3.466E+00	2.944E+00	3.466E+00	NOT IDENT.
BI-211	-5.275E-01	4.882E-01	3.774E-01	4.882E-01	NOT IDENT.
PA-233	1.328E-02	3.372E-02	2.810E-02	3.372E-02	NOT IDENT.
U-235	-4.688E-02	1.127E-01	8.566E-02	1.127E-01	NOT IDENT.
NP-236	4.385E-02	3.143E-02	2.502E-02	3.143E-02	NOT IDENT.
NP-239	-3.074E-02	1.119E-01	9.683E-02	1.119E-01	NOT IDENT.
AM-241	7.883E-02	6.861E-02	5.140E-02	6.861E-02	NOT IDENT.
AM-246	2.905E-02	7.323E-02	6.283E-02	7.323E-02	NOT IDENT.
CF-249	6.011E-03	2.193E-02	1.736E-02	2.193E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	352.1445
63.29	468.7279
74.66	484.9554
74.81	485.0265
74.81	485.0265
77.11	486.1151
77.11	486.1151
86.48	431.4977
87.30	431.8170
87.30	431.8170
92.58	433.8391
98.44	321.3646
103.76	374.0150
105.31	354.8207
129.07	351.4848
143.76	383.6625
198.00	304.4914
209.25	337.4535
228.18	288.1544
238.63	274.3991
242.00	216.9897
269.46	206.0875
270.25	206.1623
277.36	204.4634
295.22	142.9468
300.09	189.4020
312.17	175.1750
338.32	194.9960
351.93	160.9274
387.59	142.6195
409.46	106.2617
427.87	123.3168
463.00	128.8247
510.77	75.5113
583.19	96.7505
609.31	109.0980
661.66	94.8613
727.33	77.5002
763.13	93.5726
768.36	77.1521
785.37	76.2252
794.95	58.2178
806.17	60.3504
831.80	72.6743
860.56	63.7542
896.60	54.7939
911.20	55.9079
934.06	45.6973
964.77	52.6848
968.97	52.7296
1001.03	55.9550
1078.86	52.3300
1120.29	33.5365
1155.19	36.7215
1173.23	38.8270
1238.11	36.2373
1280.96	24.3291
1332.51	38.8411
1377.67	19.4111
1401.50	34.0944
1407.98	28.9570
1460.80	37.5264
1509.23	23.3956
1588.20	21.2329
1620.50	29.8594
1729.60	19.4788
1764.49	25.1581

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198681032

Total Uranium Activity	-2.1693E-02	ug/g
Total Uranium Counting Unc.	5.2150E-02	ug/g
Total Uranium Tpu	5.2150E-08	ug/g
Total Uranium Mda	3.9634E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 14-DEC-2007 17:55:29.40

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681033.CNF;1
Sample date       : 18-OCT-2007 00:00:00 Acquisition date : 14-DEC-2007 13:54:35
Sample ID         : G198681033           Sample quantity  : 1.26070E+02 GRAM
Detector name     : GAM21                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00         Elapsed real time: 0 04:00:24.42  0.2%
Energy tolerance : 2.00000 keV           Analyst Initials : MJH1
Abundance limit  : 75.00000              Sensitivity      : 3.00000
Batch ID          : 708123               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	47.02	54	399	2.21	93.14	88	9	3.76E-03	67.9	
2	0	57.58	34	298	1.46	114.23	112	6	2.35E-03	82.2	
3	0	63.74	164	469	1.26	126.54	123	8	1.14E-02	24.3	
4	3	74.95	612	679	1.42	148.91	143	22	4.25E-02	8.5	1.38E+00
5	3	77.26*	1045	673	1.43	153.53	143	22	7.25E-02	5.9	
6	6	84.31	174	454	1.66	167.60	164	28	1.21E-02	22.1	1.55E+00
7	6	87.27	406	550	1.69	173.53	164	28	2.82E-02	12.1	
8	6	89.97	250	370	1.25	178.92	164	28	1.73E-02	14.8	
9	6	92.87*	365	455	1.51	184.70	164	28	2.53E-02	12.7	
10	0	106.01	30	461	1.08	210.95	207	9	2.08E-03	130.3	
11	0	119.29	17	236	1.64	237.48	237	6	1.19E-03	144.3	
12	0	123.69	72	365	2.95	246.26	242	10	4.99E-03	51.0	
13	0	129.13	84	452	1.34	257.13	252	10	5.81E-03	48.8	
14	0	186.04*	253	497	1.76	370.81	365	13	1.76E-02	20.0	
15	0	209.46	194	379	1.43	417.58	412	12	1.35E-02	21.4	
16	4	238.71*	1242	263	1.38	476.01	467	21	8.62E-02	3.8	8.92E-01
17	4	241.62	315	343	1.95	481.84	467	21	2.19E-02	16.4	
18	0	270.18	98	262	1.39	538.89	534	11	6.81E-03	33.5	
19	0	277.41	158	249	3.62	553.34	546	15	1.10E-02	23.3	
20	0	295.40*	418	224	1.50	589.28	584	11	2.90E-02	9.0	
21	0	301.10	92	255	4.67	600.66	595	14	6.38E-03	38.3	
22	0	328.48	51	201	2.07	655.36	648	11	3.52E-03	56.1	
23	0	333.54	39	175	3.44	665.48	660	11	2.71E-03	67.7	
24	0	338.64	241	231	1.63	675.66	671	14	1.67E-02	14.8	
25	0	352.00*	586	242	1.63	702.37	697	14	4.07E-02	7.2	
26	0	356.94	35	56	1.12	712.24	710	5	2.40E-03	37.2	
27	0	410.74	39	168	3.37	819.74	813	12	2.73E-03	68.3	
28	0	463.39	71	132	1.28	924.95	918	13	4.93E-03	35.5	
29	0	511.11*	117	165	2.46	1020.33	1011	20	8.14E-03	33.4	
30	0	568.67	112	108	2.25	1135.38	1128	15	7.79E-03	22.3	
31	0	583.39*	335	86	1.64	1164.81	1159	13	2.32E-02	8.1	
32	0	609.35*	405	81	1.30	1216.71	1210	14	2.81E-02	7.2	
33	0	661.82	35	87	2.32	1321.59	1314	12	2.43E-03	56.0	
34	0	665.81	14	69	0.66	1329.57	1326	8	9.65E-04	106.5	
35	0	728.65	60	69	1.11	1455.22	1447	14	4.17E-03	32.2	
36	0	768.36	33	126	6.14	1534.62	1518	21	2.28E-03	87.4	
37	0	797.48	23	27	1.19	1592.84	1590	6	1.58E-03	42.7	
38	0	862.28	20	59	2.02	1722.42	1712	13	1.42E-03	80.4	

Sample ID : G198681033 Acquisition date : 14-DEC-2007 13:54:35

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	875.31	15	42	0.76	1748.49	1741	13	1.05E-03	92.1	
40	0	895.07	79	91	15.86	1788.01	1768	37	5.45E-03	40.8	
41	0	911.60	229	60	2.07	1821.07	1815	17	1.59E-02	10.0	
42	0	969.98	102	74	1.50	1937.85	1930	16	7.05E-03	21.9	
43	0	1004.62	36	68	9.58	2007.14	1986	27	2.50E-03	65.6	
44	0	1029.98	28	96	11.63	2057.86	2033	33	1.95E-03	109.4	
45	0	1048.01	19	47	1.33	2093.93	2086	16	1.32E-03	84.3	
46	0	1109.11	56	68	11.60	2216.18	2197	34	3.89E-03	47.3	
47	0	1121.29	89	49	1.15	2240.55	2233	16	6.16E-03	21.0	
48	0	1152.57	8	16	1.27	2303.15	2299	7	5.38E-04	87.0	
49	0	1157.69	60	20	2.92	2313.39	2306	18	4.13E-03	22.6	
50	0	1238.65	31	46	3.96	2475.40	2468	14	2.18E-03	48.9	
51	0	1377.95*	32	18	2.48	2754.21	2746	14	2.26E-03	34.7	
52	0	1402.16	20	10	3.71	2802.69	2794	16	1.37E-03	44.7	
53	0	1428.94	14	11	0.52	2856.29	2849	14	9.78E-04	55.8	
54	0	1461.48*	277	35	1.83	2921.44	2913	18	1.92E-02	8.2	
55	0	1509.88	16	8	0.74	3018.34	3014	9	1.10E-03	42.1	
56	0	1514.70	8	16	2.01	3027.98	3023	11	5.64E-04	96.8	
57	0	1675.68*	5	16	4.19	3350.38	3340	16	3.27E-04	300.7	
58	0	1704.90	10	13	2.64	3408.90	3401	13	6.94E-04	80.8	
59	0	1717.62	19	0	1.18	3434.37	3427	15	1.32E-03	22.9	
60	0	1731.23	10	19	3.09	3461.63	3455	10	6.75E-04	91.4	
61	0	1765.95	67	16	4.80	3531.17	3519	21	4.64E-03	19.2	
62	0	1819.13	13	3	3.45	3637.72	3631	12	9.07E-04	38.3	
63	0	1824.34	16	3	2.37	3648.15	3643	11	1.11E-03	32.3	
64	0	1849.71	6	11	1.16	3698.98	3693	8	4.45E-04	99.9	
65	0	1891.13	18	7	3.47	3781.95	3774	13	1.27E-03	37.0	
66	0	1912.84	17	6	3.52	3825.47	3819	13	1.21E-03	38.1	

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]G198681033       *
* Acquisition date : 14-DEC-2007 13:54:35 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 04:00:24.42     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681033           Analyst initials: MJH1            *
* Batch Number     : 708123               Sample Quantity : 1.2607E+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	5.200E+00	8.794E-01	3.275E-01	0.000E+00
CS-137	3.743E-02	4.115E-02	5.285E-02	0.000E+00
EU-155	2.653E-02	6.778E-02	8.716E-02	0.000E+00
TL-208	3.146E-01	5.496E-02	4.164E-02	0.000E+00
PO-209	2.071E+01	1.661E+01	9.298E+00	0.000E+00
BI-212	5.100E-01	3.247E-01	3.835E-01	0.000E+00
PB-212	9.072E-01	8.648E-02	5.902E-02	0.000E+00
BI-214	7.301E-01	1.165E-01	8.118E-02	0.000E+00
PB-214	7.241E-01	1.089E-01	7.883E-02	0.000E+00
RA-223	2.545E-01	1.677E-01	1.991E-01	0.000E+00
AC-228	1.119E+00	2.315E-01	1.776E-01	0.000E+00
TH-234	1.189E+00	3.091E-01	3.357E-01	0.000E+00
NP-237	5.715E-01	1.411E-01	1.443E-01	0.000E+00
AM-241	1.687E-02	2.720E-02	5.380E-02	0.000E+00
AM-243	1.545E-01	2.785E-02	3.162E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
CO-60	2.034E-02	2.962E-02	5.304E-02	0.000E+00	NOT IDENT.
RH-101	7.110E-03	2.123E-02	3.544E-02	0.000E+00	NOT IDENT.
SB-125	1.036E-02	6.481E-02	1.110E-01	0.000E+00	NOT IDENT.
BI-211	2.628E-01	7.840E-01	1.375E+00	0.000E+00	NOT IDENT.
PA-233	2.082E-02	4.022E-02	7.108E-02	0.000E+00	NOT IDENT.
PA-234M	1.713E+00	2.857E+00	5.128E+00	0.000E+00	NOT IDENT.
U-235	-1.184E-02	1.198E-01	2.014E-01	0.000E+00	NOT IDENT.
NP-236	2.456E-02	3.108E-02	4.820E-02	0.000E+00	NOT IDENT.
NP-239	1.103E-01	1.396E-01	2.509E-01	0.000E+00	NOT IDENT.
CM-243	-3.984E-03	5.385E-02	8.008E-02	0.000E+00	NOT IDENT.
AM-246	6.334E-02	1.016E-01	1.811E-01	0.000E+00	NOT IDENT.
CF-249	1.020E-02	2.729E-02	4.749E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 14-DEC-2007 17:55:30.44

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681033.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 14-DEC-2007 13:54:35
Sample ID        : G198681033           Sample quantity  : 1.26070E+02 GRAM
Detector name    : GAM21                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:24.42  0.2%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708123               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	277	10.66*	7.431E-01	5.200E+00	5.200E+00	17.26
CS-137	661.66	35	85.10*	1.641E+00	3.729E-02	3.743E-02	112.21
EU-155	105.31	30	21.20*	8.120E+00	2.595E-02	2.653E-02	260.75
TL-208	277.36	158	6.31	4.079E+00	9.148E-01	9.148E-01	46.98
	510.77	117	22.60	2.158E+00	3.577E-01	3.577E-01	67.03
	583.19	335	84.50*	1.874E+00	3.146E-01	3.146E-01	17.83
	763.13	------	1.81	1.415E+00	------	Line Not Found	------
	860.56	20	12.42	1.249E+00	1.959E-01	1.959E-01	160.95
PO-209	896.60	79	0.47*	1.202E+00	2.069E+01	2.071E+01	81.85
BI-212	727.33	60	11.80*	1.484E+00	5.100E-01	5.100E-01	64.97
	785.37	------	1.10	1.374E+00	------	Line Not Found	------
	1620.50	------	1.49	6.722E-01	------	Line Not Found	------
PB-212	74.81	612	10.40	8.644E+00	1.013E+00	1.013E+00	18.39
	77.11	1045	17.50	8.639E+00	1.029E+00	1.029E+00	13.71
	87.30	406	7.81	8.537E+00	9.074E-01	9.074E-01	25.20
	238.63	1242	43.30*	4.707E+00	9.072E-01	9.072E-01	9.73
	300.09	92	3.28	3.760E+00	1.109E+00	1.109E+00	76.87
BI-214	609.31	405	46.10*	1.790E+00	7.300E-01	7.301E-01	16.28
	768.36	33	4.94	1.405E+00	7.030E-01	7.030E-01	174.99
	806.17	------	1.22	1.337E+00	------	Line Not Found	------
	934.06	------	3.03	1.152E+00	------	Line Not Found	------
	1120.29	89	15.10	9.611E-01	9.095E-01	9.096E-01	42.37
	1155.19	------	1.63	9.335E-01	------	Line Not Found	------
	1238.11	31	5.79	8.722E-01	9.258E-01	9.259E-01	98.04
	1280.96	------	1.43	8.442E-01	------	Line Not Found	------
	1377.67	32	4.00	7.866E-01	1.538E+00	1.538E+00	69.63
	1401.50	20	1.27	7.734E-01	2.993E+00	2.994E+00	89.60
	1407.98	------	2.15	7.704E-01	------	Line Not Found	------
	1509.23	16	2.11	7.200E-01	1.548E+00	1.548E+00	84.43
	1729.60	10	2.92	6.302E-01	7.867E-01	7.868E-01	182.89
	1764.49	67	15.40	6.180E-01	1.046E+00	1.046E+00	38.91
PB-214	74.81	612	6.44	8.644E+00	1.636E+00	1.637E+00	18.39

Sample ID : G198681033 Acquisition date : 14-DEC-2007 13:54:35

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	1045	10.80	8.639E+00	1.667E+00	1.667E+00	13.71
	87.30	406	4.84	8.537E+00	1.464E+00	1.464E+00	25.20
	242.00	315	7.43	4.654E+00	1.357E+00	1.357E+00	33.36
	295.22	418	19.30	3.833E+00	8.412E-01	8.412E-01	18.70
	351.93	586	37.60*	3.204E+00	7.240E-01	7.241E-01	15.35
RA-223	269.46	98	13.70*	4.185E+00	2.545E-01	2.545E-01	67.22
AC-228	129.07	84	2.42	7.443E+00	6.910E-01	6.910E-01	97.89
	209.25	194	3.89	5.289E+00	1.403E+00	1.403E+00	43.22
	270.25	98	3.46	4.185E+00	1.008E+00	1.008E+00	67.22
	338.32	241	11.27	3.336E+00	9.550E-01	9.550E-01	29.99
	409.46	39	1.92	2.724E+00	1.118E+00	1.118E+00	136.67
	463.00	71	4.40	2.396E+00	1.003E+00	1.003E+00	71.22
	794.95	------	4.25	1.357E+00	------	Line Not Found	------
	911.20	229	25.80*	1.180E+00	1.119E+00	1.119E+00	21.11
	964.77	------	4.99	1.115E+00	------	Line Not Found	------
	968.97	102	15.80	1.109E+00	8.623E-01	8.623E-01	44.37
	1588.20	------	3.22	6.855E-01	------	Line Not Found	------
TH-234	63.29	164	4.80	8.525E+00	5.961E-01	5.961E-01	49.00
	92.58	365	5.41*	8.436E+00	1.189E+00	1.189E+00	26.52
NP-237	86.48	406	12.40*	8.537E+00	5.715E-01	5.715E-01	25.20
AM-241	59.54	34	35.90*	8.329E+00	1.687E-02	1.687E-02	164.48
AM-243	74.66	612	68.20*	8.644E+00	1.545E-01	1.545E-01	18.39

Flag: "*" = Keyline

Sample ID : G198681033 Acquisition date : 14-DEC-2007 13:54:35

Total number of lines in spectrum 66
Number of unidentified lines 29
Number of lines tentatively identified by NID 37 56.06%

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	5.200E+00	5.200E+00	0.897E+00	17.26	
CS-137	9.47E+08S	1.00	3.729E-02	3.743E-02	4.199E-02	112.21	
EU-155	1.57E+08S	1.02	2.595E-02	2.653E-02	6.917E-02	260.75	
TL-208	4.43E+17S	1.00	3.146E-01	3.146E-01	0.561E-01	17.83	
PO-209	3.22E+09S	1.00	2.069E+01	2.071E+01	1.695E+01	81.85	
BI-212	4.43E+17S	1.00	5.100E-01	5.100E-01	3.313E-01	64.97	
PB-212	4.43E+17S	1.00	9.072E-01	9.072E-01	0.882E-01	9.73	
BI-214	5.05E+10S	1.00	7.300E-01	7.301E-01	1.189E-01	16.28	
PB-214	5.05E+10S	1.00	7.240E-01	7.241E-01	1.111E-01	15.35	
RA-223	1.04E+12S	1.00	2.545E-01	2.545E-01	1.711E-01	67.22	
AC-228	4.43E+17S	1.00	1.119E+00	1.119E+00	0.236E+00	21.11	
TH-234	1.41E+17S	1.00	1.189E+00	1.189E+00	0.315E+00	26.52	
NP-237	6.75E+13S	1.00	5.715E-01	5.715E-01	1.440E-01	25.20	
AM-241	1.36E+10S	1.00	1.687E-02	1.687E-02	2.775E-02	164.48	
AM-243	2.33E+11S	1.00	1.545E-01	1.545E-01	0.284E-01	18.39	
			---	---			
	Total Activity :		3.244E+01	3.247E+01			

Grand Total Activity : 3.244E+01 3.247E+01

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

Sample ID : G198681033 Acquisition date : 14-DEC-2007 13:54:35

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	47.02	54	399	2.21	93.14	88	9	3.76E-03	****	7.69E+00	
6	84.31	174	454	1.66	167.60	164	28	1.21E-02	44.3	8.58E+00	
6	89.97	250	370	1.25	178.92	164	28	1.73E-02	29.7	8.49E+00	
0	119.29	17	236	1.64	237.48	237	6	1.19E-03	****	7.74E+00	
0	123.69	72	365	2.95	246.26	242	10	4.99E-03	****	7.61E+00	
0	186.04	253	497	1.76	370.81	365	13	1.76E-02	40.0	5.83E+00	
0	328.48	51	201	2.07	655.36	648	11	3.52E-03	****	3.44E+00	
0	333.54	39	175	3.44	665.48	660	11	2.71E-03	****	3.39E+00	
0	356.94	35	56	1.12	712.24	710	5	2.40E-03	74.5	3.16E+00	
0	568.67	112	108	2.25	1135.38	1128	15	7.79E-03	44.7	1.93E+00	
0	665.81	14	69	0.66	1329.57	1326	8	9.65E-04	****	1.63E+00	
0	797.48	23	27	1.19	1592.84	1590	6	1.58E-03	85.5	1.35E+00	
0	875.31	15	42	0.76	1748.49	1741	13	1.05E-03	****	1.23E+00	
0	1004.62	36	68	9.58	2007.14	1986	27	2.50E-03	****	1.07E+00	
0	1029.98	28	96	11.63	2057.86	2033	33	1.95E-03	****	1.04E+00	
0	1048.01	19	47	1.33	2093.93	2086	16	1.32E-03	****	1.03E+00	
0	1109.11	56	68	11.60	2216.18	2197	34	3.89E-03	94.6	9.71E-01	
0	1152.57	8	16	1.27	2303.15	2299	7	5.38E-04	****	9.36E-01	
0	1157.69	60	20	2.92	2313.39	2306	18	4.13E-03	45.1	9.32E-01	
0	1428.94	14	11	0.52	2856.29	2849	14	9.78E-04	****	7.59E-01	
0	1514.70	8	16	2.01	3027.98	3023	11	5.64E-04	****	7.18E-01	
0	1675.68	5	16	4.19	3350.38	3340	16	3.27E-04	****	6.51E-01	
0	1704.90	10	13	2.64	3408.90	3401	13	6.94E-04	****	6.40E-01	
0	1717.62	19	0	1.18	3434.37	3427	15	1.32E-03	45.9	6.35E-01	
0	1819.13	13	3	3.45	3637.72	3631	12	9.07E-04	76.6	6.00E-01	
0	1824.34	16	3	2.37	3648.15	3643	11	1.11E-03	64.5	5.98E-01	
0	1849.71	6	11	1.16	3698.98	3693	8	4.45E-04	****	5.90E-01	
0	1891.13	18	7	3.47	3781.95	3774	13	1.27E-03	74.0	5.77E-01	
0	1912.84	17	6	3.52	3825.47	3819	13	1.21E-03	76.2	5.71E-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]G198681033            *
* Acquisition date : 14-DEC-2007 13:54:35 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 04:00:24.42     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681033           Analyst initials: MJH1            *
* Batch Number     : 708123               Sample Quantity : 1.2607E+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	5.200E+00	8.794E-01	1.638E-01	8.794E-01
CS-137	3.743E-02	4.115E-02	2.644E-02	4.115E-02
EU-155	2.653E-02	6.778E-02	4.361E-02	6.778E-02
TL-208	3.146E-01	5.496E-02	2.083E-02	5.496E-02
PO-209	2.071E+01	1.661E+01	4.652E+00	1.661E+01
BI-212	5.100E-01	3.247E-01	1.919E-01	3.247E-01
PB-212	9.072E-01	8.648E-02	2.953E-02	8.648E-02
BI-214	7.301E-01	1.165E-01	4.061E-02	1.165E-01
PB-214	7.241E-01	1.089E-01	3.944E-02	1.089E-01
RA-223	2.545E-01	1.677E-01	9.959E-02	1.677E-01
AC-228	1.119E+00	2.315E-01	8.888E-02	2.315E-01
TH-234	1.189E+00	3.091E-01	1.679E-01	3.091E-01
NP-237	5.715E-01	1.411E-01	7.221E-02	1.411E-01
AM-241	1.687E-02	2.720E-02	2.691E-02	2.720E-02
AM-243	1.545E-01	2.785E-02	1.582E-02	2.785E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	2.034E-02	2.962E-02	2.653E-02	2.962E-02	NOT IDENT.
RH-101	7.110E-03	2.123E-02	1.773E-02	2.123E-02	NOT IDENT.
SB-125	1.036E-02	6.481E-02	5.553E-02	6.481E-02	NOT IDENT.
BI-211	2.628E-01	7.840E-01	6.878E-01	7.840E-01	NOT IDENT.
PA-233	2.082E-02	4.022E-02	3.556E-02	4.022E-02	NOT IDENT.
PA-234M	1.713E+00	2.857E+00	2.565E+00	2.857E+00	NOT IDENT.
U-235	-1.184E-02	1.198E-01	1.008E-01	1.198E-01	NOT IDENT.
NP-236	2.456E-02	3.108E-02	2.412E-02	3.108E-02	NOT IDENT.
NP-239	1.103E-01	1.396E-01	1.255E-01	1.396E-01	NOT IDENT.
CM-243	-3.984E-03	5.385E-02	4.006E-02	5.385E-02	NOT IDENT.
AM-246	6.334E-02	1.016E-01	9.062E-02	1.016E-01	NOT IDENT.
CF-249	1.020E-02	2.729E-02	2.376E-02	2.729E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	502.0567
63.29	509.0565
74.66	666.6160
74.81	666.7228
74.81	666.7228
77.11	668.3602
77.11	668.3602
86.48	450.9921
87.30	451.3574
87.30	451.3574
92.58	453.6660
98.44	396.1331
103.76	441.1172
105.31	419.2907
129.07	411.7794
143.76	472.6419
198.00	349.4878
209.25	353.6737
228.18	307.7482
238.63	286.8517
242.00	287.3657
269.46	260.4412
270.25	247.7534
277.36	216.5405
295.22	213.5386
300.09	179.9730
312.17	178.0343
338.32	148.4271
351.93	180.7996
387.59	152.4635
409.46	154.4327
427.87	133.2817
463.00	94.4792
510.77	110.7864
583.19	88.5003
609.31	91.3582
661.66	110.3784
727.33	92.6655
763.13	76.5077
768.36	71.3389
785.37	65.5312
794.95	60.3805
806.17	60.1353
831.80	63.3829
860.56	46.4053
896.60	56.5309
911.20	60.3457
934.06	40.2910
964.77	47.4814
968.97	67.3249
1001.03	33.8879
1078.86	40.4948
1120.29	61.2305
1155.19	24.6533
1173.23	35.0417
1238.11	40.6694
1280.96	43.0770
1332.51	42.3958
1377.67	23.7983
1401.50	33.2327
1407.98	25.7559
1460.80	14.0685
1509.23	22.8978
1588.20	29.3198
1620.50	23.7566
1729.60	21.2327
1764.49	18.4255

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198681033

Total Uranium Activity	-5.4788E-03	ug/g
Total Uranium Counting Unc.	5.5434E-02	ug/g
Total Uranium Tpu	5.5434E-08	ug/g
Total Uranium Mda	4.6625E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 14-DEC-2007 18:26:41.51

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681034.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 14-DEC-2007 14:26:15
Sample ID        : G198681034           Sample quantity  : 1.39590E+02 GRAM
Detector name    : GAM01                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.71  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708123               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.49*	47	455	1.72	127.03	124	9	3.27E-03	88.3	
2	1	75.12	292	524	1.63	150.30	141	19	2.03E-02	16.9	4.64E+00
3	1	77.32	546	474	1.57	154.70	141	19	3.79E-02	8.7	
4	2	84.28	129	361	1.81	168.63	165	28	8.92E-03	25.8	3.63E+00
5	2	87.40	287	559	1.81	174.87	165	28	2.00E-02	17.3	
6	2	92.81*	296	543	1.82	185.69	165	28	2.05E-02	17.7	
7	0	104.43	69	398	1.97	208.94	205	9	4.79E-03	53.5	
8	0	128.06	55	393	0.81	256.20	254	8	3.80E-03	64.0	
9	0	186.27*	142	521	1.53	372.66	367	11	9.86E-03	34.2	
10	0	198.59*	83	365	3.02	397.31	392	11	5.80E-03	48.3	
11	0	202.02	28	232	0.77	404.18	402	7	1.97E-03	90.4	
12	0	209.78	73	520	3.24	419.69	413	13	5.10E-03	65.1	
13	3	238.68*	1079	225	1.40	477.50	470	19	7.49E-02	4.2	1.88E+00
14	3	241.56*	248	317	1.80	483.28	470	19	1.73E-02	18.1	
15	0	270.36	106	303	1.70	540.90	536	11	7.33E-03	33.4	
16	0	278.01	87	204	2.29	556.18	552	10	6.02E-03	32.7	
17	0	295.17	308	243	1.54	590.53	585	10	2.14E-02	11.0	
18	0	300.30	66	179	1.23	600.78	597	8	4.59E-03	37.3	
19	0	328.00*	50	184	1.59	656.20	652	9	3.47E-03	55.2	
20	0	338.39	262	208	1.42	676.98	672	11	1.82E-02	12.3	
21	0	351.98*	558	278	1.43	704.17	698	14	3.87E-02	7.9	
22	1	389.21	45	168	1.94	778.65	771	18	3.12E-03	59.6	3.53E+00
23	1	392.21	40	107	1.94	784.65	771	18	2.76E-03	46.6	
24	0	451.55	41	169	4.79	903.35	898	16	2.86E-03	72.1	
25	0	462.70	82	124	1.10	925.66	920	11	5.70E-03	28.5	
26	0	494.14	57	140	5.55	988.55	979	18	3.97E-03	50.2	
27	0	511.02*	120	152	1.94	1022.30	1014	18	8.31E-03	32.4	
28	4	522.31	58	57	2.70	1044.89	1040	38	4.01E-03	27.6	1.60E+00
29	4	530.36	35	57	1.85	1061.00	1040	38	2.42E-03	46.4	
30	4	536.36	41	52	1.85	1073.00	1040	38	2.83E-03	40.7	
31	0	544.45	105	157	6.62	1089.18	1078	25	7.27E-03	33.6	
32	0	583.36*	345	154	1.64	1167.02	1160	16	2.39E-02	10.1	
33	0	609.62*	450	149	1.61	1219.54	1213	16	3.13E-02	8.0	
34	0	661.86*	64	73	0.92	1324.05	1319	13	4.41E-03	33.5	
35	0	706.39	30	39	0.67	1413.11	1410	6	2.12E-03	37.7	
36	0	727.63	112	94	1.51	1455.61	1447	17	7.74E-03	22.0	
37	1	882.50	35	42	2.22	1765.38	1761	28	2.46E-03	33.9	2.44E+00
38	1	888.51	25	53	2.23	1777.40	1761	28	1.75E-03	62.2	

Sample ID : G198681034 Acquisition date : 14-DEC-2007 14:26:15

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	2	911.33*	266	52	2.04	1823.04	1815	21	1.85E-02	8.4	2.49E+00
40	2	916.12	30	15	2.24	1832.62	1815	21	2.05E-03	30.6	
41	1	932.81	24	53	2.04	1866.00	1860	15	1.64E-03	65.0	1.58E+00
42	1	935.11	27	31	1.93	1870.61	1860	15	1.87E-03	42.3	
43	1	965.10	87	11	2.26	1930.60	1924	24	6.04E-03	16.8	2.36E+00
44	1	969.01*	154	18	2.22	1938.41	1924	24	1.07E-02	11.3	
45	0	1120.70*	91	43	1.25	2241.80	2236	11	6.34E-03	18.9	
46	0	1154.85	42	35	1.35	2310.10	2303	14	2.92E-03	33.6	
47	0	1237.81	85	15	2.73	2476.03	2469	13	5.87E-03	14.6	
48	0	1378.57	40	32	2.50	2757.54	2745	18	2.75E-03	37.0	
49	0	1386.06	16	14	1.29	2772.52	2768	13	1.08E-03	54.7	
50	0	1461.03*	566	43	2.18	2922.45	2914	20	3.93E-02	5.2	
51	0	1498.05	8	24	1.63	2996.49	2987	11	5.32E-04	130.7	
52	0	1535.61	18	15	4.42	3071.60	3064	16	1.26E-03	54.3	
53	0	1639.98	21	14	2.20	3280.32	3274	16	1.47E-03	47.1	
54	0	1649.09	4	7	0.67	3298.54	3290	10	2.49E-04	151.9	
55	0	1661.29	15	9	1.37	3322.94	3315	12	1.04E-03	47.7	
56	0	1667.44	14	2	1.64	3335.25	3330	10	9.44E-04	34.7	
57	0	1678.82	12	0	0.83	3358.00	3353	10	8.33E-04	28.9	
58	3	1729.52	57	4	3.10	3459.39	3452	18	3.93E-03	13.1	3.10E+00
59	3	1733.47	8	0	1.70	3467.29	3452	18	5.40E-04	39.1	
60	0	1764.59*	70	5	2.22	3529.51	3524	15	4.87E-03	16.3	
61	0	1816.54	9	10	1.92	3633.40	3623	12	6.54E-04	72.0	
62	0	1868.59*	8	3	1.38	3737.48	3734	8	5.25E-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]G198681034       *
* Acquisition date : 14-DEC-2007 14:26:15 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 04:00:01.71     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681034           Analyst initials: MJH1            *
* Batch Number     : 708123               Sample Quantity : 1.3959E+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    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	6.814E+00	7.976E-01	2.862E-01	0.000E+00
RH-101	2.868E-02	2.720E-02	3.279E-02	0.000E+00
CS-137	4.767E-02	3.151E-02	3.063E-02	0.000E+00
EU-155	6.760E-02	7.103E-02	1.028E-01	0.000E+00
TL-208	2.325E-01	4.871E-02	3.349E-02	0.000E+00
BI-212	6.544E-01	2.872E-01	2.485E-01	0.000E+00
PB-212	6.887E-01	7.318E-02	5.388E-02	0.000E+00
BI-214	5.783E-01	9.970E-02	6.503E-02	0.000E+00
PB-214	5.555E-01	9.235E-02	6.433E-02	0.000E+00
RA-223	2.340E-01	1.539E-01	1.697E-01	0.000E+00
AC-228	8.778E-01	1.674E-01	1.192E-01	0.000E+00
TH-234	1.189E+00	4.229E-01	4.442E-01	0.000E+00
NP-237	5.325E-01	1.853E-01	2.063E-01	0.000E+00
AM-243	1.217E-01	4.143E-02	4.793E-02	0.000E+00
CM-243	6.119E-02	6.430E-02	9.292E-02	0.000E+00
CF-249	2.764E-02	3.232E-02	3.583E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error	MDA (pCi/GRAM)		Ided
CO-60	-1.122E-02	2.370E-02	3.759E-02	0.000E+00	NOT IDENT.
SB-125	-1.538E-02	5.702E-02	9.522E-02	0.000E+00	NOT IDENT.
PO-209	2.134E+00	4.549E+00	7.002E+00	0.000E+00	NOT IDENT.
BI-211	-2.875E-01	5.947E-01	9.742E-01	0.000E+00	NOT IDENT.
PA-233	-2.624E-04	3.705E-02	6.393E-02	0.000E+00	NOT IDENT.
PA-234M	2.267E+00	2.455E+00	4.445E+00	0.000E+00	NOT IDENT.
U-235	1.045E-01	1.123E-01	2.064E-01	0.000E+00	NOT IDENT.
NP-236	3.354E-02	4.001E-02	5.825E-02	0.000E+00	NOT IDENT.
NP-239	3.765E-02	1.260E-01	2.234E-01	0.000E+00	NOT IDENT.
AM-241	2.991E-02	9.029E-02	1.406E-01	0.000E+00	NOT IDENT.
AM-246	4.944E-02	7.586E-02	1.344E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 14-DEC-2007 18:26:42.55

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681034.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 14-DEC-2007 14:26:15
Sample ID        : G198681034           Sample quantity  : 1.39590E+02 GRAM
Detector name    : GAM01                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.71  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708123               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	566	10.66*	1.047E+00	6.814E+00	6.814E+00	11.95
RH-101	198.00	83	73.00*	5.541E+00	2.774E-02	2.868E-02	96.78
CS-137	661.66	64	85.10*	2.112E+00	4.750E-02	4.767E-02	67.45
EU-155	105.31	69	21.20*	6.619E+00	6.613E-02	6.760E-02	107.23
TL-208	277.36	87	6.31	4.329E+00	4.264E-01	4.264E-01	65.80
	510.77	120	22.60	2.640E+00	2.696E-01	2.696E-01	65.12
	583.19	345	84.50*	2.358E+00	2.325E-01	2.325E-01	21.38
	763.13	------	1.81	1.860E+00	------	Line Not Found	------
	860.56	------	12.42	1.667E+00	------	Line Not Found	------
BI-212	727.33	112	11.80*	1.941E+00	6.544E-01	6.544E-01	44.78
	785.37	------	1.10	1.812E+00	------	Line Not Found	------
	1620.50	------	1.49	9.727E-01	------	Line Not Found	------
PB-212	74.81	292	10.40	4.734E+00	7.978E-01	7.978E-01	34.75
	77.11	546	17.50	4.975E+00	8.436E-01	8.436E-01	19.09
	87.30	287	7.81	5.853E+00	8.454E-01	8.454E-01	35.51
	238.63	1079	43.30*	4.864E+00	6.887E-01	6.887E-01	10.84
	300.09	66	3.28	4.075E+00	6.647E-01	6.647E-01	75.00
BI-214	609.31	450	46.10*	2.270E+00	5.782E-01	5.783E-01	17.59
	768.36	------	4.94	1.848E+00	------	Line Not Found	------
	806.17	------	1.22	1.770E+00	------	Line Not Found	------
	934.06	27	3.03	1.545E+00	7.751E-01	7.751E-01	85.05
	1120.29	91	15.10	1.309E+00	6.211E-01	6.211E-01	38.44
	1155.19	42	1.63	1.275E+00	2.718E+00	2.718E+00	67.60
	1238.11	85	5.79	1.199E+00	1.637E+00	1.637E+00	29.91
	1280.96	------	1.43	1.164E+00	------	Line Not Found	------
	1377.67	40	4.00	1.096E+00	1.214E+00	1.214E+00	74.13
	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	57	2.92	9.349E-01	2.788E+00	2.788E+00	26.85
	1764.49	70	15.40	9.247E-01	6.616E-01	6.617E-01	33.05
PB-214	74.81	292	6.44	4.734E+00	1.288E+00	1.288E+00	34.75

Sample ID : G198681034 Acquisition date : 14-DEC-2007 14:26:15

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	546	10.80	4.975E+00	1.367E+00	1.367E+00	19.09
	87.30	287	4.84	5.853E+00	1.364E+00	1.364E+00	35.51
	242.00	248	7.43	4.820E+00	9.329E-01	9.329E-01	36.82
	295.22	308	19.30	4.131E+00	5.202E-01	5.202E-01	23.08
	351.93	558	37.60*	3.589E+00	5.555E-01	5.555E-01	16.96
RA-223	269.46	106	13.70*	4.424E+00	2.340E-01	2.340E-01	67.11
AC-228	129.07	55	2.42	6.758E+00	4.495E-01	4.495E-01	128.15
	209.25	73	3.89	5.338E+00	4.755E-01	4.755E-01	130.30
	270.25	106	3.46	4.424E+00	9.267E-01	9.267E-01	67.11
	338.32	262	11.27	3.705E+00	8.423E-01	8.423E-01	25.46
	409.46	------	1.92	3.174E+00	------	Line Not Found	------
	463.00	82	4.40	2.870E+00	8.735E-01	8.735E-01	57.34
	794.95	------	4.25	1.792E+00	------	Line Not Found	------
	911.20	266	25.80*	1.582E+00	8.778E-01	8.778E-01	19.45
	964.77	87	4.99	1.500E+00	1.562E+00	1.562E+00	34.81
	968.97	154	15.80	1.495E+00	8.785E-01	8.785E-01	24.40
	1588.20	------	3.22	9.858E-01	------	Line Not Found	------
TH-234	63.29	47	4.80	3.206E+00	4.117E-01	4.117E-01	176.73
	92.58	296	5.41*	6.183E+00	1.189E+00	1.189E+00	36.28
NP-237	86.48	287	12.40*	5.853E+00	5.325E-01	5.325E-01	35.51
AM-243	74.66	292	68.20*	4.734E+00	1.217E-01	1.217E-01	34.75
CM-243	103.76	69	23.00*	6.619E+00	6.095E-02	6.119E-02	107.23
CF-249	387.59	45	66.00*	3.309E+00	2.763E-02	2.764E-02	119.33

Flag: "*" = Keyline

Sample ID : G198681034 Acquisition date : 14-DEC-2007 14:26:15

Total number of lines in spectrum 62
Number of unidentified lines 27
Number of lines tentatively identified by NID 35 56.45%

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	6.814E+00	6.814E+00	0.814E+00	11.95	
RH-101	1.04E+08S	1.03	2.774E-02	2.868E-02	2.776E-02	96.78	
CS-137	9.47E+08S	1.00	4.750E-02	4.767E-02	3.215E-02	67.45	
EU-155	1.57E+08S	1.02	6.613E-02	6.760E-02	7.248E-02	107.23	
TL-208	4.43E+17S	1.00	2.325E-01	2.325E-01	0.497E-01	21.38	
BI-212	4.43E+17S	1.00	6.544E-01	6.544E-01	2.931E-01	44.78	
PB-212	4.43E+17S	1.00	6.887E-01	6.887E-01	0.747E-01	10.84	
BI-214	5.05E+10S	1.00	5.782E-01	5.783E-01	1.017E-01	17.59	
PB-214	5.05E+10S	1.00	5.555E-01	5.555E-01	0.942E-01	16.96	
RA-223	1.04E+12S	1.00	2.340E-01	2.340E-01	1.571E-01	67.11	
AC-228	4.43E+17S	1.00	8.778E-01	8.778E-01	1.708E-01	19.45	
TH-234	1.41E+17S	1.00	1.189E+00	1.189E+00	0.431E+00	36.28	
NP-237	6.75E+13S	1.00	5.325E-01	5.325E-01	1.891E-01	35.51	
AM-243	2.33E+11S	1.00	1.217E-01	1.217E-01	0.423E-01	34.75	
CM-243	8.99E+08S	1.00	6.095E-02	6.119E-02	6.561E-02	107.23	
CF-249	1.11E+10S	1.00	2.763E-02	2.764E-02	3.298E-02	119.33	
		Total Activity :	1.271E+01	1.271E+01			

Grand Total Activity : 1.271E+01 1.271E+01

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

Sample ID : G198681034 Acquisition date : 14-DEC-2007 14:26:15

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
2	84.28	129	361	1.81	168.63	165	28	8.92E-03	51.7	5.62E+00	
0	186.27	142	521	1.53	372.66	367	11	9.86E-03	68.4	5.77E+00	
0	202.02	28	232	0.77	404.18	402	7	1.97E-03	****	5.48E+00	
0	328.00	50	184	1.59	656.20	652	9	3.47E-03	****	3.80E+00	
1	392.21	40	107	1.94	784.65	771	18	2.76E-03	93.2	3.29E+00	
0	451.55	41	169	4.79	903.35	898	16	2.86E-03	****	2.93E+00	
0	494.14	57	140	5.55	988.55	979	18	3.97E-03	****	2.72E+00	
4	522.31	58	57	2.70	1044.89	1040	38	4.01E-03	55.2	2.59E+00	
4	530.36	35	57	1.85	1061.00	1040	38	2.42E-03	92.9	2.56E+00	
4	536.36	41	52	1.85	1073.00	1040	38	2.83E-03	81.3	2.53E+00	
0	544.45	105	157	6.62	1089.18	1078	25	7.27E-03	67.2	2.50E+00	
0	706.39	30	39	0.67	1413.11	1410	6	2.12E-03	75.4	1.99E+00	
1	882.50	35	42	2.22	1765.38	1761	28	2.46E-03	67.7	1.63E+00	
1	888.51	25	53	2.23	1777.40	1761	28	1.75E-03	****	1.62E+00	
2	916.12	30	15	2.24	1832.62	1815	21	2.05E-03	61.2	1.57E+00	
1	932.81	24	53	2.04	1866.00	1860	15	1.64E-03	****	1.55E+00	
0	1386.06	16	14	1.29	2772.52	2768	13	1.08E-03	****	1.09E+00	
0	1498.05	8	24	1.63	2996.49	2987	11	5.32E-04	****	1.03E+00	
0	1535.61	18	15	4.42	3071.60	3064	16	1.26E-03	****	1.01E+00	
0	1639.98	21	14	2.20	3280.32	3274	16	1.47E-03	94.1	9.65E-01	
0	1649.09	4	7	0.67	3298.54	3290	10	2.49E-04	****	9.62E-01	
0	1661.29	15	9	1.37	3322.94	3315	12	1.04E-03	95.5	9.57E-01	
0	1667.44	14	2	1.64	3335.25	3330	10	9.44E-04	69.4	9.55E-01	
0	1678.82	12	0	0.83	3358.00	3353	10	8.33E-04	57.7	9.51E-01	
3	1733.47	8	0	1.70	3467.29	3452	18	5.40E-04	78.2	9.34E-01	
0	1816.54	9	10	1.92	3633.40	3623	12	6.54E-04	****	9.11E-01	
0	1868.59	8	3	1.38	3737.48	3734	8	5.25E-04	****	8.99E-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]G198681034            *
* Acquisition date : 14-DEC-2007 14:26:15 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 04:00:01.71     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681034           Analyst initials: MJH1            *
* Batch Number     : 708123               Sample Quantity : 1.3959E+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	6.814E+00	7.976E-01	1.432E-01	7.976E-01
RH-101	2.868E-02	2.720E-02	1.641E-02	2.720E-02
CS-137	4.767E-02	3.151E-02	1.533E-02	3.151E-02
EU-155	6.760E-02	7.103E-02	5.143E-02	7.103E-02
TL-208	2.325E-01	4.871E-02	1.675E-02	4.871E-02
BI-212	6.544E-01	2.872E-01	1.243E-01	2.872E-01
PB-212	6.887E-01	7.318E-02	2.695E-02	7.318E-02
BI-214	5.783E-01	9.970E-02	3.254E-02	9.970E-02
PB-214	5.555E-01	9.235E-02	3.218E-02	9.235E-02
RA-223	2.340E-01	1.539E-01	8.488E-02	1.539E-01
AC-228	8.778E-01	1.674E-01	5.966E-02	1.674E-01
TH-234	1.189E+00	4.229E-01	2.222E-01	4.229E-01
NP-237	5.325E-01	1.853E-01	1.032E-01	1.853E-01
AM-243	1.217E-01	4.143E-02	2.398E-02	4.143E-02
CM-243	6.119E-02	6.430E-02	4.649E-02	6.430E-02
CF-249	2.764E-02	3.232E-02	1.793E-02	3.232E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	-1.122E-02	2.370E-02	1.880E-02	2.370E-02	NOT IDENT.
SB-125	-1.538E-02	5.702E-02	4.764E-02	5.702E-02	NOT IDENT.
PO-209	2.134E+00	4.549E+00	3.503E+00	4.549E+00	NOT IDENT.
BI-211	-2.875E-01	5.947E-01	4.874E-01	5.947E-01	NOT IDENT.
PA-233	-2.624E-04	3.705E-02	3.198E-02	3.705E-02	NOT IDENT.
PA-234M	2.267E+00	2.455E+00	2.224E+00	2.455E+00	NOT IDENT.
U-235	1.045E-01	1.123E-01	1.032E-01	1.123E-01	NOT IDENT.
NP-236	3.354E-02	4.001E-02	2.914E-02	4.001E-02	NOT IDENT.
NP-239	3.765E-02	1.260E-01	1.118E-01	1.260E-01	NOT IDENT.
AM-241	2.991E-02	9.029E-02	7.032E-02	9.029E-02	NOT IDENT.
AM-246	4.944E-02	7.586E-02	6.725E-02	7.586E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	370.4080
63.29	401.8007
74.66	528.2750
74.81	528.3549
74.81	528.3549
77.11	529.5660
77.11	529.5660
86.48	497.2766
87.30	497.6517
87.30	497.6517
92.58	500.2552
98.44	401.6179
103.76	451.2872
105.31	457.9515
129.07	460.2527
143.76	454.7190
198.00	387.0184
209.25	372.6022
228.18	328.8517
238.63	303.8018
242.00	298.3484
269.46	251.9348
270.25	264.1236
277.36	270.5531
295.22	224.3022
300.09	226.4832
312.17	226.9809
338.32	206.6082
351.93	180.5920
387.59	148.1467
409.46	165.3289
427.87	178.2129
463.00	152.0962
510.77	128.6951
583.19	108.9412
609.31	113.5229
661.66	74.0086
727.33	79.9814
763.13	106.2510
768.36	88.6523
785.37	78.1273
794.95	79.2904
806.17	75.5207
831.80	87.9517
860.56	70.4059
896.60	57.3414
911.20	58.9700
934.06	64.7965
964.77	38.0343
968.97	38.0667
1001.03	52.8054
1078.86	50.4434
1120.29	61.4173
1155.19	63.9355
1173.23	64.1382
1238.11	63.0053
1280.96	50.3933
1332.51	35.7602
1377.67	27.6449
1401.50	45.6646
1407.98	37.1392
1460.80	25.9189
1509.23	21.2718
1588.20	43.0286
1620.50	22.5949
1729.60	13.9590
1764.49	17.5293

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198681034

Total Uranium Activity	4.8369E-02	ug/g
Total Uranium Counting Unc.	5.1950E-02	ug/g
Total Uranium Tpu	5.1950E-08	ug/g
Total Uranium Mda	4.7771E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 00:57:47.46

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201473818.CNF;1
Sample date      : 5-DEC-2007 00:00:00. Acquisition date : 14-DEC-2007 16:36:57
Sample ID        : G1201473818          Sample quantity  : 1.45130E+02 GRAM
Detector name    : GAM13                Detector geometry: CAN
Elapsed live time: 0 08:20:00.00        Elapsed real time: 0 08:20:06.63  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708123               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.44*	9	970	0.95	126.36	123	9	3.04E-04	911.5	
2	2	90.06	85	596	1.03	179.64	175	17	2.83E-03	46.2	2.32E+00
3	0	112.27*	49	904	1.47	224.11	219	11	1.63E-03	143.4	
4	0	143.76*	11	455	0.98	287.14	284	6	3.59E-04	448.7	
5	0	185.86*	22	713	1.02	371.42	367	10	7.18E-04	325.2	
6	0	198.56*	5	620	0.61	396.83	392	9	1.75E-04	*****	
7	0	205.70*	31	577	1.41	411.13	407	9	1.03E-03	167.2	
8	0	209.14	64	383	1.34	418.00	416	6	2.13E-03	50.0	
9	0	221.02	54	333	1.36	441.79	440	6	1.81E-03	54.8	
10	0	224.74	57	349	0.78	449.24	447	6	1.90E-03	53.3	
11	0	238.81*	13	594	1.23	477.39	473	9	4.33E-04	420.9	
12	0	335.73	24	358	1.05	671.38	665	8	8.14E-04	135.9	
13	1	356.06*	13	346	1.28	712.07	700	17	4.47E-04	305.6	1.70E+00
14	0	365.23	21	322	1.32	730.42	728	8	7.15E-04	146.2	
15	0	462.76*	17	253	1.24	925.63	921	10	5.65E-04	202.6	
16	0	487.09	8	385	4.72	974.32	966	13	2.71E-04	497.9	
17	0	597.95	34	196	1.76	1196.18	1193	8	1.15E-03	72.3	
18	0	731.43	42	173	3.58	1463.29	1458	11	1.41E-03	62.3	
19	0	785.51*	40	207	2.51	1571.50	1564	13	1.32E-03	85.6	
20	0	802.92*	11	186	3.79	1606.33	1600	12	3.74E-04	287.9	
21	0	880.24	19	190	0.58	1761.03	1755	12	6.39E-04	145.4	
22	0	911.38*	32	141	1.83	1823.35	1819	11	1.08E-03	99.5	
23	2	961.14	25	77	1.59	1922.90	1920	15	8.29E-04	57.7	7.47E+00
24	2	964.10	48	152	2.27	1928.82	1920	15	1.61E-03	53.2	
25	2	969.29*	25	99	2.28	1939.21	1934	41	8.36E-04	116.8	2.31E+00
26	2	977.79	58	119	2.29	1956.21	1934	41	1.92E-03	43.1	
27	2	983.79	50	105	2.29	1968.20	1934	41	1.66E-03	49.9	
28	0	1001.37*	10	95	1.41	2003.38	2000	8	3.37E-04	247.7	
29	0	1245.19	45	182	8.23	2491.15	2472	27	1.49E-03	85.6	
30	0	1357.06	57	64	4.16	2714.93	2707	15	1.91E-03	33.2	
31	0	1441.00	34	39	2.34	2882.82	2877	11	1.14E-03	40.1	
32	0	1461.03	22	59	1.52	2922.88	2917	11	7.45E-04	70.4	
33	0	1487.37	19	90	5.87	2975.56	2961	17	6.48E-04	113.6	
34	0	1562.20*	2	51	1.24	3125.23	3116	14	6.35E-05	940.8	
35	0	1670.62	6	23	0.66	3342.06	3336	8	2.15E-04	136.1	
36	0	1715.55	35	26	5.69	3431.92	3424	17	1.17E-03	37.1	
37	0	1756.62	17	63	3.41	3514.05	3496	23	5.73E-04	122.5	
38	0	1765.52	46	42	2.10	3531.83	3525	15	1.55E-03	33.6	

Sample ID : G1201473818 Acquisition date : 14-DEC-2007 16:36:57

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1797.84	7	37	5.18	3596.46	3583	15	2.43E-04	186.2	
40	0	1822.97	13	29	5.21	3646.72	3631	20	4.26E-04	108.4	
41	0	1879.73	19	33	0.82	3760.22	3749	19	6.43E-04	75.2	
42	0	1899.84	15	20	4.70	3800.43	3792	14	4.99E-04	69.6	
43	0	1920.86	34	16	3.82	3842.46	3833	21	1.13E-03	34.0	
44	0	1937.91	11	12	1.00	3876.55	3868	12	3.67E-04	69.8	

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]G1201473818      *
* Acquisition date : 14-DEC-2007 16:36:57 Detector SN#    :                 *
* Detector ID      : GAM13                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 08:20:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 08:20:06.63     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-DEC-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G1201473818          Analyst initials: MJH1            *
* Batch Number     : 708123               Sample Quantity : 1.4513E+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	1.227E-01	1.694E-01	2.213E-01	0.000E+00
RH-101	8.243E-04	1.616E-02	1.579E-02	0.000E+00
PA-234M	5.176E-01	2.513E+00	3.056E+00	0.000E+00
U-235	9.361E-03	8.233E-02	9.261E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	5.108E-03		1.623E-02	2.791E-02	0.000E+00	NOT IDENT.
SB-125	3.864E-02		3.272E-02	5.885E-02	0.000E+00	NOT IDENT.
CS-137	1.473E-02		1.463E-02	2.634E-02	0.000E+00	NOT IDENT.
EU-155	5.394E-03		2.382E-02	4.414E-02	0.000E+00	NOT IDENT.
TL-208	-1.994E-02		1.920E-02	2.580E-02	0.000E+00	NOT IDENT.
PO-209	1.090E+00		2.937E+00	5.001E+00	0.000E+00	NOT IDENT.
BI-211	-1.642E-01		4.258E-01	7.009E-01	0.000E+00	NOT IDENT.
BI-212	-3.736E-02		1.347E-01	1.955E-01	0.000E+00	FAIL ABUN
PB-212	3.864E-03		3.188E-02	3.749E-02	0.000E+00	FAIL ABUN
BI-214	5.678E-03		3.867E-02	5.362E-02	0.000E+00	FAIL ABUN
PB-214	-5.840E-03		3.157E-02	4.626E-02	0.000E+00	NOT IDENT.
RA-223	4.979E-02		5.525E-02	1.024E-01	0.000E+00	NOT IDENT.
AC-228	4.965E-02		9.685E-02	1.123E-01	0.000E+00	FAIL ABUN
PA-233	-4.562E-03		2.107E-02	3.718E-02	0.000E+00	NOT IDENT.
TH-234	1.359E-02		2.090E-01	3.770E-01	0.000E+00	FAIL ABUN
NP-236	-7.078E-03		1.862E-02	2.477E-02	0.000E+00	NOT IDENT.
NP-237	-1.521E-01		4.912E-02	7.144E-02	0.000E+00	NOT IDENT.
NP-239	9.644E-02		7.305E-02	1.179E-01	0.000E+00	NOT IDENT.
AM-241	1.170E-03		1.592E-02	2.570E-02	0.000E+00	NOT IDENT.
AM-243	6.161E-04		8.537E-03	1.465E-02	0.000E+00	NOT IDENT.
CM-243	-8.360E-03		2.161E-02	3.938E-02	0.000E+00	NOT IDENT.
AM-246	2.409E-02		5.108E-02	8.958E-02	0.000E+00	NOT IDENT.
CF-249	3.313E-03		1.418E-02	2.486E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 00:57:48.35

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201473818.CNF;1
Sample date      : 5-DEC-2007 00:00:00. Acquisition date : 14-DEC-2007 16:36:57
Sample ID        : G1201473818          Sample quantity  : 1.45130E+02 GRAM
Detector name    : GAM13                Detector geometry: CAN
Elapsed live time: 0 08:20:00.00        Elapsed real time: 0 08:20:06.63  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708123               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	22	10.66*	1.060E+00	1.227E-01	1.227E-01	140.92
RH-101	198.00	5	73.00*	5.459E+00	8.197E-04	8.243E-04	2000.94
PA-234M	1001.03	10	0.84*	1.443E+00	5.176E-01	5.176E-01	495.35
U-235	143.76	11	10.96*	6.522E+00	9.361E-03	9.361E-03	897.48

Flag: "*" = Keyline

Sample ID : G1201473818 Acquisition date : 14-DEC-2007 16:36:57

Total number of lines in spectrum 44
Number of unidentified lines 31
Number of lines tentatively identified by NID 13 29.55%

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	1.227E-01	1.227E-01	1.729E-01	140.92	
RH-101	1.04E+08S	1.01	8.197E-04	8.243E-04	164.9E-04	2000.94	
PA-234M	1.41E+17S	1.00	5.176E-01	5.176E-01	25.64E-01	495.35	
U-235	2.22E+16S	1.00	9.361E-03	9.361E-03	84.01E-03	897.48	
			---	---			
	Total Activity :		6.505E-01	6.505E-01			
	Grand Total Activity :		6.505E-01	6.505E-01			

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

Sample ID : G1201473818 Acquisition date : 14-DEC-2007 16:36:57

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	63.44	9	970	0.95	126.36	123	9	3.04E-04	****	7.67E+00	T
2	90.06	85	596	1.03	179.64	175	17	2.83E-03	92.3	7.56E+00	
0	112.27	49	904	1.47	224.11	219	11	1.63E-03	****	7.18E+00	
0	185.86	22	713	1.02	371.42	367	10	7.18E-04	****	5.69E+00	
0	205.70	31	577	1.41	411.13	407	9	1.03E-03	****	5.34E+00	
0	209.14	64	383	1.34	418.00	416	6	2.13E-03	****	5.28E+00	T
0	221.02	54	333	1.36	441.79	440	6	1.81E-03	****	5.09E+00	
0	224.74	57	349	0.78	449.24	447	6	1.90E-03	****	5.03E+00	
0	238.81	13	594	1.23	477.39	473	9	4.33E-04	****	4.82E+00	T
0	335.73	24	358	1.05	671.38	665	8	8.14E-04	****	3.71E+00	
1	356.06	13	346	1.28	712.07	700	17	4.47E-04	****	3.53E+00	
0	365.23	21	322	1.32	730.42	728	8	7.15E-04	****	3.46E+00	
0	462.76	17	253	1.24	925.63	921	10	5.65E-04	****	2.82E+00	T
0	487.09	8	385	4.72	974.32	966	13	2.71E-04	****	2.70E+00	
0	597.95	34	196	1.76	1196.18	1193	8	1.15E-03	****	2.26E+00	
0	731.43	42	173	3.58	1463.29	1458	11	1.41E-03	****	1.89E+00	
0	785.51	40	207	2.51	1571.50	1564	13	1.32E-03	****	1.78E+00	T
0	802.92	11	186	3.79	1606.33	1600	12	3.74E-04	****	1.74E+00	
0	880.24	19	190	0.58	1761.03	1755	12	6.39E-04	****	1.61E+00	
0	911.38	32	141	1.83	1823.35	1819	11	1.08E-03	****	1.56E+00	T
2	961.14	25	77	1.59	1922.90	1920	15	8.29E-04	****	1.49E+00	
2	964.10	48	152	2.27	1928.82	1920	15	1.61E-03	****	1.49E+00	T
2	969.29	25	99	2.28	1939.21	1934	41	8.36E-04	****	1.48E+00	T
2	977.79	58	119	2.29	1956.21	1934	41	1.92E-03	86.2	1.47E+00	
2	983.79	50	105	2.29	1968.20	1934	41	1.66E-03	99.8	1.47E+00	
0	1245.19	45	182	8.23	2491.15	2472	27	1.49E-03	****	1.21E+00	
0	1357.06	57	64	4.16	2714.93	2707	15	1.91E-03	66.4	1.12E+00	
0	1441.00	34	39	2.34	2882.82	2877	11	1.14E-03	80.1	1.07E+00	
0	1487.37	19	90	5.87	2975.56	2961	17	6.48E-04	****	1.05E+00	
0	1562.20	2	51	1.24	3125.23	3116	14	6.35E-05	****	1.01E+00	
0	1670.62	6	23	0.66	3342.06	3336	8	2.15E-04	****	9.54E-01	
0	1715.55	35	26	5.69	3431.92	3424	17	1.17E-03	74.2	9.35E-01	
0	1756.62	17	63	3.41	3514.05	3496	23	5.73E-04	****	9.17E-01	
0	1765.52	46	42	2.10	3531.83	3525	15	1.55E-03	67.1	9.14E-01	T
0	1797.84	7	37	5.18	3596.46	3583	15	2.43E-04	****	9.01E-01	
0	1822.97	13	29	5.21	3646.72	3631	20	4.26E-04	****	8.91E-01	
0	1879.73	19	33	0.82	3760.22	3749	19	6.43E-04	****	8.70E-01	
0	1899.84	15	20	4.70	3800.43	3792	14	4.99E-04	****	8.63E-01	
0	1920.86	34	16	3.82	3842.46	3833	21	1.13E-03	68.1	8.56E-01	
0	1937.91	11	12	1.00	3876.55	3868	12	3.67E-04	****	8.50E-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]G1201473818           *
* Acquisition date : 14-DEC-2007 16:36:57 Detector SN#    :                 *
* Detector ID      : GAM13                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 08:20:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 08:20:06.63     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-DEC-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G1201473818          Analyst initials: MJH1            *
* Batch Number     : 708123               Sample Quantity : 1.4513E+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	1.227E-01	1.694E-01	1.107E-01	1.694E-01
RH-101	8.243E-04	1.616E-02	7.900E-03	1.616E-02
PA-234M	5.176E-01	2.513E+00	1.529E+00	2.513E+00
U-235	9.361E-03	8.233E-02	4.633E-02	8.233E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	5.108E-03	1.623E-02	1.396E-02	1.623E-02	NOT IDENT.
SB-125	3.864E-02	3.272E-02	2.944E-02	3.272E-02	NOT IDENT.
CS-137	1.473E-02	1.463E-02	1.318E-02	1.463E-02	NOT IDENT.
EU-155	5.394E-03	2.382E-02	2.208E-02	2.382E-02	NOT IDENT.
TL-208	-1.994E-02	1.920E-02	1.291E-02	1.920E-02	NOT IDENT.
PO-209	1.090E+00	2.937E+00	2.502E+00	2.937E+00	NOT IDENT.
BI-211	-1.642E-01	4.258E-01	3.507E-01	4.258E-01	NOT IDENT.
BI-212	-3.736E-02	1.347E-01	9.782E-02	1.347E-01	FAIL ABUN
PB-212	3.864E-03	3.188E-02	1.875E-02	3.188E-02	FAIL ABUN
BI-214	5.678E-03	3.867E-02	2.683E-02	3.867E-02	FAIL ABUN
PB-214	-5.840E-03	3.157E-02	2.314E-02	3.157E-02	NOT IDENT.
RA-223	4.979E-02	5.525E-02	5.124E-02	5.525E-02	NOT IDENT.
AC-228	4.965E-02	9.685E-02	5.620E-02	9.685E-02	FAIL ABUN
PA-233	-4.562E-03	2.107E-02	1.860E-02	2.107E-02	NOT IDENT.
TH-234	1.359E-02	2.090E-01	1.886E-01	2.090E-01	FAIL ABUN
NP-236	-7.078E-03	1.862E-02	1.239E-02	1.862E-02	NOT IDENT.
NP-237	-1.521E-01	4.912E-02	3.574E-02	4.912E-02	NOT IDENT.
NP-239	9.644E-02	7.305E-02	5.899E-02	7.305E-02	NOT IDENT.
AM-241	1.170E-03	1.592E-02	1.286E-02	1.592E-02	NOT IDENT.
AM-243	6.161E-04	8.537E-03	7.330E-03	8.537E-03	NOT IDENT.
CM-243	-8.360E-03	2.161E-02	1.970E-02	2.161E-02	NOT IDENT.
AM-246	2.409E-02	5.108E-02	4.482E-02	5.108E-02	NOT IDENT.
CF-249	3.313E-03	1.418E-02	1.244E-02	1.418E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	504.6461
63.29	549.4438
74.66	610.2375
74.81	619.0450
74.81	619.0450
77.11	615.3069
77.11	615.3069
86.48	705.8405
87.30	538.2852
87.30	538.2852
92.58	468.9195
98.44	455.1974
103.76	488.1165
105.31	476.8248
129.07	485.3659
143.76	468.9390
198.00	426.2713
209.25	471.3007
228.18	352.1031
238.63	443.4467
242.00	387.9429
269.46	372.7047
270.25	367.7540
277.36	353.0686
295.22	354.1530
300.09	399.2567
312.17	363.7107
338.32	315.1659
351.93	322.7868
387.59	313.8072
409.46	286.2207
427.87	255.4330
463.00	254.2260
510.77	271.2137
583.19	252.9680
609.31	252.4115
661.66	202.8305
727.33	234.1892
763.13	203.8781
768.36	199.2527
785.37	182.1991
794.95	183.0579
806.17	177.0377
831.80	191.6213
860.56	179.0701
896.60	147.9825
911.20	190.6873
934.06	142.9557
964.77	33.8467
968.97	33.9045
1001.03	160.2720
1078.86	118.9223
1120.29	124.7203
1155.19	128.2867
1173.23	135.1864
1238.11	117.5303
1280.96	92.6836
1332.51	115.5894
1377.67	95.7830
1401.50	96.4583
1407.98	75.9968
1460.80	74.2975
1509.23	80.1283
1588.20	67.0442
1620.50	64.6237
1729.60	50.0544
1764.49	54.7994

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1201473818

Total Uranium Activity	4.3314E-03	ug/g
Total Uranium Counting Unc.	3.8096E-02	ug/g
Total Uranium Tpu	3.8096E-08	ug/g
Total Uranium Mda	2.1437E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 00:58:24.26

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201473819.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 14-DEC-2007 16:37:24
Sample ID        : G1201473819          Sample quantity  : 1.35530E+02 GRAM
Detector name    : GAM17                Detector geometry: CAN
Elapsed live time: 0 08:20:00.00        Elapsed real time: 0 08:20:11.78  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708123               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*	106	763	0.83	93.73	90	7	3.52E-03	55.9	
2	0	53.66*	85	762	1.03	107.79	105	7	2.83E-03	63.2	
3	0	63.32*	197	1138	0.85	127.10	123	8	6.58E-03	37.4	
4	3	74.92*	1119	989	0.82	150.29	146	16	3.73E-02	5.5	3.32E+00
5	3	77.20*	1701	899	0.83	154.84	146	16	5.67E-02	3.9	
6	4	84.16*	304	1155	1.33	168.75	165	30	1.01E-02	21.4	5.87E+00
7	4	87.33*	672	937	1.11	175.08	165	30	2.24E-02	9.0	
8	4	90.05	468	750	0.95	180.51	165	30	1.56E-02	10.3	
9	4	92.79*	815	787	1.14	185.99	165	30	2.72E-02	9.1	
10	0	99.13*	168	864	1.82	198.67	195	8	5.61E-03	34.0	
11	0	105.29*	69	674	0.93	210.96	209	6	2.31E-03	68.6	
12	0	108.60	138	784	1.31	217.58	215	7	4.61E-03	34.6	
13	0	128.81	124	886	0.93	257.97	255	8	4.15E-03	42.3	
14	0	143.69*	13	736	1.03	287.70	284	7	4.25E-04	421.9	
15	0	154.23	97	856	1.01	308.75	304	9	3.23E-03	55.5	
16	0	186.04*	386	928	1.03	372.32	368	10	1.29E-02	17.4	
17	0	198.19*	12	592	1.32	396.61	395	7	4.00E-04	386.9	
18	0	209.53	338	734	1.10	419.25	415	10	1.13E-02	16.0	
19	0	216.64	26	451	1.22	433.46	431	6	8.76E-04	129.3	
20	6	238.76*	2757	441	0.98	477.66	471	17	9.19E-02	2.5	5.44E+00
21	6	241.77	607	526	1.63	483.69	471	17	2.02E-02	7.8	
22	0	270.38	284	451	1.49	540.87	537	9	9.46E-03	14.7	
23	0	278.18	186	451	0.90	556.45	552	9	6.21E-03	21.9	
24	0	287.78*	34	278	0.69	575.63	573	6	1.13E-03	90.3	
25	0	295.33*	618	450	1.17	590.72	586	9	2.06E-02	8.1	
26	0	300.29	163	449	1.04	600.63	596	9	5.42E-03	24.9	
27	0	327.85	108	380	0.77	655.71	652	8	3.59E-03	32.8	
28	2	336.08	47	70	1.40	672.15	671	17	1.58E-03	24.0	2.49E+00
29	2	338.47*	554	218	1.05	676.94	671	17	1.85E-02	7.2	
30	2	341.05*	14	338	1.48	682.08	671	17	4.54E-04	290.5	
31	0	352.07*	1064	612	1.18	704.11	698	13	3.55E-02	6.1	
32	0	408.93	12	292	0.86	817.73	816	7	3.93E-04	242.9	
33	0	463.06	177	350	1.44	925.91	921	12	5.90E-03	22.4	
34	0	511.01*	221	340	2.18	1021.76	1016	14	7.37E-03	26.1	
35	0	583.28*	797	222	1.33	1166.18	1161	11	2.66E-02	5.4	
36	0	598.81*	65	352	4.83	1197.22	1188	17	2.18E-03	70.5	
37	0	609.38*	810	272	1.31	1218.36	1212	13	2.70E-02	6.1	
38	0	661.76*	192	195	1.40	1323.04	1317	12	6.39E-03	17.8	

Sample ID : G1201473819 Acquisition date : 14-DEC-2007 16:37:24

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	665.30	18	220	3.71	1330.12	1329	11	5.90E-04	163.3	
40	0	727.24	248	188	1.11	1453.93	1448	12	8.28E-03	12.8	
41	0	768.04	123	170	2.25	1535.47	1530	11	4.09E-03	22.5	
42	0	772.05	45	134	2.04	1543.49	1541	8	1.50E-03	46.7	
43	0	787.52	22	224	3.82	1574.40	1566	13	7.44E-04	140.6	
44	0	794.94	94	161	1.16	1589.24	1586	11	3.15E-03	27.9	
45	0	860.51	128	161	2.10	1720.30	1714	14	4.27E-03	22.8	
46	0	911.31*	546	133	1.44	1821.85	1815	13	1.82E-02	6.6	
47	0	936.42	39	231	1.92	1872.04	1861	18	1.31E-03	92.5	
48	1	964.80	112	97	1.76	1928.78	1924	20	3.75E-03	18.9	1.26E+00
49	1	969.08*	327	73	1.74	1937.33	1924	20	1.09E-02	8.2	
50	0	1001.39*	15	88	0.76	2001.91	1998	8	4.94E-04	151.4	
51	0	1120.05*	139	143	1.40	2239.12	2232	15	4.62E-03	23.3	
52	0	1238.03	61	139	1.77	2474.99	2471	12	2.04E-03	40.6	
53	0	1281.07*	19	59	3.26	2561.03	2554	12	6.30E-04	116.7	
54	0	1314.16	52	307	20.73	2627.20	2584	46	1.73E-03	121.0	
55	0	1378.41	84	67	1.42	2755.65	2748	16	2.80E-03	24.5	
56	0	1415.68	6	41	1.33	2830.17	2824	8	1.84E-04	204.5	
57	0	1424.86	36	28	4.20	2848.53	2843	11	1.20E-03	33.7	
58	0	1460.81*	980	49	1.95	2920.42	2911	17	3.27E-02	3.8	
59	0	1532.27	32	29	5.61	3063.28	3057	14	1.08E-03	39.0	
60	0	1590.37	70	77	5.09	3179.46	3171	19	2.33E-03	32.2	
61	0	1661.86	18	24	4.06	3322.41	3315	12	6.13E-04	58.0	
62	0	1683.79	17	10	0.90	3366.26	3362	8	5.70E-04	41.7	
63	0	1764.65*	132	31	2.04	3527.97	3519	15	4.39E-03	14.6	
64	0	1813.55	13	29	5.65	3625.74	3612	17	4.37E-04	99.0	
65	0	1847.40*	31	27	0.78	3693.44	3682	18	1.03E-03	50.9	
66	0	1881.28	13	25	2.21	3761.19	3754	11	4.49E-04	76.5	
67	0	1955.21	9	17	1.34	3909.04	3903	10	3.01E-04	92.4	

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]G1201473819      *
* Acquisition date : 14-DEC-2007 16:37:24 Detector SN#    :                 *
* Detector ID      : GAM17                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 08:20:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 08:20:11.78     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G1201473819          Analyst initials: MJH1            *
* Batch Number     : 708123               Sample Quantity : 1.3553E+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	6.847E+00	6.227E-01	2.305E-01	0.000E+00
RH-101	2.237E-03	1.696E-02	2.100E-02	0.000E+00
CS-137	8.397E-02	2.995E-02	2.609E-02	0.000E+00
EU-155	3.272E-02	4.406E-02	6.040E-02	0.000E+00
TL-208	3.114E-01	3.931E-02	2.649E-02	0.000E+00
BI-212	8.535E-01	2.220E-01	2.062E-01	0.000E+00
PB-212	9.571E-01	8.789E-02	3.746E-02	0.000E+00
BI-214	6.044E-01	8.376E-02	4.859E-02	0.000E+00
PB-214	5.862E-01	7.951E-02	4.665E-02	0.000E+00
RA-223	3.432E-01	1.024E-01	1.164E-01	0.000E+00
AC-228	1.055E+00	1.538E-01	1.048E-01	0.000E+00
PA-234M	9.556E-01	2.837E+00	3.441E+00	0.000E+00
TH-234	1.436E+00	2.754E-01	2.579E-01	0.000E+00
U-235	1.276E-02	1.055E-01	1.257E-01	0.000E+00
NP-236	4.274E-02	2.869E-02	2.936E-02	0.000E+00
NP-237	5.125E-01	9.663E-02	1.110E-01	0.000E+00
AM-243	1.539E-01	1.919E-02	2.130E-02	0.000E+00
CM-243	2.962E-02	3.988E-02	5.187E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error	MDA (pCi/GRAM)		Ided
CO-60	-1.854E-03	1.943E-02	3.217E-02	0.000E+00	NOT IDENT.
SB-125	-7.250E-03	3.939E-02	6.773E-02	0.000E+00	NOT IDENT.
PO-209	-1.433E+00	3.449E+00	5.762E+00	0.000E+00	NOT IDENT.
BI-211	-1.308E-01	4.669E-01	7.926E-01	0.000E+00	NOT IDENT.
PA-233	1.644E-03	2.426E-02	4.322E-02	0.000E+00	NOT IDENT.
NP-239	1.523E-02	8.339E-02	1.423E-01	0.000E+00	NOT IDENT.
AM-241	1.926E-02	2.116E-02	3.621E-02	0.000E+00	NOT IDENT.
AM-246	6.312E-03	5.978E-02	1.012E-01	0.000E+00	NOT IDENT.
CF-249	3.801E-03	1.629E-02	2.872E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 00:58:25.20

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201473819.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 14-DEC-2007 16:37:24
Sample ID        : G1201473819          Sample quantity  : 1.35530E+02 GRAM
Detector name    : GAM17                Detector geometry: CAN
Elapsed live time: 0 08:20:00.00        Elapsed real time: 0 08:20:11.78  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708123               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	980	10.66*	8.924E-01	6.847E+00	6.847E+00	9.28
RH-101	198.00	12	73.00*	5.047E+00	2.164E-03	2.237E-03	773.81
CS-137	661.66	192	85.10*	1.790E+00	8.366E-02	8.397E-02	36.40
EU-155	105.31	69	21.20*	6.796E+00	3.201E-02	3.272E-02	137.40
TL-208	277.36	186	6.31	3.923E+00	4.999E-01	4.999E-01	44.44
	510.77	221	22.60	2.281E+00	2.850E-01	2.850E-01	52.60
	583.19	797	84.50*	2.015E+00	3.114E-01	3.114E-01	12.88
	763.13	------	1.81	1.568E+00	------	Line Not Found	------
	860.56	128	12.42	1.404E+00	4.878E-01	4.878E-01	46.14
BI-212	727.33	248	11.80*	1.639E+00	8.535E-01	8.535E-01	26.55
	785.37	------	1.10	1.527E+00	------	Line Not Found	------
	1620.50	------	1.49	8.223E-01	------	Line Not Found	------
PB-212	74.81	1119	10.40	7.088E+00	1.009E+00	1.009E+00	12.72
	77.11	1701	17.50	7.087E+00	9.117E-01	9.117E-01	10.22
	87.30	672	7.81	7.032E+00	8.137E-01	8.137E-01	19.24
	238.63	2757	43.30*	4.422E+00	9.571E-01	9.571E-01	9.37
	300.09	163	3.28	3.682E+00	8.952E-01	8.952E-01	50.27
BI-214	609.31	810	46.10*	1.933E+00	6.043E-01	6.044E-01	14.14
	768.36	123	4.94	1.558E+00	1.061E+00	1.061E+00	45.52
	806.17	------	1.22	1.490E+00	------	Line Not Found	------
	934.06	------	3.03	1.304E+00	------	Line Not Found	------
	1120.29	139	15.10	1.113E+00	5.482E-01	5.483E-01	47.03
	1155.19	------	1.63	1.083E+00	------	Line Not Found	------
	1238.11	61	5.79	1.022E+00	6.865E-01	6.865E-01	81.30
	1280.96	19	1.43	9.932E-01	8.838E-01	8.839E-01	233.55
	1377.67	84	4.00	9.352E-01	1.494E+00	1.494E+00	49.21
	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	132	15.40	7.701E-01	7.388E-01	7.389E-01	29.79
PB-214	74.81	1119	6.44	7.088E+00	1.629E+00	1.630E+00	12.72

Sample ID : G1201473819 Acquisition date : 14-DEC-2007 16:37:24

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	1701	10.80	7.087E+00	1.477E+00	1.477E+00	10.22
	87.30	672	4.84	7.032E+00	1.313E+00	1.313E+00	19.24
	242.00	607	7.43	4.381E+00	1.241E+00	1.241E+00	17.53
	295.22	618	19.30	3.734E+00	5.698E-01	5.698E-01	17.82
	351.93	1064	37.60*	3.210E+00	5.861E-01	5.862E-01	13.84
RA-223	269.46	284	13.70*	4.014E+00	3.432E-01	3.432E-01	30.46
AC-228	129.07	124	2.42	6.362E+00	5.374E-01	5.374E-01	85.14
	209.25	338	3.89	4.861E+00	1.189E+00	1.189E+00	33.00
	270.25	284	3.46	4.014E+00	1.359E+00	1.359E+00	30.46
	338.32	554	11.27	3.323E+00	9.836E-01	9.836E-01	15.97
	409.46	12	1.92	2.805E+00	1.453E-01	1.453E-01	485.91
	463.00	177	4.40	2.501E+00	1.070E+00	1.070E+00	45.17
	794.95	94	4.25	1.510E+00	9.779E-01	9.779E-01	56.26
	911.20	546	25.80*	1.334E+00	1.055E+00	1.055E+00	14.87
	964.77	112	4.99	1.267E+00	1.182E+00	1.182E+00	38.44
	968.97	327	15.80	1.262E+00	1.091E+00	1.091E+00	17.67
	1588.20	------	3.22	8.353E-01	------	Line Not Found	------
PA-234M	1001.03	15	0.84*	1.226E+00	9.556E-01	9.556E-01	302.96
TH-234	63.29	197	4.80	7.001E+00	3.902E-01	3.902E-01	75.02
	92.58	815	5.41*	6.975E+00	1.436E+00	1.436E+00	19.57
U-235	143.76	13	10.96*	6.066E+00	1.276E-02	1.276E-02	843.88
NP-236	98.44	168	38.00*	6.891E+00	4.274E-02	4.274E-02	68.50
NP-237	86.48	672	12.40*	7.032E+00	5.125E-01	5.125E-01	19.24
AM-243	74.66	1119	68.20*	7.088E+00	1.539E-01	1.539E-01	12.72
CM-243	103.76	69	23.00*	6.796E+00	2.950E-02	2.962E-02	137.40

Flag: "*" = Keyline

Sample ID : G1201473819 Acquisition date : 14-DEC-2007 16:37:24

Total number of lines in spectrum 67
Number of unidentified lines 28
Number of lines tentatively identified by NID 39 58.21%

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	6.847E+00	6.847E+00	0.635E+00	9.28	
RH-101	1.04E+08S	1.03	2.164E-03	2.237E-03	17.31E-03	773.81	
CS-137	9.47E+08S	1.00	8.366E-02	8.397E-02	3.056E-02	36.40	
EU-155	1.57E+08S	1.02	3.201E-02	3.272E-02	4.496E-02	137.40	
TL-208	4.43E+17S	1.00	3.114E-01	3.114E-01	0.401E-01	12.88	
BI-212	4.43E+17S	1.00	8.535E-01	8.535E-01	2.266E-01	26.55	
PB-212	4.43E+17S	1.00	9.571E-01	9.571E-01	0.897E-01	9.37	
BI-214	5.05E+10S	1.00	6.043E-01	6.044E-01	0.855E-01	14.14	
PB-214	5.05E+10S	1.00	5.861E-01	5.862E-01	0.811E-01	13.84	
RA-223	1.04E+12S	1.00	3.432E-01	3.432E-01	1.045E-01	30.46	
AC-228	4.43E+17S	1.00	1.055E+00	1.055E+00	0.157E+00	14.87	
PA-234M	1.41E+17S	1.00	9.556E-01	9.556E-01	28.95E-01	302.96	
TH-234	1.41E+17S	1.00	1.436E+00	1.436E+00	0.281E+00	19.57	
U-235	2.22E+16S	1.00	1.276E-02	1.276E-02	10.77E-02	843.88	
NP-236	4.89E+12S	1.00	4.274E-02	4.274E-02	2.928E-02	68.50	
NP-237	6.75E+13S	1.00	5.125E-01	5.125E-01	0.986E-01	19.24	
AM-243	2.33E+11S	1.00	1.539E-01	1.539E-01	0.196E-01	12.72	
CM-243	8.99E+08S	1.00	2.950E-02	2.962E-02	4.070E-02	137.40	
		Total Activity :	1.482E+01	1.482E+01			
		Grand Total Activity :	1.482E+01	1.482E+01			

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

Sample ID : G1201473819 Acquisition date : 14-DEC-2007 16:37:24

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.62	106	763	0.83	93.73	90	7	3.52E-03	****	6.48E+00	
0	53.66	85	762	1.03	107.79	105	7	2.83E-03	****	6.77E+00	
4	84.16	304	1155	1.33	168.75	165	30	1.01E-02	42.8	7.06E+00	
4	90.05	468	750	0.95	180.51	165	30	1.56E-02	20.6	7.01E+00	
0	108.60	138	784	1.31	217.58	215	7	4.61E-03	69.2	6.74E+00	
0	154.23	97	856	1.01	308.75	304	9	3.23E-03	****	5.86E+00	
0	186.04	386	928	1.03	372.32	368	10	1.29E-02	34.9	5.26E+00	
0	216.64	26	451	1.22	433.46	431	6	8.76E-04	****	4.75E+00	
0	287.78	34	278	0.69	575.63	573	6	1.13E-03	****	3.82E+00	
0	327.85	108	380	0.77	655.71	652	8	3.59E-03	65.7	3.42E+00	
2	336.08	47	70	1.40	672.15	671	17	1.58E-03	48.0	3.34E+00	
2	341.05	14	338	1.48	682.08	671	17	4.54E-04	****	3.30E+00	
0	598.81	65	352	4.83	1197.22	1188	17	2.18E-03	****	1.97E+00	
0	665.30	18	220	3.71	1330.12	1329	11	5.90E-04	****	1.78E+00	
0	772.05	45	134	2.04	1543.49	1541	8	1.50E-03	93.5	1.55E+00	
0	787.52	22	224	3.82	1574.40	1566	13	7.44E-04	****	1.52E+00	
0	936.42	39	231	1.92	1872.04	1861	18	1.31E-03	****	1.30E+00	
0	1314.16	52	307	20.73	2627.20	2584	46	1.73E-03	****	9.73E-01	
0	1415.68	6	41	1.33	2830.17	2824	8	1.84E-04	****	9.15E-01	
0	1424.86	36	28	4.20	2848.53	2843	11	1.20E-03	67.4	9.10E-01	
0	1532.27	32	29	5.61	3063.28	3057	14	1.08E-03	78.0	8.59E-01	
0	1590.37	70	77	5.09	3179.46	3171	19	2.33E-03	64.5	8.34E-01	
0	1661.86	18	24	4.06	3322.41	3315	12	6.13E-04	****	8.06E-01	
0	1683.79	17	10	0.90	3366.26	3362	8	5.70E-04	83.5	7.98E-01	
0	1813.55	13	29	5.65	3625.74	3612	17	4.37E-04	****	7.54E-01	
0	1847.40	31	27	0.78	3693.44	3682	18	1.03E-03	****	7.44E-01	
0	1881.28	13	25	2.21	3761.19	3754	11	4.49E-04	****	7.34E-01	
0	1955.21	9	17	1.34	3909.04	3903	10	3.01E-04	****	7.13E-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]G1201473819          *
* Acquisition date : 14-DEC-2007 16:37:24 Detector SN#    :                *
* Detector ID      : GAM17                Sensitivity     : 3.000          *
* Geometry         : CAN                  Energy tolerance: 2.000          *
* Elapsed live time:    0 08:20:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 08:20:11.78     Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G1201473819          Analyst initials: MJH1            *
* Batch Number     : 708123               Sample Quantity : 1.3553E+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	6.847E+00	6.227E-01	1.153E-01	6.227E-01
RH-101	2.237E-03	1.696E-02	1.050E-02	1.696E-02
CS-137	8.397E-02	2.995E-02	1.305E-02	2.995E-02
EU-155	3.272E-02	4.406E-02	3.022E-02	4.406E-02
TL-208	3.114E-01	3.931E-02	1.325E-02	3.931E-02
BI-212	8.535E-01	2.220E-01	1.031E-01	2.220E-01
PB-212	9.571E-01	8.789E-02	1.874E-02	8.789E-02
BI-214	6.044E-01	8.376E-02	2.431E-02	8.376E-02
PB-214	5.862E-01	7.951E-02	2.334E-02	7.951E-02
RA-223	3.432E-01	1.024E-01	5.822E-02	1.024E-01
AC-228	1.055E+00	1.538E-01	5.243E-02	1.538E-01
PA-234M	9.556E-01	2.837E+00	1.722E+00	2.837E+00
TH-234	1.436E+00	2.754E-01	1.290E-01	2.754E-01
U-235	1.276E-02	1.055E-01	6.289E-02	1.055E-01
NP-236	4.274E-02	2.869E-02	1.469E-02	2.869E-02
NP-237	5.125E-01	9.663E-02	5.553E-02	9.663E-02
AM-243	1.539E-01	1.919E-02	1.065E-02	1.919E-02
CM-243	2.962E-02	3.988E-02	2.595E-02	3.988E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	-1.854E-03	1.943E-02	1.609E-02	1.943E-02	NOT IDENT.
SB-125	-7.250E-03	3.939E-02	3.389E-02	3.939E-02	NOT IDENT.
PO-209	-1.433E+00	3.449E+00	2.883E+00	3.449E+00	NOT IDENT.
BI-211	-1.308E-01	4.669E-01	3.965E-01	4.669E-01	NOT IDENT.
PA-233	1.644E-03	2.426E-02	2.162E-02	2.426E-02	NOT IDENT.
NP-239	1.523E-02	8.339E-02	7.117E-02	8.339E-02	NOT IDENT.
AM-241	1.926E-02	2.116E-02	1.812E-02	2.116E-02	NOT IDENT.
AM-246	6.312E-03	5.978E-02	5.063E-02	5.978E-02	NOT IDENT.
CF-249	3.801E-03	1.629E-02	1.437E-02	1.629E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	680.4793
63.29	785.1632
74.66	990.2043
74.81	990.5301
74.81	990.5301
77.11	995.5106
77.11	995.5106
86.48	881.5751
87.30	883.0170
87.30	883.0170
92.58	892.1355
98.44	559.3567
103.76	621.2073
105.31	685.1891
129.07	682.7797
143.76	667.5379
198.00	542.2977
209.25	501.8018
228.18	465.2881
238.63	501.4980
242.00	417.7924
269.46	402.6873
270.25	378.1823
277.36	412.4789
295.22	384.5453
300.09	377.5888
312.17	344.0508
338.32	318.2053
351.93	313.1312
387.59	297.4366
409.46	243.1751
427.87	279.1348
463.00	248.4360
510.77	219.5650
583.19	204.6914
609.31	189.0571
661.66	158.4800
727.33	161.2256
763.13	143.9911
768.36	138.1531
785.37	142.1740
794.95	142.7056
806.17	143.9464
831.80	155.7268
860.56	129.7246
896.60	150.7289
911.20	133.0465
934.06	105.7087
964.77	103.8362
968.97	103.9797
1001.03	129.0850
1078.86	104.5699
1120.29	107.9406
1155.19	109.0324
1173.23	120.1286
1238.11	116.2150
1280.96	84.9924
1332.51	78.0653
1377.67	65.7911
1401.50	67.1074
1407.98	57.2554
1460.80	50.1037
1509.23	53.5345
1588.20	55.0430
1620.50	33.3138
1729.60	44.1038
1764.49	32.8789

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1201473819

Total Uranium Activity	5.9041E-03	ug/g
Total Uranium Counting Unc.	4.8827E-02	ug/g
Total Uranium Tpu	4.8827E-08	ug/g
Total Uranium Mda	2.9097E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 14-DEC-2007 17:01:19.27

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201473820.CNF;1
Sample date      : 5-DEC-2007 00:00:00. Acquisition date : 14-DEC-2007 16:00:46
Sample ID        : G1201473820          Sample quantity  : 1.55440E+02 GRAM
Detector name    : GAM23                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00        Elapsed real time: 0 01:00:04.32  0.1%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708123               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	59.56	2235	763	0.81	119.08	114	10	6.21E-01	3.1	
2	2	74.86	100	555	0.98	149.67	145	14	2.77E-02	38.7	1.55E+00
3	2	77.14*	186	478	0.80	154.23	145	14	5.17E-02	18.9	
4	3	88.10	4276	398	0.85	176.16	170	13	1.19E+00	1.7	4.34E+00
5	3	89.99	53	286	0.85	179.95	170	13	1.47E-02	87.6	
6	0	92.78*	96	353	1.19	185.51	182	7	2.68E-02	34.8	
7	0	116.26	43	352	0.92	232.49	229	7	1.21E-02	73.1	
8	0	122.10	1635	453	0.91	244.17	240	9	4.54E-01	3.4	
9	0	136.28	243	316	0.98	272.53	269	9	6.74E-02	14.7	
10	2	163.72	33	199	1.20	327.42	325	11	9.26E-03	64.6	1.62E+00
11	2	165.90	779	235	0.96	331.77	325	11	2.16E-01	4.7	
12	0	185.94*	91	419	1.08	371.86	367	11	2.54E-02	45.1	
13	2	237.09*	18	31	0.91	474.17	473	8	4.98E-03	39.7	5.62E-01
14	2	238.63*	425	209	0.93	477.27	473	8	1.18E-01	7.4	
15	5	241.31	58	139	0.96	482.62	481	7	1.62E-02	31.6	3.57E+00
16	5	242.57	50	160	0.88	485.14	481	7	1.40E-02	43.2	
17	0	251.02	13	295	0.67	502.05	497	9	3.49E-03	248.6	
18	0	279.35	36	187	0.88	558.71	556	7	9.90E-03	65.7	
19	0	295.18*	82	187	1.05	590.38	587	7	2.29E-02	30.2	
20	0	337.94	78	236	1.33	675.92	672	9	2.17E-02	37.3	
21	0	351.87*	181	312	1.43	703.79	697	14	5.02E-02	22.2	
22	0	391.60	426	236	1.21	783.27	776	12	1.18E-01	8.7	
23	0	407.83	61	182	2.09	815.74	811	11	1.68E-02	45.0	
24	0	455.70	25	172	1.62	911.49	905	10	6.94E-03	100.4	
25	0	510.15*	4	217	1.18	1020.44	1016	11	1.05E-03	795.1	
26	0	569.61*	3	144	1.28	1139.39	1134	12	8.32E-04	888.6	
27	0	583.09*	151	111	1.53	1166.34	1161	11	4.21E-02	16.0	
28	0	609.15*	112	169	1.28	1218.48	1213	12	3.12E-02	25.5	
29	0	661.42*	2089	212	1.45	1323.06	1315	16	5.80E-01	2.7	
30	0	708.37	26	190	5.23	1417.00	1401	18	7.09E-03	129.2	
31	0	722.67*	45	108	0.94	1445.61	1442	10	1.26E-02	45.9	
32	0	774.99	15	67	1.27	1550.28	1545	8	4.20E-03	98.5	
33	0	788.29	21	138	3.06	1576.90	1566	13	5.73E-03	120.1	
34	0	847.62	29	144	5.22	1695.62	1684	15	8.08E-03	92.3	
35	0	897.61	372	168	1.26	1795.64	1789	14	1.03E-01	9.0	
36	0	910.32*	97	105	2.37	1821.06	1816	11	2.70E-02	22.9	
37	0	1019.95	34	50	2.41	2040.43	2037	8	9.40E-03	40.5	
38	0	1063.85*	2	178	1.87	2128.27	2120	20	6.74E-04	*****	
39	0	1172.71	2211	106	1.89	2346.10	2338	18	6.14E-01	2.4	

Sample ID : G1201473820 Acquisition date : 14-DEC-2007 16:00:46

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
40	0	1331.90	1939	63	2.04	2664.68	2656	20	5.39E-01	2.5	
41	0	1405.30	11	36	7.34	2811.56	2787	29	3.06E-03	159.6	
42	0	1478.57	7	9	2.56	2958.21	2951	12	1.89E-03	96.3	
43	0	1590.48	25	12	5.44	3182.18	3174	16	7.02E-03	36.5	
44	0	1730.84	19	6	2.96	3463.10	3456	14	5.27E-03	37.1	
45	0	1764.67	16	9	1.80	3530.81	3526	10	4.46E-03	44.1	
46	0	1769.87*	7	6	0.69	3541.24	3535	11	1.98E-03	84.1	
47	0	1835.42	192	5	2.10	3672.43	3664	18	5.34E-02	7.7	

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]G1201473820      *
* Acquisition date : 14-DEC-2007 16:00:46 Detector SN#    :                 *
* Detector ID      : GAM23                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 01:00:04.32     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-DEC-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G1201473820          Analyst initials: MJH1            *
* Batch Number     : 708123               Sample Quantity : 1.5544E+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    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
CO-60	8.553E+00	6.218E-01	1.487E-01	0.000E+00
CS-137	5.643E+00	4.415E-01	1.411E-01	0.000E+00
TL-208	3.697E-01	1.176E-01	1.330E-01	0.000E+00
PO-209	2.386E+02	4.627E+01	3.547E+01	0.000E+00
PB-212	9.950E-01	1.546E-01	2.104E-01	0.000E+00
PB-214	6.571E-01	2.881E-01	2.383E-01	0.000E+00
NP-237	3.062E+01	2.456E+00	8.445E-01	0.000E+00
AM-241	1.427E+01	1.410E+00	6.353E-01	0.000E+00
AM-243	1.701E-01	1.297E-01	1.902E-01	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error	MDA (pCi/GRAM)		Ided
K-40	5.628E-01	6.302E-01	1.217E+00	0.000E+00	NOT IDENT.
RH-101	1.037E-02	5.289E-02	9.349E-02	0.000E+00	NOT IDENT.
SB-125	-1.330E-01	1.954E-01	3.283E-01	0.000E+00	NOT IDENT.
EU-155	1.885E-02	1.629E-01	3.060E-01	0.000E+00	NOT IDENT.
BI-211	-7.278E-01	2.637E+00	4.424E+00	0.000E+00	NOT IDENT.
BI-212	1.908E-01	7.471E-01	1.150E+00	0.000E+00	NOT IDENT.
BI-214	0.000E+00	2.619E-01	3.526E-01	0.000E+00	FAIL ABUN
RA-223	9.196E-03	3.521E-01	6.016E-01	0.000E+00	NOT IDENT.
AC-228	0.000E+00	5.255E-01	8.197E-01	0.000E+00	FAIL ABUN
PA-233	6.335E-02	1.213E-01	2.242E-01	0.000E+00	NOT IDENT.
PA-234M	-3.562E+00	1.248E+01	2.054E+01	0.000E+00	NOT IDENT.
TH-234	1.495E+00	1.024E+00	1.568E+00	0.000E+00	FAIL ABUN
U-235	-1.204E-01	3.066E-01	5.460E-01	0.000E+00	NOT IDENT.
NP-236	9.676E-02	9.615E-02	1.869E-01	0.000E+00	NOT IDENT.
NP-239	-4.295E-01	4.108E-01	6.768E-01	0.000E+00	NOT IDENT.
CM-243	6.296E-02	1.517E-01	2.883E-01	0.000E+00	NOT IDENT.
AM-246	2.483E-02	3.610E-01	6.277E-01	0.000E+00	NOT IDENT.
CF-249	6.328E-02	8.868E-02	1.447E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 14-DEC-2007 17:01:20.11

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201473820.CNF;1
Sample date      : 5-DEC-2007 00:00:00. Acquisition date : 14-DEC-2007 16:00:46
Sample ID        : G1201473820          Sample quantity  : 1.55440E+02 GRAM
Detector name    : GAM23                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00        Elapsed real time: 0 01:00:04.32  0.1%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708123               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
CO-60	1173.23	2211	100.00*	1.253E+00	8.523E+00	8.553E+00	7.42
	1332.51	1939	100.00	1.120E+00	8.365E+00	8.394E+00	8.80
CS-137	661.66	2089	85.10*	2.103E+00	5.639E+00	5.643E+00	7.98
TL-208	277.36	36	6.31	4.230E+00	6.447E-01	6.447E-01	131.51
	510.77	4	22.60	2.617E+00	3.089E-02	3.089E-02	1590.22
	583.19	151	84.50*	2.341E+00	3.697E-01	3.697E-01	32.46
	763.13	------	1.81	1.854E+00	------	Line Not Found	------
	860.56	------	12.42	1.664E+00	------	Line Not Found	------
PO-209	896.60	372	0.47*	1.601E+00	2.385E+02	2.386E+02	19.79
PB-212	74.81	100	10.40	4.154E+00	1.116E+00	1.116E+00	77.80
	77.11	186	17.50	4.416E+00	1.163E+00	1.163E+00	38.51
	87.30	4276	7.81	5.439E+00	4.862E+01	4.862E+01	8.18
	238.63	425	43.30*	4.767E+00	9.950E-01	9.950E-01	15.86
	300.09	------	3.28	4.001E+00	------	Line Not Found	------
PB-214	74.81	100	6.44	4.154E+00	1.801E+00	1.802E+00	77.80
	77.11	186	10.80	4.416E+00	1.885E+00	1.885E+00	38.51
	87.30	4276	4.84	5.439E+00	7.846E+01	7.846E+01	8.18
	242.00	50	7.43	4.709E+00	6.964E-01	6.964E-01	86.53
	295.22	82	19.30	4.053E+00	5.080E-01	5.080E-01	60.76
	351.93	181	37.60*	3.530E+00	6.571E-01	6.571E-01	44.73
NP-237	86.48	4276	12.40*	5.439E+00	3.062E+01	3.062E+01	8.18
AM-241	59.54	2235	35.90*	2.106E+00	1.427E+01	1.427E+01	10.08
AM-243	74.66	100	68.20*	4.154E+00	1.701E-01	1.701E-01	77.80

Flag: "*" = Keyline

Sample ID : G1201473820 Acquisition date : 14-DEC-2007 16:00:46

Total number of lines in spectrum	47	
Number of unidentified lines	25	
Number of lines tentatively identified by NID	22	46.81%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
CO-60	1.66E+08S	1.00	8.523E+00	8.553E+00	0.634E+00	7.42	
CS-137	9.47E+08S	1.00	5.639E+00	5.643E+00	0.451E+00	7.98	
TL-208	4.43E+17S	1.00	3.697E-01	3.697E-01	1.200E-01	32.46	
PO-209	3.22E+09S	1.00	2.385E+02	2.386E+02	0.472E+02	19.79	
PB-212	4.43E+17S	1.00	9.950E-01	9.950E-01	1.578E-01	15.86	
PB-214	5.05E+10S	1.00	6.571E-01	6.571E-01	2.939E-01	44.73	
NP-237	6.75E+13S	1.00	3.062E+01	3.062E+01	0.251E+01	8.18	
AM-241	1.36E+10S	1.00	1.427E+01	1.427E+01	0.144E+01	10.08	
AM-243	2.33E+11S	1.00	1.701E-01	1.701E-01	1.323E-01	77.80	
			---	---			
		Total Activity :	2.998E+02	2.999E+02			
		Grand Total Activity :	2.998E+02	2.999E+02			

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

Sample ID : G1201473820 Acquisition date : 14-DEC-2007 16:00:46

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
3	89.99	53	286	0.85	179.95	170	13	1.47E-02	****	5.58E+00	
0	92.78	96	353	1.19	185.51	182	7	2.68E-02	69.5	5.76E+00	T
0	116.26	43	352	0.92	232.49	229	7	1.21E-02	****	6.51E+00	
0	122.10	1635	453	0.91	244.17	240	9	4.54E-01	6.8	6.54E+00	
0	136.28	243	316	0.98	272.53	269	9	6.74E-02	29.5	6.48E+00	
2	163.72	33	199	1.20	327.42	325	11	9.26E-03	****	6.07E+00	
2	165.90	779	235	0.96	331.77	325	11	2.16E-01	9.5	6.03E+00	
0	185.94	91	419	1.08	371.86	367	11	2.54E-02	90.3	5.66E+00	
2	237.09	18	31	0.91	474.17	473	8	4.98E-03	79.3	4.79E+00	
5	241.31	58	139	0.96	482.62	481	7	1.62E-02	63.2	4.73E+00	
0	251.02	13	295	0.67	502.05	497	9	3.49E-03	****	4.59E+00	
0	337.94	78	236	1.33	675.92	672	9	2.17E-02	74.5	3.64E+00	T
0	391.60	426	236	1.21	783.27	776	12	1.18E-01	17.3	3.24E+00	
0	407.83	61	182	2.09	815.74	811	11	1.68E-02	90.0	3.14E+00	T
0	455.70	25	172	1.62	911.49	905	10	6.94E-03	****	2.87E+00	
0	569.61	3	144	1.28	1139.39	1134	12	8.32E-04	****	2.39E+00	
0	609.15	112	169	1.28	1218.48	1213	12	3.12E-02	51.0	2.26E+00	T
0	708.37	26	190	5.23	1417.00	1401	18	7.09E-03	****	1.98E+00	
0	722.67	45	108	0.94	1445.61	1442	10	1.26E-02	91.9	1.95E+00	
0	774.99	15	67	1.27	1550.28	1545	8	4.20E-03	****	1.83E+00	
0	788.29	21	138	3.06	1576.90	1566	13	5.73E-03	****	1.80E+00	
0	847.62	29	144	5.22	1695.62	1684	15	8.08E-03	****	1.69E+00	
0	910.32	97	105	2.37	1821.06	1816	11	2.70E-02	45.8	1.58E+00	T
0	1019.95	34	50	2.41	2040.43	2037	8	9.40E-03	81.1	1.42E+00	
0	1063.85	2	178	1.87	2128.27	2120	20	6.74E-04	****	1.37E+00	
0	1405.30	11	36	7.34	2811.56	2787	29	3.06E-03	****	1.07E+00	
0	1478.57	7	9	2.56	2958.21	2951	12	1.89E-03	****	1.03E+00	
0	1590.48	25	12	5.44	3182.18	3174	16	7.02E-03	72.9	9.72E-01	
0	1730.84	19	6	2.96	3463.10	3456	14	5.27E-03	74.2	9.19E-01	T
0	1764.67	16	9	1.80	3530.81	3526	10	4.46E-03	88.2	9.09E-01	T
0	1769.87	7	6	0.69	3541.24	3535	11	1.98E-03	****	9.07E-01	
0	1835.42	192	5	2.10	3672.43	3664	18	5.34E-02	15.3	8.89E-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]G1201473820          *
* Acquisition date : 14-DEC-2007 16:00:46 Detector SN#    :                *
* Detector ID      : GAM23                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 01:00:04.32     Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-DEC-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G1201473820          Analyst initials: MJH1           *
* Batch Number     : 708123               Sample Quantity : 1.5544E+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
CO-60	8.553E+00	6.218E-01	7.438E-02	6.218E-01
CS-137	5.643E+00	4.415E-01	7.057E-02	4.415E-01
TL-208	3.697E-01	1.176E-01	6.652E-02	1.176E-01
PO-209	2.386E+02	4.627E+01	1.774E+01	4.627E+01
PB-212	9.950E-01	1.546E-01	1.053E-01	1.546E-01
PB-214	6.571E-01	2.881E-01	1.192E-01	2.881E-01
NP-237	3.062E+01	2.456E+00	4.225E-01	2.456E+00
AM-241	1.427E+01	1.410E+00	3.179E-01	1.410E+00
AM-243	1.701E-01	1.297E-01	9.515E-02	1.297E-01

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
K-40	5.628E-01	6.302E-01	6.087E-01	6.302E-01	NOT IDENT.
RH-101	1.037E-02	5.289E-02	4.677E-02	5.289E-02	NOT IDENT.
SB-125	-1.330E-01	1.954E-01	1.643E-01	1.954E-01	NOT IDENT.
EU-155	1.885E-02	1.629E-01	1.531E-01	1.629E-01	NOT IDENT.
BI-211	-7.278E-01	2.637E+00	2.213E+00	2.637E+00	NOT IDENT.
BI-212	1.908E-01	7.471E-01	5.753E-01	7.471E-01	NOT IDENT.
BI-214	5.210E-01	2.619E-01	1.764E-01	2.619E-01	FAIL ABUN
RA-223	9.196E-03	3.521E-01	3.010E-01	3.521E-01	NOT IDENT.
AC-228	1.152E+00	5.255E-01	4.101E-01	5.255E-01	FAIL ABUN
PA-233	6.335E-02	1.213E-01	1.122E-01	1.213E-01	NOT IDENT.
PA-234M	-3.562E+00	1.248E+01	1.027E+01	1.248E+01	NOT IDENT.
TH-234	1.495E+00	1.024E+00	7.844E-01	1.024E+00	FAIL ABUN
U-235	-1.204E-01	3.066E-01	2.732E-01	3.066E-01	NOT IDENT.
NP-236	9.676E-02	9.615E-02	9.351E-02	9.615E-02	NOT IDENT.
NP-239	-4.295E-01	4.108E-01	3.386E-01	4.108E-01	NOT IDENT.
CM-243	6.296E-02	1.517E-01	1.442E-01	1.517E-01	NOT IDENT.
AM-246	2.483E-02	3.610E-01	3.140E-01	3.610E-01	NOT IDENT.
CF-249	6.328E-02	8.868E-02	7.237E-02	8.868E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	379.6377
63.29	290.8240
74.66	478.8176
74.81	479.0466
74.81	479.0466
77.11	482.5303
77.11	482.5303
86.48	520.0806
87.30	521.2966
87.30	521.2966
92.58	263.2224
98.44	266.4843
103.76	272.7466
105.31	276.4381
129.07	259.2856
143.76	257.5317
198.00	225.7714
209.25	249.8342
228.18	274.0479
238.63	333.4290
242.00	219.3474
269.46	227.4446
270.25	209.1671
277.36	207.9849
295.22	192.5695
300.09	211.0006
312.17	182.4630
338.32	220.8856
351.93	180.3521
387.59	148.2380
409.46	165.3260
427.87	181.5463
463.00	179.2985
510.77	175.9054
583.19	128.1769
609.31	137.0691
661.66	118.6357
727.33	120.2319
763.13	118.0965
768.36	116.5480
785.37	105.3230
794.95	88.6725
806.17	111.4233
831.80	127.0879
860.56	116.2711
896.60	135.3108
911.20	146.7529
934.06	162.7803
964.77	192.9970
968.97	141.1877
1001.03	123.1672
1078.86	104.7084
1120.29	78.4932
1155.19	82.3438
1173.23	66.2762
1238.11	29.8633
1280.96	28.2495
1332.51	42.0160
1377.67	25.9613
1401.50	23.0026
1407.98	23.3449
1460.80	17.0085
1509.23	20.4635
1588.20	26.3857
1620.50	18.0511
1729.60	11.9496
1764.49	18.9318

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1201473820

Total Uranium Activity	-5.5728E-02	ug/g
Total Uranium Counting Unc.	1.4184E-01	ug/g
Total Uranium Tpu	1.4184E-07	ug/g
Total Uranium Mda	1.2639E-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 : 14-DEC-2007 09:42:30
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]	7.7762E+05	-0.88	
*DECAY CORRECTED ACTIVITY CS-137 [2.8570E+04+/-644.2]	2.8734E+04	0.25	
*DECAY CORRECTED ACTIVITY CO-60 [4.0735E+04+/-1358]	3.9507E+04	-0.90	
*DECAY CORRECTED ACTIVITY AM-241 [6.2918E+04+/-2452]	6.4122E+04	0.49	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7587E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3240E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6660E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.7903E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6183E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3328E+03	
*PEAK FWHM CD-109	9.2990E-01	1.7963E+00	1.2672E+00	
*PEAK FWHM CS-137	1.4326E+00	1.9580E+00	1.5929E+00	
*PEAK FWHM CO-60	1.8050E+00	2.2573E+00	1.7652E+00	Below
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1916E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9555E+01	
*PEAK FWHM AM-241	5.0000E-01	1.7500E+00	1.3116E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LL Approval Date: 12 / 14 / 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 : 14-DEC-2007 10:05:47
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:02.53

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [7.9829E+05+/-2.1783E+04]	7.8232E+05	-0.73	
*DECAY CORRECTED ACTIVITY CS-137 [2.5417E+04+/-441.8]	2.5538E+04	0.28	
*DECAY CORRECTED ACTIVITY CO-60 [4.0155E+04+/-741.6]	4.1102E+04	1.28	
*DECAY CORRECTED ACTIVITY AM-241 [6.6420E+04+/-1173]	6.5955E+04	-0.40	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7557E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3215E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6618E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8040E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6149E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3321E+03	
*PEAK FWHM CD-109	8.6870E-01	1.1641E+00	1.0434E+00	
*PEAK FWHM CS-137	1.3890E+00	1.5958E+00	1.5260E+00	
*PEAK FWHM CO-60	1.7960E+00	2.2545E+00	2.0720E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1860E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9526E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.0216E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LC Approval Date: 12 / 14 / 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 : 14-DEC-2007 04:36:23
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:04.24

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [9.4102E+05+/-1.5120E+04]	9.7646E+05	2.34	Investigate
*DECAY CORRECTED ACTIVITY CS-137 [2.7324E+04+/-449.6]	2.7062E+04	-0.58	
*DECAY CORRECTED ACTIVITY CO-60 [4.1154E+04+/-757.2]	4.0631E+04	-0.69	
*DECAY CORRECTED ACTIVITY AM-241 [6.9408E+04+/-815.5]	7.0408E+04	1.23	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7654E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3236E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6642E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.7903E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6190E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3332E+03	
*PEAK FWHM CD-109	1.0354E+00	1.2686E+00	1.1695E+00	
*PEAK FWHM CS-137	1.4355E+00	1.7081E+00	1.5189E+00	
*PEAK FWHM CO-60	1.7629E+00	2.2581E+00	1.9699E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1943E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9334E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.1284E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LL Approval Date: 12 / 14 / 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 : 14-DEC-2007 08:02:57
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]	8.1337E+05	-0.11	
*DECAY CORRECTED ACTIVITY CS-137 [2.4416E+04+/-658.7]	2.4183E+04	-0.35	
*DECAY CORRECTED ACTIVITY CO-60 [3.9594E+04+/-984.4]	3.9373E+04	-0.22	
*DECAY CORRECTED ACTIVITY AM-241 [6.6952E+04+/-3089]	6.3383E+04	-1.16	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7523E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3219E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6631E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.7622E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6141E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3322E+03	
*PEAK FWHM CD-109	8.8210E-01	1.1228E+00	1.0300E+00	
*PEAK FWHM CS-137	1.2904E+00	1.6432E+00	1.4987E+00	
*PEAK FWHM CO-60	1.6812E+00	2.2061E+00	1.9993E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1821E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9081E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.0773E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: U Approval Date: 12 / 14 / 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 : 14-DEC-2007 06:32:57
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]	7.5669E+05	-0.12	
*DECAY CORRECTED ACTIVITY CS-137 [2.5347E+04+/-581.1]	2.6199E+04	1.47	
*DECAY CORRECTED ACTIVITY CO-60 [4.0193E+04+/-817.5]	3.9645E+04	-0.67	
*DECAY CORRECTED ACTIVITY AM-241 [5.9564E+04+/-1402]	5.8455E+04	-0.79	

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	1.3231E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6647E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8204E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6193E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3329E+03	
*PEAK FWHM CD-109	8.8960E-01	1.2630E+00	9.8135E-01	
*PEAK FWHM CS-137	1.3220E+00	1.6316E+00	1.4719E+00	
*PEAK FWHM CO-60	1.7106E+00	2.2639E+00	1.8822E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1869E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9593E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.0273E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LC Approval Date: 12 / 14 / 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 : 14-DEC-2007 09:44:18
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]	8.3417E+05	1.15	
*DECAY CORRECTED ACTIVITY CS-137 [2.5461E+04+/-453.1]	2.5140E+04	-0.71	
*DECAY CORRECTED ACTIVITY CO-60 [4.0000E+04+/-942.5]	3.9648E+04	-0.37	
*DECAY CORRECTED ACTIVITY AM-241 [6.0993E+04+/-2242]	6.3380E+04	1.06	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7548E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3238E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6666E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.7972E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6171E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3327E+03	
*PEAK FWHM CD-109	8.6980E-01	1.0978E+00	8.9329E-01	
*PEAK FWHM CS-137	1.2287E+00	1.4696E+00	1.4444E+00	
*PEAK FWHM CO-60	1.5668E+00	1.9957E+00	1.6472E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1829E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9401E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.0101E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LL Approval Date: 12/14/07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM12_CAN.QAF;1

Sample ID : Calib Check
Sample date : 1-APR-2005 12:00:00
Elapsed live time: 0 00:05:00.00
Sample quantity : 1.00 EACH
Acquisition date : 14-DEC-2007 05:26:25
Elapsed real time: 0 00:05:02.84

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.4539E+05+/-1.7760E+04]	8.3195E+05	-0.76	
*DECAY CORRECTED ACTIVITY CS-137 [2.5327E+04+/-358.0]	2.5685E+04	1.00	
*DECAY CORRECTED ACTIVITY CO-60 [4.0022E+04+/-687.6]	4.0411E+04	0.57	
*DECAY CORRECTED ACTIVITY AM-241 [6.6008E+04+/-1736]	6.8073E+04	1.19	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7531E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3222E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6631E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8030E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6136E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3319E+03	
*PEAK FWHM CD-109	9.8950E-01	1.3215E+00	1.1669E+00	
*PEAK FWHM CS-137	1.3969E+00	1.7625E+00	1.4742E+00	
*PEAK FWHM CO-60	1.8061E+00	2.2486E+00	1.9766E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1828E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9529E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.1386E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LL Approval Date: 12 / 14 / 07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM13_CAN.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 : 14-DEC-2007 09:44:27
Elapsed real time: 0 00:05:03.86

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.6479E+05+/-3.5006E+04]	9.4306E+05	2.24	Investigate
*DECAY CORRECTED ACTIVITY CS-137 [2.9304E+04+/-484.4]	2.9390E+04	0.18	
*DECAY CORRECTED ACTIVITY CO-60 [4.1342E+04+/-965.4]	4.2776E+04	1.49	
*DECAY CORRECTED ACTIVITY AM-241 [6.0346E+04+/-559.2]	6.1310E+04	1.72	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7569E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3230E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6646E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8082E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6135E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3319E+03	
*PEAK FWHM CD-109	7.0540E-01	1.1577E+00	9.5954E-01	
*PEAK FWHM CS-137	1.3206E+00	1.6654E+00	1.4169E+00	
*PEAK FWHM CO-60	1.7476E+00	2.2429E+00	1.9437E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1871E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9619E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	9.1311E-01	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: _____ Approval Date: 12 / 18 / 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 : 14-DEC-2007 08:25:18
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:01.31

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.1190E+05+/-3.9665E+04]	8.0449E+05	-0.19	
*DECAY CORRECTED ACTIVITY CS-137 [2.5426E+04+/-564.0]	2.5096E+04	-0.59	
*DECAY CORRECTED ACTIVITY CO-60 [4.0446E+04+/-915.4]	3.8740E+04	-1.86	
*DECAY CORRECTED ACTIVITY AM-241 [6.6516E+04+/-2536]	6.2508E+04	-1.58	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7608E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3233E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6661E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8065E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6173E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3329E+03	
*PEAK FWHM CD-109	1.0337E+00	1.5254E+00	1.3761E+00	
*PEAK FWHM CS-137	1.4334E+00	1.8319E+00	1.7805E+00	
*PEAK FWHM CO-60	1.6848E+00	2.2203E+00	2.1612E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1910E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9567E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.5403E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: U Approval Date: 12 / 14 / 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 : 14-DEC-2007 08:08:37
Elapsed live time: 0 00:05:00.00
Elapsed real time: 0 00:05:05.65

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.6112E+05+/-3.2007E+04]	8.2305E+05	-1.19	
*DECAY CORRECTED ACTIVITY CS-137 [2.8529E+04+/-528.8]	2.7802E+04	-1.38	
*DECAY CORRECTED ACTIVITY CO-60 [4.0368E+04+/-919.5]	3.9327E+04	-1.13	
*DECAY CORRECTED ACTIVITY AM-241 [6.0659E+04+/-794.0]	6.0595E+04	-0.08	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7645E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3226E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6635E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8017E+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	7.4630E-01	1.0839E+00	9.7292E-01	
*PEAK FWHM CS-137	1.2763E+00	1.4672E+00	1.3247E+00	
*PEAK FWHM CO-60	1.6103E+00	2.0503E+00	1.8729E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1946E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9494E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	9.8635E-01	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: _____ Approval Date: 12 / 14 / 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 : 14-DEC-2007 07:13:28
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:02.34

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.2558E+05+/-2.3590E+04]	8.5023E+05	1.05	
*DECAY CORRECTED ACTIVITY CS-137 [2.5787E+04+/-427.7]	2.6416E+04	1.47	
*DECAY CORRECTED ACTIVITY CO-60 [3.9967E+04+/-792.7]	3.9664E+04	-0.38	
*DECAY CORRECTED ACTIVITY AM-241 [7.0116E+04+/-2078]	6.8554E+04	-0.75	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7594E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3227E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6651E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8186E+01	
*PEAK ENERGY CS-137	6.5964E+02	6.6364E+02	6.6193E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3333E+03	
*PEAK FWHM CD-109	1.1583E+00	1.4038E+00	1.2620E+00	
*PEAK FWHM CS-137	1.5052E+00	1.7317E+00	1.5819E+00	
*PEAK FWHM CO-60	1.7723E+00	2.1545E+00	1.9675E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1908E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9735E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.2167E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LC Approval Date: 12 / 14 / 07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM20_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 : 14-DEC-2007 07:13:52
Elapsed real time: 0 00:05:03.38

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.4629E+05+/-8.2185E+04]	9.2815E+05	1.00	
*DECAY CORRECTED ACTIVITY CS-137 [2.8541E+04+/-525.1]	2.8848E+04	0.58	
*DECAY CORRECTED ACTIVITY CO-60 [4.0826E+04+/-992.7]	4.1718E+04	0.90	
*DECAY CORRECTED ACTIVITY AM-241 [6.2448E+04+/-1844]	6.4131E+04	0.91	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7614E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3229E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6659E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8134E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6194E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3333E+03	
*PEAK FWHM CD-109	7.7050E-01	1.3272E+00	1.2619E+00	
*PEAK FWHM CS-137	1.2848E+00	1.6116E+00	1.4555E+00	
*PEAK FWHM CO-60	1.5484E+00	2.0686E+00	1.7713E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1932E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9688E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.1736E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: _____ Approval Date: 12 / 14 / 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 : 14-DEC-2007 04:36:46
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:04.44

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.2199E+05+/-1.6962E+04]	8.1404E+05	-0.47	
*DECAY CORRECTED ACTIVITY CS-137 [2.6347E+04+/-617.7]	2.7444E+04	1.78	
*DECAY CORRECTED ACTIVITY CO-60 [4.0298E+04+/-1103]	4.0451E+04	0.14	
*DECAY CORRECTED ACTIVITY AM-241 [6.5303E+04+/-1129]	6.5005E+04	-0.26	

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	1.3211E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6633E+03	
*PEAK ENERGY CD-109	8.6000E+01	9.0000E+01	8.8071E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6158E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3325E+03	
*PEAK FWHM CD-109	1.2623E+00	1.5019E+00	1.3759E+00	
*PEAK FWHM CS-137	1.5605E+00	1.8906E+00	1.6742E+00	
*PEAK FWHM CO-60	1.8533E+00	2.3397E+00	2.0377E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1846E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9697E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.3610E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LC Approval Date: 12 / 14 / 07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM22_CAN.QAF;1

Sample ID : Calib Check Sample quantity : 1.00 EACH
Sample date : 1-APR-2003 12:00:00 Acquisition date : 14-DEC-2007 04:36:55
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:02.39

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [6.7938E+05+/-2.3458E+05]	7.5416E+05	0.32	
*DECAY CORRECTED ACTIVITY CS-137 [2.6310E+04+/-489.1]	2.6102E+04	-0.43	
*DECAY CORRECTED ACTIVITY CO-60 [3.8670E+04+/-3834]	4.0479E+04	0.47	
*DECAY CORRECTED ACTIVITY AM-241 [6.0936E+04+/-1594]	6.0034E+04	-0.57	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.7600E+02	1.7510E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3214E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6628E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.7840E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6118E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3318E+03	
*PEAK FWHM CD-109	1.0000E+00	1.5000E+00	1.1948E+00	
*PEAK FWHM CS-137	1.5000E+00	2.0000E+00	1.7528E+00	
*PEAK FWHM CO-60	2.0000E+00	3.0000E+00	2.5695E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1810E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9328E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.0889E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LL Approval Date: 12 / 14 / 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 : 14-DEC-2007 04:46:35
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:03.11

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [7.7105E+05+/-2.4257E+04]	7.8894E+05	0.74	
*DECAY CORRECTED ACTIVITY CS-137 [2.5576E+04+/-422.4]	2.5539E+04	-0.09	
*DECAY CORRECTED ACTIVITY CO-60 [4.0337E+04+/-833.8]	4.0549E+04	0.25	
*DECAY CORRECTED ACTIVITY AM-241 [6.3589E+04+/-1566]	6.2829E+04	-0.49	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7606E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3231E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6648E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8050E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6143E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3320E+03	
*PEAK FWHM CD-109	6.9450E-01	9.5230E-01	7.6177E-01	
*PEAK FWHM CS-137	1.3260E+00	1.5802E+00	1.4651E+00	
*PEAK FWHM CO-60	1.7823E+00	2.2419E+00	1.9958E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1905E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9548E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	8.1300E-01	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: U Approval Date: 12 / 14 / 07

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 : 15-DEC-2007 05:42:36
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]	1.1621E+06	2.93	Investigate
*DECAY CORRECTED ACTIVITY CS-137 [2.8570E+04+/-644.2]	2.8192E+04	-0.59	
*DECAY CORRECTED ACTIVITY CO-60 [4.0735E+04+/-1358]	4.2034E+04	0.96	
*DECAY CORRECTED ACTIVITY AM-241 [6.2934E+04+/-2375]	6.3182E+04	0.10	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7564E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3239E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6660E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.7786E+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	1.2573E+00	
*PEAK FWHM CS-137	1.4326E+00	1.9580E+00	1.6055E+00	
*PEAK FWHM CO-60	1.8050E+00	2.2573E+00	2.0189E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1926E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9603E+01	
*PEAK FWHM AM-241	5.0000E-01	1.7500E+00	1.2787E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: U Approval Date: 12 / 15 / 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 : 15-DEC-2007 05:42:44
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:02.50

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [7.9829E+05+/-2.1783E+04]	7.7093E+05	-1.26	
*DECAY CORRECTED ACTIVITY CS-137 [2.5417E+04+/-441.8]	2.4901E+04	-1.17	
*DECAY CORRECTED ACTIVITY CO-60 [4.0155E+04+/-741.6]	3.9624E+04	-0.72	
*DECAY CORRECTED ACTIVITY AM-241 [6.6307E+04+/-1203]	6.4843E+04	-1.22	

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	1.3215E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6619E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8019E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6148E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3322E+03	
*PEAK FWHM CD-109	8.6870E-01	1.1641E+00	1.0387E+00	
*PEAK FWHM CS-137	1.3890E+00	1.5958E+00	1.4412E+00	
*PEAK FWHM CO-60	1.7960E+00	2.2545E+00	2.0259E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1857E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9512E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.0208E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LL Approval Date: 12 / 15 / 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 : 15-DEC-2007 06:09:19
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]	8.0625E+05	-1.02	
*DECAY CORRECTED ACTIVITY CS-137 [2.8765E+04+/-449.3]	2.9239E+04	1.05	
*DECAY CORRECTED ACTIVITY CO-60 [4.1933E+04+/-722.8]	4.1284E+04	-0.90	
*DECAY CORRECTED ACTIVITY AM-241 [5.1720E+04+/-2.6813E+04]	6.8669E+04	0.63	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7697E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3238E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6652E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8031E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6171E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3326E+03	
*PEAK FWHM CD-109	8.5700E-01	1.3096E+00	1.2120E+00	
*PEAK FWHM CS-137	1.4461E+00	1.6731E+00	1.6063E+00	
*PEAK FWHM CO-60	1.8140E+00	2.2910E+00	2.1740E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1980E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9432E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.2834E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LL Approval Date: 12/15/07

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 : 15-DEC-2007 05:43:12
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:04.23

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [9.4102E+05+/-1.5120E+04]	9.5500E+05	0.92	
*DECAY CORRECTED ACTIVITY CS-137 [2.7324E+04+/-449.6]	2.8345E+04	2.27	Investigate
*DECAY CORRECTED ACTIVITY CO-60 [4.1154E+04+/-757.2]	4.2069E+04	1.21	
*DECAY CORRECTED ACTIVITY AM-241 [6.9489E+04+/-852.4]	7.0709E+04	1.43	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7664E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3237E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6643E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.7956E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6196E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3332E+03	
*PEAK FWHM CD-109	1.0354E+00	1.2686E+00	1.1413E+00	
*PEAK FWHM CS-137	1.4355E+00	1.7081E+00	1.5316E+00	
*PEAK FWHM CO-60	1.7629E+00	2.2581E+00	1.9521E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1943E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9334E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.1543E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LC Approval Date: 12/15/07

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 : 15-DEC-2007 05:51:35
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]	8.1007E+05	-0.21	
*DECAY CORRECTED ACTIVITY CS-137 [2.4416E+04+/-658.7]	2.5235E+04	1.24	
*DECAY CORRECTED ACTIVITY CO-60 [3.9594E+04+/-984.4]	4.0662E+04	1.08	
*DECAY CORRECTED ACTIVITY AM-241 [6.7169E+04+/-2933]	6.7755E+04	0.20	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7517E+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	8.7590E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6139E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3321E+03	
*PEAK FWHM CD-109	8.8210E-01	1.1228E+00	1.0561E+00	
*PEAK FWHM CS-137	1.2904E+00	1.6432E+00	1.4238E+00	
*PEAK FWHM CO-60	1.6812E+00	2.2061E+00	1.7834E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1820E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9079E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.0099E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: _____ Approval Date: 12 / 15 / 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 : 15-DEC-2007 05:43:28
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:02.06

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [7.6229E+05+/-4.6983E+04]	8.7989E+05	2.50	Investigate
*DECAY CORRECTED ACTIVITY CS-137 [2.5347E+04+/-581.1]	2.5457E+04	0.19	
*DECAY CORRECTED ACTIVITY CO-60 [4.0193E+04+/-817.5]	4.0480E+04	0.35	
*DECAY CORRECTED ACTIVITY AM-241 [5.9621E+04+/-1364]	6.0366E+04	0.55	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7573E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3231E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6648E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8121E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6194E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3329E+03	
*PEAK FWHM CD-109	8.8960E-01	1.2630E+00	1.0923E+00	
*PEAK FWHM CS-137	1.3220E+00	1.6316E+00	1.4445E+00	
*PEAK FWHM CO-60	1.7106E+00	2.2639E+00	1.7709E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1869E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9591E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.0107E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LL Approval Date: 12 / 15 / 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 : 15-DEC-2007 05:57:19
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]	8.1943E+05	0.88	
*DECAY CORRECTED ACTIVITY CS-137 [2.5461E+04+/-453.1]	2.4664E+04	-1.76	
*DECAY CORRECTED ACTIVITY CO-60 [4.0000E+04+/-942.5]	3.9152E+04	-0.90	
*DECAY CORRECTED ACTIVITY AM-241 [6.0983E+04+/-2154]	6.0849E+04	-0.06	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7548E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3239E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6667E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.7972E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6174E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3328E+03	
*PEAK FWHM CD-109	8.6980E-01	1.0978E+00	1.0212E+00	
*PEAK FWHM CS-137	1.2287E+00	1.4696E+00	1.3155E+00	
*PEAK FWHM CO-60	1.5668E+00	1.9957E+00	1.7238E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1833E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9421E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.0001E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LL Approval Date: 12 / 15 / 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 : 15-DEC-2007 05:43:47
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:03.85

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.6479E+05+/-3.5006E+04]	8.1672E+05	-1.37	
*DECAY CORRECTED ACTIVITY CS-137 [2.9304E+04+/-484.4]	2.9830E+04	1.09	
*DECAY CORRECTED ACTIVITY CO-60 [4.1342E+04+/-965.4]	4.2766E+04	1.48	
*DECAY CORRECTED ACTIVITY AM-241 [6.0312E+04+/-552.6]	5.9862E+04	-0.81	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7580E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3238E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6661E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8140E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6174E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3326E+03	
*PEAK FWHM CD-109	7.0540E-01	1.1577E+00	9.3814E-01	
*PEAK FWHM CS-137	1.3206E+00	1.6654E+00	1.4146E+00	
*PEAK FWHM CO-60	1.7476E+00	2.2429E+00	2.0125E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1880E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9666E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	8.6412E-01	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LL Approval Date: 12 / 15 / 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 : 15-DEC-2007 05:57:32
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:02.21

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.2559E+05+/-2.2938E+04]	8.3114E+05	0.24	
*DECAY CORRECTED ACTIVITY CS-137 [2.6207E+04+/-512.6]	2.5476E+04	-1.43	
*DECAY CORRECTED ACTIVITY CO-60 [4.0485E+04+/-767.5]	3.9960E+04	-0.68	
*DECAY CORRECTED ACTIVITY AM-241 [6.7128E+04+/-1950]	6.7227E+04	0.05	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7617E+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	8.7981E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6155E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3321E+03	
*PEAK FWHM CD-109	8.8540E-01	1.2058E+00	9.6744E-01	
*PEAK FWHM CS-137	1.3237E+00	1.6479E+00	1.3975E+00	
*PEAK FWHM CO-60	1.7177E+00	2.1263E+00	1.8189E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1900E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9392E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	9.1283E-01	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LL Approval Date: 12 / 15 / 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 : 15-DEC-2007 05:57:40
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:05.58

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.6112E+05+/-3.2007E+04]	8.3643E+05	-0.77	
*DECAY CORRECTED ACTIVITY CS-137 [2.8529E+04+/-528.8]	2.9440E+04	1.72	
*DECAY CORRECTED ACTIVITY CO-60 [4.0368E+04+/-919.5]	4.0773E+04	0.44	
*DECAY CORRECTED ACTIVITY AM-241 [6.0630E+04+/-770.6]	6.0252E+04	-0.49	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7648E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3228E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6638E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8032E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6166E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3325E+03	
*PEAK FWHM CD-109	7.4630E-01	1.0839E+00	1.0070E+00	
*PEAK FWHM CS-137	1.2763E+00	1.4672E+00	1.4606E+00	
*PEAK FWHM CO-60	1.6103E+00	2.0503E+00	1.8972E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1956E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9544E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	9.7670E-01	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: K Approval Date: 12 / 15 / 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 : 15-DEC-2007 06:09:38
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:02.32

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.2558E+05+/-2.3590E+04]	8.3215E+05	0.28	
*DECAY CORRECTED ACTIVITY CS-137 [2.5787E+04+/-427.7]	2.5909E+04	0.28	
*DECAY CORRECTED ACTIVITY CO-60 [3.9967E+04+/-792.7]	3.9913E+04	-0.07	
*DECAY CORRECTED ACTIVITY AM-241 [7.0035E+04+/-2019]	6.8978E+04	-0.52	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7593E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3227E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6652E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8184E+01	
*PEAK ENERGY CS-137	6.5964E+02	6.6364E+02	6.6196E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3334E+03	
*PEAK FWHM CD-109	1.1583E+00	1.4038E+00	1.2674E+00	
*PEAK FWHM CS-137	1.5052E+00	1.7317E+00	1.5758E+00	
*PEAK FWHM CO-60	1.7723E+00	2.1545E+00	1.9710E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1896E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9672E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.2243E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LL Approval Date: 12 / 15 / 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 : 15-DEC-2007 06:11:56
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:03.26

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.4629E+05+/-8.2185E+04]	8.0592E+05	-0.49	
*DECAY CORRECTED ACTIVITY CS-137 [2.8541E+04+/-525.1]	2.9036E+04	0.94	
*DECAY CORRECTED ACTIVITY CO-60 [4.0826E+04+/-992.7]	4.0601E+04	-0.23	
*DECAY CORRECTED ACTIVITY AM-241 [6.2502E+04+/-1795]	6.3308E+04	0.45	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7629E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3229E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6660E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8210E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6195E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3333E+03	
*PEAK FWHM CD-109	7.7050E-01	1.3272E+00	1.0655E+00	
*PEAK FWHM CS-137	1.2848E+00	1.6116E+00	1.4141E+00	
*PEAK FWHM CO-60	1.5484E+00	2.0686E+00	1.6627E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1924E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9647E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.1048E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LL Approval Date: 12/15/07

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 : 15-DEC-2007 06:18:11
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:04.36

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.2199E+05+/-1.6962E+04]	8.0877E+05	-0.78	
*DECAY CORRECTED ACTIVITY CS-137 [2.6347E+04+/-617.7]	2.6439E+04	0.15	
*DECAY CORRECTED ACTIVITY CO-60 [4.0298E+04+/-1103]	4.1239E+04	0.85	
*DECAY CORRECTED ACTIVITY AM-241 [6.5272E+04+/-1091]	6.4871E+04	-0.37	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7528E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3216E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6644E+03	
*PEAK ENERGY CD-109	8.6000E+01	9.0000E+01	8.8150E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6185E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3331E+03	
*PEAK FWHM CD-109	1.2623E+00	1.5019E+00	1.3401E+00	
*PEAK FWHM CS-137	1.5605E+00	1.8906E+00	1.6529E+00	
*PEAK FWHM CO-60	1.8533E+00	2.3397E+00	1.9167E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1850E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9721E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.3606E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LC Approval Date: 12 / 15 / 07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM22_CAN.QAF;1

Sample ID : Calib Check Sample quantity : 1.00 EACH
Sample date : 1-APR-2003 12:00:00 Acquisition date : 15-DEC-2007 05:43:56
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:02.39

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [6.7938E+05+/-2.3458E+05]	7.5847E+05	0.34	
*DECAY CORRECTED ACTIVITY CS-137 [2.6310E+04+/-489.1]	2.6703E+04	0.80	
*DECAY CORRECTED ACTIVITY CO-60 [3.8670E+04+/-3834]	4.0446E+04	0.46	
*DECAY CORRECTED ACTIVITY AM-241 [6.0928E+04+/-1540]	6.0814E+04	-0.07	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.7600E+02	1.7498E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3215E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6628E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.7780E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6120E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3318E+03	
*PEAK FWHM CD-109	1.0000E+00	1.5000E+00	1.1017E+00	
*PEAK FWHM CS-137	1.5000E+00	2.0000E+00	1.8374E+00	
*PEAK FWHM CO-60	2.0000E+00	3.0000E+00	2.4623E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1807E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9312E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.1349E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LL Approval Date: 12/15/07

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 : 15-DEC-2007 05:57:53
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:03.03

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [7.7105E+05+/-2.4257E+04]	7.5766E+05	-0.55	
*DECAY CORRECTED ACTIVITY CS-137 [2.5576E+04+/-422.4]	2.5192E+04	-0.91	
*DECAY CORRECTED ACTIVITY CO-60 [4.0337E+04+/-833.8]	3.8839E+04	-1.80	
*DECAY CORRECTED ACTIVITY AM-241 [6.3616E+04+/-1508]	6.3968E+04	0.23	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7609E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3231E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6649E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8067E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6146E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3320E+03	
*PEAK FWHM CD-109	6.9450E-01	9.5230E-01	8.2367E-01	
*PEAK FWHM CS-137	1.3260E+00	1.5802E+00	1.4671E+00	
*PEAK FWHM CO-60	1.7823E+00	2.2419E+00	1.9239E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1898E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9518E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	7.3382E-01	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LL Approval Date: 12 / 15 / 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 : 17-DEC-2007 10:01:33
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:03.79

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.6479E+05+/-3.5006E+04]	8.7806E+05	0.38	
*DECAY CORRECTED ACTIVITY CS-137 [2.9304E+04+/-484.4]	2.9054E+04	-0.52	
*DECAY CORRECTED ACTIVITY CO-60 [4.1342E+04+/-965.4]	4.0895E+04	-0.46	
*DECAY CORRECTED ACTIVITY AM-241 [6.0271E+04+/-550.4]	5.9546E+04	-1.32	

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	1.3236E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6654E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8185E+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	7.0540E-01	1.1577E+00	9.6065E-01	
*PEAK FWHM CS-137	1.3206E+00	1.6654E+00	1.4601E+00	
*PEAK FWHM CO-60	1.7476E+00	2.2429E+00	2.0776E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1881E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9669E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	8.5161E-01	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: MR Approval Date: 12 / 17 / 07

RUNLOGS

Instrument Run Log

ID	Sample Type	Analyst	Instrument	Dil	Run Date	Batch Id	Status	Geometry	Cal Date
1201473813	LCS	MJH1	GAM22		14-DEC-2007 16:41	708121	**DONE**	CAN	06-MAR-2007
198681001	SAMPLE	MJH1	GAM01		14-DEC-2007 19:07	708121	**DONE**	CAN	07-MAR-2007
198681002	SAMPLE	MJH1	GAM02		14-DEC-2007 19:07	708121	**DONE**	CAN	23-OCT-2007
198681003	SAMPLE	MJH1	GAM06		14-DEC-2007 19:08	708121	**DONE**	CAN	21-FEB-2007
198681004	SAMPLE	MJH1	GAM07		14-DEC-2007 19:08	708121	**DONE**	CAN	30-OCT-2007
198681005	SAMPLE	MJH1	GAM21		14-DEC-2007 19:08	708121	**DONE**	CAN	03-JUL-2007
198681006	SAMPLE	MJH1	GAM22		14-DEC-2007 19:09	708121	**DONE**	CAN	06-MAR-2007
198681007	SAMPLE	MJH1	GAM23		14-DEC-2007 19:09	708121	**DONE**	CAN	23-MAY-2007
198681008	SAMPLE	MJH1	GAM01		15-DEC-2007 06:31	708121	**DONE**	CAN	07-MAR-2007
198681009	SAMPLE	MJH1	GAM02		15-DEC-2007 06:31	708121	**DONE**	CAN	23-OCT-2007
198681010	SAMPLE	MJH1	GAM04		15-DEC-2007 06:32	708121	**DONE**	CAN	07-MAR-2007
198681011	SAMPLE	MJH1	GAM05		15-DEC-2007 06:33	708121	**DONE**	CAN	31-MAY-2007
198681012	SAMPLE	MJH1	GAM06		15-DEC-2007 06:34	708121	**DONE**	CAN	21-FEB-2007
198681013	SAMPLE	MJH1	GAM07		15-DEC-2007 06:35	708121	**DONE**	CAN	30-OCT-2007
198681014	SAMPLE	MJH1	GAM11		15-DEC-2007 06:35	708121	**DONE**	CAN	02-OCT-2007
198681015	SAMPLE	MJH1	GAM13		15-DEC-2007 06:36	708121	**DONE**	CAN	03-JUL-2007
198681016	SAMPLE	MJH1	GAM16		15-DEC-2007 06:37	708121	**DONE**	CAN	02-OCT-2007
198681017	SAMPLE	MJH1	GAM17		15-DEC-2007 06:38	708121	**DONE**	CAN	07-FEB-2007
198681018	SAMPLE	MJH1	GAM19		15-DEC-2007 06:38	708121	**DONE**	CAN	07-MAR-2007
198681019	SAMPLE	MJH1	GAM20		15-DEC-2007 06:39	708121	**DONE**	CAN	10-SEP-2007
198681020	SAMPLE	MJH1	GAM22		15-DEC-2007 06:39	708121	**DONE**	CAN	06-MAR-2007
1201473811	MB	MJH1	GAM23		15-DEC-2007 06:40	708121	**DONE**	CAN	23-MAY-2007
1201473812	DUP	MJH1	GAM21		15-DEC-2007 06:43	708121	**DONE**	CAN	03-JUL-2007

Version 1.1 9/5/05
GEL Laboratories LLC

Instrument Run Log

ID	Sample Type	Analyst	Instrument	Dil	Run Date	Batch Id	Status	Geometry	Cal Date
198681021	SAMPLE	MJH1	GAM11		14-DEC-2007 10:23	708123	**DONE**	CAN	02-OCT-2007
198681022	SAMPLE	MJH1	GAM05		14-DEC-2007 10:46	708123	**DONE**	CAN	31-MAY-2007
198681023	SAMPLE	MJH1	GAM23		14-DEC-2007 10:47	708123	**DONE**	CAN	23-MAY-2007
198681024	SAMPLE	MJH1	GAM07		14-DEC-2007 10:51	708123	**DONE**	CAN	30-OCT-2007
198681025	SAMPLE	MJH1	GAM12		14-DEC-2007 10:51	708123	**DONE**	CAN	22-FEB-2007
198681026	SAMPLE	MJH1	GAM03		14-DEC-2007 11:34	708123	DUSE	CAN	29-MAR-2007
198681027	SAMPLE	MJH1	GAM19		14-DEC-2007 11:35	708123	**DONE**	CAN	07-MAR-2007
198681028	SAMPLE	MJH1	GAM20		14-DEC-2007 11:37	708123	**DONE**	CAN	10-SEP-2007
198681029	SAMPLE	MJH1	GAM22		14-DEC-2007 12:08	708123	**DONE**	CAN	06-MAR-2007
198681030	SAMPLE	MJH1	GAM06		14-DEC-2007 12:13	708123	**DONE**	CAN	21-FEB-2007
198681031	SAMPLE	MJH1	GAM17		14-DEC-2007 12:24	708123	**DONE**	CAN	07-FEB-2007
198681032	SAMPLE	MJH1	GAM14		14-DEC-2007 13:02	708123	**DONE**	CAN	07-MAR-2007
198681033	SAMPLE	MJH1	GAM21		14-DEC-2007 13:54	708123	**DONE**	CAN	03-JUL-2007
198681034	SAMPLE	MJH1	GAM01		14-DEC-2007 14:26	708123	**DONE**	CAN	07-MAR-2007
198683001	SAMPLE	MJH1	GAM02		14-DEC-2007 14:26	708123	**DONE**	CAN	23-OCT-2007
198683002	SAMPLE	MJH1	GAM11		14-DEC-2007 14:27	708123	**DONE**	CAN	02-OCT-2007
198683003	SAMPLE	MJH1	GAM07		14-DEC-2007 14:58	708123	**DONE**	CAN	30-OCT-2007
198683004	SAMPLE	MJH1	GAM12		14-DEC-2007 14:59	708123	**DONE**	CAN	22-FEB-2007
198683005	SAMPLE	MJH1	GAMAN		14-DEC-2007 15:36	708123	**DONE**	CAN	28-MAR-2007
1201473820	LCS	MJH1	GAM23		14-DEC-2007 16:00	708123	**DONE**	CAN	23-MAY-2007
198683006	SAMPLE	MJH1	GAM05		14-DEC-2007 16:36	708123	**DONE**	CAN	31-MAY-2007
1201473818	MB	MJH1	GAM13		14-DEC-2007 16:36	708123	**DONE**	CAN	03-JUL-2007
1201473819	DUP	MJH1	GAM17		14-DEC-2007 16:37	708123	**DONE**	CAN	07-FEB-2007
198681026	SAMPLE	MJH1	GAM13		17-DEC-2007 10:09	708123	**DONE**	CAN	03-JUL-2007

Version 1.1 9/5/05
GEL Laboratories LLC

Analytical Report For 711053

for

SC&A, Inc.

Project Manager: Cynthia White

Project Name: Cabrera-Schofield CZ

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

The Case Narrative, Chain of Custody, Sample Receipt Checklist, and the cover page of the Sample Analysis Report, are integral parts of GPL Laboratories' report package. If you did not receive all of these documents, please contact GPL immediately.

Sample Receipt

Thirty-four soil samples were received on 11/12/2007. The samples were delivered by Federal Express. Sample receipt conditions and temperatures are documented on the Sample Receipt checklist.

The samples were received pre-dried and homogenized by SC&A. The Pb results presented in this report are not corrected for percent solids.

Sample Analysis

Samples were prepared and analyzed by GPL using the analytical methodologies indicated on the Sample Analysis Summary Report. In some chromatographic analyses, manual integration is used instead of automated integration because it produces more accurate results. All manual integrations are denoted on the sample quantitation report. Analysis results and limits for soil are reported on a dry weight basis unless otherwise specified on the report.

Metals

Thirty-four soil samples were analyzed for lead only by EPA SW846 method.

The samples were assumed 100 percent solid.

A matrix spike, matrix spike duplicate, and serial dilution were performed on soil samples SB-CZ-SS-2097-BA and SB-CZ-SS-2105-BA for lead. They were within the control limits.

Calibration standards are verified against independent check standards purchased from a commercial vendor of environmental standards.

All GPL QA/QC criteria were met.

Reviewed By,
Project Manager

Approved By,
Laboratory Director

GPL Laboratories, LLLP

Sample Summary Report

SC&A, Inc.

Work Order: 711053

Client Sample ID	Lab Sample ID	Analytical Method	Matrix	Date Sampled	Date Recieved
SB-CZ-SS-2097-BA	711053-001-001-1/1	SW6010C	SOIL	10/18/2007	11/12/2007
SB-CZ-SS-2097-BD	711053-014-014-1/1	SW6010C	SOIL	10/18/2007	11/12/2007
SB-CZ-SS-2098-BA	711053-002-002-1/1	SW6010C	SOIL	10/18/2007	11/12/2007
SB-CZ-SS-2098-BD	711053-015-015-1/1	SW6010C	SOIL	10/18/2007	11/12/2007
SB-CZ-SS-2099-BA	711053-003-003-1/1	SW6010C	SOIL	10/18/2007	11/12/2007
SB-CZ-SS-2099-BD	711053-016-016-1/1	SW6010C	SOIL	10/18/2007	11/12/2007
SB-CZ-SS-2101-BA	711053-004-004-1/1	SW6010C	SOIL	10/18/2007	11/12/2007
SB-CZ-SS-2101-BD	711053-017-017-1/1	SW6010C	SOIL	10/18/2007	11/12/2007
SB-CZ-SS-2102-BA	711053-005-005-1/1	SW6010C	SOIL	10/18/2007	11/12/2007
SB-CZ-SS-2102-BD	711053-018-018-1/1	SW6010C	SOIL	10/18/2007	11/12/2007
SB-CZ-SS-2103-BA	711053-006-006-1/1	SW6010C	SOIL	10/18/2007	11/12/2007
SB-CZ-SS-2103-BD	711053-019-019-1/1	SW6010C	SOIL	10/18/2007	11/12/2007
SB-CZ-SS-2104-BA	711053-007-007-1/1	SW6010C	SOIL	10/18/2007	11/12/2007
SB-CZ-SS-2104-BD	711053-020-020-1/1	SW6010C	SOIL	10/18/2007	11/12/2007
SB-CZ-SS-2105-BA	711053-008-008-1/1	SW6010C	SOIL	10/18/2007	11/12/2007
SB-CZ-SS-2105-BD	711053-021-021-1/1	SW6010C	SOIL	10/18/2007	11/12/2007
SB-CZ-SS-2106-BA	711053-009-009-1/1	SW6010C	SOIL	10/18/2007	11/12/2007
SB-CZ-SS-2106-BD	711053-022-022-1/1	SW6010C	SOIL	10/18/2007	11/12/2007
SB-CZ-SS-2107-BA	711053-010-010-1/1	SW6010C	SOIL	10/18/2007	11/12/2007
SB-CZ-SS-2107-BD	711053-023-023-1/1	SW6010C	SOIL	10/18/2007	11/12/2007
SB-CZ-SS-2108-BA	711053-011-011-1/1	SW6010C	SOIL	10/18/2007	11/12/2007
SB-CZ-SS-2108-BD	711053-024-024-1/1	SW6010C	SOIL	10/18/2007	11/12/2007
SB-CZ-SS-2109-BA	711053-012-012-1/1	SW6010C	SOIL	10/18/2007	11/12/2007

Sample Summary Report

SC&A, Inc.

Work Order: 711053

Client Sample ID	Lab Sample ID	Analytical Method	Matrix	Date Sampled	Date Recieved
SB-CZ-SS-2109-BD	711053-025-025-1/1	SW6010C	SOIL	10/18/2007	11/12/2007
SB-CZ-SS-2110-BA	711053-013-013-1/1	SW6010C	SOIL	10/18/2007	11/12/2007
SB-CZ-SS-2110-BD	711053-026-026-1/1	SW6010C	SOIL	10/18/2007	11/12/2007
SB-CZ-SS-2111-BA	711053-027-027-1/1	SW6010C	SOIL	10/18/2007	11/12/2007
SB-CZ-SS-2111-BD	711053-031-031-1/1	SW6010C	SOIL	10/18/2007	11/12/2007
SB-CZ-SS-2112-BA	711053-028-028-1/1	SW6010C	SOIL	10/18/2007	11/12/2007
SB-CZ-SS-2112-BD	711053-032-032-1/1	SW6010C	SOIL	10/18/2007	11/12/2007
SB-CZ-SS-2113-BA	711053-029-029-1/1	SW6010C	SOIL	10/18/2007	11/12/2007
SB-CZ-SS-2113-BD	711053-033-033-1/1	SW6010C	SOIL	10/18/2007	11/12/2007
SB-CZ-SS-2114-BA	711053-030-030-1/1	SW6010C	SOIL	10/18/2007	11/12/2007
SB-CZ-SS-2114-BD	711053-034-034-1/1	SW6010C	SOIL	10/18/2007	11/12/2007

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2097-BA	Lab Sample ID:	711053-001-001-1/1
Sample Date/Time:	10/18/2007 14:42	Percent Moisture:	NA
Receipt Date/Time:	11/12/2007 14:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/13/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**35.0**	**D**	**8.5**	**10**	**mg/kg**	**12/11/07**	**17:44**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2098-BA	Lab Sample ID:	711053-002-002-1/1
Sample Date/Time:	10/18/2007 14:42	Percent Moisture:	NA
Receipt Date/Time:	11/12/2007 14:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/13/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**38.3**	**D**	**8.5**	**10**	**mg/kg**	**12/11/07**	**18:01**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2099-BA	Lab Sample ID:	711053-003-003-1/1
Sample Date/Time:	10/18/2007 14:42	Percent Moisture:	NA
Receipt Date/Time:	11/12/2007 14:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/13/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**33.4**	**D**	**8.4**	**10**	**mg/kg**	**12/11/07**	**18:04**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2101-BA	Lab Sample ID:	711053-004-004-1/1
Sample Date/Time:	10/18/2007 14:42	Percent Moisture:	NA
Receipt Date/Time:	11/12/2007 14:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/13/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**276**	**D**	**8.3**	**10**	**mg/kg**	**12/11/07**	**18:08**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2102-BA	Lab Sample ID:	711053-005-005-1/1
Sample Date/Time:	10/18/2007 14:42	Percent Moisture:	NA
Receipt Date/Time:	11/12/2007 14:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/13/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**50.1**	**D**	**8**	**10**	**mg/kg**	**12/11/07**	**18:18**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2103-BA	Lab Sample ID:	711053-006-006-1/1
Sample Date/Time:	10/18/2007 14:42	Percent Moisture:	NA
Receipt Date/Time:	11/12/2007 14:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/13/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**38.1**	**D**	**8.4**	**10**	**mg/kg**	**12/11/07**	**18:22**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2104-BA	Lab Sample ID:	711053-007-007-1/1
Sample Date/Time:	10/18/2007 14:42	Percent Moisture:	NA
Receipt Date/Time:	11/12/2007 14:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/13/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**34.7**	**D**	**8.4**	**10**	**mg/kg**	**12/11/07**	**18:25**

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2105-BA	Lab Sample ID:	711053-008-008-1/1
Sample Date/Time:	10/18/2007 14:42	Percent Moisture:	NA
Receipt Date/Time:	11/12/2007 14:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/13/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**65.7**	**D**	**8.3**	**10**	**mg/kg**	**12/11/07**	**18:29**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2106-BA	Lab Sample ID:	711053-009-009-1/1
Sample Date/Time:	10/18/2007 14:42	Percent Moisture:	NA
Receipt Date/Time:	11/12/2007 14:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/13/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**40.7**	**D**	**8.3**	**10**	**mg/kg**	**12/11/07**	**18:32**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2107-BA	Lab Sample ID:	711053-010-010-1/1
Sample Date/Time:	10/18/2007 14:42	Percent Moisture:	NA
Receipt Date/Time:	11/12/2007 14:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/13/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**40.7**	**D**	**7.9**	**10**	**mg/kg**	**12/11/07**	**18:36**

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2108-BA	Lab Sample ID:	711053-011-011-1/1
Sample Date/Time:	10/18/2007 14:42	Percent Moisture:	NA
Receipt Date/Time:	11/12/2007 14:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/13/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**45.4**	**D**	**8.4**	**10**	**mg/kg**	**12/11/07**	**18:39**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2109-BA	Lab Sample ID:	711053-012-012-1/1
Sample Date/Time:	10/18/2007 14:42	Percent Moisture:	NA
Receipt Date/Time:	11/12/2007 14:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/13/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**29.6**	**D**	**8.1**	**10**	**mg/kg**	**12/11/07**	**18:43**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2110-BA	Lab Sample ID:	711053-013-013-1/1
Sample Date/Time:	10/18/2007 14:42	Percent Moisture:	NA
Receipt Date/Time:	11/12/2007 14:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/13/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**49.6**	**D**	**8.1**	**10**	**mg/kg**	**12/11/07**	**18:46**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2097-BD	Lab Sample ID:	711053-014-014-1/1
Sample Date/Time:	10/18/2007 14:42	Percent Moisture:	NA
Receipt Date/Time:	11/12/2007 14:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/13/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**18.9**	**D**	**8.4**	**10**	**mg/kg**	**12/10/07**	**22:11**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2098-BD	Lab Sample ID:	711053-015-015-1/1
Sample Date/Time:	10/18/2007 14:42	Percent Moisture:	NA
Receipt Date/Time:	11/12/2007 14:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/13/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**19.1**	**D**	**8.3**	**10**	**mg/kg**	**12/10/07**	**22:15**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2099-BD	Lab Sample ID:	711053-016-016-1/1
Sample Date/Time:	10/18/2007 14:42	Percent Moisture:	NA
Receipt Date/Time:	11/12/2007 14:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/13/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**18.3**	**D**	**8**	**10**	**mg/kg**	**12/10/07**	**22:18**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2101-BD	Lab Sample ID:	711053-017-017-1/1
Sample Date/Time:	10/18/2007 14:42	Percent Moisture:	NA
Receipt Date/Time:	11/12/2007 14:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/13/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**33.5**	**D**	**8.3**	**10**	**mg/kg**	**12/10/07**	**22:22**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2102-BD	Lab Sample ID:	711053-018-018-1/1
Sample Date/Time:	10/18/2007 14:42	Percent Moisture:	NA
Receipt Date/Time:	11/12/2007 14:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/13/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**10.6**	**D**	**8.2**	**10**	**mg/kg**	**12/10/07**	**22:25**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2103-BD	Lab Sample ID:	711053-019-019-1/1
Sample Date/Time:	10/18/2007 14:42	Percent Moisture:	NA
Receipt Date/Time:	11/12/2007 14:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/13/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**19.5**	**D**	**8.4**	**10**	**mg/kg**	**12/10/07**	**22:28**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2104-BD	Lab Sample ID:	711053-020-020-1/1
Sample Date/Time:	10/18/2007 14:42	Percent Moisture:	NA
Receipt Date/Time:	11/12/2007 14:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/13/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**15.7**	**D**	**8.3**	**10**	**mg/kg**	**12/10/07**	**22:32**

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2105-BD	Lab Sample ID:	711053-021-021-1/1
Sample Date/Time:	10/18/2007 14:42	Percent Moisture:	NA
Receipt Date/Time:	11/12/2007 14:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/13/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**23.6**	**D**	**8.3**	**10**	**mg/kg**	**12/10/07**	**22:42**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2106-BD	Lab Sample ID:	711053-022-022-1/1
Sample Date/Time:	10/18/2007 14:42	Percent Moisture:	NA
Receipt Date/Time:	11/12/2007 14:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/13/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**21.6**	**D**	**7.9**	**10**	**mg/kg**	**12/10/07**	**23:06**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2107-BD	Lab Sample ID:	711053-023-023-1/1
Sample Date/Time:	10/18/2007 14:42	Percent Moisture:	NA
Receipt Date/Time:	11/12/2007 14:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/13/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**20.0**	**D**	**8.2**	**10**	**mg/kg**	**12/10/07**	**23:10**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2108-BD	Lab Sample ID:	711053-024-024-1/1
Sample Date/Time:	10/18/2007 14:42	Percent Moisture:	NA
Receipt Date/Time:	11/12/2007 14:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/13/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**23.4**	**D**	**8**	**10**	**mg/kg**	**12/10/07**	**23:13**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2109-BD	Lab Sample ID:	711053-025-025-1/1
Sample Date/Time:	10/18/2007 14:42	Percent Moisture:	NA
Receipt Date/Time:	11/12/2007 14:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/13/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**17.1**	**D**	**8.4**	**10**	**mg/kg**	**12/10/07**	**23:17**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2110-BD	Lab Sample ID:	711053-026-026-1/1
Sample Date/Time:	10/18/2007 14:42	Percent Moisture:	NA
Receipt Date/Time:	11/12/2007 14:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/13/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**18.7**	**D**	**8.4**	**10**	**mg/kg**	**12/10/07**	**23:20**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2111-BA	Lab Sample ID:	711053-027-027-1/1
Sample Date/Time:	10/18/2007 14:42	Percent Moisture:	NA
Receipt Date/Time:	11/12/2007 14:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/13/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**27.0**	**D**	**7.9**	**10**	**mg/kg**	**12/10/07**	**23:24**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2112-BA	Lab Sample ID:	711053-028-028-1/1
Sample Date/Time:	10/18/2007 14:42	Percent Moisture:	NA
Receipt Date/Time:	11/12/2007 14:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/13/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**46.9**	**D**	**8**	**10**	**mg/kg**	**12/10/07**	**23:34**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2113-BA	Lab Sample ID:	711053-029-029-1/1
Sample Date/Time:	10/18/2007 14:42	Percent Moisture:	NA
Receipt Date/Time:	11/12/2007 14:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/13/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**58.9**	**D**	**8.1**	**10**	**mg/kg**	**12/10/07**	**23:38**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2114-BA	Lab Sample ID:	711053-030-030-1/1
Sample Date/Time:	10/18/2007 14:42	Percent Moisture:	NA
Receipt Date/Time:	11/12/2007 14:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/13/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**53.7**	**D**	**8.3**	**10**	**mg/kg**	**12/10/07**	**23:41**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2111-BD	Lab Sample ID:	711053-031-031-1/1
Sample Date/Time:	10/18/2007 14:42	Percent Moisture:	NA
Receipt Date/Time:	11/12/2007 14:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/13/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**11.9**	**D**	**8.3**	**10**	**mg/kg**	**12/10/07**	**23:44**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2112-BD	Lab Sample ID:	711053-032-032-1/1
Sample Date/Time:	10/18/2007 14:42	Percent Moisture:	NA
Receipt Date/Time:	11/12/2007 14:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/13/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**17.6**	**D**	**7.9**	**10**	**mg/kg**	**12/10/07**	**23:48**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2113-BD	Lab Sample ID:	711053-033-033-1/1
Sample Date/Time:	10/18/2007 14:42	Percent Moisture:	NA
Receipt Date/Time:	11/12/2007 14:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/13/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**14.6**	**D**	**8**	**10**	**mg/kg**	**12/10/07**	**23:51**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2114-BD	Lab Sample ID:	711053-034-034-1/1
Sample Date/Time:	10/18/2007 14:42	Percent Moisture:	NA
Receipt Date/Time:	11/12/2007 14:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/13/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**19.2**	**D**	**8**	**10**	**mg/kg**	**12/10/07**	**23:55**

Qualifier Definitions

SC&A, Inc.

Work Order: 711053

All Departments

U	Indicates that the compound was analyzed for but not detected
BQL	Below Quantitation Limit

Organics

B	Indicates that the analyte was found in the associated blank as well as in the sample
D	Indicates that the analyte was reported from a diluted analysis
E	Indicates that the concentration detected exceeded the calibration range of the instrument
J	Value is less than the reporting limit but greater than the MDL
P	Indicates that there is greater than 25% difference for detected pesticide/Arochlor results between the two GC columns

Metals

J	Indicates that the reported value was less than the reporting limit but greater than or equal to the IDL/MDL
E	Indicates that the reported value is estimated because of the possible presence of interference (i.e. the serial dilution not within control limits)
H	Indicates that the element was found in the associated blank as well as in the sample and the value is greater than or equal to the reporting limit
D	Indicates that the analyte was reported from a diluted analysis
N	Spiked sample recovery not within control limits
*	Duplicate analysis not within control limits

SC & A 1600 MONTICELLO COURT
CHAIN OF CUSTODY RECORD MONTGOMERY, AL 36117 (334) 272-3334 (334)213-0087 FAX

WORK ASSIGNMENT #	PROJECT NAME	ANALYSIS REQUESTED	FOR LABORATORY USE
08-3090.01	Schofield CZ		

Client Name: JMC

Project Manager: Greg Miller Cabrera Services

Requested Comp. Date: 28 day T.A.T

Notify Upon Receipt?

COC# 41

Item No.	Date	Time	Matrix	Sample I.D.	# CONTAINERS	SW846 - 6010 C Lead							8020	Laboratory Comments
1	10/18/2007		Soil	SB-CZ-SS-2007-IM	1	X							01	
2	10/18/2007		Soil	SB-CZ-SS-2008-IM	1	X							02	
3	10/18/2007		Soil	SB-CZ-SS-2009-IM	1	X							03	
4	10/18/2007		Soil	SB-CZ-SS-2100-IM	1	X								
5	10/18/2007		Soil	SB-CZ-SS-2101-IM	1	X							04	
6	10/18/2007		Soil	SB-CZ-SS-2102-IM	1	X							05	
7	10/18/2007		Soil	SB-CZ-SS-2103-IM	1	X							06	
8	10/18/2007		Soil	SB-CZ-SS-2104-IM	1	X							07	
9	10/18/2007		Soil	SB-CZ-SS-2105-IM	1	X							08	
10	10/18/2007		Soil	SB-CZ-SS-2106-IM	1	X							09	
11	10/18/2007		Soil	SB-CZ-SS-2107-IM	1	X							10	
12	10/18/2007		Soil	SB-CZ-SS-2108-IM	1	X							11	
13	10/18/2007		Soil	SB-CZ-SS-2109-IM	1	X							12	
14	10/18/2007		Soil	SB-CZ-SS-2110-IM	1	X							13	

Study ID

Pg 1 of 3

Samples by and Title: Alfred Craig FSP	Date/Time: 10-18-07	Relinquished by: Alfred Craig FSP	Date/Time	QC Level: 1 2 3	
Received by: [signature]	Date/Time: [illegible]	Relinquished by: [signature]	Date/Time [illegible]	COC	ICE
Received by:	Date/Time	Relinquished by:	Date/Time	ANA REQ	TEMP
Sample SB-CZ-SS-2100 [illegible] Field Personnel Client was contacted [illegible]		Sample shipped via: UPS FED-EX HAND OTHER	Air Bill #	Cust Seal Sample	pH

[signature] 11-12-07 0945

711053

SC&A, 1000 MONTICELLO COURT
CHAIN OF CUSTODY RECORD MONTGOMERY, AL 36117 (334) 272-2234 (334) 213-0807 FAX

WORK ASSIGNMENT #:	PROJECT NAME:	ANALYSIS REQUESTED	FOR LABORATORY USE
09-3040.01	Schofield CZ		

Client Name: JMG

Project Manager: Greg Miller Cabrera Services

Requested Comp. Date: 28 day T.A.T

COC# 61

Notify Upon Receipt?

Item No.	Date	Time	Matrix	Sample ID	# of Containers	Lead	Laboratory	Comments
1	10/18/2007		Soil	[illegible]	2	X		
2	10/18/2007		Soil	[illegible]	1	X		
3	10/18/2007		Soil	[illegible]	1	X		
4	10/18/2007		Soil	[illegible]	1	X		
5	10/18/2007		Soil	[illegible]	1	X		
6	10/18/2007		Soil	[illegible]	1	X		
7	10/18/2007		Soil	[illegible]	1	X		
8	10/18/2007		Soil	[illegible]	1	X		
9	10/18/2007		Soil	[illegible]	1	X		
10	10/18/2007		Soil	[illegible]	1	X		
11	10/18/2007		Soil	[illegible]	1	X		
12	10/18/2007		Soil	[illegible]	1	X		
13	10/18/2007		Soil	[illegible]	1	X		
14	10/18/2007		Soil	[illegible]	1	X		

Sampled by and Title: Alfred Craig FSP — Date/Time: 10-18-07
Relinquished by: Alfred Craig FSP — Date/Time: [illegible]
Received by: [illegible] — Date/Time: [illegible]
Relinquished by: [illegible] — Date/Time: [illegible]
Received by: — Date/Time:
Relinquished by: — Date/Time:
Sample Shipped via: UPS FED EX HAND OTHER
Air Bill #

Laboratory Prefix:
Study ID:
Pg 2 of 3

CC Level 1 2 3
COC | ICE
ANA REQ | TEMP
Cust Seal | pH
Sample

Chain of Custody

SC&A, Inc.

SDG: 711053

SC&A
CHAIN OF CUSTODY RECORD
WORK ASSIGNMENT #
Client Name: JMC

INDUSTRIAL HIGHWAY
INDUSTRIAL COMMERCE, AL 35173
PROJECT NAME
Schofield C2

(334) 372-3234 (334)213-0417 FAX
ANALYSES REQUESTED

FOR LABORATORY USE
Laboratory Project

Project Manager: Glen Miller, Charles Bradford
Received Comp: Date
Modify Data Reporter

COC # 41

| Item No. | Date | Time | Matrix | Sample I.D. | | |

SC&A Laboratory Radiological Survey Results

Dose Rate Instrument - Gamma	
Instrument Mfg. Ludlum	
Model Number 19	
Serial Number 52849	

Alpha Survey Instrument	
Instrument Mfg. Ludlum	Detector Mfg. Ludlum
Model Number 16	Model Number 43-5
Serial Number 56585	Serial Number PR 067187

Beta/Gamma Survey Instrument	
Instrument Mfg. Ludlum	Detector Mfg. Ludlum
Model Number 3	Model Number 44-9
Serial Number 220189	Serial Number PR 067189

Maximum Permissible Limits For Unrestricted Use		
2200 dpm/100 cm² - Alpha (49 CFR 173.443)	2200 dpm/100 cm² - BY (49 CFR 173.443)	0.5 mR/hr - Gamma (49 CFR 173.422)
Equivalent net cpm: Probe 43-5 15 cpm Probe 43-30 35 cpm	Equivalent net cpm: Probe 44-9 30 cpm Probe 44-54 275 cpm	>100µR/hr - process in road

Location	Date	Time	Gamma			Alpha			Beta/Gamma		
			Background cpm	Gross cpm	Net cpm	Background cpm	Gross cpm	Net cpm	Background cpm	Gross cpm	Net cpm
Airlock	11/01	1545									
Outside Cooler / Box											
Inside Cooler / Box											
Sample(s)			5	5	0	0	0	0	40	60	20
Airlock											
Outside Cooler / Box											
Inside Cooler / Box											
Sample(s)											
Airlock											
Outside Cooler / Box											
Inside Cooler / Box											
Sample(s)											
Airlock											
Outside Cooler / Box											
Inside Cooler / Box											
Sample(s)											

Surveyed By: [illegible]

SC&A, Southeastern Environmental Laboratory
SC&A-SEL-3 Rev. 2

Chain of Custody

SC&A, Inc.

SDG: 711053

FedEx | Ship Manager Label 791430322478 Page 1 of 1

From: Origin ID: MGMA (334)272-2284
Angie Lewis
SC&A, Inc.
1000 Montclair Cl.

Montgomery, AL 34117

FedEx Express

Ship Date: 08NOV07
Actwgt: 7 LB
System#: 3038922/INET7001
Account: S ******

Delivery Address Bar Code

SHIP TO: (301)694-5310 BILL SENDER
Pat Huebschman
GPL Laboratories
7210A Corporate Court

Frederick, MD 21703

Ref # HOAH2IL
Invoice #
PO #
Dept #

MON - 12NOV A2

TRK# 0201 7914 3032 2478 ** 2DAY **

FE-FDKA

IAD
MD-US
21703

Shipping Label: Your shipment is complete

1. Use the 'Print' feature from your browser to send this page to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the Service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is $500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

https://www.fedex.com/ship/domesticShipmentAction.do?method=doProcessShipment 11/8/2007

GPL Laboratories, LLLP

Figure 1
SAMPLE RECEIPT CHECKLIST

W.O. No: 711053
Client Name: SC&A
Date Received: 11-12-07
Time Received: 0945
Received By: Steve

Carrier Name: Fed-ex
Prepared (Logged In) By: LJP / 11-12-07 (Initials / Date)
Project:
Site:
VOA Holding Blank LC No:

	YES	NO
AirBill/Manifest Present? No. 7114 8628 2478	✓	
Shipping Container in Good Condition?	✓	
Custody Seals Present on Shipping Container? Condition: Broken ___ Intact-not dated or signed ___ Intact-dated and signed ✓	✓	
Usage of Tamper Evident Tape		✓
Chain-of-Custody Present?	✓	
Chain-of-Custody Agrees with Sample Labels?	✓	
Chain-of-Custody Signed?	✓	
Packing Present in Shipping Container? Type of Packing: Ziplock	✓	
Custody seals on Sample Bottles? Condition: Good ___ Broken ___		✓
Total Number of Sample Bottles: 34		
Total Number of Samples: 34		
Samples Intact?	✓	
Sufficient Sample Volume for Indicated Test?	✓	

	YES	NO
Trip Blanks: No. of Sets ___		✓
Field Blanks: No. of Sets ___		✓
Equip. Blanks: No. of Sets ___		✓
Field Duplicates: No. of Sets ___		✓
MS/MSD: No. of Sets ___		✓
VOA Vials Have Zero Headspace? If no, smaller or greater than a Green Pea. (see comments)	✓	
Preservatives Added to Sample?		✓
pH Check Required?		✓
Performed By?		✓
Ice Present in Shipping Container?		✓

Container #	Temp.	Container #	Temp.
1			

Project Manager Contacted?
Name: PM
Date Contacted: 11-12-07

Any NO responses must be detailed in the comments section below. If items are not applicable to particular samples or contracts, they should be marked N/A

COMMENTS:

Checklist Completed By: [signature]

Date: 11-12-07

TRACE METALS

GPL Laboratories

USEPA - CLP

COVER PAGE

Lab Name: GPL LABORATORIES, LLLP Contract: _____

Lab Code: _____ Case No.: _____ NRAS No.: _____ SDG No.: 711053

SOW No.: SW846

EPA Sample No.	Lab Sample ID
SB-CZ-SS-2097-BA	S 711053-001-001-1/1
SB-CZ-SS-2097-BA MS	SP711053-001-001-1/1
SB-CZ-SS-2097-BA MSD	SD711053-001-001-1/1
SB-CZ-SS-2097-BD	S 711053-014-014-1/1
SB-CZ-SS-2098-BA	S 711053-002-002-1/1
SB-CZ-SS-2098-BD	S 711053-015-015-1/1
SB-CZ-SS-2099-BA	S 711053-003-003-1/1
SB-CZ-SS-2099-BD	S 711053-016-016-1/1
SB-CZ-SS-2101-BA	S 711053-004-004-1/1
SB-CZ-SS-2101-BD	S 711053-017-017-1/1
SB-CZ-SS-2102-BA	S 711053-005-005-1/1
SB-CZ-SS-2102-BD	S 711053-018-018-1/1
SB-CZ-SS-2103-BA	S 711053-006-006-1/1
SB-CZ-SS-2103-BD	S 711053-019-019-1/1
SB-CZ-SS-2104-BA	S 711053-007-007-1/1
SB-CZ-SS-2104-BD	S 711053-020-020-1/1
SB-CZ-SS-2105-BA	S 711053-008-008-1/1
SB-CZ-SS-2105-BD	S 711053-021-021-1/1
SB-CZ-SS-2105-BD MS	SP711053-021-021-1/1
SB-CZ-SS-2105-BD MSD	SD711053-021-021-1/1
SB-CZ-SS-2106-BA	S 711053-009-009-1/1
SB-CZ-SS-2106-BD	S 711053-022-022-1/1
SB-CZ-SS-2107-BA	S 711053-010-010-1/1
SB-CZ-SS-2107-BD	S 711053-023-023-1/1
SB-CZ-SS-2108-BA	S 711053-011-011-1/1
SB-CZ-SS-2108-BD	S 711053-024-024-1/1
SB-CZ-SS-2109-BA	S 711053-012-012-1/1
SB-CZ-SS-2109-BD	S 711053-025-025-1/1
SB-CZ-SS-2110-BA	S 711053-013-013-1/1
SB-CZ-SS-2110-BD	S 711053-026-026-1/1
SB-CZ-SS-2111-BA	S 711053-027-027-1/1
SB-CZ-SS-2111-BD	S 711053-031-031-1/1
SB-CZ-SS-2112-BA	S 711053-028-028-1/1
SB-CZ-SS-2112-BD	S 711053-032-032-1/1
SB-CZ-SS-2113-BA	S 711053-029-029-1/1

EPA Sample No.	Lab Sample ID
SB-CZ-SS-2113-BD	S 711053-033-033-1/1
SB-CZ-SS-2114-BA	S 711053-030-030-1/1
SB-CZ-SS-2114-BD	S 711053-034-034-1/1

		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: [signature] Name: [illegible]

Date: 12/18/2007 Title: [illegible]

GPL Laboratories, LLLP

Sample Results

Project:	711053	Matrix:	Soil
Lab Sample ID:	S 711053-001-001-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2097-BA	Prep Batch:	101653
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	35.0	D	10	12/11/07 17:44

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:	711053	Matrix:	Soil
Lab Sample ID:	S 711053-002-002-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2098-BA	Prep Batch:	101653
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	38.3	D	10	12/11/07 18:01

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:	711053	Matrix:	Soil
Lab Sample ID:	S 711053-003-003-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2099-BA	Prep Batch:	101653
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	33.4	D	10	12/11/07 18:04

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:	711053	Matrix:	Soil
Lab Sample ID:	S 711053-004-004-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2101-BA	Prep Batch:	101653
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	276	D	10	12/11/07 18:08

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:	711053	Matrix:	Soil
Lab Sample ID:	S 711053-005-005-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2102-BA	Prep Batch:	101653
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	50.1	D	10	12/11/07 18:18

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:	711053	Matrix:	Soil
Lab Sample ID:	S 711053-006-006-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2103-BA	Prep Batch:	101653
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	38.1	D	10	12/11/07 18:22

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

GPL Laboratories, LLLP

Sample Results

Project:	711053	Matrix:	Soil
Lab Sample ID:	S 711053-007-007-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2104-BA	Prep Batch:	101653
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	34.7	D	10	12/11/07 18:25

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:	711053	Matrix:	Soil
Lab Sample ID:	S 711053-008-008-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2105-BA	Prep Batch:	101653
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	65.7	D	10	12/11/07 18:29

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:	711053	Matrix:	Soil
Lab Sample ID:	S 711053-009-009-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2106-BA	Prep Batch:	101653
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	40.7	D	10	12/11/07 18:32

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:	711053	Matrix:	Soil
Lab Sample ID:	S 711053-010-010-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2107-BA	Prep Batch:	101653
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	0.79	7.9	40.7	D	10	12/11/07 18:36

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:	711053	Matrix:	Soil
Lab Sample ID:	S.711053-011-011-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2108-BA	Prep Batch:	101653
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	45.4	D	10	12/11/07 18:39

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:	711053	Matrix:	Soil
Lab Sample ID:	S 711053-012-012-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2109-BA	Prep Batch:	101653
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	29.6	D	10	12/11/07 18:43

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:	711053	Matrix:	Soil
Lab Sample ID:	S 711053-013-013-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2110-BA	Prep Batch:	101653
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	49.6	D	10	12/11/07 18:46

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

GPL Laboratories, LLLP

Sample Results

Project:	711053	Matrix:	Soil
Lab Sample ID:	S 711053-014-014-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2097-BD	Prep Batch:	101653
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	18.9	D	10	12/10/07 22:11

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

GPL Laboratories, LLLP

Sample Results

Project:	711053	Matrix:	Soil
Lab Sample ID:	S 711053-015-015-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2098-BD	Prep Batch:	101653
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	19.1	D	10	12/10/07 22:15

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:	711053	Matrix:	Soil
Lab Sample ID:	S 711053-016-016-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2099-BD	Prep Batch:	101653
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	18.3	D	10	12/10/07 22:18

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:	711053	Matrix:	Soil
Lab Sample ID:	S 711053-017-017-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2101-BD	Prep Batch:	101653
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	33.5	D	10	12/10/07 22:22

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

GPL Laboratories, LLLP

Sample Results

Project:	711053	Matrix:	Soil
Lab Sample ID:	S 711053-018-018-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2102-BD	Prep Batch:	101653
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	10.6	D	10	12/10/07 22:25

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:	711053	Matrix:	Soil
Lab Sample ID:	S 711053-019-019-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2103-BD	Prep Batch:	101653
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	19.5	D	10	12/10/07 22:28

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:	711053	Matrix:	Soil
Lab Sample ID:	S 711053-020-020-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2104-BD	Prep Batch:	101653
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	15.7	D	10	12/10/07 22:32

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:	711053	Matrix:	Soil
Lab Sample ID:	S 711053-021-021-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2105-BD	Prep Batch:	101655
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	23.6	D	10	12/10/07 22:42

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:	711053	Matrix:	Soil
Lab Sample ID:	S 711053-022-022-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2106-BD	Prep Batch:	101655
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	0.79	7.9	21.6	D	10	12/10/07 23:06

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:	711053	Matrix:	Soil
Lab Sample ID:	S 711053-023-023-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2107-BD	Prep Batch:	101655
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	20.0	D	10	12/10/07 23:10

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:	711053	Matrix:	Soil
Lab Sample ID:	S 711053-024-024-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2108-BD	Prep Batch:	101655
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	23.4	D	10	12/10/07 23:13

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:	711053	Matrix:	Soil
Lab Sample ID:	S 711053-025-025-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2109-BD	Prep Batch:	101655
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	17.1	D	10	12/10/07 23:17

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

URIT Version 4.6.0

GPL Laboratories, LLLP

Sample Results

Project:	711053	Matrix:	Soil
Lab Sample ID:	S 711053-026-026-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2110-BD	Prep Batch:	101655
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	18.7	D	10	12/10/07 23:20

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:	711053	Matrix:	Soil
Lab Sample ID:	S 711053-027-027-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2111-BA	Prep Batch:	101655
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	0.79	7.9	27.0	D	10	12/10/07 23:24

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:	711053	Matrix:	Soil
Lab Sample ID:	S 711053-028-028-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2112-BA	Prep Batch:	101655
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	46.9	D	10	12/10/07 23:34

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

URIT Version 4.6.0

GPL Laboratories, LLLP

Sample Results

Project:	711053	Matrix:	Soil
Lab Sample ID:	S 711053-029-029-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2113-BA	Prep Batch:	101655
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	58.9	D	10	12/10/07 23:38

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

URIT Version 4.6.0

GPL Laboratories, LLLP

Sample Results

Project:	711053	Matrix:	Soil
Lab Sample ID:	S 711053-030-030-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2114-BA	Prep Batch:	101655
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	53.7	D	10	12/10/07 23:41

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

URIT Version 4.6.0

GPL Laboratories, LLLP

Sample Results

Project:	711053	Matrix:	Soil
Lab Sample ID:	S 711053-031-031-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2111-BD	Prep Batch:	101655
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	11.9	D	10	12/10/07 23:44

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:	711053	Matrix:	Soil
Lab Sample ID:	S 711053-032-032-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2112-BD	Prep Batch:	101655
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	0.79	7.9	17.6	D	10	12/10/07 23:48

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:	711053	Matrix:	Soil
Lab Sample ID:	S 711053-033-033-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2113-BD	Prep Batch:	101655
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	14.6	D	10	12/10/07 23:51

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:	711053	Matrix:	Soil
Lab Sample ID:	S 711053-034-034-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2114-BD	Prep Batch:	101655
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	19.2	D	10	12/10/07 23:55

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:	711053	Matrix:	Soil
Lab Sample ID:	BLK101653	Percent Moisture:	0.0
Client Sample ID:	NA	Prep Batch:	101653
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	12/11/07 17:37

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:	711053	Matrix:	Soil
Lab Sample ID:	BLK101655	Percent Moisture:	0.0
Client Sample ID:	NA	Prep Batch:	101655
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	12/10/07 22:35

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

Initial Calibration Verification

Project:	711053	Instrument:	iTEVA-Soil
Units:	ug/L	Data File Name:	071210.txt
Standard Source:	AB.ST.	Standard ID:	

Analyte	True	ICV 12/10/2007 4:00:49 PM							
		Found	%R	Found	%R	Found	%R	Found	%R
Lead	400.0	426.15	107						

GPL Laboratories, LLLP

Initial Calibration Verification

Project:	711053	Instrument:	ITEVA-Soil
Units:	ug/L	Data File Name:	071211.txt
Standard Source:	AB.ST.	Standard ID:	

Analyte	True	ICV 12/11/2007 4:58:13 PM							
		Found	%R	Found	%R	Found	%R	Found	%R
Lead	400.0	418.58	105						

GPL Laboratories, LLLP

Continuing Calibration Verification

Project:	711053	Instrument:	iTEVA-Soil
Units:	ug/L	Data File Name:	071210.txt
Standard Source:	H.P.	Standard ID:	

Analyte	True	CCV1 12/10/2007 4:07:40 PM		CCV2 12/10/2007 4:32:43 PM		CCV3 12/10/2007 5:13:50 PM		CCV4 12/10/2007 5:55:14 PM	
		Found	%R	Found	%R	Found	%R	Found	%R
Lead	500.0	490.73	98	495.92	99	490.97	98	497.73	100

GPL Laboratories, LLLP

Continuing Calibration Verification

Project:	711053	Instrument:	iTEVA-Soil
Units:	ug/L	Data File Name:	071210.txt
Standard Source:	H.P	Standard ID:	

Analyte	True	CCV5 12/10/2007 6:37:02 PM		CCV6 12/10/2007 7:18:26 PM		CCV7 12/10/2007 7:59:40 PM		CCV8 12/10/2007 8:41:08 PM	
		Found	%R	Found	%R	Found	%R	Found	%R
Lead	500.0	491.98	98	501.87	100	495.06	99	497.36	99

GPL Laboratories, LLLP

Continuing Calibration Verification

Project:	711053	Instrument:	ITEVA-Soil
Units:	ug/L	Data File Name:	071210.txt
Standard Source:	H.P.	Standard ID:	

Analyte	True	CCV9 12/10/2007 9:22:32 PM		CCV10 12/10/2007 10:04:42 PM		CCV11 12/10/2007 10:46:12 PM		CCV12 12/10/2007 11:27:36 PM	
		Found	%R	Found	%R	Found	%R	Found	%R
Lead	500.0	503.46	101	502.09	100	515.53	103	515.94	103

GPL Laboratories, LLLP

Continuing Calibration Verification

Project:	711053	Instrument:	ITEVA-Soil
Units:	ug/L	Data File Name:	071210.txt
Standard Source:	H.Q.	Standard ID:	

Analyte	True	CCV12 12/11/2007 12:08:47 AM							
		Found	%R	Found	%R	Found	%R	Found	%R
Lead	500.0	516.17	103						

GPL Laboratories, LLLP

Continuing Calibration Verification

Project:	711053	Instrument:	iTEVA-Soil
Units:	ug/L	Data File Name:	071211.txt
Standard Source:	H.Q.	Standard ID:	

Analyte	True	CCV1 12/11/2007 5:05:07 PM		CCV2 12/11/2007 5:30:27 PM		CCV3 12/11/2007 6:11:54 PM		CCV4 12/11/2007 6:53:42 PM	
		Found	%R	Found	%R	Found	%R	Found	%R
Lead	500.0	485.23	97	494.53	99	496.45	99	501.87	100

GPL Laboratories, LLLP

Low Level Check Standard

Project:	711053	Instrument:	ITEVA-Soil
Units:	ug/L	Data File Name:	071210.txt
Standard Source:	H.P.	Standard ID:	

Analyte	True	PQL 12/10/2007 4:14:39 PM							
		Found	%R	Found	%R	Found	%R	Found	%R
Lead	10.0	9.66	97						

GPL Laboratories, LLLP

Low Level Check Standard

Project:	711053	Instrument:	iTEVA-Soil
Units:	ug/L	Data File Name:	071211.txt
Standard Source:	H.P.	Standard ID:	

Analyte	True	PQL 12/11/2007 5:12:11 PM							
		Found	%R	Found	%R	Found	%R	Found	%R
Lead	10.0	9.12	91						

GPL Laboratories, LLLP

Initial Calibration Blanks

Project: 711053

Units: ug/L

Standard Source:

Instrument: iTEVA-Soil

Data File Name: 071210.txt

Standard ID:

Analyte	RL	ICB 12/10/2007 4:04:17 PM							
		Found	Flag	Found	Flag	Found	Flag	Found	Flag
Lead	10.00	1.00	U						

GPL Laboratories, LLLP

Initial Calibration Blanks

Project:	711053	Instrument:	ITEVA-Soil
Units:	ug/L	Data File Name:	071211.txt
Standard Source:		Standard ID:	

Analyte	RL	ICB 12/11/2007 5:01:40 PM							
		Found	Flag	Found	Flag	Found	Flag	Found	Flag
Lead	10.00	1.00	U						

GPL Laboratories, LLLP

Continuing Calibration Blanks

Project: 711053

Units: ug/L

Standard Source:

Instrument: ITEVA-Soil

Data File Name: 071210.txt

Standard ID:

Analyte	RL	CCB1 12/10/2007 4:11:16 PM		CCB2 12/10/2007 4:36:19 PM		CCB3 12/10/2007 5:17:26 PM		CCB4 12/10/2007 5:58:50 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:	711053	Instrument:	iTEVA-Soil
Units:	ug/L	Data File Name:	071210.txt
Standard Source:		Standard ID:	

Analyte	RL	CCB5 12/10/2007 6:40:39 PM		CCB6 12/10/2007 7:22:02 PM		CCB7 12/10/2007 8:03:16 PM		CCB8 12/10/2007 8:44:45 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:	711053	Instrument:	iTEVA-Soil
Units:	ug/L	Data File Name:	071210.txt
Standard Source:		Standard ID:	

Analyte	RL	CCB9 12/10/2007 9:26:09 PM		CCB10 12/10/2007 10:08:19 PM		CCB11 12/10/2007 10:49:50 PM		CCB12 12/10/2007 11:31:14 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:	711053	Instrument:	ITEVA-Soil
Units:	ug/L	Data File Name:	071210.txt
Standard Source:		Standard ID:	

Analyte	RL	CCB12 12/11/2007 12:12:24 AM							
		Found	Flag	Found	Flag	Found	Flag	Found	Flag
Lead	10.00	1.00	U						

GPL Laboratories, LLLP

Continuing Calibration Blanks

Project:	711053	Instrument:	iTEVA-Soil
Units:	ug/L	Data File Name:	071211.txt
Standard Source:		Standard ID:	

Analyte	RL	CCB1 12/11/2007 5:08:44 PM		CCB2 12/11/2007 5:34:04 PM		CCB3 12/11/2007 6:15:29 PM		CCB4 12/11/2007 6:57:17 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

Interference Check Standards

Project:	711053	Instrument:	ITEVA
Units:	ug/L	Data File Name:	071210.txt
Standard Source:	H.P./AB.ST.	Standard ID:	

Analyte	RL	True		Initial Found				Final Found			
		Sol. A	Sol. B		%R	ICSAB 12/10/07 16:21	%R		%R		%R
Lead	10		50.0			1.0					
Lead	10		50			57.7	115				

GPL Laboratories, LLLP

Matrix Spike Recovery

Client ID:	SB-CZ-SS-2097-BA MS	Lab Sample ID:	SP711053-001-001-1/1
Project:	711053	Instrument:	iTEVA-Soil
Units:	mg/kg	Data File Name:	071211.txt
Standard Source:	H.P.	Standard ID:	

Analyte	Spiked Sample Result 12/11/07 17:47	Sample Result 12/11/07 17:44	Spike Added	%R
Lead	119.05	35.01	83.33	101

GPL Laboratories, LLLP

Matrix Spike Recovery

Client ID:	SB-CZ-SS-2105-BD MS	Lab Sample ID:	SP711053-021-021-1/1
Project:	711053	Instrument:	iTEVA-Soil
Units:	mg/kg	Data File Name:	071210.txt
Standard Source:	H.P.	Standard ID:	

Analyte	Spiked Sample Result 12/10/07 22:53	Sample Result 12/10/07 22:42	Spike Added	%R
Lead	106.79	23.64	80.65	103

GPL Laboratories, LLLP

Matrix Spike Duplicate Recovery

Client ID:	SB-CZ-SS-2097-BA MSD	Lab Sample ID:	SD711053-001-001-1/1
Project:	711053	Instrument:	iTEVA-Soil
Units:	mg/kg	Data File Name:	071211.txt
Standard Source:	H.P.	Standard ID:	

Analyte	Spiked Sample Result 12/11/07 17:51	Sample Result 12/11/07 17:44	Spike Added	%R
Lead	120.54	35.01	80.00	107

GPL Laboratories, LLLP

Matrix Spike Duplicate Recovery

Client ID:	SB-CZ-SS-2105-BD MSD	Lab Sample ID:	SD711053-021-021-1/1
Project:	711053	Instrument:	iTEVA-Soil
Units:	mg/kg	Data File Name:	071210.txt
Standard Source:	H.P.	Standard ID:	

Analyte	Spiked Sample Result 12/10/07 22:56	Sample Result 12/10/07 22:42	Spike Added	%R
Lead	104.54	23.64	78.74	103

GPL Laboratories, LLLP

Duplicates RPD

Client ID:	SB-CZ-SS-2097-BA MSD	Lab Sample ID:	SD711053-001-001-1/1
Project:	711053	Instrument:	iTEVA-Soil
Units:	mg/kg	Data File Name:	071211.txt

Analyte	Matrix Spike ~~Original~~ Sample Results	Matrix Spike Duplicate Sample Results	RPD	Control Limit	Q
Lead	119.05	120.54	1	20	D

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Duplicates RPD MD

Client ID:	SB-CZ-SS-2105-BD MSD	Lab Sample ID:	SD711053-021-021-1/1
Project:	711053	Instrument:	iTEVA-Soil
Units:	mg/kg	Data File Name:	071210.txt

Analyte	Matrix Spike ~~Original~~ Sample Results MD	Matrix Spike ~~Duplicate~~ Sample Results MD	RPD	Control Limit	Q
Lead	106.79	104.54	2	20	D

GPL Laboratories, LLLP

Laboratory Control Sample

Project:	711053	Lab Sample ID:	BKS101653
Units:	mg/kg	Instrument:	iTEVA-Soil
		Data File Name:	071211.txt
Standard Source:	H.P.	Standard ID:	

Analyte	Spiked Sample Result 12/11/07 17:40	Spike Added	%R
Lead	102.78	100.00	103

GPL Laboratories, LLLP

Laboratory Control Sample

Project:	711053	Lab Sample ID:	BKS101655
Units:	mg/kg	Instrument:	ITEVA-Soil
		Data File Name:	071210.txt
Standard Source:	H.P.	Standard ID:	

Analyte	Spiked Sample Result 12/10/07 22:39	Spike Added	%R
Lead	102.08	100.00	102

GPL Laboratories, LLLP

Serial Dilutions

Client ID:	SB-CZ-SS-2097-BA	Lab Sample ID:	SE711053-001-001-1/1
Project:	711053	Instrument:	iTEVA-Soil
Units:	ug/L	Data File Name:	071211.txt

Analyte	Sample Result 12/11/07 17:44		Serial Dilution Result 12/11/07 17:58		Percent Difference	Flag
Lead	41.31		28.17	J	32	

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Serial Dilutions

Client ID:	SB-CZ-SS-2105-BD	Lab Sample ID:	SE711053-021-021-1/1
Project:	711053	Instrument:	ITEVA-Soil
Units:	ug/L	Data File Name:	071210.txt

Analyte	Sample Result 12/10/07 22:42		Serial Dilution Result 12/10/07 23:03		Percent Difference	Flag
Lead	28.36		25.79	J	9	

GPL Laboratories, LLLP

Detection Limits

Project: 711053 Instrument: iTEVA

Units: ug/L

Analyte	Wavelength/Mass	Reporting Limit	Method Detection Limit	Date of MDL
Lead	220.353	10.0	1.0	11/14/07

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
			Tl	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
			Tl	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
Tl 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: 711053 Instrument: iTEVA-Soil

Units: ug/L

Analyte	Wavelength/Mass	Linear Dynamic Range	Date of LDR
Lead	220.353	22000	11/14/07

GPL Laboratories, LLLP

Preparation Log

Project: 711053 Instrument: iTEVA-Soil

Prep Method: Batch Number: 101653

Lab Sample ID	Client ID	Preparation Date	Initial Weight (grams)	Final Volume (ml)
BLK101653	BLK101653	11/13/2007	1.00	100
BKS101653	BKS101653	11/13/2007	1.00	100
S 711053-001-001-1/1	SB-CZ-SS-2097-BA	11/13/2007	1.18	100
SP711053-001-001-1/1	SB-CZ-SS-2097-BA MS	11/13/2007	1.20	100
S 711053-014-014-1/1	SB-CZ-SS-2097-BD	11/13/2007	1.19	100
S 711053-002-002-1/1	SB-CZ-SS-2098-BA	11/13/2007	1.17	100
S 711053-015-015-1/1	SB-CZ-SS-2098-BD	11/13/2007	1.20	100
S 711053-003-003-1/1	SB-CZ-SS-2099-BA	11/13/2007	1.19	100
S 711053-016-016-1/1	SB-CZ-SS-2099-BD	11/13/2007	1.25	100
S 711053-004-004-1/1	SB-CZ-SS-2101-BA	11/13/2007	1.21	100
S 711053-017-017-1/1	SB-CZ-SS-2101-BD	11/13/2007	1.21	100
S 711053-005-005-1/1	SB-CZ-SS-2102-BA	11/13/2007	1.25	100
S 711053-018-018-1/1	SB-CZ-SS-2102-BD	11/13/2007	1.22	100
S 711053-006-006-1/1	SB-CZ-SS-2103-BA	11/13/2007	1.19	100
S 711053-019-019-1/1	SB-CZ-SS-2103-BD	11/13/2007	1.19	100
S 711053-007-007-1/1	SB-CZ-SS-2104-BA	11/13/2007	1.19	100
S 711053-020-020-1/1	SB-CZ-SS-2104-BD	11/13/2007	1.20	100
S 711053-008-008-1/1	SB-CZ-SS-2105-BA	11/13/2007	1.20	100
S 711053-009-009-1/1	SB-CZ-SS-2106-BA	11/13/2007	1.21	100
S 711053-010-010-1/1	SB-CZ-SS-2107-BA	11/13/2007	1.26	100
S 711053-011-011-1/1	SB-CZ-SS-2108-BA	11/13/2007	1.19	100
S 711053-012-012-1/1	SB-CZ-SS-2109-BA	11/13/2007	1.24	100
S 711053-013-013-1/1	SB-CZ-SS-2110-BA	11/13/2007	1.23	100
SD711053-001-001-1/1	SB-CZ-SS-2097-BA MSD	11/13/2007	1.25	100

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Preparation Log

Project: 711053

Prep Method:

Instrument: iTEVA-Soil

Batch Number: 101655

Lab Sample ID	Client ID	Preparation Date	Initial Weight (grams)	Final Volume (ml)
BLK101655	BLK101655	11/13/2007	1.00	100
BKS101655	BKS101655	11/13/2007	1.00	100
S 711053-021-021-1/1	SB-CZ-SS-2105-BD	11/13/2007	1.20	100
SP711053-021-021-1/1	SB-CZ-SS-2105-BD MS	11/13/2007	1.24	100
S 711053-022-022-1/1	SB-CZ-SS-2106-BD	11/13/2007	1.26	100
S 711053-023-023-1/1	SB-CZ-SS-2107-BD	11/13/2007	1.22	100
S 711053-024-024-1/1	SB-CZ-SS-2108-BD	11/13/2007	1.25	100
S 711053-025-025-1/1	SB-CZ-SS-2109-BD	11/13/2007	1.19	100
S 711053-026-026-1/1	SB-CZ-SS-2110-BD	11/13/2007	1.19	100
S 711053-027-027-1/1	SB-CZ-SS-2111-BA	11/13/2007	1.27	100
S 711053-031-031-1/1	SB-CZ-SS-2111-BD	11/13/2007	1.21	100
S 711053-028-028-1/1	SB-CZ-SS-2112-BA	11/13/2007	1.25	100
S 711053-032-032-1/1	SB-CZ-SS-2112-BD	11/13/2007	1.26	100
S 711053-029-029-1/1	SB-CZ-SS-2113-BA	11/13/2007	1.24	100
S 711053-033-033-1/1	SB-CZ-SS-2113-BD	11/13/2007	1.25	100
S 711053-030-030-1/1	SB-CZ-SS-2114-BA	11/13/2007	1.21	100
S 711053-034-034-1/1	SB-CZ-SS-2114-BD	11/13/2007	1.25	100
SD711053-021-021-1/1	SB-CZ-SS-2105-BD MSD	11/13/2007	1.27	100

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Analysis Run Log

Project: 711053

Instrument: ITEVA-Soil

Data File Name: 071210.txt

Sample Name	Client ID	Analysis Date	Analysis Time
STD0		12/10/07	3:29 PM
STD1		12/10/07	3:33 PM
STD2		12/10/07	3:36 PM
STD3		12/10/07	3:39 PM
STD4		12/10/07	3:43 PM
STD5		12/10/07	3:46 PM
STD6		12/10/07	3:50 PM
ICV		12/10/07	4:00 PM
ICB		12/10/07	4:04 PM
CCV1		12/10/07	4:07 PM
CCB1		12/10/07	4:11 PM
PQL		12/10/07	4:14 PM
ICSA		12/10/07	4:18 PM
ICSAB		12/10/07	4:21 PM
CCV2		12/10/07	4:32 PM
CCB2		12/10/07	4:36 PM
CCV3		12/10/07	5:13 PM
CCB3		12/10/07	5:17 PM
CCV4		12/10/07	5:55 PM
CCB4		12/10/07	5:58 PM
CCV5		12/10/07	6:37 PM
CCB5		12/10/07	6:40 PM
CCV6		12/10/07	7:18 PM
CCB6		12/10/07	7:22 PM
CCV7		12/10/07	7:59 PM
CCB7		12/10/07	8:03 PM
CCV8		12/10/07	8:41 PM
CCB8		12/10/07	8:44 PM
CCV9		12/10/07	9:22 PM
CCB9		12/10/07	9:26 PM
CCV10		12/10/07	10:04 PM
CCB10		12/10/07	10:08 PM
S 711053-014-014-1/1	SB-CZ-SS-2097-BD	12/10/07	10:11 PM
S 711053-015-015-1/1	SB-CZ-SS-2098-BD	12/10/07	10:15 PM
S 711053-016-016-1/1	SB-CZ-SS-2099-BD	12/10/07	10:18 PM
S 711053-017-017-1/1	SB-CZ-SS-2101-BD	12/10/07	10:22 PM
S 711053-018-018-1/1	SB-CZ-SS-2102-BD	12/10/07	10:25 PM
S 711053-019-019-1/1	SB-CZ-SS-2103-BD	12/10/07	10:28 PM
S 711053-020-020-1/1	SB-CZ-SS-2104-BD	12/10/07	10:32 PM

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Analysis Run Log

Project: 711053

Instrument: ITEVA-Soil

Data File Name: 071210.txt

Sample Name	Client ID	Analysis Date	Analysis Time
BLK101655	BLK101655	12/10/07	10:35 PM
BKS101655	BKS101655	12/10/07	10:39 PM
S 711053-021-021-1/1	SB-CZ-SS-2105-BD	12/10/07	10:42 PM
CCV11		12/10/07	10:46 PM
CCB11		12/10/07	10:49 PM
SP711053-021-021-1/1	SB-CZ-SS-2105-BD MS	12/10/07	10:53 PM
SD711053-021-021-1/1	SB-CZ-SS-2105-BD MSD	12/10/07	10:56 PM
SE711053-021-021-1/1	SB-CZ-SS-2105-BD	12/10/07	11:03 PM
S 711053-022-022-1/1	SB-CZ-SS-2106-BD	12/10/07	11:06 PM
S 711053-023-023-1/1	SB-CZ-SS-2107-BD	12/10/07	11:10 PM
S 711053-024-024-1/1	SB-CZ-SS-2108-BD	12/10/07	11:13 PM
S 711053-025-025-1/1	SB-CZ-SS-2109-BD	12/10/07	11:17 PM
S 711053-026-026-1/1	SB-CZ-SS-2110-BD	12/10/07	11:20 PM
S 711053-027-027-1/1	SB-CZ-SS-2111-BA	12/10/07	11:24 PM
CCV12		12/10/07	11:27 PM
CCB12		12/10/07	11:31 PM
S 711053-028-028-1/1	SB-CZ-SS-2112-BA	12/10/07	11:34 PM
S 711053-029-029-1/1	SB-CZ-SS-2113-BA	12/10/07	11:38 PM
S 711053-030-030-1/1	SB-CZ-SS-2114-BA	12/10/07	11:41 PM
S 711053-031-031-1/1	SB-CZ-SS-2111-BD	12/10/07	11:44 PM
S 711053-032-032-1/1	SB-CZ-SS-2112-BD	12/10/07	11:48 PM
S 711053-033-033-1/1	SB-CZ-SS-2113-BD	12/10/07	11:51 PM
S 711053-034-034-1/1	SB-CZ-SS-2114-BD	12/10/07	11:55 PM
CCV12		12/11/07	12:08 AM
CCB12		12/11/07	12:12 AM

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Analysis Run Log

Project: 711053 Instrument: iTEVA-Soil

Data File Name: 071211.txt

Sample Name	Client ID	Analysis Date	Analysis Time
STD0		12/11/07	4:26 PM
STD1		12/11/07	4:30 PM
STD2		12/11/07	4:33 PM
STD3		12/11/07	4:37 PM
STD4		12/11/07	4:40 PM
STD5		12/11/07	4:44 PM
STD6		12/11/07	4:47 PM
ICV		12/11/07	4:58 PM
ICB		12/11/07	5:01 PM
CCV1		12/11/07	5:05 PM
CCB1		12/11/07	5:08 PM
PQL		12/11/07	5:12 PM
ICSA		12/11/07	5:15 PM
ICSAB		12/11/07	5:19 PM
CCV2		12/11/07	5:30 PM
CCB2		12/11/07	5:34 PM
BLK101653	BLK101653	12/11/07	5:37 PM
BKS101653	BKS101653	12/11/07	5:40 PM
S 711053-001-001-1/1	SB-CZ-SS-2097-BA	12/11/07	5:44 PM
SP711053-001-001-1/1	SB-CZ-SS-2097-BA MS	12/11/07	5:47 PM
SD711053-001-001-1/1	SB-CZ-SS-2097-BA MSD	12/11/07	5:51 PM
PS711053-001-001-1/1	SB-CZ-SS-2097-BA	12/11/07	5:54 PM
SE711053-001-001-1/1	SB-CZ-SS-2097-BA	12/11/07	5:58 PM
S 711053-002-002-1/1	SB-CZ-SS-2098-BA	12/11/07	6:01 PM
S 711053-003-003-1/1	SB-CZ-SS-2099-BA	12/11/07	6:04 PM
S 711053-004-004-1/1	SB-CZ-SS-2101-BA	12/11/07	6:08 PM
CCV3		12/11/07	6:11 PM
CCB3		12/11/07	6:15 PM
S 711053-005-005-1/1	SB-CZ-SS-2102-BA	12/11/07	6:18 PM
S 711053-006-006-1/1	SB-CZ-SS-2103-BA	12/11/07	6:22 PM
S 711053-007-007-1/1	SB-CZ-SS-2104-BA	12/11/07	6:25 PM
S 711053-008-008-1/1	SB-CZ-SS-2105-BA	12/11/07	6:29 PM
S 711053-009-009-1/1	SB-CZ-SS-2106-BA	12/11/07	6:32 PM
S 711053-010-010-1/1	SB-CZ-SS-2107-BA	12/11/07	6:36 PM
S 711053-011-011-1/1	SB-CZ-SS-2108-BA	12/11/07	6:39 PM
S 711053-012-012-1/1	SB-CZ-SS-2109-BA	12/11/07	6:43 PM
S 711053-013-013-1/1	SB-CZ-SS-2110-BA	12/11/07	6:46 PM
CCV4		12/11/07	6:53 PM
CCB4		12/11/07	6:57 PM

ICP ANALYSIS LOG

Analytical Batch No: 071210

Instrument ID: ICAP 6500 (20072904) Inst. Method: Nebulizer:

Workorder	Project/SDG #	Prep. Seq.	Batch #	Matrix S/W/E	Prep. Date	Method	Comments / Dilution
711020	SC&A, Inc		088/091	S	11/09/07	6010C	
711053	SC&A, Inc	101653	101	S	11/13/07	6010C	BLK -7513 Need to be Re-Run
711053	SC&A, Inc	101655	102	S	11/13/07	6010C	
711016	Shaw E&I, Inc		102	S	11/13/07	6010B	
711054	SC&A, Inc		108	S	11/15/07	6010C	
711054	SC&A, Inc		109	S	11/15/07	6010C	
711054	SC&A, Inc		110	S	11/15/07	6010C	

12/11/07

Source Solution Numbers

Stds.	Number	Stds.	Number
S0	G-P-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 711020-001-001-1/1
PS 711020-021-021-1/1
PS 711053-001-001-1/1
PS 711053-021-021-1/1
PS 711016-001-005-1/1
PS 711054-001-001-1/1
PS 711054-021-021-1/1
PS 711054-041-041-1/1

Analyst: Date: 12/11/07 Reviewed: Date: 12/14/07

ICP ANALYSIS LOG

	Pos ID	Type	Samplename								
1	1	QC	IDL 1	61	61	QC	BKS 101	121	121	Unk	S 711054-003-003-1
2	2	QC	IDL 2	62	62	Unk	S 711053-001-001-1	122	122	Unk	S 711054-004-004-1
3	3	QC	IDL 3	63	63	Unk	SP711053-001-001-	123	123	Unk	S 711054-005-005-1
4	4	QC	IDL 4	64	64	Unk	SD711053-001-001-	124	124	Unk	S 711054-006-006-1
5	5	QC	IDL 5	65	65	Unk	PS711053-001-001-	125	125	Unk	S 711054-007-007-1
6	6	QC	IDL 6	66	66	Unk	SE711053-001-001-	126	126	Unk	S 711054-008-008-1
7	7	QC	IDL 7	67	67	Unk	S 711053-002-002-1	127	127	Unk	S 711054-009-009-1
8	8	QC	BLK 088	68	68	Unk	S 711053-003-003-1	128	128	Unk	S 711054-010-010-1
9	9	QC	BLK 088	69	69	Unk	S 711053-004-004-1	129	129	Unk	S 711054-011-011-1
10	10	Unk	S 711020-001-001-1	70	70	Unk	S 711053-005-005-1	130	130	Unk	S 711054-012-012-1
11	11	Unk	SP711020-001-001-	71	71	Unk	S 711053-006-006-1	131	131	Unk	S 711054-013-013-1
12	12	Unk	SD711020-001-001-	72	72	Unk	S 711053-007-007-1	132	132	Unk	S 711054-014-014-1
13	13	Unk	PS711020-001-001-	73	73	Unk	S 711053-008-008-1	133	133	Unk	S 711054-015-015-1
14	14	Unk	SE711020-001-001-	74	74	Unk	S 711053-009-009-1	134	134	Unk	S 711054-016-016-1
15	15	Unk	S 711020-002-002-1	75	75	Unk	S 711053-010-010-1	135	135	Unk	S 711054-017-017-1
16	16	Unk	S 711020-003-003-1	76	76	Unk	S 711053-011-011-1	136	136	Unk	S 711054-018-018-1
17	17	Unk	S 711020-004-004-1	77	77	Unk	S 711053-012-012-1	137	137	Unk	S 711054-019-019-1
18	18	Unk	S 711020-005-005-1	78	78	Unk	S 711053-013-013-1	138	138	Unk	S 711054-020-020-1
19	19	Unk	S 711020-006-006-1	79	79	QC	ICSA	139	139	QC	BLK 109
20	20	Unk	S 711020-007-007-1	80	80	QC	ICSAB	140	140	QC	BKS 109
21	21	Unk	S 711020-008-008-1	81	81	Unk	S 711053-014-014-1	141	141	Unk	S 711054-021-021-1
22	22	Unk	S 711020-009-009-1	82	82	Unk	S 711053-015-015-1	142	142	Unk	SP711054-021-021-
23	23	Unk	S 711020-010-010-1	83	83	Unk	S 711053-016-016-1	143	143	Unk	SD711054-021-021-
24	24	Unk	S 711020-011-011-1	84	84	Unk	S 711053-017-017-1	144	144	Unk	PS711054-021-021-
25	25	Unk	S 711020-012-012-1	85	85	Unk	S 711053-018-018-1	145	145	Unk	SE711054-021-021-
26	26	Unk	S 711020-013-013-1	86	86	Unk	S 711053-019-019-1	146	146	Unk	S 711054-022-022-1
27	27	Unk	S 711020-014-014-1	87	87	Unk	S 711053-020-020-1	147	147	Unk	S 711054-023-023-1
28	28	Unk	S 711020-015-015-1	88	88	QC	BLK 102	148	148	Unk	S 711054-024-024-1
29	29	Unk	S 711020-016-016-1	89	89	QC	BKS 102	149	149	Unk	S 711054-025-025-1
30	30	Unk	S 711020-017-017-1	90	90	Unk	S 711053-021-021-1	150	150	Unk	S 711054-026-026-1
31	31	Unk	S 711020-018-018-1	91	91	Unk	SP711053-021-021-	151	151	Unk	S 711054-027-027-1
32	32	Unk	S 711020-019-019-1	92	92	Unk	SD711053-021-021-	152	152	Unk	S 711054-028-028-1
33	33	QC	BLK 091	93	93	Unk	PS711053-021-021-	153	153	Unk	S 711054-029-029-1
34	34	QC	BKS 091	94	94	Unk	SE711053-021-021-	154	154	Unk	S 711054-030-030-1
35	35	Unk	S 711020-020-020-1	95	95	Unk	S 711053-022-022-1	155	155	Unk	S 711054-031-031-1
36	36	Unk	S 711020-021-021-1	96	96	Unk	S 711053-023-023-1	156	156	Unk	S 711054-032-032-1
37	37	Unk	SP711020-021-021-	97	97	Unk	S 711053-024-024-1	157	157	Unk	S 711054-033-033-1
38	38	Unk	SD711020-021-021-	98	98	Unk	S 711053-025-025-1	158	158	Unk	S 711054-034-034-1
39	39	Unk	PS711020-021-021-	99	99	Unk	S 711053-026-026-1	159	159	Unk	S 711054-035-035-1
40	40	Unk	SE711020-021-021-	100	100	Unk	S 711053-027-027-1	160	160	Unk	S 711054-036-036-1
41	41	Unk	S 711020-022-022-1	101	101	Unk	S 711053-028-028-1	161	161	Unk	S 711054-037-037-1
42	42	Unk	S 711020-023-023-1	102	102	Unk	S 711053-029-029-1	162	162	Unk	S 711054-038-038-1
43	43	Unk	S 711020-024-024-1	103	103	Unk	S 711053-030-030-1	163	163	Unk	S 711054-039-039-1
44	44	Unk	S 711020-025-025-1	104	104	Unk	S 711053-031-031-1	164	164	Unk	S 711054-040-040-1
45	45	Unk	S 711020-026-026-1	105	105	Unk	S 711053-032-032-1	165	165	QC	BLK 110
46	46	Unk	S 711020-027-027-1	106	106	Unk	S 711053-033-033-1	166	166	QC	BKS 110
47	47	Unk	S 711020-028-028-1	107	107	Unk	S 711053-034-034-1	167	167	Unk	S 711054-041-041-1
48	48	Unk	S 711020-029-029-1	108	108	Unk	S 711016-001-005-1	168	168	Unk	SP711054-041-041-
49	49	Unk	S 711020-030-030-1	109	109	Unk	SP711016-001-005-	169	169	Unk	SD711054-041-041-
50	50	Unk	S 711020-031-031-1	110	110	Unk	SD711016-001-005-	170	170	Unk	PS711054-041-041-
51	51	Unk	S 711020-032-032-1	111	111	Unk	PS711016-001-005-	171	171	Unk	SE711054-041-041-
52	52	Unk	S 711020-033-033-1	112	112	Unk	SE711016-001-005-	172	172	Unk	S 711054-042-042-1
53	53	Unk	S 711020-034-034-1	113	113	QC	BLK 108	173	173	Unk	S 711054-043-043-1
54	54	Unk	S 711020-035-035-1	114	114	QC	BKS 108	174	174	Unk	S 711054-044-044-1
55	55	Unk	S 711020-036-036-1	115	115	Unk	S 711054-001-001-1	175	175	Unk	S 711054-045-045-1
56	56	Unk	S 711020-037-037-1	116	116	Unk	SP711054-001-001-	176	176	Unk	S 711054-046-046-1
57	57	Unk	S 711020-038-038-1	117	117	Unk	SD711054-001-001-	177	177	Unk	S 711054-047-047-1
58	58	Unk	S 711020-039-039-1	118	118	Unk	PS711054-001-001-	178	178	Unk	S 711054-048-048-1
59	59	Unk	S 711020-040-040-1	119	119	Unk	SE711054-001-001-	179	179	QC	ICSA
60	60	QC	BLK 101	120	120	Unk	S 711054-002-002-1	180	180	QC	ICSAB

Sample Dilutions:

Supersedes GP_M_199

Sample Name: STD0 Acquired: 12/10/2007 15:29:50 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	-.00001	.00022	-.00002	.00024	.00078	-.00012	.00450
Stddev	.00001	.00001	.00001	.00002	.00002	.00000	.00012
%RSD	50.430	4.5403	56.484	6.3660	2.3402	3.6927	2.5810
#1	-.00002	.00023	-.00002	.00023	.00079	-.00012	.00442
#2	-.00001	.00021	-.00001	.00025	.00077	-.00012	.00458

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00004	-.00004	.00001	.0001	.0001	.0000	.00017
Stddev	.00001	.00002	.00000	.0000	.0000	.000	.00003
%RSD	33.216	58.600	19.096	4.215	32.11	78.81	17.266
#1	.00003	-.00005	.00001	.0001	.0001	.0000	.00019
#2	.00005	-.00002	.00001	.0001	.0002	.0000	.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	-.00449	.0056	.0005	.00001	.00004	.00332	.00003
Stddev	.00002	.0007	.0001	.00000	.00001	.00064	.00001
%RSD	.37450	13.02	22.39	10.435	18.559	19.241	17.638
#1	-.00448	.0051	.0004	.00001	.00005	.00287	.00003
#2	-.00450	.0062	.0006	.00001	.00004	.00377	.00003

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.00017	.00004	.00002	.00008	.00002	.00113	.00002
Stddev	.00001	.00001	.00000	.00000	.00002	.00005	.00001
%RSD	6.4156	13.826	24.649	.18280	101.24	4.3544	24.561
#1	-.00016	.00004	.00002	.00007	.00001	.00110	.00002
#2	-.00018	.00005	.00002	.00008	.00003	.00117	.00003

Sample Name: STD0 Acquired: 12/10/2007 15:29:50 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	.00004	.00043
Stddev	.00000	.00001	.00000	.00001
%RSD	3.6774	21.916	1.9629	2.2315
#1	-.00001	-.00002	.00004	.00042
#2	-.00001	-.00003	.00004	.00043

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	48161.	26523.	645480.
Stddev	115.	734.	5058.
%RSD	.23846	2.7678	.78362
#1	48080.	27042.	641900.
#2	48243.	26004.	649050.

Sample Name: STD1 Acquired: 12/10/2007 15:33:11 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	.00856	.36341	.00331	.01600	.20923	.02835	.12163	.04742
Stddev	.00005	.01027	.00001	.00009	.00074	.00012	.00009	.00000
%RSD	.53301	2.8262	.20385	.59380	.35535	.44049	.07328	.00246
#1	.00853	.35615	.00330	.01607	.20870	.02826	.12157	.04742
#2	.00859	.37067	.00331	.01593	.20975	.02844	.12169	.04742

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	.00625	.0066	.0096	.0024	.43459	.03751	.02633	.02561
Stddev	.00003	.0000	.0001	.0001	.01085	.00014	.00003	.00001
%RSD	.49837	.3009	.7788	5.273	2.4977	.37714	.11977	.03714
#1	.00623	.0066	.0096	.0023	.42692	.03741	.02630	.02562
#2	.00627	.0066	.0097	.0025	.44227	.03761	.02635	.02561

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	.00961	.00456	.00299	.00221	.00934	.44480	.00351	.02294
Stddev	.00003	.00006	.00002	.00001	.00003	.00139	.00004	.00006
%RSD	.33952	1.4126	.62136	.65947	.29120	.31246	1.0619	.26250
#1	.00959	.00460	.00300	.00220	.00936	.44381	.00353	.02290
#2	.00963	.00451	.00298	.00222	.00933	.44578	.00348	.02299

Elem	Tl	V	Zn
Units	Cts/S	Cts/S	Cts/S
Avg	.00393	.00908	.07768
Stddev	.00007	.00004	.00005
%RSD	1.7032	.45004	.06609
#1	.00389	.00905	.07764
#2	.00398	.00911	.07772

Sample Name: STD1 Acquired: 12/10/2007 15:33:11 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	48217.	26604.	642320.
Stddev	17.	421.	994.
%RSD	.03553	1.5826	.15471
#1	48229.	26902.	643020.
#2	48205.	26306.	641620.

Sample Name: STD2 Acquired: 12/10/2007 15:36:27 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	.02116	.93129	.00814	.03915	.51326	.07019	.29760	.11707
Stddev	.00003	.01658	.00006	.00003	.00096	.00014	.00049	.00026
%RSD	.14028	1.7800	.73587	.08134	.18681	.20217	.16377	.22403
#1	.02118	.94301	.00818	.03917	.51394	.07029	.29795	.11726
#2	.02113	.91957	.00810	.03912	.51259	.07009	.29726	.11688

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	.01522	.0162	.0234	.0061	1.1089	.09320	.06495	.06353
Stddev	.00004	.0000	.0000	.0001	.0183	.00023	.00018	.00003
%RSD	.24313	.0459	.1488	1.651	1.6539	.24424	.27609	.05039
#1	.01525	.0162	.0235	.0060	1.1219	.09336	.06508	.06356
#2	.01520	.0162	.0234	.0061	1.0959	.09304	.06483	.06351

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	.02392	.01128	.00717	.00529	.02305	1.0828	.00860	.05695
Stddev	.00008	.00003	.00001	.00001	.00003	.0031	.00003	.00009
%RSD	.32434	.26627	.14962	.24734	.15165	.28722	.38959	.15248
#1	.02398	.01130	.00717	.00530	.02308	1.0806	.00862	.05701
#2	.02387	.01126	.00716	.00528	.02303	1.0850	.00858	.05689

Elem	Tl	V	Zn
Units	Cts/S	Cts/S	Cts/S
Avg	.00969	.02223	.18851
Stddev	.00004	.00005	.00032
%RSD	.37330	.22777	.16880
#1	.00966	.02226	.18873
#2	.00971	.02219	.18828

Sample Name: STD2 Acquired: 12/10/2007 15:36:27 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	48151.	25895.	646480.
Stddev	10.	506.	1951.
%RSD	.02063	1.9532	.30185
#1	48144.	25537.	645100.
#2	48158.	26252.	647860.

Sample Name: STD3 Acquired: 12/10/2007 15:39:59 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	.04266	1.8380	.01609	.07687	1.0308	.14215	.59224	.23217
Stddev	.00003	.0056	.00007	.00008	.0018	.00007	.00052	.00037
%RSD	.07431	.30369	.44022	.10350	.17845	.04596	.08781	.16049
#1	.04268	1.8420	.01604	.07682	1.0295	.14220	.59187	.23191
#2	.04264	1.8341	.01614	.07693	1.0321	.14210	.59260	.23243

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	.03084	.0320	.0464	.0119	2.1799	.18706	.12902	.12529
Stddev	.00002	.0001	.0001	.0000	.0133	.00024	.00011	.00014
%RSD	.05968	.3225	.2019	.1483	.60957	.12695	.08252	.10827
#1	.03085	.0320	.0463	.0119	2.1893	.18723	.12894	.12519
#2	.03082	.0321	.0464	.0119	2.1706	.18689	.12909	.12538

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	.04750	.02237	.01419	.01045	.04572	2.1390	.01701	.11482
Stddev	.00009	.00002	.00005	.00002	.00002	.0001	.00007	.00003
%RSD	.18374	.06937	.36924	.20896	.04863	.00710	.39951	.02703
#1	.04744	.02236	.01423	.01047	.04571	2.1391	.01696	.11484
#2	.04757	.02238	.01416	.01044	.04574	2.1389	.01706	.11480

Elem	Tl	V	Zn
Units	Cts/S	Cts/S	Cts/S
Avg	.01927	.04475	.37494
Stddev	.00005	.00002	.00026
%RSD	.26277	.03724	.06864
#1	.01930	.04476	.37475
#2	.01923	.04474	.37512

Sample Name: STD3 Acquired: 12/10/2007 15:39:59 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	48243.	25907.	640170.
Stddev	16.	123.	457.
%RSD	.03293	.47660	.07144
#1	48255.	25820.	639850.
#2	48232.	25994.	640490.

Sample Name: STD4 Acquired: 12/10/2007 15:43:31 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	1.8525	.06800	24.71	2.531	1.7818
Stddev	.0163	.00092	.14	.026	.0131
%RSD	.88075	1.3459	.5479	1.020	.73229
#1	1.8409	.06735	24.81	2.513	1.7726
#2	1.8640	.06865	24.62	2.550	1.7910

Int. Std.	Y_3774
Units	Cts/S
Avg	25507.
Stddev	57.
%RSD	.22286
#1	25548.
#2	25467.

Sample Name: STD5 Acquired: 12/10/2007 15:46:59 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	4.5402	.13879	56.94	5.946	4.3650
Stddev	.2014	.00480	1.46	.252	.1986
%RSD	4.4368	3.4553	2.569	4.233	4.5491
#1	4.3978	.13540	55.91	5.768	4.2246
#2	4.6827	.14218	57.98	6.124	4.5054

Int. Std.	Y_3774
Units	Cts/S
Avg	25809.
Stddev	950.
%RSD	3.6794
#1	26480.
#2	25137.

Sample Name: STD6 Acquired: 12/10/2007 15:50:28 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	9.3884	.37228	105.5	11.32	8.8800
Stddev	.1205	.00383	2.0	.16	.1074
%RSD	1.2836	1.0278	1.934	1.410	1.2092
#1	9.4736	.37499	106.9	11.43	8.9559
#2	9.3032	.36958	104.0	11.21	8.8041

Int. Std.	Y_3774
Units	Cts/S
Avg	24868.
Stddev	277.
%RSD	1.1156
#1	24672.
#2	25064.

Sample Name: ICV Acquired: 12/10/2007 16:00:49 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	407.60	5291.8	439.53	432.65	423.17	42.116	5489.6
Stddev	.44	56.5	.90	.85	.73	.096	97.9
%RSD	.10832	1.0671	.20556	.19552	.17273	.22834	1.7835
#1	407.29	5331.7	438.89	433.25	422.65	42.048	5558.8
#2	407.91	5251.8	440.17	432.06	423.69	42.184	5420.4
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	42.431	438.67	412.11	F 440.3	377.9	407.3	5227.3
Stddev	.120	.03	1.57	1.6	.8	.6	84.1
%RSD	.28386	.00758	.38001	.3702	.1990	.1579	1.6084
#1	42.517	438.69	411.00	441.4	378.4	406.9	5286.8
#2	42.346	438.65	413.21	439.1	377.4	407.8	5167.9
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	5215.7	5457.	F 5952.	417.80	412.37	10457.	428.76
Stddev	68.4	83.	83.	.18	.56	148.	.79
%RSD	1.3122	1.517	1.392	.04223	.13481	1.4196	.18444
#1	5264.1	5515.	6010.	417.67	412.76	10562.	429.31
#2	5167.3	5398.	5893.	417.92	411.97	10352.	428.20
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			5000.				
Range			10.00%				

Sample Name: ICV Acquired: 12/10/2007 16:00:49 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	426.15	414.04	426.75	F 98.473	421.24	413.67	F 8.3499
Stddev	.10	1.84	2.40	.363	1.00	.67	1.1076
%RSD	.02312	.44440	.56287	.36858	.23737	.16308	13.265
#1	426.08	415.34	428.45	98.217	421.95	414.15	9.1331
#2	426.22	412.74	425.05	98.730	420.53	413.19	7.5668
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	418.54	411.19	420.15	431.93
Stddev	.82	.97	1.00	.04
%RSD	.19694	.23672	.23864	.01005
#1	417.96	410.50	419.44	431.96
#2	419.12	411.88	420.86	431.89
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	47897.	25355.	636490.
Stddev	113.	298.	1472.
%RSD	.23500	1.1754	.23134
#1	47818.	25144.	637530.
#2	47977.	25565.	635450.

Sample Name: ICB Acquired: 12/10/2007 16:04:17 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	.05802	-4.6194	.30794	.10055	-.05389	.00009	1.6366	-.05243
Stddev	.18916	7.7598	.52224	.08040	.00326	.00271	4.4449	.09208
%RSD	326.05	167.98	169.59	79.959	6.0443	3113.5	271.59	175.62
#1	-.07574	-10.106	-.06134	.15740	-.05158	.00200	4.7797	.01268
#2	.19178	.8676	.67723	.04370	-.05619	-.00183	-1.5064	-.11754
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	-.13371	-.19908	-.1029	-.2099	F 5.467	-3.4576	-44.292	-1.272
Stddev	.28147	.18518	.5843	.6305	4.924	.3439	49.755	1.764
%RSD	210.51	93.015	567.7	300.3	90.07	9.9464	112.33	138.6
#1	-.33274	-.06814	.3102	-.6558	8.949	-3.2144	-79.474	-.0252
#2	.06532	-.33002	-.5161	.2359	1.985	-3.7008	-9.1101	-2.520
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
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	-2.443	-.05179	.11899	-42.638	-.22085	.09152	-1.6308	.11712
Stddev	.100	.05334	.03790	18.542	.07920	.43022	2.8489	2.4867
%RSD	4.090	103.00	31.849	43.486	35.859	470.08	174.69	2123.1
#1	-2.514	-.01407	.14579	-29.527	-.27685	-.21269	.38366	1.8755
#2	-2.373	-.08951	.09219	-55.749	-.16485	.39573	-3.6453	-1.6412
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: 12/10/2007 16:04:17 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	-.36517	-.45259	-.03028	.10207	-.07483	1.6758	-.19459	-.17304
Stddev	.05538	.92452	.00178	1.0450	.07815	.8216	.03483	.05213
%RSD	15.166	204.28	5.8675	1023.8	104.45	49.027	17.899	30.124
#1	-.40433	.20115	-.03154	-.63684	-.13009	1.0948	-.21922	-.13618
#2	-.32601	-1.1063	-.02903	.84097	-.01956	2.2568	-.16996	-.20990
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	48325.	25629.	638100.
Stddev	22.	30.	367.
%RSD	.04610	.11900	.05746
#1	48309.	25608.	638360.
#2	48341.	25651.	637840.

Sample Name: CCV Acquired: 12/10/2007 16:07:40 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	509.65	48968.	507.57	507.56	489.88	50.033	97077.
Stddev	5.69	2530.	1.57	.75	6.95	.618	5070.
%RSD	1.1166	5.1674	.30961	.14761	1.4194	1.2347	5.2231
#1	513.68	47179.	506.45	508.09	494.80	50.470	93492.
#2	505.63	50757.	508.68	507.03	484.96	49.597	100660.
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	492.94	491.59	498.09	F 591.1	546.9	F 557.2	47736.
Stddev	1.23	1.42	5.68	5.0	4.8	.4	2579.
%RSD	.25036	.28790	1.1401	.8512	.8754	.0641	5.4024
#1	493.82	492.59	502.10	587.5	543.5	557.5	45912.
#2	492.07	490.59	494.07	594.7	550.2	557.0	49559.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	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	ppb	ppb	ppb	ppb	ppb
Avg	23513.	97500.	100500.	495.78	501.63	97271.	492.52
Stddev	1094.	4890.	5135.	4.96	.96	5245.	.63
%RSD	4.6518	5.015	5.108	.99984	.19153	5.3918	.12768
#1	22740.	94040.	96890.	499.29	502.31	93563.	492.96
#2	24286.	101000.	104100.	492.28	500.95	100980.	492.07
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV Acquired: 12/10/2007 16:07:40 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	490.73	509.10	501.44	516.53	494.97	497.21	499.29
Stddev	1.62	2.36	.33	6.69	.31	6.88	3.23
%RSD	.33030	.46445	.06662	1.2950	.06331	1.3839	.64742
#1	491.88	510.78	501.67	521.26	494.75	502.08	501.57
#2	489.58	507.43	501.20	511.80	495.19	492.34	497.00
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	511.02	489.61	503.55	F 595.79
Stddev	5.41	.09	5.76	2.17
%RSD	1.0592	.01874	1.1430	.36404
#1	514.85	489.55	507.62	597.33
#2	507.20	489.68	499.48	594.26
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	46689.	26410.	621400.
Stddev	178.	1303.	6551.
%RSD	.38123	4.9345	1.0543
#1	46563.	27332.	616760.
#2	46815.	25489.	626030.

Sample Name: CCB Acquired: 12/10/2007 16:11:16 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	Ca	Cd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.39134	-5.3403	.62286	.16247	-.05358	-.00410	2.9558	.00200
Stddev	.20955	19.110	.61994	.53399	.03007	.00081	3.7444	.00322
%RSD	53.546	357.84	99.532	328.67	56.116	19.764	126.68	161.31
#1	-.53952	-18.853	1.0612	.54005	-.03232	-.00468	5.6035	-.00028
#2	-.24317	8.1724	.18449	-.21511	-.07484	-.00353	.30813	.00428
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	-.22696	-.16760	.9866	.0233	-2.441	.17347	30.285	.2929
Stddev	.06753	.19884	.0183	.1600	2.191	5.6307	4.795	.3397
%RSD	29.753	118.64	1.854	687.2	89.75	3246.0	15.832	116.0
#1	-.27471	-.30820	.9996	.1364	-3.989	-3.8081	33.676	.5331
#2	-.17921	-.02700	.9737	-.0899	-.8917	4.1550	26.895	.0527
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	-1.741	-.04870	.33336	55.902	-.04244	-.04543	-.29830	1.0154
Stddev	1.000	.04550	.03760	17.844	.17104	.33974	.58635	1.1537
%RSD	57.43	93.429	11.279	31.921	402.99	747.76	196.56	113.62
#1	-2.448	-.08087	.30677	68.519	-.16339	.19480	-.71291	.19960
#2	-1.034	-.01653	.35994	43.284	.07850	-.28567	.11631	1.8311
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: 12/10/2007 16:11:16 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	-.34308	-.08210	-.04300	-.33235	-.11317	.55457	-.27557	-.18590
Stddev	.43167	.20019	.01011	2.5384	.00773	2.1282	.25287	.00228
%RSD	125.82	243.84	23.504	763.76	6.8312	383.75	91.761	1.2289
#1	-.03784	.05946	-.03586	-2.1272	-.10770	2.0594	-.45438	-.18428
#2	-.64832	-.22365	-.05015	1.4625	-.11863	-.95027	-.09677	-.18751
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	47761.	25312.	639000.
Stddev	723.	534.	3228.
%RSD	1.5133	2.1089	.50511
#1	47250.	24935.	636720.
#2	48272.	25690.	641280.

Sample Name: PQL Acquired: 12/10/2007 16:14:39 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	Cd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	4.7204	190.34	20.939	15.731	4.9553	1.9627	1028.4	6.1524
Stddev	.2465	5.36	.209	.356	.0251	.0021	10.1	.0463
%RSD	5.2227	2.8165	.99673	2.2629	.50664	.10794	.97768	.75229
#1	4.5460	194.13	21.087	15.983	4.9731	1.9612	1035.5	6.1196
#2	4.8947	186.55	20.791	15.479	4.9376	1.9642	1021.3	6.1851
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	5.1302	4.7948	F 10.02	F 12.91	5.903	152.09	212.15	F 257.7
Stddev	.2024	.0772	.37	.67	2.979	3.62	94.38	3.5
%RSD	3.9458	1.6099	3.681	5.210	50.46	2.3821	44.486	1.359
#1	4.9871	4.7402	10.28	12.44	8.009	154.66	278.89	260.1
#2	5.2733	4.8494	9.762	13.39	3.796	149.53	145.42	255.2
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value			5.000	5.000				5.000
Range			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 276.3	4.9509	4.8527	2598.0	9.8397	9.6595	19.232	21.027
Stddev	3.4	.0133	.2203	47.0	.2469	.5778	.882	1.259
%RSD	1.220	.26782	4.5396	1.8083	2.5088	5.9822	4.5885	5.9860
#1	278.7	4.9415	5.0085	2631.2	10.014	10.068	18.608	21.918
#2	273.9	4.9603	4.6970	2564.7	9.6651	9.2509	19.856	20.137
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: 12/10/2007 16:14:39 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	55.557	25.767	4.9275	1.1410	24.868	30.709	9.6388	21.990
Stddev	.074	.258	.0024	2.1121	.043	.190	.1478	.086
%RSD	.13246	.99990	.04814	185.11	.17367	.61725	1.5337	.39001
#1	55.505	25.585	4.9258	2.6345	24.837	30.843	9.7433	21.930
#2	55.609	25.949	4.9291	-.35248	24.898	30.574	9.5342	22.051
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	48294.	25831.	649240.
Stddev	9.	181.	212.
%RSD	.01781	.70055	.03258
#1	48300.	25704.	649090.
#2	48288.	25959.	649390.

Sample Name: ICSA Acquired: 12/10/2007 16:18:00 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
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 209.51	497320.	F 103.71	F 915.70	F 496.64	F 490.23
Stddev	.44	2483.	7.09	1.56	3.78	3.08
%RSD	.20940	.49919	6.8409	.17013	.76085	.62914
#1	209.82	499070.	108.72	916.80	499.31	492.41
#2	209.20	495560.	98.689	914.59	493.97	488.05
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Fail
High Limit	3.0000		20.000	15.000	5.0000	2.0000
Low Limit	-3.0000		-20.000	-15.000	-5.0000	-2.0000

Elem	Ca	Cd	Co	Cr	Cu2199	Cu2218
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	450630.	F 916.58	F 454.82	F 478.54	F 328.7	F 756.5
Stddev	3697.	.59	.80	.01	.0	2.4
%RSD	.82041	.06466	.17492	.00284	.0124	.3172
#1	453250.	917.00	455.38	478.55	328.7	758.2
#2	448020.	916.16	454.25	478.53	328.6	754.8
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail
High Limit		6.0000	5.0000	5.0000	3.000	3.000
Low Limit		-6.0000	-5.0000	-5.0000	-3.000	-3.000

Elem	Cu3273	Fe	K	Mg2802	Mg2852	Mn
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 712.0	188040.	F 4838.4	F 235600.	F 225700.	F 486.90
Stddev	9.1	740.	61.7	304.	299.	1.74
%RSD	1.276	.39360	1.2762	.1288	.1324	.35654
#1	718.5	188560.	4882.1	235400.	225900.	488.13
#2	705.6	187510.	4794.8	235800.	225500.	485.67
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Fail
High Limit	3.000		250.00	3.000	3.000	5.0000
Low Limit	-3.000		-250.00	-3.000	-3.000	-5.0000

Sample Name: ICSA Acquired: 12/10/2007 16:18:00 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	F 893.92	F 10196.	F 916.97	F 53.970	F 592.44	F 49.835
Stddev	.22	5.	1.19	2.723	5.30	1.259
%RSD	.02515	.04692	.13015	5.0450	.89392	2.5260
#1	894.08	10193.	917.81	52.045	596.19	48.945
#2	893.76	10199.	916.13	55.895	588.70	50.725
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail
High Limit	5.0000	2500.0	10.000	6.0000	20.000	20.000
Low Limit	-5.0000	-2500.0	-10.000	-6.0000	-20.000	-20.000

Elem	Si	Sn	Sr	Te	Ti	Tl
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 1186.7	F 870.64	F 499.05	201.39	F 922.44	F 94.913
Stddev	1.1	2.02	3.45	1.40	1.14	.523
%RSD	.08900	.23184	.69113	.69492	.12382	.55067
#1	1187.4	872.07	501.48	200.40	923.25	95.282
#2	1186.0	869.21	496.61	202.38	921.63	94.543
Check ?	Chk Fail	Chk Fail	Chk Fail	None	Chk Fail	Chk Fail
High Limit	50.000	25.000	5.0000		25.000	30.000
Low Limit	-50.000	-25.000	-5.0000		-25.000	-30.000

Elem	V	Zn
Units	ppb	ppb
Avg	F 489.83	F 1037.9
Stddev	.45	.8
%RSD	.09198	.07481
#1	490.15	1038.5
#2	489.52	1037.4
Check ?	Chk Fail	Chk Fail
High Limit	10.000	20.000
Low Limit	-10.000	-20.000

Sample Name: ICSA Acquired: 12/10/2007 16:18:00 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	45358.	25270.	595390.
Stddev	123.	7.	1012.
%RSD	.27125	.02833	.16999
#1	45445.	25265.	594680.
#2	45271.	25275.	596110.

Sample Name: ICSAB Acquired: 12/10/2007 16:21:55 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	F -.02719	F 35.222	F 1.3800	F .88724	F -.03159	F .02869	F 33.638
Stddev	.01919	29.995	2.2746	.27049	.01374	.01743	26.111
%RSD	70.575	85.161	164.83	30.487	43.493	60.746	77.623
#1	-.01362	56.432	-.22838	1.0785	-.04131	.01637	52.102
#2	-.04076	14.012	2.9884	.69598	-.02187	.04101	15.175
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail
Value	200.00	500000.	100.00	1000.0	500.00	500.00	500000.
Range	-20.000%	-20.000%	-20.000%	-20.000%	-20.000%	-20.000%	-20.000%

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F .00245	F -.23085	F -.16733	F .1447	F -.2338	F -5.155	F 11.992
Stddev	.01633	.10162	.06068	1.101	.3551	3.100	7.829
%RSD	666.71	44.022	36.264	761.1	151.9	60.14	65.283
#1	.01400	-.15899	-.21024	-.6341	.0174	-2.963	17.528
#2	-.00910	-.30271	-.12442	.9235	-.4849	-7.347	6.4562
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail
Value	1000.0	500.00	500.00	200.0	200.0	200.0	200000.
Range	-20.000%	-20.000%	-20.000%	-20.00%	-20.00%	-20.00%	-20.000%

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F -128.58	F 17.61	F 17.06	F -.04284	F .40303	F -103.63	F -.21215
Stddev	41.53	13.06	16.23	.00826	.45268	9.44	.14853
%RSD	32.297	74.16	95.14	19.276	112.32	9.1076	70.013
#1	-99.214	26.84	28.53	-.03700	.72312	-110.30	-.10712
#2	-157.94	8.374	5.583	-.04868	.08293	-96.955	-.31717
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail
Value	5000.0	250000.	250000.	500.00	1000.0	10000.	1000.0
Range	-20.000%	-20.00%	-20.00%	-20.000%	-20.000%	-20.000%	-20.000%

Sample Name: ICSAB Acquired: 12/10/2007 16:21:55 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	F -.94007	F .06758	F -1.9087	F .26613	F .09913	F -.03459	F 1.3752
Stddev	.58685	1.3439	.3804	.65175	.00918	.00356	1.6662
%RSD	62.426	1988.7	19.928	244.90	9.2560	10.285	121.16
#1	-.52510	-.88271	-1.6397	-.19473	.10562	-.03711	2.5534
#2	-1.3550	1.0179	-2.1776	.72699	.09265	-.03208	.19702
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail
Value	50.000	600.00	50.000	1000.0	1000.0	500.00	200.00
Range	-20.000%	-20.000%	-20.000%	-20.000%	-20.000%	-20.000%	-20.000%

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	F .06603	F .30863	F -.12317	F -.37428
Stddev	.07328	.85480	.03706	.09283
%RSD	110.97	276.97	30.086	24.802
#1	.01422	-.29581	-.14937	-.30864
#2	.11785	.91306	-.09697	-.43992
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Fail
Value	1000.0	100.00	500.00	1000.0
Range	-20.000%	-20.000%	-20.000%	-20.000%

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	48143.	25280.	635450.
Stddev	189.	522.	830.
%RSD	.39328	2.0661	.13068
#1	48009.	24910.	634860.
#2	48277.	25649.	636040.

Sample Name: LR Acquired: 12/10/2007 16:25:20 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	1029.0	-62.305	2054.5	5062.8	^F *****	488.12	49.381
Stddev	8.7	13.205	.5	10.7	-----	4.90	2.879
%RSD	.84700	21.193	.02582	.21064	-----	1.0044	5.8309
#1	1022.8	-52.968	2054.9	5070.3	^ -----	484.65	51.417
#2	1035.1	-71.642	2054.2	5055.2	^ -----	491.58	47.345
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	2045.5	10143.	10322.	F 11070.	F 9972.	F 10320.	482320.
Stddev	5.3	28.	112.	22.	11.	31.	9310.
%RSD	.26010	.27856	1.0803	.1988	.1077	.3012	1.9302
#1	2049.2	10163.	10243.	11080.	9979.	10340.	475740.
#2	2041.7	10123.	10401.	11050.	9964.	10300.	488910.
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	-191.88	F 159.5	F 190.7	9764.2	10084.	-186.72	7667.6
Stddev	79.10	2.2	1.6	14.9	29.	1.68	27.4
%RSD	41.224	1.404	.8189	.15308	.28466	.89788	.35732
#1	-135.95	161.1	189.6	9753.6	10105.	-187.90	7687.0
#2	-247.82	157.9	191.8	9774.8	10064.	-185.53	7648.3
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: 12/10/2007 16:25:20 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	20248.	5128.6	2029.5	10860.	10151.	1971.3	253.31
Stddev	32.	15.1	.3	131.	19.	27.1	21.99
%RSD	.15950	.29427	.01417	1.2060	.18952	1.3742	8.6799
#1	20271.	5139.3	2029.7	10767.	10165.	1952.1	237.76
#2	20226.	5117.9	2029.3	10952.	10138.	1990.4	268.85
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
Value							
Range							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	9915.2	2039.7	10331.	10046.
Stddev	5.6	4.1	82.	25.
%RSD	.05598	.20065	.78916	.24647
#1	9911.3	2042.6	10274.	10063.
#2	9919.2	2036.8	10389.	10028.
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	46453.	25689.	627660.
Stddev	139.	295.	5100.
%RSD	.29837	1.1467	.81254
#1	46355.	25898.	631270.
#2	46551.	25481.	624060.

Sample Name: CCV Acquired: 12/10/2007 16:32:43 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	509.64	49655.	513.76	513.21	489.57	50.381	97996.
Stddev	2.07	2205.	.76	.37	1.09	.212	4208.
%RSD	.40606	4.4413	.14808	.07265	.22282	.42115	4.2945
#1	508.18	48095.	514.30	513.47	488.80	50.231	95020.
#2	511.10	51214.	513.22	512.94	490.34	50.531	100970.
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	498.97	495.56	502.52	F 595.0	F 553.4	F 552.3	48044.
Stddev	1.30	1.41	1.79	4.9	4.3	4.8	2126.
%RSD	.25964	.28542	.35698	.8283	.7741	.8683	4.4257
#1	499.89	496.56	501.25	591.6	550.4	548.9	46541.
#2	498.06	494.56	503.79	598.5	556.5	555.7	49548.
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	23745.	98180.	101900.	496.99	508.10	98295.	494.24
Stddev	982.	3957.	4543.	1.44	1.92	3990.	.57
%RSD	4.1377	4.030	4.456	.28964	.37747	4.0587	.11583
#1	23050.	95380.	98730.	495.98	509.46	95474.	494.65
#2	24439.	101000.	105200.	498.01	506.75	101120.	493.84
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV Acquired: 12/10/2007 16:32:43 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	495.92	509.42	507.08	517.87	500.68	495.17	502.72
Stddev	.59	1.00	3.31	2.12	.22	1.58	1.34
%RSD	.11956	.19653	.65190	.41031	.04416	.31965	.26718
#1	496.34	508.72	504.74	516.37	500.83	496.29	501.77
#2	495.50	510.13	509.42	519.38	500.52	494.05	503.67
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	512.47	495.62	505.96	F 602.89
Stddev	1.69	.43	1.84	.71
%RSD	.32981	.08575	.36268	.11816
#1	511.27	495.92	504.66	603.39
#2	513.67	495.32	507.26	602.38
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	46024.	25378.	612090.
Stddev	157.	950.	1199.
%RSD	.34037	3.7436	.19589
#1	45913.	26050.	612940.
#2	46134.	24707.	611240.

Sample Name: CCB Acquired: 12/10/2007 16:36:19 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	Cd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.49236	-10.548	.66526	1.7376	.03138	.00712	8.7232	-.01720
Stddev	.09204	18.521	1.2966	.1475	.02628	.00943	1.2972	.00452
%RSD	18.694	175.59	194.90	8.4900	83.757	132.37	14.870	26.293
#1	-.42728	2.5487	1.5821	1.6333	.04997	.01379	7.8059	-.02040
#2	-.55744	-23.644	-.25156	1.8419	.01280	.00046	9.6404	-.01400
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	-.04842	-.18858	.1236	.8331	F 5.586	12.703	-26.400	F 3.948
Stddev	.07714	.00841	.8238	.4120	13.85	1.718	72.467	2.479
%RSD	159.31	4.4601	666.2	49.46	247.9	13.523	274.49	62.79
#1	.00612	-.18263	-.4589	.5418	-4.207	13.918	-77.642	5.701
#2	-.10297	-.19453	.7061	1.124	15.38	11.489	24.841	2.195
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 4.005	-.00601	.77609	3.9850	.01482	.13251	.73282	.08296
Stddev	3.636	.00075	.17842	27.524	.36147	.02374	.06143	1.5141
%RSD	90.79	12.537	22.990	690.69	2439.7	17.914	8.3834	1825.2
#1	6.576	-.00654	.64993	23.447	.27042	.11572	.68938	-.98770
#2	1.434	-.00548	.90225	-15.477	-.24078	.14930	.77626	1.1536
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: 12/10/2007 16:36:19 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	-.29195	.34399	-.02333	-.52759	.01954	.72868	-.20606	-.16473
Stddev	.20754	.21059	.01128	.82940	.08867	.71419	.40272	.07160
%RSD	71.088	61.220	48.364	157.20	453.71	98.011	195.44	43.466
#1	-.14520	.19508	-.01535	-1.1141	-.04315	1.2337	.07871	-.11410
#2	-.43871	.49291	-.03131	.05888	.08224	.22367	-.49083	-.21536
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	47782.	25111.	634360.
Stddev	2.	70.	976.
%RSD	.00394	.27996	.15392
#1	47784.	25061.	635050.
#2	47781.	25161.	633670.

Sample Name: IDL 1 Acquired: 12/10/2007 16:39:43 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	-.15344	-4.1391	.35905	1.0938	.11534	.00294	65.398	.12074
Stddev	.70353	12.317	1.1121	.2229	.02730	.00789	6.323	.00044
%RSD	458.50	297.58	309.72	20.379	23.669	268.35	9.6682	.36439
#1	.34403	4.5702	-.42729	.93615	.09603	-.00264	69.868	.12042
#2	-.65092	-12.848	1.1454	1.2514	.13464	.00852	60.927	.12105

Elem	Co	Cr	Cu2199	Cu2218	Cu3273	Fe	K	Mg2802
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.13945	-.29338	2.992	2.230	-2.396	8.5464	60.264	3.780
Stddev	.23179	.02087	1.205	.208	4.423	3.0099	65.220	.278
%RSD	166.21	7.1123	40.26	9.343	184.6	35.218	108.22	7.345
#1	.02445	-.27863	2.140	2.082	-5.523	6.4181	106.38	3.976
#2	-.30336	-.30814	3.844	2.377	.7316	10.675	14.146	3.583

Elem	Mg2852	Mn	Mo	Na	Ni	Pb	Sb	Se
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.132	.21497	.40651	125.54	.09926	-.56021	1.0170	-1.3216
Stddev	.693	.02744	.01825	6.04	.31400	.42936	.2657	.1667
%RSD	32.51	12.766	4.4901	4.8106	316.33	76.642	26.132	12.615
#1	2.622	.23438	.39360	121.27	-.12277	-.86382	.82905	-1.4395
#2	1.642	.19557	.41942	129.81	.32129	-.25661	1.2049	-1.2037

Elem	Si	Sn	Sr	Te	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.66343	1.0674	.07927	1.0039	.10808	.41825	-.12028	4.0796
Stddev	.50397	.3005	.00570	2.7771	.02896	.58499	.06378	.0516
%RSD	75.964	28.151	7.1970	276.63	26.795	139.87	53.024	1.2642
#1	.30707	1.2798	.07523	2.9676	.08760	.83191	-.07518	4.0431
#2	1.0198	.85489	.08330	-.95981	.12856	.00460	-.16538	4.1161

Sample Name: IDL 1 Acquired: 12/10/2007 16:39:43 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	47786.	25567.	631240.
Stddev	109.	540.	2046.
%RSD	.22848	2.1110	.32405
#1	47709.	25949.	632680.
#2	47863.	25186.	629790.

Sample Name: IDL 2 Acquired: 12/10/2007 16:43:06 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	-.14708	-21.697	1.1859	.31291	-.06154	-.00263	-10.538	-.01927
Stddev	.10190	4.815	.4791	.25047	.00090	.00187	5.407	.08584
%RSD	69.283	22.192	40.401	80.045	1.4654	71.046	51.312	445.59
#1	-.07502	-18.293	1.5247	.49002	-.06090	-.00131	-6.7143	-.07997
#2	-.21913	-25.102	.84710	.13580	-.06217	-.00395	-14.361	.04144

Elem	Co	Cr	Cu2199	Cu2218	Cu3273	Fe	K	Mg2802
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.20611	-.03155	-1.002	.0686	9.516	-1.3483	-73.761	-5.158
Stddev	.15455	.13659	.689	.0096	7.786	2.9223	67.217	.049
%RSD	74.985	432.90	68.76	14.01	81.81	216.74	91.128	.9505
#1	-.09683	.06503	-1.490	.0618	15.02	.71806	-26.232	-5.124
#2	-.31540	-.12814	-.5149	.0754	4.011	-3.4146	-121.29	-5.193

Elem	Mg2852	Mn	Mo	Na	Ni	Pb	Sb	Se
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-6.722	-.02672	.31878	-47.841	-.38487	-.67277	-1.3415	-2.2377
Stddev	2.363	.00199	.21664	11.351	.19662	1.1631	.1633	.3789
%RSD	35.15	7.4289	67.960	23.727	51.086	172.88	12.176	16.933
#1	-5.051	-.02532	.16559	-55.867	-.52390	-1.4952	-1.4570	-1.9697
#2	-8.393	-.02812	.47197	-39.814	-.24584	.14967	-1.2260	-2.5056

Elem	Si	Sn	Sr	Te	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.18501	.21825	-.06027	-1.4566	.02313	-.15999	-.04576	.22617
Stddev	.68021	.34615	.00048	1.2734	.10201	.30239	.01307	.02839
%RSD	367.65	158.60	.79788	87.419	441.09	189.00	28.568	12.554
#1	.66600	-.02652	-.05993	-.55622	-.04900	.05383	-.05500	.24625
#2	-.29597	.46302	-.06062	-2.3571	.09526	-.37381	-.03652	.20610

Sample Name: IDL 2 Acquired: 12/10/2007 16:43:06 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	47923.	25458.	635090.
Stddev	55.	307.	152.
%RSD	.11478	1.2062	.02395
#1	47884.	25675.	635200.
#2	47962.	25241.	634980.

Sample Name: IDL 3 Acquired: 12/10/2007 16:46:30 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	-.29336	-3.6215	1.6864	-.11694	-.03970	.00383	-8.8349	-.00298
Stddev	.01127	13.959	.0079	.45969	.01217	.00615	3.2335	.01987
%RSD	3.8417	385.45	.46657	393.10	30.660	160.58	36.600	665.92
#1	-.28539	6.2489	1.6809	.20811	-.04831	.00817	-6.5484	.01106
#2	-.30133	-13.492	1.6920	-.44199	-.03110	-.00052	-11.121	-.01703

Elem	Co	Cr	Cu2199	Cu2218	Cu3273	Fe	K	Mg2802
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.32653	-.03431	-1.071	.0113	1.094	1.4291	-47.075	-3.164
Stddev	.07546	.15550	.740	.0650	4.002	4.4601	30.924	2.723
%RSD	23.111	453.22	69.09	573.8	365.8	312.09	65.692	86.04
#1	-.37989	-.14427	-.5479	-.0347	-1.736	-1.7247	-25.208	-1.239
#2	-.27317	.07565	-1.595	.0573	3.924	4.5829	-68.942	-5.090

Elem	Mg2852	Mn	Mo	Na	Ni	Pb	Sb	Se
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-5.358	-.09650	-.01969	-80.141	-.18137	-.97214	-1.0450	-1.5637
Stddev	3.568	.00216	.09148	4.894	.23360	.11515	.3155	1.0997
%RSD	66.59	2.2410	464.50	6.1072	128.80	11.845	30.196	70.325
#1	-2.835	-.09498	.04499	-76.681	-.01619	-.89071	-.82186	-.78611
#2	-7.880	-.09803	-.08438	-83.602	-.34655	-1.0536	-1.2681	-2.3413

Elem	Si	Sn	Sr	Te	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.36267	.62389	-.05876	-.42493	-.01513	.63093	-.24337	.17286
Stddev	.19570	.45059	.00205	.69226	.07014	.29995	.27296	.01259
%RSD	53.961	72.222	3.4873	162.91	463.56	47.541	112.16	7.2807
#1	-.22429	.94251	-.05731	-.91443	.03447	.41883	-.05036	.18176
#2	-.50105	.30528	-.06021	.06458	-.06473	.84302	-.43639	.16396

Sample Name: IDL 3 Acquired: 12/10/2007 16:46:30 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	47931.	26214.	634100.
Stddev	34.	1675.	99.
%RSD	.07155	6.3903	.01559
#1	47906.	27399.	634030.
#2	47955.	25030.	634170.

Sample Name: IDL 4 Acquired: 12/10/2007 16:49:53 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	-.39255	-33.716	1.1411	-.13385	-.08343	-.00693	-11.670	-.00422
Stddev	.49714	3.173	1.5804	.23369	.00290	.00484	1.639	.09472
%RSD	126.64	9.4106	138.49	174.59	3.4815	69.767	14.044	2242.1
#1	-.04102	-35.960	2.2586	-.29909	-.08549	-.00351	-10.511	-.07120
#2	-.74409	-31.473	.02366	.03139	-.08138	-.01035	-12.829	.06275

Elem	Co	Cr	Cu2199	Cu2218	Cu3273	Fe	K	Mg2802
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.25678	.12836	-.5361	-.1349	6.975	-6.5370	-98.731	-6.528
Stddev	.16319	.20410	1.292	.0741	1.585	3.0763	4.922	.645
%RSD	63.552	159.01	241.0	54.95	22.72	47.059	4.9854	9.877
#1	-.37217	-.01596	.3776	-.0825	5.855	-8.7123	-102.21	-6.072
#2	-.14139	.27268	-1.450	-.1873	8.096	-4.3618	-95.250	-6.983

Elem	Mg2852	Mn	Mo	Na	Ni	Pb	Sb	Se
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-9.598	-.10327	-.04590	-72.595	-.44453	.40026	-1.2439	-2.1083
Stddev	1.248	.04433	.05402	4.419	.17103	.36203	1.0143	1.1787
%RSD	13.01	42.927	117.69	6.0876	38.475	90.451	81.545	55.909
#1	-10.48	-.07192	-.08410	-69.470	-.56547	.14426	-1.9611	-2.9418
#2	-8.715	-.13461	-.00770	-75.720	-.32359	.65625	-.52664	-1.2748

Elem	Si	Sn	Sr	Te	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.54711	.25853	-.07844	-.23543	-.03007	.44609	-.20622	.12910
Stddev	.14738	.54244	.01624	.55074	.05589	1.3723	.00130	.04467
%RSD	26.938	209.81	20.704	233.93	185.87	307.62	.62974	34.598
#1	.44289	-.12503	-.08992	-.62486	.00945	-.52424	-.20530	.09752
#2	.65132	.64210	-.06695	.15401	-.06959	1.4164	-.20714	.16068

Sample Name: IDL 4 Acquired: 12/10/2007 16:49:53 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	47681.	24966.	631370.
Stddev	51.	384.	2787.
%RSD	.10639	1.5377	.44138
#1	47645.	24694.	633340.
#2	47717.	25237.	629400.

Sample Name: IDL 5 Acquired: 12/10/2007 16:53:17 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	-.54322	-18.258	-.44582	-.43155	-.06963	-.00590	-15.706	-.06188
Stddev	.38936	4.632	1.5878	.19577	.01491	.00025	1.711	.04470
%RSD	71.677	25.369	356.14	45.364	21.419	4.2995	10.892	72.233
#1	-.81854	-14.983	.67689	-.56997	-.08017	-.00572	-16.915	-.03028
#2	-.26790	-21.533	-1.5685	-.29312	-.05908	-.00608	-14.496	-.09349

Elem	Co	Cr	Cu2199	Cu2218	Cu3273	Fe	K	Mg2802
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.13067	-.16710	-.8697	-.7321	5.963	-4.2029	-97.973	-8.437
Stddev	.01388	.02451	.3065	.0021	6.846	4.5636	31.167	.061
%RSD	10.625	14.666	35.24	.2838	114.8	108.58	31.812	.7202
#1	-.14049	-.14977	-.6530	-.7336	10.80	-.97600	-120.01	-8.480
#2	-.12085	-.18443	-1.086	-.7307	1.122	-7.4299	-75.935	-8.394

Elem	Mg2852	Mn	Mo	Na	Ni	Pb	Sb	Se
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-9.995	-.07174	-.00307	-75.627	-.16675	-.69185	-.36360	.25275
Stddev	.111	.05560	.04706	5.053	.08805	1.7885	1.0891	.03958
%RSD	1.109	77.504	1531.8	6.6808	52.808	258.51	299.52	15.659
#1	-9.917	-.11106	-.03635	-72.054	-.10448	-1.9565	-1.1337	.28074
#2	-10.07	-.03243	.03021	-79.200	-.22901	.57283	.40649	.22476

Elem	Si	Sn	Sr	Te	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.65129	-.11940	-.07368	-.34695	-.11985	-.51825	-.12910	.21581
Stddev	.65415	.11290	.01212	1.8010	.01233	.47826	.00753	.17336
%RSD	100.44	94.556	16.446	519.10	10.287	92.284	5.8309	80.330
#1	-1.1138	-.19922	-.06511	.92655	-.12857	-.18007	-.13442	.09322
#2	-.18874	-.03957	-.08225	-1.6204	-.11113	-.85644	-.12377	.33839

Sample Name: IDL 5 Acquired: 12/10/2007 16:53:17 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	47552.	25325.	632070.
Stddev	57.	79.	4824.
%RSD	.12086	.31235	.76313
#1	47512.	25381.	628660.
#2	47593.	25269.	635480.

Sample Name: IDL 6 Acquired: 12/10/2007 16:56:40 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	Cd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.19956	-18.659	2.3789	-.39550	-.05977	-.00469	-14.704	-.03632
Stddev	.16340	4.526	.3194	.13704	.00442	.00553	2.070	.05032
%RSD	81.878	24.257	13.427	34.649	7.4018	117.81	14.077	138.55
#1	-.08402	-15.459	2.1530	-.29860	-.06290	-.00860	-13.240	-.07190
#2	-.31510	-21.860	2.6047	-.49240	-.05664	-.00078	-16.167	-.00074

Elem	Co	Cr	Cu2199	Cu2218	Cu3273	Fe	K	Mg2802
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.19039	-.11295	-.1768	-.4802	11.47	-4.1827	-94.944	-7.296
Stddev	.18832	.17267	1.924	.1178	1.78	2.1392	4.215	.190
%RSD	98.913	152.88	1088.	24.53	15.48	51.144	4.4399	2.600
#1	-.32356	-.23504	1.184	-.5635	10.21	-2.6701	-91.963	-7.430
#2	-.05723	.00915	-1.537	-.3969	12.73	-5.6954	-97.925	-7.162

Elem	Mg2852	Mn	Mo	Na	Ni	Pb	Sb	Se
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-9.852	-.04638	-.00809	-83.087	-.17838	-.17432	.49116	.13649
Stddev	1.523	.00965	.07555	19.879	.26552	.46494	.39768	2.4793
%RSD	15.46	20.812	933.35	23.925	148.85	266.72	80.968	1816.4
#1	-8.775	-.05321	-.06152	-69.030	-.36613	.15444	.77237	1.8896
#2	-10.93	-.03956	.04533	-97.143	.00937	-.50309	.20996	-1.6166

Elem	Si	Sn	Sr	Te	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.74675	.09612	-.07269	-.18100	-.08789	.59213	-.20768	.30799
Stddev	.11937	.00968	.00438	.53630	.00894	.77281	.06885	.02624
%RSD	15.985	10.069	6.0303	296.30	10.176	130.51	33.154	8.5209
#1	-.66234	.08927	-.07579	-.56022	-.08157	.04567	-.15899	.32655
#2	-.83115	.10296	-.06959	.19822	-.09422	1.1386	-.25637	.28944

Sample Name: IDL 6 Acquired: 12/10/2007 16:56:40 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	47807.	25614.	634660.
Stddev	6.	828.	895.
%RSD	.01331	3.2343	.14098
#1	47811.	26199.	634030.
#2	47802.	25028.	635300.

Sample Name: IDL 7 Acquired: 12/10/2007 17:00:03 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	-.08181	-20.902	1.8477	-.82403	-.08712	-.00101	-14.747	-.06461
Stddev	.14739	7.819	1.1482	.45000	.02248	.00590	1.941	.10955
%RSD	180.16	37.408	62.142	54.610	25.799	585.89	13.159	169.56
#1	-.18603	-15.373	2.6596	-.50583	-.10301	-.00518	-16.119	.01285
#2	.02241	-26.431	1.0358	-1.1422	-.07123	.00316	-13.375	-.14207

Elem	Co	Cr	Cu2199	Cu2218	Cu3273	Fe	K	Mg2802
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.18715	-.29752	-1.595	.4334	5.498	-5.9540	-127.65	-8.087
Stddev	.00293	.03807	.077	.4126	1.435	2.5322	21.04	.078
%RSD	1.5680	12.796	4.828	95.19	26.10	42.529	16.487	.9638
#1	-.18923	-.27060	-1.650	.7252	6.512	-4.1635	-142.53	-8.032
#2	-.18508	-.32444	-1.541	.1417	4.483	-7.7445	-112.77	-8.142

Elem	Mg2852	Mn	Mo	Na	Ni	Pb	Sb	Se
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-11.39	-.06871	-.15717	-76.691	-.13166	-1.0658	-.40044	-1.6434
Stddev	.08	.01016	.12179	6.485	.16087	.1981	1.5248	1.0903
%RSD	.7423	14.789	77.489	8.4564	122.18	18.590	380.79	66.346
#1	-11.33	-.07590	-.24329	-81.277	-.24541	-1.2059	.67777	-.87241
#2	-11.45	-.06153	-.07105	-72.105	-.01791	-.92567	-1.4786	-2.4143

Elem	Si	Sn	Sr	Te	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.7496	-.18704	-.06903	-.60604	-.09760	-1.1963	-.00416	.24977
Stddev	.6539	.55494	.00526	.85900	.03178	.0880	.04970	.26286
%RSD	37.374	296.70	7.6143	141.74	32.561	7.3579	1193.5	105.24
#1	1.2872	.20536	-.06531	-1.2134	-.07513	-1.2586	.03098	.06390
#2	2.2120	-.57944	-.07275	.00137	-.12007	-1.1341	-.03931	.43564

Sample Name: IDL 7 Acquired: 12/10/2007 17:00:03 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	47803.	25112.	631680.
Stddev	48.	58.	712.
%RSD	.10047	.23073	.11272
#1	47837.	25153.	631180.
#2	47769.	25071.	632190.

Sample Name: CCV Acquired: 12/10/2007 17:13:50 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	509.70	50191.	503.34	507.39	495.48	50.238	99401.
Stddev	.35	787.	.13	.30	7.57	.119	1893.
%RSD	.06775	1.5675	.02610	.05894	1.5284	.23619	1.9047
#1	509.94	50748.	503.24	507.60	500.84	50.322	100740.
#2	509.45	49635.	503.43	507.18	490.13	50.154	98062.
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	493.86	492.46	500.88	F 592.1	F 552.9	546.2	48858.
Stddev	.12	1.10	.24	1.2	3.6	4.9	941.
%RSD	.02492	.22266	.04826	.1963	.6508	.8882	1.9262
#1	493.77	493.23	501.05	591.2	555.4	542.8	49524.
#2	493.94	491.68	500.71	592.9	550.3	549.7	48193.
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	24128.	99330.	102900.	500.03	503.04	100490.	493.46
Stddev	352.	1236.	1715.	2.50	1.15	2368.	.21
%RSD	1.4602	1.244	1.667	.49927	.22819	2.3564	.04310
#1	24377.	100200.	104100.	501.80	503.85	102170.	493.31
#2	23878.	98450.	101600.	498.27	502.23	98817.	493.61
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV Acquired: 12/10/2007 17:13:50 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	490.97	503.70	500.43	517.30	496.23	498.10	499.24
Stddev	2.45	.34	.78	.19	.55	3.48	2.29
%RSD	.49840	.06707	.15599	.03618	.10994	.69895	.45874
#1	489.24	503.94	500.98	517.17	495.85	500.56	497.62
#2	492.70	503.46	499.88	517.44	496.62	495.63	500.86
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	511.48	491.99	506.39	F 596.11
Stddev	2.21	1.75	1.65	.23
%RSD	.43304	.35492	.32636	.03862
#1	513.04	490.75	507.56	596.27
#2	509.91	493.22	505.22	595.94
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	46188.	24654.	610750.
Stddev	130.	285.	1340.
%RSD	.28152	1.1550	.21940
#1	46280.	24452.	609800.
#2	46096.	24855.	611700.

Sample Name: CCB Acquired: 12/10/2007 17:17:26 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	-.09657	2.3080	1.1565	.84203	.05187	.00326	17.368	-.00261
Stddev	.31962	3.9165	.2559	.38519	.01559	.00222	1.676	.07377
%RSD	330.97	169.69	22.128	45.745	30.056	68.020	9.6470	2824.2
#1	-.32258	-.46133	1.3374	1.1144	.06289	.00169	18.552	.04955
#2	.12943	5.0774	.97554	.56967	.04084	.00483	16.183	-.05478
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	-.11282	-.02933	-.7553	.1595	-.9938	17.048	15.267	F 11.40
Stddev	.34607	.20129	.5953	.3760	16.46	1.949	70.647	.77
%RSD	306.75	686.40	78.82	235.7	1656.	11.434	462.73	6.764
#1	-.35753	.11301	-1.176	.4253	10.65	18.426	65.222	11.94
#2	.13189	-.17166	-.3344	-.1064	-12.63	15.669	-34.687	10.85
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 10.95	.12364	.18658	43.406	-.02915	-.06485	-.91840	-.09307
Stddev	1.09	.00034	.01434	13.978	.40186	.34518	.03894	1.7074
%RSD	9.960	.27747	7.6852	32.203	1378.4	532.24	4.2397	1834.6
#1	11.73	.12388	.19672	53.290	-.31331	.17923	-.94593	1.1142
#2	10.18	.12340	.17644	33.522	.25500	-.30893	-.89087	-1.3004
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: 12/10/2007 17:17:26 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	-.40730	-.24990	.06021	-.30475	.71211	.43806	-.05724	-.18404
Stddev	.38569	.37003	.00597	.36806	.02254	.51818	.19368	.02101
%RSD	94.694	148.07	9.9116	120.78	3.1652	118.29	338.37	11.416
#1	-.68003	-.51155	.06443	-.56501	.72805	.80447	.07971	-.16918
#2	-.13458	.01175	.05599	-.04449	.69617	.07165	-.19419	-.19889
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	48349.	25026.	639170.
Stddev	626.	108.	6019.
%RSD	1.2951	.43129	.94171
#1	47907.	25102.	634910.
#2	48792.	24949.	643430.

Sample Name: CCV Acquired: 12/10/2007 17:55:14 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	506.02	49835.	510.10	509.31	489.94	49.978	98303.
Stddev	.22	2190.	.87	.46	.60	.057	4358.
%RSD	.04256	4.3946	.16970	.09065	.12253	.11323	4.4334
#1	506.17	48286.	509.49	508.98	490.37	50.018	95222.
#2	505.87	51384.	510.71	509.63	489.52	49.937	101380.
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	498.79	497.66	498.25	F 597.9	F 555.7	540.5	48264.
Stddev	.64	1.00	.73	1.6	3.7	6.2	2123.
%RSD	.12767	.20108	.14715	.2719	.6621	1.149	4.3981
#1	499.24	498.37	498.77	596.7	553.1	536.1	46763.
#2	498.34	496.95	497.74	599.0	558.3	544.9	49765.
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	23899.	98260.	102200.	499.08	507.25	99365.	498.95
Stddev	996.	3282.	4337.	.86	.73	3803.	.51
%RSD	4.1660	3.341	4.245	.17261	.14417	3.8274	.10309
#1	23195.	95940.	99080.	499.69	507.77	96676.	499.31
#2	24603.	100600.	105200.	498.47	506.73	102050.	498.59
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV Acquired: 12/10/2007 17:55:14 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	497.73	510.60	506.20	515.69	502.64	495.36	498.55
Stddev	.64	2.57	2.06	.15	.28	.61	2.16
%RSD	.12791	.50371	.40612	.02836	.05603	.12376	.43408
#1	498.18	508.78	504.74	515.79	502.84	495.79	497.02
#2	497.28	512.41	507.65	515.59	502.44	494.92	500.08
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	513.64	494.45	504.50	F 600.29
Stddev	.40	.42	.61	1.03
%RSD	.07731	.08506	.12046	.17127
#1	513.92	494.74	504.93	601.01
#2	513.36	494.15	504.07	599.56
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	45507.	24491.	610370.
Stddev	35.	848.	556.
%RSD	.07758	3.4611	.09116
#1	45532.	25090.	609980.
#2	45482.	23891.	610770.

Sample Name: CCB Acquired: 12/10/2007 17:58:50 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	-.09039	13.202	.37060	-.30633	.01582	.00289	7.2712	-.00755
Stddev	.01218	7.497	.82663	.17563	.02323	.00580	2.6748	.03321
%RSD	13.471	56.788	223.05	57.334	146.85	200.87	36.786	440.12
#1	-.09900	7.9007	-.21392	-.18214	-.00061	-.00121	5.3798	-.03103
#2	-.08178	18.503	.95511	-.43052	.03225	.00698	9.1625	.01594
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	-.04116	-.25632	.4005	.2285	F 4.547	3.7291	3.6237	F 5.628
Stddev	.19623	.01416	1.702	.0744	3.684	4.3771	48.166	1.607
%RSD	476.75	5.5230	424.9	32.54	81.02	117.38	1329.2	28.55
#1	.09759	-.26634	1.604	.1759	7.152	6.8242	37.682	6.764
#2	-.17991	-.24631	-.8028	.2811	1.942	.63403	-30.435	4.492
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 3.975	.00862	.04886	25.675	.07995	-.74398	-.76291	.71331
Stddev	.967	.05896	.43798	2.007	.28904	.29482	.97966	.21167
%RSD	24.32	684.37	896.44	7.8154	361.50	39.628	128.41	29.674
#1	4.658	-.03308	.35856	24.256	-.12443	-.53551	-1.4556	.56364
#2	3.291	.05031	-.26084	27.093	.28434	-.95245	-.07018	.86298
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: 12/10/2007 17:58:50 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	-.23413	-.20341	.02530	.95039	.47842	1.3288	.05309	-.22876
Stddev	.15794	.65280	.03443	.90428	.55708	.6535	.27597	.04624
%RSD	67.456	320.92	136.08	95.148	116.44	49.180	519.83	20.215
#1	-.34581	-.66501	.00096	1.5898	.08451	1.7909	-.14205	-.19606
#2	-.12245	.25818	.04964	.31097	.87234	.86670	.24823	-.26146
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	47328.	24256.	617990.
Stddev	60.	183.	3337.
%RSD	.12672	.75277	.53993
#1	47370.	24385.	620350.
#2	47285.	24127.	615630.

Sample Name: CCV Acquired: 12/10/2007 18:37:02 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	502.07	48301.	501.62	501.91	489.63	49.557	96041.
Stddev	2.38	2961.	3.61	1.59	.83	.287	5684.
%RSD	.47364	6.1296	.71897	.31673	.17004	.57918	5.9186
#1	500.39	46208.	504.17	503.04	489.04	49.354	92021.
#2	503.75	50395.	499.07	500.79	490.22	49.760	100060.
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	493.19	492.52	492.78	F 590.1	549.5	528.6	47204.
Stddev	1.52	1.41	2.45	4.1	5.5	7.0	2938.
%RSD	.30887	.28628	.49802	.6887	1.007	1.319	6.2239
#1	494.27	493.52	491.04	587.2	545.6	523.7	45127.
#2	492.11	491.52	494.51	592.9	553.5	533.6	49282.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value				500.0			
Range				10.00%			

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	23226.	96500.	98970.	498.22	501.24	98697.	492.58
Stddev	1340.	5439.	5871.	1.95	1.06	5759.	.98
%RSD	5.7707	5.636	5.932	.39094	.21237	5.8352	.19836
#1	22279.	92660.	94820.	496.84	502.00	94625.	493.27
#2	24174.	100300.	103100.	499.60	500.49	102770.	491.89
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV Acquired: 12/10/2007 18:37:02 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	491.98	503.59	497.51	510.26	496.70	496.58	494.67
Stddev	2.83	2.31	1.62	1.46	1.00	3.40	3.82
%RSD	.57618	.45786	.32497	.28702	.20190	.68457	.77215
#1	493.99	505.22	496.37	509.23	497.41	494.18	497.37
#2	489.98	501.96	498.66	511.30	495.99	498.99	491.97
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	504.21	490.80	502.42	F 592.53
Stddev	2.60	3.87	1.95	2.69
%RSD	.51503	.78794	.38733	.45348
#1	502.37	493.53	501.04	594.44
#2	506.04	488.06	503.80	590.63
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	45741.	24692.	610590.
Stddev	36.	1235.	2845.
%RSD	.07778	5.0031	.46600
#1	45716.	25565.	612600.
#2	45767.	23818.	608580.

Sample Name: CCB Acquired: 12/10/2007 18:40:39 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	Cd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.18968	-12.214	-.13942	-.46282	.06495	-.00118	14.823	-.05718
Stddev	.12307	2.134	.27735	.33458	.04908	.00327	.231	.06085
%RSD	64.882	17.471	198.92	72.292	75.572	277.45	1.5610	106.42
#1	-.27670	-10.705	.05669	-.69940	.03024	.00114	14.659	-.01415
#2	-.10266	-13.723	-.33554	-.22623	.09965	-.00350	14.987	-.10020
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	-.01861	-.18899	-.5145	.2281	F -6.956	14.982	-9.4337	F 8.814
Stddev	.31769	.00073	.8923	.2153	1.948	1.426	2.0703	1.398
%RSD	1706.7	.38850	173.4	94.38	28.01	9.5193	21.946	15.86
#1	-.24326	-.18951	-1.145	.0759	-5.578	15.991	-7.9698	7.825
#2	.20603	-.18847	.1164	.3804	-8.333	13.974	-10.898	9.802
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 6.258	.50553	.19905	1.8376	-.29263	.01217	.49389	.47710
Stddev	.716	.33474	.14143	19.326	.07394	1.5311	1.3560	.38521
%RSD	11.45	66.216	71.053	1051.7	25.266	12583.	274.55	80.739
#1	5.751	.26883	.29906	-11.828	-.34491	1.0948	1.4527	.20472
#2	6.764	.74223	.09905	15.503	-.24035	-1.0705	-.46494	.74948
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: 12/10/2007 18:40:39 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	-.32846	.24825	.05608	-.24644	1.4011	.53731	.07091	-.08121
Stddev	.31733	.25935	.03684	1.6718	.7007	2.4061	.00977	.04632
%RSD	96.610	104.47	65.702	678.36	50.008	447.81	13.776	57.033
#1	-.10408	.43164	.03003	-1.4286	.90568	-1.1641	.06401	-.04846
#2	-.55285	.06486	.08213	.93569	1.8966	2.2387	.07782	-.11396
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	46913.	24218.	624110.
Stddev	116.	210.	2689.
%RSD	.24689	.86657	.43088
#1	46995.	24367.	622210.
#2	46831.	24070.	626020.

Sample Name: CCV Acquired: 12/10/2007 19:18:26 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	493.88	48052.	512.73	508.14	489.23	49.065	97049.
Stddev	5.09	2052.	4.54	.11	2.39	.398	3799.
%RSD	1.0297	4.2694	.88472	.02161	.48951	.81131	3.9147
#1	490.28	46602.	509.52	508.06	487.53	48.784	94363.
#2	497.47	49503.	515.94	508.21	490.92	49.347	99735.
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	503.20	496.55	490.89	F 588.8	F 557.0	F 553.1	47922.
Stddev	.02	.20	5.09	3.9	5.5	14.7	1942.
%RSD	.00310	.04095	1.0372	.6622	.9911	2.665	4.0516
#1	503.18	496.41	487.29	586.0	553.1	542.7	46549.
#2	503.21	496.70	494.49	591.5	560.9	563.5	49295.
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	23380.	93530.	97860.	486.15	508.85	98918.	488.90
Stddev	953.	3106.	4061.	3.49	.27	3774.	.11
%RSD	4.0743	3.321	4.150	.71734	.05253	3.8157	.02191
#1	22707.	91330.	94990.	483.68	508.66	96249.	488.82
#2	24054.	95720.	100700.	488.61	509.04	101590.	488.98
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV Acquired: 12/10/2007 19:18:26 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	501.87	508.48	511.38	502.39	503.59	486.73	503.34
Stddev	.80	.84	1.84	3.72	1.45	1.19	.31
%RSD	.16000	.16467	.36013	.73970	.28808	.24355	.06094
#1	501.31	507.89	510.08	499.76	502.56	485.89	503.12
#2	502.44	509.07	512.69	505.01	504.62	487.57	503.56
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	486.68	501.95	496.06	F 609.56
Stddev	4.43	.54	3.96	.38
%RSD	.91108	.10736	.79864	.06275
#1	483.54	502.33	493.26	609.83
#2	489.81	501.57	498.86	609.29
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	45899.	25269.	625220.
Stddev	15.	860.	2599.
%RSD	.03291	3.4029	.41561
#1	45888.	25877.	627060.
#2	45910.	24661.	623390.

Sample Name: CCB Acquired: 12/10/2007 19:22:02 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	.06088	-13.008	.05596	.04828	.04969	.01178	23.717	.08065
Stddev	.15854	42.269	1.3785	.88705	.01613	.00167	4.841	.02635
%RSD	260.43	324.95	2463.4	1837.2	32.453	14.138	20.412	32.673
#1	.17298	-42.897	1.0307	.67552	.03829	.01296	27.140	.09929
#2	-.05123	16.881	-.91882	-.57896	.06110	.01060	20.294	.06202
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	-.09620	-.06970	.3545	.1557	-2.897	24.680	38.625	F 17.46
Stddev	.03191	.05892	.9286	1.025	12.49	.541	57.869	.87
%RSD	33.175	84.533	262.0	658.5	431.1	2.1932	149.82	4.970
#1	-.11876	-.11137	-.3021	.8805	-11.73	25.063	79.544	18.07
#2	-.07363	-.02804	1.011	-.5692	5.934	24.297	-2.2951	16.85
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 16.47	.19581	.10078	14.460	-.06247	-.72666	-2.1539	-.70502
Stddev	1.08	.01639	.11935	1.381	.43332	.18134	1.3191	.15305
%RSD	6.579	8.3727	118.43	9.5532	693.60	24.955	61.244	21.709
#1	17.24	.20741	.01639	13.483	-.36888	-.59843	-1.2211	-.59679
#2	15.71	.18422	.18518	15.436	.24393	-.85488	-3.0867	-.81324
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: 12/10/2007 19:22:02 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	.06653	-.32129	.07123	.28338	.91305	-.09949	.26205	-.10516
Stddev	.08796	.20428	.02511	.41032	.03445	.93025	.23800	.06445
%RSD	132.21	63.582	35.257	144.79	3.7734	934.99	90.823	61.283
#1	.12872	-.17684	.05347	-.00676	.88868	.55829	.09376	-.05959
#2	.00433	-.46574	.08899	.57352	.93741	-.75728	.43034	-.15074
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	46884.	24442.	632900.
Stddev	8.	63.	4079.
%RSD	.01632	.25633	.64441
#1	46879.	24486.	630020.
#2	46890.	24398.	635780.

Sample Name: CCV Acquired: 12/10/2007 19:59:40 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	500.94	50406.	510.51	508.43	489.18	49.663	99862.
Stddev	4.69	292.	1.16	.77	6.83	.444	595.
%RSD	.93716	.57856	.22704	.15155	1.3968	.89308	.59552
#1	497.62	50200.	509.69	508.98	484.35	49.349	99441.
#2	504.26	50612.	511.33	507.89	494.02	49.976	100280.
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	499.58	495.20	497.33	F 592.9	F 557.3	532.2	49134.
Stddev	.55	.43	4.38	1.2	1.1	3.4	297.
%RSD	.10932	.08634	.88056	.1948	.1951	.6311	.60497
#1	499.97	495.51	494.24	593.8	556.5	534.6	48923.
#2	499.20	494.90	500.43	592.1	558.0	529.8	49344.
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	24187.	97790.	102600.	491.88	507.41	101650.	491.19
Stddev	92.	716.	495.	4.43	.79	721.	1.17
%RSD	.38179	.7323	.4820	.90006	.15592	.70950	.23726
#1	24121.	97280.	102300.	488.75	507.97	101140.	492.01
#2	24252.	98290.	103000.	495.01	506.85	102160.	490.36
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV Acquired: 12/10/2007 19:59:40 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	495.06	508.26	508.57	508.86	502.75	495.83	502.33
Stddev	.03	2.10	2.31	4.75	.26	6.14	2.15
%RSD	.00576	.41333	.45336	.93325	.05144	1.2378	.42814
#1	495.04	509.74	510.20	505.51	502.57	491.49	500.81
#2	495.08	506.77	506.94	512.22	502.93	500.17	503.85
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	499.96	499.27	500.86	F 604.11
Stddev	4.39	.95	4.09	.48
%RSD	.87838	.19049	.81726	.07976
#1	496.85	498.60	497.96	604.45
#2	503.06	499.94	503.75	603.77
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	45893.	24059.	616840.
Stddev	98.	164.	5591.
%RSD	.21281	.68236	.90645
#1	45824.	24176.	620800.
#2	45962.	23943.	612890.

Sample Name: CCB Acquired: 12/10/2007 20:03:16 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	Ca	Cd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.11303	8.1699	.99517	-.57948	.10305	.01897	26.282	.09314
Stddev	.07885	8.3804	.84099	.05680	.02918	.00190	10.540	.02596
%RSD	69.757	102.58	84.507	9.8011	28.314	10.004	40.103	27.870
#1	-.16878	14.096	1.5898	-.61964	.08242	.01762	18.829	.11149
#2	-.05728	2.2440	.40051	-.53932	.12368	.02031	33.734	.07478
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	-.04531	-.07841	-.9515	.3585	-.2961	38.620	4.6957	F 19.86
Stddev	.08702	.18483	.5674	.8809	7.127	.034	40.605	.22
%RSD	192.03	235.73	59.63	245.7	2407.	.08696	864.72	1.131
#1	-.10684	-.20910	-.5503	.9814	-5.336	38.596	33.408	19.70
#2	.01622	.05229	-1.353	-.2644	4.744	38.644	-24.016	20.02
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 19.20	.23199	.05594	26.006	-.09019	-1.2432	-1.4743	.70295
Stddev	1.19	.02235	.05057	3.022	.02442	1.0053	.5595	2.9430
%RSD	6.210	9.6337	90.387	11.619	27.072	80.869	37.954	418.67
#1	20.04	.21618	.09170	23.869	-.07293	-1.9540	-1.8700	-1.3781
#2	18.36	.24779	.02019	28.143	-.10746	-.53228	-1.0786	2.7840
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: 12/10/2007 20:03:16 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	-.19207	-.07281	.09253	.44645	1.7525	.59089	.20953	-.07025
Stddev	1.1087	.33445	.00294	.52731	.1613	.62876	.19450	.01092
%RSD	577.24	459.37	3.1783	118.11	9.2032	106.41	92.829	15.541
#1	-.97604	.16369	.09045	.81932	1.6384	.14629	.07199	-.07797
#2	.59190	-.30930	.09461	.07359	1.8665	1.0355	.34706	-.06253
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	47336.	25389.	641140.
Stddev	54.	878.	3530.
%RSD	.11469	3.4563	.55057
#1	47297.	26009.	638640.
#2	47374.	24768.	643640.

Sample Name: BLK 101 Acquired: 12/10/2007 20:37:44 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	-.01210	-26.376	-2.4797	.21042	-.03113	.01926	17.490	-.19283
Stddev	.29977	9.789	1.1030	.20500	.02017	.00766	1.685	.01823
%RSD	2477.2	37.115	44.481	97.423	64.801	39.786	9.6363	9.4543
#1	.19987	-33.298	-3.2597	.06547	-.01687	.01384	18.682	-.17994
#2	-.22407	-19.454	-1.6998	.35537	-.04540	.02468	16.299	-.20572

Elem	Co	Cr	Cu2199	Cu2218	Cu3273	Fe	K	Mg2802
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.35639	1.7045	.8064	.2965	-9.030	7.9007	-118.67	-5.021
Stddev	.19754	.1466	1.196	.1269	8.110	1.7036	14.65	.108
%RSD	55.428	8.5985	148.3	42.79	89.82	21.562	12.346	2.148
#1	-.21671	1.8081	1.652	.3863	-3.295	9.1053	-108.31	-4.944
#2	-.49607	1.6008	-.0390	.2068	-14.76	6.6960	-129.03	-5.097

Elem	Mg2852	Mn	Mo	Na	Ni	Pb	Sb	Se
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-7.281	-.02298	.21129	-173.35	-.24356	-1.0214	.73103	3.0394
Stddev	1.474	.02231	.17824	30.27	.11347	.9313	2.2935	1.6100
%RSD	20.25	97.077	84.356	17.459	46.587	91.180	313.74	52.972
#1	-6.239	-.03876	.08526	-151.95	-.16333	-.36286	-.89072	1.9009
#2	-8.323	-.00721	.33732	-194.75	-.32380	-1.6799	2.3528	4.1778

Elem	Si	Sn	Sr	Te	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	7.8552	27.998	-.04127	1.5300	.68744	-2.5790	-.10053	5.9090
Stddev	.4528	.055	.01683	.9299	.07301	.0066	.01608	.0267
%RSD	5.7641	.19820	40.780	60.776	10.621	.25719	15.995	.45201
#1	7.5350	27.959	-.05318	.87250	.73907	-2.5743	-.11190	5.9279
#2	8.1754	28.038	-.02937	2.1876	.63581	-2.5837	-.08916	5.8901

Sample Name: BLK 101 Acquired: 12/10/2007 20:37:44 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	45900.	23710.	619270.
Stddev	32.	768.	7375.
%RSD	.06962	3.2387	1.1909
#1	45922.	24253.	614060.
#2	45877.	23167.	624490.

Sample Name: CCV Acquired: 12/10/2007 20:41:08 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
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	501.01	50795.	512.53	508.80	485.48	49.772	100500.
Stddev	2.45	14.	2.93	.39	3.11	.225	10.
%RSD	.48847	.02751	.57227	.07656	.63968	.45157	.00956
#1	499.28	50805.	510.46	508.52	483.29	49.613	100490.
#2	502.74	50786.	514.61	509.07	487.68	49.931	100510.
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	500.92	495.19	500.13	F 593.3	F 558.0	537.3	49391.
Stddev	1.66	1.45	.73	.3	.6	1.3	55.
%RSD	.33063	.29189	.14508	.0481	.1075	.2369	.11192
#1	499.75	494.17	499.61	593.5	558.4	536.4	49352.
#2	502.09	496.22	500.64	593.1	557.5	538.2	49430.
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	24438.	98010.	103200.	489.84	509.73	102080.	491.22
Stddev	166.	122.	43.	2.23	2.05	89.	.59
%RSD	.68126	.1246	.0420	.45469	.40126	.08705	.12078
#1	24320.	98100.	103200.	488.26	508.29	102010.	490.81
#2	24556.	97920.	103100.	491.41	511.18	102140.	491.64
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV Acquired: 12/10/2007 20:41:08 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	497.36	504.21	505.01	509.34	503.72	489.65	498.66
Stddev	2.92	1.12	1.13	.58	1.70	.68	2.33
%RSD	.58616	.22157	.22327	.11400	.33670	.13887	.46630
#1	495.29	503.42	504.21	508.93	502.52	490.14	497.02
#2	499.42	505.00	505.81	509.75	504.92	489.17	500.31
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	499.25	499.38	500.43	F 606.41
Stddev	2.33	3.23	1.74	2.74
%RSD	.46669	.64675	.34702	.45155
#1	497.60	497.10	499.20	604.47
#2	500.90	501.66	501.66	608.35
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	46398.	23933.	625600.
Stddev	66.	82.	3411.
%RSD	.14119	.34463	.54515
#1	46444.	23874.	628010.
#2	46352.	23991.	623190.

Sample Name: CCB Acquired: 12/10/2007 20:44:45 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	Cd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.00859	12.819	.43058	-.90495	.02975	.00138	25.399	.06672
Stddev	.51821	3.378	1.3760	.13971	.02428	.00051	4.743	.13517
%RSD	6033.2	26.350	319.58	15.439	81.622	36.898	18.674	202.61
#1	.35784	10.430	1.4036	-1.0037	.04692	.00174	22.045	-.02886
#2	-.37502	15.207	-.54242	-.80616	.01258	.00102	28.753	.16230
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	-.13234	-.17744	.5445	.3445	F 3.887	25.417	-21.241	F 21.60
Stddev	.12397	.15714	.1325	1.062	.003	3.752	3.488	3.39
%RSD	93.672	88.560	24.33	308.2	.0780	14.763	16.420	15.71
#1	-.22000	-.28856	.6381	1.095	3.889	28.070	-23.707	24.00
#2	-.04468	-.06633	.4508	-.4063	3.884	22.763	-18.774	19.20
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 25.07	.19752	-.08098	37.893	-.26470	-.66173	-.34289	-2.8903
Stddev	.94	.04932	.02715	1.879	.13898	1.7269	2.1467	.8232
%RSD	3.749	24.972	33.533	4.9580	52.503	260.97	626.06	28.481
#1	25.74	.23239	-.10018	36.564	-.16643	-1.8828	1.1750	-2.3082
#2	24.41	.16264	-.06178	39.221	-.36297	.55939	-1.8608	-3.4724
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: 12/10/2007 20:44:45 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	-.57723	-.18861	.04858	.20461	.81234	-.19639	.09634	-.07834
Stddev	.05856	.04768	.01187	.74462	.07363	.44839	.13090	.02828
%RSD	10.145	25.278	24.438	363.93	9.0640	228.31	135.87	36.097
#1	-.61864	-.15489	.05697	.73113	.76027	.12067	.18890	-.05834
#2	-.53582	-.22232	.04018	-.32192	.86440	-.51345	.00378	-.09833
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	48140.	24316.	644310.
Stddev	231.	178.	350.
%RSD	.47932	.73104	.05425
#1	47976.	24442.	644070.
#2	48303.	24191.	644560.

Sample Name: BKS 101 Acquired: 12/10/2007 20:48:09 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	Cd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**101.68**	**10190.**	**102.28**	**980.18**	**1019.0**	**50.657**	**10487.**	**105.67**
Stddev	.51	249.	1.12	2.16	13.2	.106	230.	.01
%RSD	.50533	2.4474	1.0951	.22084	1.2985	.20949	2.1977	.00939
#1	101.31	10014.	103.07	981.71	1009.6	50.582	10324.	105.67
#2	102.04	10366.	101.49	978.65	1028.3	50.732	10650.	105.66

Elem	Co	Cr	Cu2199	Cu2218	Cu3273	Fe	K	Mg2802
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**516.82**	**523.35**	**571.5**	**943.2**	**504.7**	**10110.**	**10102.**	**10370.**
Stddev	.36	.30	.7	1.4	6.2	203.	198.	221.
%RSD	.06874	.05660	.1180	.1505	1.223	2.0064	1.9553	2.131
#1	517.07	523.14	572.0	942.2	500.4	9966.5	9961.9	10220.
#2	516.57	523.56	571.0	944.2	509.1	10253.	10241.	10530.

Elem	Mg2852	Mn	Mo	Na	Ni	Pb	Sb	Se
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**11320.**	**1016.6**	**532.13**	**10330.**	**519.77**	**1036.9**	**98.128**	**101.76**
Stddev	233.	3.8	.63	203.	.56	2.6	2.926	3.55
%RSD	2.057	.37132	.11863	1.9660	.10717	.24810	2.9820	3.4918
#1	11150.	1013.9	532.58	10186.	519.37	1038.8	100.20	104.27
#2	11480.	1019.2	531.68	10473.	520.16	1035.1	96.059	99.245

Elem	Si	Sn	Sr	Te	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**8408.3**	**551.77**	**1011.6**	**388.51**	**2014.7**	**103.81**	**522.50**	**1044.5**
Stddev	11.7	.75	4.7	1.05	3.1	.50	.77	1.0
%RSD	.13948	.13600	.46247	.27075	.15460	.48132	.14815	.09184
#1	8400.0	552.30	1008.3	387.77	2012.5	103.46	521.96	1045.2
#2	8416.6	551.24	1014.9	389.25	2016.9	104.16	523.05	1043.8

Sample Name: BKS 101 Acquired: 12/10/2007 20:48:09 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	46480.	24333.	632040.
Stddev	57.	449.	1464.
%RSD	.12283	1.8468	.23158
#1	46440.	24651.	631010.
#2	46521.	24015.	633080.

Sample Name: S 711053-001-001-1/1 Acquired: 12/10/2007 20:51:44 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	1.0571	34810.	19.725	-2.7948	42.957	2.2047	2291.2
Stddev	.2265	872.	.537	.0031	.257	.0271	64.4
%RSD	21.429	2.5048	2.7203	.11007	.59746	1.2303	2.8114
#1	.89694	35427.	20.105	-2.7926	43.138	2.2239	2336.7
#2	1.2173	34194.	19.346	-2.7970	42.775	2.1856	2245.6

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.53171	17.347	527.59	283.4	307.3	172.8	252040.
Stddev	.47429	.040	3.16	3.6	6.0	4.8	5703.
%RSD	89.202	.22852	.59878	1.271	1.963	2.785	2.2628
#1	.19633	17.319	529.82	285.9	311.5	169.4	256080.
#2	.86708	17.375	525.36	280.8	303.0	176.2	248010.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	741.03	1709.	1898.	526.22	3.7594	-31.853	71.967
Stddev	27.91	39.	47.	2.86	.0280	9.369	.472
%RSD	3.7668	2.287	2.471	.54270	.74451	29.415	.65600
#1	760.77	1737.	1931.	528.23	3.7396	-25.228	72.301
#2	721.29	1681.	1864.	524.20	3.7792	-38.478	71.633

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	42.285	1.8809	7.7058	543.69	5.2564	57.128	28.083
Stddev	.731	.2104	.2549	4.86	.0149	.300	1.171
%RSD	1.7289	11.185	3.3074	.89320	.28424	.52529	4.1678
#1	41.769	2.0297	7.5256	547.12	5.2459	57.340	28.911
#2	42.802	1.7322	7.8860	540.26	5.2670	56.916	27.256

Sample Name: S 711053-001-001-1/1 Acquired: 12/10/2007 20:51:44 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	12219.	2.8150	558.27	121.98
Stddev	124.	.2914	3.30	.86
%RSD	1.0123	10.350	.59169	.70439
#1	12306.	3.0210	560.61	121.37
#2	12131.	2.6090	555.94	122.59

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	47828.	24898.	655230.
Stddev	226.	438.	210.
%RSD	.47216	1.7580	.03200
#1	47987.	24589.	655080.
#2	47668.	25208.	655380.

Sample Name: SP711053-001-001-1/1 Acquired: 12/10/2007 20:55:09 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	**9.6574**	**38568.**	**25.109**	**74.441**	**136.83**	^ *****	**2859.8**
Stddev	.5094	752.	.145	.133	2.20	-----	52.3
%RSD	5.2751	1.9510	.57580	.17850	1.6107	-----	1.8288
#1	10.018	39100.	25.007	74.347	138.39	^ -----	2896.8
#2	9.2972	38036.	25.212	74.535	135.27	^ -----	2822.8

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**9.0366**	**56.637**	**507.67**	**293.7**	**322.1**	**210.9**	**218610.**
Stddev	.0898	.337	8.45	1.4	5.0	9.3	3805.
%RSD	.99403	.59556	1.6639	.4797	1.566	4.427	1.7404
#1	8.9731	56.399	513.64	294.7	325.6	217.5	221300.
#2	9.1001	56.876	501.70	292.7	318.5	204.3	215920.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1521.9**	**2395.**	**2666.**	**546.60**	**38.300**	**832.25**	**119.77**
Stddev	78.2	43.	44.	8.26	.821	15.25	.47
%RSD	5.1373	1.813	1.654	1.5120	2.1427	1.8328	.39379
#1	1577.2	2425.	2697.	552.45	38.880	843.04	119.44
#2	1466.6	2364.	2635.	540.76	37.720	821.47	120.10

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**121.74**	**5.8052**	**11.221**	**617.97**	**46.049**	**153.53**	**55.434**
Stddev	.90	2.5321	1.530	8.91	.464	2.39	.014
%RSD	.73951	43.617	13.632	1.4414	1.0070	1.5565	.02580
#1	122.38	4.0147	12.302	624.26	46.377	155.22	55.423
#2	121.10	7.5956	10.139	611.67	45.721	151.84	55.444

Sample Name: SP711053-001-001-1/1 Acquired: 12/10/2007 20:55:09 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	11088.	12.599	533.82	195.95
Stddev	111.	2.294	8.00	.62
%RSD	.99990	18.205	1.4978	.31677
#1	11166.	14.221	539.48	196.39
#2	11009.	10.977	528.17	195.51

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	47121.	24807.	636440.
Stddev	140.	192.	3437.
%RSD	.29678	.77541	.53995
#1	47022.	24671.	634010.
#2	47220.	24944.	638870.

Sample Name: SD711053-001-001-1/1 Acquired: 12/10/2007 20:58:33 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	**9.3917**	**37876.**	**25.015**	**73.714**	**134.14**	^ *****	**2795.1**
Stddev	.3884	628.	2.264	.002	1.30	-----	41.1
%RSD	4.1354	1.6584	9.0523	.00285	.96734	-----	1.4692
#1	9.1171	37432.	23.414	73.715	135.06	^ -----	2766.1
#2	9.6664	38320.	26.616	73.712	133.22	^ -----	2824.2

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**9.2657**	**56.761**	**502.23**	**292.7**	**320.9**	**202.6**	**214290.**
Stddev	.2502	.077	5.79	.8	2.3	11.0	3224.
%RSD	2.7002	.13646	1.1537	.2816	.7291	5.445	1.5044
#1	9.4426	56.706	506.33	292.1	319.3	210.4	212010.
#2	9.0888	56.816	498.14	293.2	322.6	194.8	216570.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1510.6**	**2341.**	**2611.**	**538.43**	**38.336**	**799.90**	**119.64**
Stddev	30.9	34.	33.	5.60	.155	2.26	.01
%RSD	2.0429	1.459	1.263	1.0410	.40484	.28276	.01020
#1	1488.8	2317.	2588.	542.40	38.226	801.49	119.65
#2	1532.5	2366.	2635.	534.47	38.446	798.30	119.63

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**121.80**	**6.6501**	**11.123**	**678.45**	**45.808**	**151.20**	**53.432**
Stddev	1.57	.6379	.235	9.82	1.097	1.60	.111
%RSD	1.2888	9.5926	2.1151	1.4480	2.3958	1.0575	.20851
#1	120.69	7.1012	11.289	685.39	46.584	152.33	53.510
#2	122.91	6.1991	10.957	671.50	45.032	150.07	53.353

Sample Name: SD711053-001-001-1/1 Acquired: 12/10/2007 20:58:33 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	11011.	11.449	526.86	195.90
Stddev	70.	.270	6.04	.36
%RSD	.63750	2.3556	1.1469	.18596
#1	11060.	11.258	531.13	196.16
#2	10961.	11.640	522.58	195.64

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	46923.	24748.	635950.
Stddev	50.	410.	4644.
%RSD	.10566	1.6587	.73028
#1	46958.	25038.	632670.
#2	46888.	24457.	639230.

Sample Name: PS711053-001-001-1/1 Acquired: 12/10/2007 21:01:58 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	**1.4506**	**35244.**	**19.704**	**-3.6795**	**43.187**	**2.1428**	**2319.2**
Stddev	.2046	710.	.360	.6894	.380	.0469	56.3
%RSD	14.102	2.0158	1.8266	18.735	.88072	2.1889	2.4284
#1	1.5953	35746.	19.449	-3.1920	43.456	2.1760	2359.0
#2	1.3060	34742.	19.958	-4.1669	42.918	2.1096	2279.4

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.84229**	**18.286**	**542.33**	**286.6**	**309.7**	**186.3**	**256060.**
Stddev	.03586	.907	5.05	1.1	5.7	22.3	5079.
%RSD	4.2574	4.9584	.93122	.3796	1.848	11.96	1.9836
#1	.81693	18.927	545.91	287.4	313.8	202.1	259650.
#2	.86764	17.645	538.76	285.8	305.7	170.6	252470.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**718.14**	**1703.**	**1907.**	**529.03**	**3.6935**	**-93.154**	**73.171**
Stddev	6.54	36.	29.	4.70	.0188	7.088	.808
%RSD	.91124	2.115	1.509	.88859	.50910	7.6089	1.1045
#1	722.77	1728.	1927.	532.36	3.6802	-88.142	73.743
#2	713.51	1677.	1887.	525.71	3.7068	-98.166	72.600

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**42.543**	**1.4492**	**6.0984**	**541.09**	**6.0694**	**57.662**	**29.796**
Stddev	.241	1.7704	.5262	5.80	.0395	.576	2.127
%RSD	.56603	122.17	8.6286	1.0716	.65138	.99930	7.1386
#1	42.373	2.7011	5.7263	545.20	6.0415	58.069	31.300
#2	42.714	.19731	6.4704	536.99	6.0974	57.254	28.292

Sample Name: PS711053-001-001-1/1 Acquired: 12/10/2007 21:01:58 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	12257.	3.4249	566.12	124.52
Stddev	23.	.4335	5.23	1.74
%RSD	.18925	12.658	.92469	1.3982
#1	12274.	3.7314	569.82	125.75
#2	12241.	3.1183	562.41	123.29

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	46296.	23840.	633570.
Stddev	686.	311.	5424.
%RSD	1.4816	1.3048	.85610
#1	45811.	23620.	629740.
#2	46781.	24060.	637410.

Sample Name: SE711053-001-001-1/1 Acquired: 12/10/2007 21:05:23 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	.05136	7532.8	6.5725	-1.5258	9.1851	^ *****	496.40	.07234
Stddev	.35492	120.8	1.1770	.3507	.0819	-----	5.91	.04316
%RSD	690.99	1.6042	17.908	22.987	.89166	-----	1.1911	59.658
#1	.30233	7618.3	7.4047	-1.7738	9.1272	^ -----	500.58	.04182
#2	-.19960	7447.4	5.7402	-1.2778	9.2431	^ -----	492.22	.10285

Elem	Co	Cr	Cu2199	Cu2218	Cu3273	Fe	K	Mg2802
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	3.4979	117.28	62.21	68.14	32.46	55768.	41.391	360.2
Stddev	.1545	.81	1.45	1.62	10.68	736.	.999	4.6
%RSD	4.4160	.68678	2.328	2.376	32.91	1.3191	2.4139	1.287
#1	3.6071	116.71	61.19	69.28	40.01	56288.	42.098	363.5
#2	3.3887	117.85	63.24	66.99	24.91	55248.	40.685	356.9

Elem	Mg2852	Mn	Mo	Na	Ni	Pb	Sb	Se
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	399.8	112.95	.67751	-152.07	14.794	7.6928	.41025	2.1510
Stddev	5.0	.90	.18153	.75	.147	1.3699	1.6312	2.2949
%RSD	1.251	.79657	26.793	.49503	.99319	17.807	397.62	106.69
#1	403.3	112.31	.80586	-152.60	14.690	8.6615	-.74322	.52824
#2	396.2	113.58	.54915	-151.54	14.898	6.7242	1.5637	3.7737

Elem	Si	Sn	Sr	Te	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	119.03	1.4004	12.230	5.2244	2749.5	1.0896	121.79	27.898
Stddev	2.67	.2396	.089	1.8133	21.7	.9452	1.28	.087
%RSD	2.2395	17.107	.73022	34.708	.78960	86.750	1.0526	.31169
#1	117.15	1.2310	12.167	3.9422	2734.2	.42122	120.88	27.960
#2	120.92	1.5698	12.293	6.5066	2764.9	1.7579	122.69	27.837

Sample Name: SE711053-001-001-1/1 Acquired: 12/10/2007 21:05:23 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	46580.	23876.	634840.
Stddev	179.	158.	3718.
%RSD	.38395	.66294	.58570
#1	46454.	23764.	637470.
#2	46707.	23988.	632210.

Sample Name: S 711053-002-002-1/1 Acquired: 12/10/2007 21:08:46 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	**1.5620**	**27355.**	**22.903**	**-5.9810**	**46.737**	**2.2247**	**1078.8**
Stddev	.2200	974.	2.036	.6293	.388	.0608	41.5
%RSD	14.083	3.5612	8.8887	10.522	.83071	2.7341	3.8484
#1	1.7176	28044.	24.343	-6.4260	47.012	2.2678	1108.1
#2	1.4065	26667.	21.464	-5.5360	46.463	2.1817	1049.4

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.27424**	**19.770**	**508.86**	**337.6**	**358.2**	**225.4**	**278110.**
Stddev	.62007	.155	2.33	4.3	12.2	11.4	11153.
%RSD	226.11	.78177	.45853	1.286	3.402	5.047	4.0105
#1	-.16422	19.661	510.51	340.7	366.9	217.3	286000.
#2	.71270	19.879	507.21	334.5	349.6	233.4	270220.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**385.91**	**1495.**	**1678.**	**564.54**	**4.3906**	**-92.574**	**71.163**
Stddev	2.21	54.	63.	2.51	.3429	3.517	.460
%RSD	.57156	3.603	3.778	.44529	7.8090	3.7989	.64685
#1	387.47	1533.	1723.	566.32	4.6330	-95.060	71.488
#2	384.35	1457.	1633.	562.77	4.1481	-90.087	70.837

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**42.356**	**1.1991**	**4.8756**	**545.74**	**7.0583**	**55.718**	**34.193**
Stddev	2.120	3.0266	.7535	10.49	1.0529	.293	3.620
%RSD	5.0056	252.41	15.454	1.9215	14.917	.52570	10.588
#1	40.856	-.94103	4.3428	553.16	7.8028	55.925	36.754
#2	43.855	3.3392	5.4084	538.33	6.3138	55.511	31.633

Sample Name: S 711053-002-002-1/1 Acquired: 12/10/2007 21:08:46 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	**13015.**	**2.4590**	**656.10**	**137.06**
Stddev	79.	2.0574	3.59	1.24
%RSD	.60747	83.668	.54750	.90271
#1	13071.	3.9138	658.64	136.19
#2	12959.	1.0042	653.56	137.94

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	46527.	23638.	627840.
Stddev	54.	693.	2463.
%RSD	.11710	2.9335	.39229
#1	46566.	23147.	629580.
#2	46489.	24128.	626100.

Sample Name: S 711053-003-003-1/1 Acquired: 12/10/2007 21:12:12 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	.69123	25236.	19.803	-6.9006	35.959	3.0582	1918.6
Stddev	.21155	378.	1.606	.0044	.053	.0242	25.7
%RSD	30.605	1.4992	8.1081	.06351	.14715	.79084	1.3410
#1	.84082	25503.	20.938	-6.8975	35.922	3.0753	1936.8
#2	.54164	24968.	18.668	-6.9037	35.996	3.0411	1900.4

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.99688	22.968	483.17	338.8	333.2	209.5	259200.
Stddev	.02973	.365	.08	2.1	3.8	6.6	3312.
%RSD	2.9827	1.5902	.01561	.6075	1.152	3.163	1.2779
#1	.97586	23.226	483.12	337.3	335.9	214.2	261540.
#2	1.0179	22.709	483.23	340.2	330.5	204.8	256860.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	488.44	1799.	2012.	692.84	4.5422	-86.688	70.862
Stddev	65.42	24.	29.	1.25	.1101	8.261	.039
%RSD	13.393	1.346	1.422	.18048	2.4248	9.5290	.05466
#1	442.18	1816.	2033.	691.96	4.6201	-80.847	70.835
#2	534.70	1782.	1992.	693.72	4.4643	-92.529	70.890

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	39.802	3.7223	3.9166	539.83	6.4305	37.361	28.245
Stddev	.155	.3193	.0390	.70	.6134	.022	.443
%RSD	.38912	8.5784	.99649	.13011	9.5388	.05871	1.5679
#1	39.692	3.4965	3.9442	540.33	5.9967	37.377	27.932
#2	39.911	3.9481	3.8890	539.33	6.8642	37.346	28.558

Sample Name: S 711053-003-003-1/1 Acquired: 12/10/2007 21:12:12 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	**16073.**	**2.8276**	**734.03**	**170.70**
Stddev	86.	.7343	.81	.77
%RSD	.53216	25.969	.11045	.45242
#1	16013.	3.3469	733.46	171.24
#2	16134.	2.3084	734.61	170.15

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	46549.	23900.	630690.
Stddev	6.	209.	1635.
%RSD	.01232	.87598	.25923
#1	46553.	23752.	631850.
#2	46545.	24048.	629530.

Sample Name: S 711053-004-004-1/1 Acquired: 12/10/2007 21:15:37 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	**1.0596**	**36589.**	**20.410**	**-4.2008**	**176.53**	**1.9257**	**2924.3**
Stddev	.0652	105.	2.633	.7606	1.89	.0546	8.0
%RSD	6.1495	.28771	12.899	18.107	1.0694	2.8337	.27460
#1	1.0136	36663.	18.548	-3.6630	177.86	1.8871	2930.0
#2	1.1057	36514.	22.272	-4.7387	175.19	1.9642	2918.6

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.61240**	**41.105**	**498.76**	**412.9**	**386.4**	**272.5**	**218500.**
Stddev	.00098	.351	3.79	2.2	.7	7.3	197.
%RSD	.16057	.85387	.75939	.5350	.1865	2.684	.09004
#1	.61309	40.857	501.44	411.4	385.9	277.7	218630.
#2	.61170	41.353	496.09	414.5	387.0	267.3	218360.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1272.9**	**2306.**	**2574.**	**5305.3**	**3.3460**	**-67.525**	**121.62**
Stddev	21.6	1.	4.	58.4	.1030	6.553	.17
%RSD	1.7009	.0628	.1672	1.1014	3.0773	9.7041	.14151
#1	1257.6	2305.	2571.	5346.7	3.2732	-62.892	121.74
#2	1288.2	2307.	2577.	5264.0	3.4188	-72.159	121.49

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**329.37**	**1.7943**	**2.9905**	**545.85**	**4.8841**	**73.664**	**27.985**
Stddev	.18	1.8819	1.6205	11.53	.2284	.602	.553
%RSD	.05334	104.88	54.189	2.1128	4.6756	.81724	1.9767
#1	329.24	3.1249	4.1364	554.01	4.7226	74.090	28.376
#2	329.49	.46358	1.8446	537.70	5.0456	73.239	27.594

Sample Name: S 711053-004-004-1/1 Acquired: 12/10/2007 21:15:37 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	10736.	3.4889	533.62	207.51
Stddev	28.	1.5106	4.41	.02
%RSD	.26253	43.299	.82684	.00747
#1	10756.	4.5570	536.74	207.50
#2	10716.	2.4207	530.50	207.52

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	46629.	23991.	628820.
Stddev	5.	83.	1327.
%RSD	.01017	.34746	.21100
#1	46632.	24050.	629760.
#2	46625.	23933.	627880.

Sample Name: S 711053-005-005-1/1 Acquired: 12/10/2007 21:19:08 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	**.43016**	**58296.**	**23.315**	**-2.8177**	**69.044**	**1.5285**	**2106.1**
Stddev	.10952	1391.	1.451	.1608	.368	.0319	32.5
%RSD	25.461	2.3854	6.2236	5.7079	.53330	2.0897	1.5446
#1	.50761	59280.	22.289	-2.9314	69.304	1.5510	2129.1
#2	.35272	57313.	24.341	-2.7040	68.783	1.5059	2083.1

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.27059**	**17.260**	**499.38**	**265.1**	**329.3**	**207.0**	**232150.**
Stddev	.11880	.044	3.25	.3	5.2	12.0	4306.
%RSD	43.904	.25247	.65044	.1299	1.569	5.790	1.8549
#1	.18659	17.291	501.68	264.9	332.9	215.5	235200.
#2	.35460	17.230	497.08	265.4	325.6	198.5	229110.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**644.26**	**1608.**	**1786.**	**746.88**	**3.3613**	**-71.925**	**112.92**
Stddev	39.36	37.	35.	2.79	.2892	9.686	.27
%RSD	6.1096	2.316	1.955	.37415	8.6040	13.467	.24143
#1	616.43	1634.	1811.	748.86	3.5658	-65.075	112.72
#2	672.10	1582.	1762.	744.91	3.1568	-78.774	113.11

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**63.008**	**3.4554**	**6.9963**	**814.35**	**4.9344**	**113.39**	**25.374**
Stddev	1.013	.7975	1.1871	5.96	.3032	.60	.419
%RSD	1.6071	23.081	16.968	.73144	6.1446	.53279	1.6526
#1	62.292	4.0193	6.1569	818.56	4.7200	113.81	25.670
#2	63.724	2.8914	7.8357	810.14	5.1488	112.96	25.077

Sample Name: S 711053-005-005-1/1 Acquired: 12/10/2007 21:19:08 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	9366.2	3.3005	516.67	145.19
Stddev	63.3	.4411	2.05	.01
%RSD	.67565	13.364	.39752	.00404
#1	9410.9	2.9886	518.12	145.18
#2	9321.4	3.6124	515.22	145.19

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	47088.	23539.	629980.
Stddev	55.	320.	213.
%RSD	.11633	1.3576	.03386
#1	47049.	23313.	630130.
#2	47127.	23765.	629830.

Sample Name: CCV Acquired: 12/10/2007 21:22:32 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	**503.96**	**49517.**	**516.28**	**512.29**	**490.83**	**49.973**	**98080.**
Stddev	.43	1765.	1.17	.36	2.43	.024	3545.
%RSD	.08505	3.5650	.22720	.06976	.49444	.04747	3.6139
#1	503.66	48269.	515.45	512.04	492.55	49.990	95574.
#2	504.26	50765.	517.11	512.54	489.12	49.956	100590.
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	**504.57**	**497.43**	**503.11**	F **590.0**	F **557.4**	**538.1**	**48240.**
Stddev	.63	.62	.01	1.9	5.3	1.5	1840.
%RSD	.12576	.12451	.00146	.3166	.9544	.2858	3.8132
#1	504.12	497.00	503.12	588.6	553.6	537.0	46939.
#2	505.02	497.87	503.11	591.3	561.1	539.2	49541.
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	**24051.**	**95240.**	**100800.**	**488.99**	**512.39**	**99771.**	**491.43**
Stddev	769.	3166.	3545.	.79	.79	4121.	1.09
%RSD	3.1993	3.324	3.518	.16175	.15477	4.1300	.22090
#1	23507.	93000.	98260.	489.55	511.83	96858.	490.66
#2	24595.	97480.	103300.	488.43	512.95	102680.	492.20
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV Acquired: 12/10/2007 21:22:32 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	**503.46**	**509.33**	**507.98**	**509.47**	**506.57**	**492.58**	**503.52**
Stddev	.96	3.46	.79	1.33	.21	.72	.99
%RSD	.19046	.67958	.15582	.26129	.04156	.14531	.19618
#1	504.14	506.89	507.42	510.41	506.42	492.08	504.22
#2	502.79	511.78	508.54	508.53	506.72	493.09	502.82
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	**498.45**	**503.69**	**501.37**	F **611.70**
Stddev	.43	1.73	.05	.23
%RSD	.08600	.34292	.00926	.03809
#1	498.76	504.91	501.40	611.54
#2	498.15	502.47	501.34	611.87
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	45555.	24322.	616620.
Stddev	12.	820.	1972.
%RSD	.02626	3.3702	.31979
#1	45564.	24902.	615230.
#2	45547.	23743.	618020.

Sample Name: CCB Acquired: 12/10/2007 21:26:09 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	sF 8.7994	k -4.7505	s -5.0648	sF -34.755	sF -29.444	sF 16.101
Stddev	13.050	4.0820	6.6422	47.899	41.525	22.729
%RSD	148.31	85.927	131.14	137.82	141.03	141.17
#1	k -.42833	k -7.6369	s -.36808	s -.8851	k -.0815	k .02867
#2	s 18.027	k -1.8641	s -9.7615	s -68.625	s -58.807	s 32.173
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Fail
High Limit	3.0000			15.000	15.000	2.0000
Low Limit	-3.0000			-15.000	-15.000	-2.0000

Elem	Ca	Cd	Co	Cr	Cu2199	Cu2218
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	16.996	s .12177	s 3.8454	s 1.3185	sF -45.67	sF -31.00
Stddev	.061	.25916	5.8204	2.1895	64.76	45.39
%RSD	.35721	212.84	151.36	166.06	141.8	146.4
#1	16.953	s -.06149	s -.27030	k -.22971	s .1209	s 1.089
#2	17.039	s .30502	s 7.9611	s 2.8668	s -91.46	s -63.10
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	sF -52.42	k 23.865	k 7.9512	kF 10.28	kF 7.967	s -4.2511
Stddev	72.72	4.056	66.232	1.12	.600	6.1474
%RSD	138.7	16.997	832.99	10.92	7.531	144.61
#1	s -1.000	k 26.733	k -38.882	k 11.08	k 8.391	k .09581
#2	s -103.8	k 20.997	k 54.785	k 9.489	k 7.542	s -8.5979
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: CCB Acquired: 12/10/2007 21:26:09 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	s -3.1969	k 6.7358	s -1.7553	sF 57.970	sF -28.989	sF -8.8528
Stddev	4.0559	16.255	2.4098	85.298	38.070	16.352
%RSD	126.87	241.32	137.29	147.14	131.32	184.71
#1	s -.32897	k -4.7579	s -.05131	s -2.3448	s -2.0702	s 2.7100
#2	s -6.0648	k 18.230	s -3.4593	s 118.28	s -55.909	s -20.416
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Fail
High Limit				3.0000	20.000	5.0000
Low Limit				-3.0000	-20.000	-5.0000

Elem	Si	Sn	Sr	Te	Ti	Tl
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	sF -451.05	s -5.3352	sF -23.018	sF -43.694	sF -62.287	sF 10.508
Stddev	635.24	6.6460	32.438	61.245	89.039	15.544
%RSD	140.84	124.57	140.92	140.17	142.95	147.92
#1	k -1.864	s -.63578	-.0811	s -.3870	k .6734	s -.48318
#2	s -900.23	s -10.035	s -45.955	s -87.000	s -125.25	s 21.499
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Fail
High Limit	10.000		5.0000	10.000	20.000	10.000
Low Limit	-10.000		-5.0000	-10.000	-20.000	-10.000

Elem	V	Zn
Units	ppb	ppb
Avg	sF -20.229	s -.25991
Stddev	28.352	1.2045
%RSD	140.16	463.43
#1	k -.1811	s -1.1116
#2	s -40.277	s .59178
Check ?	Chk Fail	Chk Pass
High Limit	10.000	
Low Limit	-10.000	

Sample Name: CCB Acquired: 12/10/2007 21:26:09 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	^ *****	24264.	^ *****
Stddev	-----	74.	-----
%RSD	-----	.30595	-----
#1	^ -----	24316.	639520.
#2	^ -----	24211.	^ -----

Sample Name: S 711053-006-006-1/1 Acquired: 12/10/2007 21:29:30 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	1.0349	38163.	22.418	-4.5733	48.231	1.9708	1448.5
Stddev	.0677	821.	.752	.2614	.106	.0071	35.1
%RSD	6.5434	2.1514	3.3545	5.7150	.22010	.36092	2.4251
#1	1.0828	38743.	22.950	-4.7582	48.306	1.9758	1473.3
#2	.98706	37582.	21.887	-4.3885	48.156	1.9658	1423.7

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.53976	15.185	468.74	294.2	353.3	180.4	282620.
Stddev	.26156	.163	1.79	.1	5.7	.4	5968.
%RSD	48.459	1.0703	.38131	.0282	1.621	.2016	2.1117
#1	.35481	15.299	467.48	294.1	357.4	180.2	286840.
#2	.72472	15.070	470.01	294.3	349.3	180.7	278400.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	209.48	1174.	1307.	552.70	4.5200	-52.812	71.971
Stddev	24.90	23.	34.	.26	.0876	10.526	.522
%RSD	11.887	1.987	2.630	.04635	1.9375	19.931	.72578
#1	227.09	1190.	1331.	552.88	4.4581	-45.369	72.341
#2	191.87	1157.	1282.	552.52	4.5819	-60.255	71.602

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	44.905	3.1051	9.9834	1103.7	6.6746	68.886	29.742
Stddev	.425	1.7359	1.9353	8.5	.3680	.080	1.429
%RSD	.94671	55.907	19.385	.77078	5.5141	.11561	4.8030
#1	44.604	4.3326	11.352	1097.7	6.9348	68.942	30.752
#2	45.206	1.8776	8.6150	1109.7	6.4143	68.829	28.732

Sample Name: S 711053-006-006-1/1 Acquired: 12/10/2007 21:29:30 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	11491.	3.4329	596.51	104.93
Stddev	49.	.5862	.98	.04
%RSD	.42932	17.076	.16460	.04006
#1	11526.	3.0184	595.81	104.90
#2	11456.	3.8475	597.20	104.96

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	47091.	23867.	637470.
Stddev	81.	424.	62.
%RSD	.17251	1.7750	.00975
#1	47034.	23567.	637420.
#2	47149.	24166.	637510.

Sample Name: S 711053-007-007-1/1 Acquired: 12/10/2007 21:32:55 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	**.73736**	**39041.**	**19.179**	**-1.7328**	**93.036**	**1.7159**	**3660.6**
Stddev	.21984	369.	.871	.3207	.458	.1456	47.0
%RSD	29.814	.94623	4.5396	18.510	.49177	8.4871	1.2848
#1	.58191	38780.	18.563	-1.9596	93.359	1.8189	3627.3
#2	.89281	39302.	19.794	-1.5060	92.712	1.6129	3693.8

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.44817**	**29.324**	**432.35**	**303.5**	**306.9**	**204.3**	**204310.**
Stddev	.02841	.574	1.45	2.2	1.7	2.6	2175.
%RSD	6.3384	1.9567	.33641	.7279	.5550	1.250	1.0644
#1	.46826	28.919	433.38	305.1	305.7	206.1	202770.
#2	.42809	29.730	431.33	302.0	308.1	202.5	205850.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**989.35**	**2267.**	**2517.**	**2809.0**	**3.1116**	**-5.7910**	**106.91**
Stddev	21.77	18.	18.	10.3	.2544	1.3910	.29
%RSD	2.1999	.7758	.7047	.36735	8.1750	24.020	.26964
#1	973.96	2255.	2505.	2816.3	2.9317	-4.8074	106.70
#2	1004.7	2280.	2530.	2801.7	3.2915	-6.7745	107.11

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**43.481**	**1.9624**	**2.5952**	**549.65**	**5.3000**	**70.261**	**21.866**
Stddev	.688	.1585	3.6327	4.34	.3595	.314	.939
%RSD	1.5824	8.0784	139.98	.78882	6.7824	.44688	4.2939
#1	43.967	2.0745	.02648	552.72	5.0458	70.483	21.202
#2	42.994	1.8503	5.1639	546.58	5.5541	70.039	22.530

Sample Name: S 711053-007-007-1/1 Acquired: 12/10/2007 21:32:55 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	10133.	4.4237	500.38	169.58
Stddev	249.	1.2433	1.76	.43
%RSD	2.4584	28.106	.35236	.25624
#1	10309.	5.3029	501.63	169.89
#2	9957.1	3.5446	499.14	169.27

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	47071.	24045.	631070.
Stddev	147.	334.	2966.
%RSD	.31151	1.3893	.47002
#1	46967.	24281.	628970.
#2	47175.	23808.	633170.

Sample Name: S 711053-008-008-1/1 Acquired: 12/10/2007 21:36:27 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	**.69548**	**32858.**	**17.205**	**-3.3881**	**55.504**	**2.2336**	**3077.3**
Stddev	.43967	63.	1.763	.1669	.119	.2238	11.4
%RSD	63.218	.19299	10.249	4.9268	.21490	10.019	.36920
#1	1.0064	32903.	15.959	-3.5061	55.589	2.0753	3085.3
#2	.38459	32813.	18.452	-3.2701	55.420	2.3918	3069.2

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.52993**	**27.457**	**438.89**	**321.5**	**324.9**	**222.3**	**211530.**
Stddev	.15935	.299	1.02	1.0	.4	1.2	680.
%RSD	30.070	1.0900	.23265	.3261	.1078	.5563	.32163
#1	.41725	27.668	439.61	320.7	325.2	221.4	212010.
#2	.64260	27.245	438.17	322.2	324.7	223.1	211050.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**850.93**	**2252.**	**2492.**	**1140.4**	**3.6455**	**-65.758**	**83.408**
Stddev	12.60	8.	13.	3.4	.1738	13.657	.328
%RSD	1.4802	.3515	.5326	.29765	4.7681	20.768	.39345
#1	859.83	2258.	2501.	1142.8	3.7684	-56.101	83.175
#2	842.02	2246.	2482.	1138.0	3.5226	-75.415	83.640

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**78.546**	**2.0907**	**4.7622**	**597.94**	**5.3301**	**70.362**	**25.065**
Stddev	.428	.4495	1.5618	.09	.1695	.242	1.323
%RSD	.54455	21.501	32.796	.01494	3.1797	.34409	5.2794
#1	78.244	2.4085	3.6578	597.88	5.2103	70.533	24.129
#2	78.849	1.7728	5.8665	598.01	5.4499	70.191	26.001

Sample Name: S 711053-008-008-1/1 Acquired: 12/10/2007 21:36:27 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	12168.	3.2688	570.99	194.12
Stddev	42.	.3256	1.62	.25
%RSD	.34424	9.9607	.28427	.12998
#1	12138.	3.0386	572.14	193.94
#2	12198.	3.4990	569.84	194.30

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	47042.	24171.	632290.
Stddev	122.	65.	464.
%RSD	.26011	.26754	.07339
#1	46956.	24217.	632610.
#2	47129.	24125.	631960.

Sample Name: S 711053-009-009-1/1 Acquired: 12/10/2007 21:39:53 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	**1.0595**	**24081.**	**21.730**	**-5.6214**	**40.949**	**2.3301**	**1738.3**
Stddev	.1991	79.	2.785	.3239	.051	.0025	7.8
%RSD	18.788	.32992	12.815	5.7613	.12517	.10861	.44723
#1	.91877	24138.	19.761	-5.8504	40.986	2.3283	1743.8
#2	1.2003	24025.	23.699	-5.3924	40.913	2.3319	1732.8

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.87022**	**21.733**	**437.51**	**321.0**	**333.4**	**196.0**	**271080.**
Stddev	.08576	.126	.12	1.7	.2	3.5	307.
%RSD	9.8551	.58132	.02681	.5345	.0564	1.771	.11332
#1	.93086	21.822	437.43	319.8	333.5	198.5	270870.
#2	.80958	21.643	437.59	322.2	333.2	193.6	271300.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**505.73**	**1612.**	**1787.**	**643.84**	**4.7678**	**-77.124**	**64.144**
Stddev	5.35	1.	4.	.33	.3818	.316	.748
%RSD	1.0576	.0463	.2108	.05085	8.0074	.40963	1.1664
#1	509.51	1613.	1789.	643.60	5.0378	-77.347	64.673
#2	501.95	1612.	1784.	644.07	4.4979	-76.900	63.615

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**49.006**	**4.0374**	**4.8873**	**584.79**	**6.6503**	**41.112**	**28.802**
Stddev	.076	.3815	1.2155	5.31	.3042	.010	.163
%RSD	.15436	9.4491	24.870	.90817	4.5749	.02405	.56470
#1	48.953	4.3071	5.7468	588.54	6.4352	41.119	28.687
#2	49.060	3.7676	4.0279	581.03	6.8655	41.105	28.917

Sample Name: S 711053-009-009-1/1 Acquired: 12/10/2007 21:39:53 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	13694.	3.9294	669.54	149.40
Stddev	11.	.5281	.06	.11
%RSD	.08085	13.439	.00893	.07690
#1	13702.	4.3028	669.59	149.48
#2	13686.	3.5560	669.50	149.32

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	46895.	24403.	637760.
Stddev	125.	171.	973.
%RSD	.26742	.70000	.15258
#1	46806.	24524.	638450.
#2	46983.	24283.	637070.

Sample Name: S 711053-010-010-1/1 Acquired: 12/10/2007 21:43:19 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
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.0155**	**33702.**	**23.886**	**-3.5131**	**49.098**	**1.9777**	**2910.6**
Stddev	.3822	199.	1.960	.5804	.546	.0743	7.4
%RSD	37.634	.58992	8.2061	16.520	1.1115	3.7583	.25459
#1	1.2857	33842.	25.272	-3.1027	48.712	2.0303	2915.8
#2	.74523	33561.	22.500	-3.9235	49.484	1.9252	2905.3

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.1898**	**18.490**	**455.82**	**302.2**	**333.8**	**177.3**	**283320.**
Stddev	.1156	.243	6.93	1.0	1.0	14.1	2089.
%RSD	9.7178	1.3156	1.5208	.3284	.3063	7.972	.73721
#1	1.1080	18.662	450.92	301.5	334.6	187.3	284800.
#2	1.2715	18.318	460.72	302.9	333.1	167.3	281840.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**739.09**	**1651.**	**1853.**	**560.21**	**4.5577**	**-56.293**	**71.060**
Stddev	29.16	6.	21.	5.85	.2477	6.911	.047
%RSD	3.9449	.3676	1.107	1.0445	5.4336	12.276	.06655
#1	759.71	1655.	1867.	556.07	4.7328	-51.407	71.093
#2	718.48	1647.	1838.	564.34	4.3826	-61.180	71.026

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**50.264**	**1.7551**	**7.5819**	**558.41**	**7.1459**	**53.076**	**32.866**
Stddev	.015	.0606	1.0100	2.72	.0253	.542	2.365
%RSD	.02946	3.4503	13.321	.48694	.35361	1.0211	7.1951
#1	50.274	1.7979	8.2961	556.49	7.1280	52.693	31.194
#2	50.253	1.7123	6.8677	560.34	7.1637	53.459	34.538

Sample Name: S 711053-010-010-1/1 Acquired: 12/10/2007 21:43:19 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	12008.	3.1320	643.61	136.93
Stddev	127.	.9790	7.69	.34
%RSD	1.0578	31.259	1.1949	.25086
#1	11918.	2.4397	638.17	136.69
#2	12098.	3.8243	649.04	137.17

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	46838.	24533.	642640.
Stddev	26.	67.	6667.
%RSD	.05490	.27384	1.0374
#1	46820.	24581.	647360.
#2	46856.	24486.	637930.

Sample Name: S 711053-011-011-1/1 Acquired: 12/10/2007 21:46:44 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	**1.0774**	**43771.**	**20.442**	**-4.1290**	**68.077**	**1.6498**	**1446.3**
Stddev	.1084	655.	.848	.2008	.121	.1538	3.9
%RSD	10.057	1.4964	4.1507	4.8642	.17766	9.3192	.26911
#1	1.0008	43308.	19.842	-3.9870	68.163	1.5411	1443.5
#2	1.1540	44234.	21.042	-4.2710	67.992	1.7585	1449.0

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.1990**	**60.173**	**421.29**	**319.3**	**327.3**	**221.1**	**201450.**
Stddev	.1692	.000	.70	2.5	1.9	4.6	2444.
%RSD	14.111	.00026	.16549	.7715	.5767	2.076	1.2131
#1	1.3186	60.173	421.79	317.6	325.9	217.9	199720.
#2	1.0793	60.173	420.80	321.1	328.6	224.3	203170.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**901.21**	**1653.**	**1852.**	**3693.8**	**3.2075**	**-69.581**	**136.34**
Stddev	5.36	23.	15.	1.4	.0007	2.719	1.12
%RSD	.59528	1.390	.8188	.03663	.02230	3.9073	.82045
#1	905.01	1636.	1841.	3694.8	3.2070	-71.503	135.55
#2	897.42	1669.	1863.	3692.9	3.2080	-67.658	137.13

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**56.169**	**4.4010**	**2.3972**	**586.40**	**5.3185**	**31.077**	**23.222**
Stddev	.816	1.7824	.4536	.87	.4434	.032	.662
%RSD	1.4525	40.500	18.923	.14756	8.3369	.10229	2.8513
#1	56.746	5.6613	2.7180	587.01	5.6320	31.100	22.754
#2	55.592	3.1406	2.0765	585.79	5.0050	31.055	23.691

Sample Name: S 711053-011-011-1/1 Acquired: 12/10/2007 21:46:44 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	10464.	1.5820	494.36	174.24
Stddev	49.	.5572	.84	.09
%RSD	.47103	35.224	.16929	.05322
#1	10499.	1.1879	494.95	174.30
#2	10429.	1.9760	493.77	174.17

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	46650.	24665.	639010.
Stddev	73.	368.	1598.
%RSD	.15564	1.4920	.25000
#1	46702.	24925.	637880.
#2	46599.	24405.	640140.

Sample Name: S 711053-012-012-1/1 Acquired: 12/10/2007 21:50:17 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
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.4667**	**31591.**	**19.670**	**-6.6843**	**173.86**	**2.2165**	**1969.0**
Stddev	.0883	44.	.576	.3690	2.51	.1172	.6
%RSD	6.0192	.14040	2.9272	5.5198	1.4416	5.2871	.03155
#1	1.4043	31623.	20.077	-6.4234	175.63	2.1337	1969.5
#2	1.5291	31560.	19.263	-6.9452	172.09	2.2994	1968.6

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.0066**	**39.860**	**579.03**	**416.0**	**390.2**	**266.3**	**260780.**
Stddev	.0060	.321	9.61	2.6	3.0	2.1	1246.
%RSD	.59741	.80497	1.6600	.6252	.7660	.7821	.47767
#1	1.0108	40.086	585.83	417.8	392.3	267.7	261660.
#2	1.0023	39.633	572.23	414.1	388.1	264.8	259900.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**889.28**	**2144.**	**2406.**	**4506.1**	**3.7982**	**-105.51**	**138.00**
Stddev	20.83	6.	9.	66.6	.1058	8.72	.15
%RSD	2.3426	.3029	.3896	1.4781	2.7842	8.2636	.11029
#1	874.55	2148.	2412.	4553.2	3.8730	-99.348	137.89
#2	904.01	2139.	2399.	4459.0	3.7234	-111.68	138.10

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**36.492**	**3.0632**	**3.2875**	**420.27**	**5.6553**	**50.914**	**33.458**
Stddev	.121	1.2515	.1558	11.65	.3552	.822	2.497
%RSD	.33048	40.856	4.7384	2.7730	6.2803	1.6136	7.4615
#1	36.577	3.9481	3.3977	428.51	5.4042	51.495	35.223
#2	36.406	2.1782	3.1774	412.03	5.9064	50.333	31.692

Sample Name: S 711053-012-012-1/1 Acquired: 12/10/2007 21:50:17 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	**13295.**	**3.2500**	**669.59**	**233.05**
Stddev	110.	.5806	10.60	1.03
%RSD	.82573	17.865	1.5833	.44267
#1	13373.	2.8394	677.09	233.78
#2	13217.	3.6605	662.09	232.32

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	46662.	23893.	633970.
Stddev	189.	77.	5759.
%RSD	.40557	.32317	.90846
#1	46795.	23838.	629900.
#2	46528.	23948.	638040.

Sample Name: S 711053-013-013-1/1 Acquired: 12/10/2007 21:53:49 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	**1.2452**	**42148.**	**16.696**	**-4.2138**	**38.026**	**2.2630**	**1242.2**
Stddev	.1770	228.	.055	.3684	.023	.0249	1.6
%RSD	14.211	.54033	.33143	8.7415	.05965	1.1002	.13065
#1	1.3704	41987.	16.657	-4.4743	38.042	2.2454	1241.1
#2	1.1201	42309.	16.735	-3.9533	38.010	2.2806	1243.4

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.0575**	**18.973**	**358.69**	**264.6**	**292.3**	**177.0**	**225780.**
Stddev	.1438	.125	.01	.7	4.1	1.3	1924.
%RSD	13.601	.65765	.00294	.2487	1.387	.7325	.85207
#1	1.1592	19.061	358.70	264.2	289.4	177.9	224420.
#2	.95582	18.885	358.69	265.1	295.2	176.1	227140.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**456.83**	**1690.**	**1887.**	**504.03**	**3.6290**	**-91.343**	**85.959**
Stddev	14.44	11.	10.	1.46	.3756	19.767	1.035
%RSD	3.1612	.6300	.5377	.29062	10.349	21.641	1.2037
#1	446.61	1682.	1880.	505.07	3.3634	-105.32	85.227
#2	467.04	1697.	1894.	502.99	3.8945	-77.365	86.691

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**63.068**	**3.8172**	**4.0455**	**533.48**	**5.3536**	**27.173**	**21.835**
Stddev	1.489	.8106	2.6912	1.96	.3997	.063	.599
%RSD	2.3616	21.235	66.523	.36755	7.4653	.23298	2.7434
#1	62.015	3.2440	2.1426	534.87	5.0710	27.218	21.411
#2	64.121	4.3903	5.9485	532.10	5.6362	27.128	22.258

Sample Name: S 711053-013-013-1/1 Acquired: 12/10/2007 21:53:49 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	12402.	2.1620	526.39	123.64
Stddev	70.	.2819	1.27	.12
%RSD	.56520	13.041	.24080	.09815
#1	12352.	2.3614	527.28	123.55
#2	12452.	1.9626	525.49	123.72

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	46575.	24246.	635860.
Stddev	22.	105.	122.
%RSD	.04828	.43433	.01916
#1	46591.	24321.	635770.
#2	46559.	24172.	635940.

Sample Name: ICSA Acquired: 12/10/2007 21:57:14 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	**-.04397**	**498440.**	**8.8474**	**5.5479**	**1.9116**	**-.04200**	**453130.**
Stddev	.11700	489.	2.5553	.8967	.0211	.00010	1518.
%RSD	266.12	.09807	28.882	16.164	1.1031	.23394	.33502
#1	-.12670	498100.	7.0405	4.9138	1.8967	-.04207	452060.
#2	.03877	498790.	10.654	6.1820	1.9265	-.04193	454200.

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.54363**	**-.03258**	**.29221**	**-179.7**	**285.1**	**198.1**	**189950.**
Stddev	.03502	.12102	.12796	1.4	1.0	20.0	13.
%RSD	6.4417	371.46	43.789	.7645	.3475	10.09	.00695
#1	.51887	-.11815	.20173	-180.6	285.8	183.9	189960.
#2	.56839	.05299	.38269	-178.7	284.4	212.2	189940.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-199.90**	**217900.**	**218900.**	**1.4911**	**.50153**	**-224.55**	**-2.8940**
Stddev	38.10	2141.	802.	.1211	.37023	.76	.0567
%RSD	19.060	.9822	.3666	8.1181	73.821	.33823	1.9604
#1	-172.96	216400.	218300.	1.5767	.76332	-224.01	-2.9341
#2	-226.84	219400.	219400.	1.4055	.23974	-225.08	-2.8539

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**12.633**	**-.95370**	**.44388**	**.30305**	**-.43373**	**.44077**	**15.313**
Stddev	.467	2.9428	1.7130	.43052	.27429	.00156	.429
%RSD	3.6934	308.56	385.92	142.07	63.240	.35291	2.7995
#1	12.963	-3.0346	1.6551	-.00138	-.23978	.43967	15.010
#2	12.303	1.1272	-.76739	.60747	-.62768	.44187	15.616

Sample Name: ICSA Acquired: 12/10/2007 21:57:14 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	5.3592	4.2155	-1.0500	.39593
Stddev	.0760	2.1647	.0138	.03783
%RSD	1.4175	51.351	1.3138	9.5548
#1	5.4129	2.6848	-1.0403	.36918
#2	5.3055	5.7461	-1.0598	.42268

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	44453.	23725.	591180.
Stddev	83.	100.	1854.
%RSD	.18560	.42317	.31358
#1	44511.	23796.	592500.
#2	44394.	23654.	589870.

Sample Name: ICSAB Acquired: 12/10/2007 22:00:47 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	**208.87**	**499110.**	**111.92**	**928.54**	**496.10**	**495.80**	**453300.**
Stddev	3.93	4521.	6.12	.63	15.11	6.80	5324.
%RSD	1.8828	.90584	5.4697	.06771	3.0461	1.3717	1.1745
#1	211.65	495910.	107.59	928.10	506.78	500.61	449540.
#2	206.09	502310.	116.25	928.98	485.41	490.99	457070.

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**949.45**	**461.08**	**491.46**	**333.0**	**771.5**	**682.3**	**188230.**
Stddev	.56	.06	9.15	2.9	3.1	3.9	1001.
%RSD	.05929	.01230	1.8623	.8775	.4038	.5771	.53189
#1	949.84	461.04	497.93	335.0	769.3	679.5	187520.
#2	949.05	461.12	484.99	330.9	773.7	685.1	188940.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**4831.0**	**227900.**	**227000.**	**480.95**	**919.54**	**10192.**	**914.52**
Stddev	65.3	2020.	433.	9.89	.19	10.	.01
%RSD	1.3524	.8864	.1906	2.0569	.02116	.10022	.00125
#1	4784.8	226500.	226600.	487.94	919.68	10185.	914.51
#2	4877.2	229400.	227300.	473.95	919.41	10199.	914.53

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**59.790**	**591.15**	**50.913**	**1178.1**	**896.09**	**495.84**	**206.24**
Stddev	1.740	1.53	.726	24.6	.74	10.14	4.75
%RSD	2.9101	.25964	1.4266	2.0886	.08305	2.0445	2.3040
#1	58.560	592.23	50.399	1195.5	895.56	503.00	209.60
#2	61.020	590.06	51.426	1160.7	896.61	488.67	202.88

Sample Name: ICSAB Acquired: 12/10/2007 22:00:47 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	900.88	99.007	491.41	1081.0
Stddev	15.93	2.079	8.98	.4
%RSD	1.7681	2.1000	1.8275	.03710
#1	912.14	100.48	497.76	1081.3
#2	889.61	97.537	485.06	1080.7

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	44377.	23471.	588420.
Stddev	10.	115.	9988.
%RSD	.02231	.49069	1.6974
#1	44384.	23553.	581360.
#2	44370.	23390.	595490.

Sample Name: CCV Acquired: 12/10/2007 22:04:42 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	**503.87**	**51512.**	**518.84**	**513.92**	**488.91**	**50.054**	**101740.**
Stddev	.11	897.	1.45	1.81	1.62	.009	1842.
%RSD	.02117	1.7404	.27923	.35299	.33172	.01830	1.8109
#1	503.94	52146.	519.86	512.64	490.05	50.047	103040.
#2	503.79	50878.	517.81	515.21	487.76	50.060	100430.
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	**506.19**	**496.05**	**504.30**	F **592.7**	F **561.6**	**546.1**	**50044.**
Stddev	1.51	1.44	.13	1.1	.1	5.5	895.
%RSD	.29808	.29094	.02636	.1893	.0106	1.001	1.7885
#1	505.12	495.03	504.20	593.5	561.6	542.3	50677.
#2	507.26	497.07	504.39	591.9	561.7	550.0	49411.
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	**24853.**	**98730.**	**104000.**	**487.94**	**513.31**	**103990.**	**488.65**
Stddev	363.	1767.	1875.	.33	2.30	1674.	1.41
%RSD	1.4595	1.790	1.802	.06849	.44717	1.6092	.28765
#1	25110.	99980.	105400.	488.17	511.69	105180.	487.66
#2	24597.	97480.	102700.	487.70	514.93	102810.	489.64
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV Acquired: 12/10/2007 22:04:42 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	**502.09**	**508.17**	**508.93**	**509.70**	**508.65**	**490.14**	**508.36**
Stddev	.33	.82	2.25	.97	1.18	2.43	.42
%RSD	.06628	.16062	.44147	.19084	.23220	.49600	.08300
#1	501.86	507.60	507.35	509.02	507.81	491.86	508.06
#2	502.33	508.75	510.52	510.39	509.48	488.42	508.66
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	**496.94**	**505.93**	**501.30**	**F 614.86**
Stddev	.37	3.60	.25	1.71
%RSD	.07407	.71078	.05018	.27733
#1	496.68	503.39	501.12	613.66
#2	497.20	508.47	501.48	616.07
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	45758.	23384.	618140.
Stddev	65.	316.	798.
%RSD	.14204	1.3527	.12906
#1	45804.	23160.	617580.
#2	45713.	23607.	618700.

Sample Name: CCB Acquired: 12/10/2007 22:08:19 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	k .11058	s 47.340	s .26348	s .04070	k -.21049	k -.20757	s 60.146
Stddev	.08487	13.629	.48474	.05644	.26307	.13601	16.381
%RSD	76.751	28.790	183.97	138.68	124.98	65.526	27.236
#1	k .05057	s 37.702	s .60625	s .08061	k -.02446	k -.30375	s 48.562
#2	k .17059	s 56.977	s -.07928	s .00079	k -.39651	k -.11139	s 71.729
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	ppb	ppb	ppb
Avg	s -.09026	s -.17422	k -.25029	s -1.583	s .1794	s .2803	s 12.799
Stddev	.10298	.02403	.18350	2.266	.9196	1.969	7.243
%RSD	114.09	13.791	73.313	143.2	512.7	702.5	56.589
#1	s -.01745	s -.19120	k -.12054	s -3.185	s -.4709	s -1.112	s 7.6775
#2	s -.16308	s -.15723	k -.38005	s .0197	s .8296	s 1.673	s 17.920
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	ppb	ppb	ppb	ppb	ppb
Avg	s -171.93	sF 10.02	sF 10.15	k -.08856	s -.07261	s -164.04	s -.33389
Stddev	106.07	4.30	5.66	.03098	.18265	16.63	.27630
%RSD	61.693	42.97	55.71	34.982	251.56	10.136	82.751
#1	s -96.930	s 6.975	s 6.152	k -.11046	s -.20176	s -152.29	s -.13852
#2	s -246.94	s 13.06	s 14.15	k -.06665	s .05655	s -175.80	s -.52926
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		3.000	3.000				
Low Limit		-3.000	-3.000				

Sample Name: CCB Acquired: 12/10/2007 22:08:19 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	s -1.3302	s -1.1414	s -.74524	k -2.3049	s .06496	k -.08850	s .31643
Stddev	.2653	.4214	.19830	2.6332	.25194	.20885	.85672
%RSD	19.947	36.920	26.609	114.24	387.87	236.00	270.75
#1	s -1.1426	s -1.4394	s -.88546	k -.44298	s -.11319	k .05918	s -.28936
#2	s -1.5178	s -.84344	s -.60502	k -4.1669	s .24310	k -.23618	s .92222
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	k .34957	s -1.0589	k -.39988	s -1.1935
Stddev	.13706	.2151	.12304	.0017
%RSD	39.208	20.313	30.769	.14034
#1	k .44649	s -1.2110	k -.31288	s -1.1947
#2	k .25266	s -.90677	k -.48688	s -1.1924
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	^ *****	^ *****	1024800.
Stddev	-----	-----	466220.
%RSD	-----	-----	45.493
#1	^ -----	^ -----	695150.
#2	^ -----	^ -----	1354500.

Sample Name: S 711053-014-014-1/1 Acquired: 12/10/2007 22:11:43 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	.88007	41798.	18.111	-4.3720	32.253	2.2253	870.99
Stddev	.43747	779.	1.409	.0876	.505	.1230	14.84
%RSD	49.709	1.8644	7.7818	2.0040	1.5648	5.5280	1.7038
#1	.57073	41247.	17.115	-4.4340	32.610	2.3123	860.49
#2	1.1894	42349.	19.108	-4.3101	31.896	2.1383	881.48

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.87540	14.103	548.36	265.5	287.6	175.4	244120.
Stddev	.31318	.177	5.24	2.1	3.3	7.8	4493.
%RSD	35.775	1.2578	.95556	.7926	1.158	4.469	1.8407
#1	1.0969	13.978	552.07	267.0	285.2	169.8	240940.
#2	.65395	14.229	544.65	264.0	289.9	180.9	247300.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	516.95	1091.	1213.	419.62	3.3334	-61.672	72.515
Stddev	23.77	22.	18.	6.45	.1041	.402	.158
%RSD	4.5990	2.015	1.466	1.5382	3.1225	.65175	.21804
#1	500.14	1076.	1200.	424.18	3.2598	-61.957	72.403
#2	533.77	1107.	1225.	415.05	3.4070	-61.388	72.627

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	22.542	3.3977	5.9852	530.03	5.9754	34.583	25.680
Stddev	.373	.8227	.2409	7.19	.9233	.533	4.200
%RSD	1.6532	24.214	4.0251	1.3570	15.452	1.5425	16.354
#1	22.279	3.9795	5.8148	535.11	6.6283	34.960	22.711
#2	22.806	2.8159	6.1555	524.94	5.3225	34.206	28.650

Sample Name: S 711053-014-014-1/1 Acquired: 12/10/2007 22:11:43 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	11849.	2.1455	532.25	105.41
Stddev	199.	.0695	6.93	.82
%RSD	1.6825	3.2396	1.3019	.77469
#1	11990.	2.1946	537.15	105.99
#2	11709.	2.0963	527.35	104.83

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	46767.	24001.	630560.
Stddev	319.	365.	1757.
%RSD	.68110	1.5202	.27858
#1	46541.	24259.	629320.
#2	46992.	23743.	631810.

Sample Name: S 711053-015-015-1/1 Acquired: 12/10/2007 22:15:09 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	.79693	27650.	19.345	-5.2878	39.086	1.9914	436.40
Stddev	.62173	18.	.134	.5771	.370	.0081	9.70
%RSD	78.016	.06435	.69405	10.914	.94776	.40448	2.2232
#1	.35730	27638.	19.440	-5.6959	39.348	1.9971	443.26
#2	1.2366	27663.	19.250	-4.8797	38.824	1.9857	429.54

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.22794	15.474	517.04	285.1	303.0	164.0	279540.
Stddev	.02222	.264	2.90	2.3	1.7	.5	886.
%RSD	9.7467	1.7069	.56061	.7899	.5570	.3292	.31678
#1	.24365	15.288	519.09	286.7	304.1	164.4	280160.
#2	.21223	15.661	514.99	283.5	301.8	163.6	278910.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	292.02	976.7	1084.	465.80	3.8193	-91.295	63.843
Stddev	31.19	2.1	3.	3.93	.1528	7.619	.345
%RSD	10.679	.2195	.2577	.84265	4.0008	8.3453	.54038
#1	269.97	978.2	1086.	468.57	3.9274	-96.683	64.087
#2	314.07	975.2	1082.	463.02	3.7113	-85.908	63.599

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	22.921	1.4166	5.8088	523.84	6.2557	47.875	29.621
Stddev	.704	1.6760	1.0262	6.80	.1919	.428	2.266
%RSD	3.0713	118.31	17.665	1.2975	3.0677	.89432	7.6508
#1	23.419	.23149	6.5344	528.64	6.1200	48.177	31.223
#2	22.423	2.6017	5.0832	519.03	6.3914	47.572	28.018

Sample Name: S 711053-015-015-1/1 Acquired: 12/10/2007 22:15:09 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	11777.	1.2779	621.47	114.47
Stddev	131.	2.0969	3.93	.28
%RSD	1.1091	164.09	.63203	.24715
#1	11870.	2.7606	624.25	114.67
#2	11685.	-.20486	618.69	114.27

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	47011.	23663.	626760.
Stddev	93.	148.	2189.
%RSD	.19762	.62521	.34918
#1	46945.	23559.	625210.
#2	47076.	23768.	628310.

Sample Name: S 711053-016-016-1/1 Acquired: 12/10/2007 22:18:36 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	.79696	37002.	16.827	-6.5600	29.369	2.3104	568.26
Stddev	.36879	1074.	3.250	.1586	.064	.0355	22.18
%RSD	46.275	2.9024	19.311	2.4179	.21921	1.5374	3.9039
#1	.53618	36243.	14.530	-6.6722	29.415	2.2853	552.57
#2	1.0577	37761.	19.125	-6.4478	29.324	2.3355	583.95

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.1936	16.390	502.89	291.7	306.5	178.7	265990.
Stddev	.3046	.006	2.24	1.3	8.2	.8	6930.
%RSD	25.519	.03371	.44474	.4326	2.670	.4635	2.6053
#1	1.4090	16.386	504.47	290.8	300.7	178.1	261090.
#2	.97822	16.394	501.31	292.6	312.3	179.3	270890.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	302.59	952.3	1054.	600.96	3.6635	-89.608	77.298
Stddev	3.06	28.9	30.	2.38	.1485	15.108	.275
%RSD	1.0099	3.039	2.861	.39549	4.0530	16.860	.35629
#1	304.75	931.9	1033.	602.65	3.5585	-78.925	77.103
#2	300.43	972.8	1075.	599.28	3.7685	-100.29	77.493

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	22.827	1.5186	4.0864	601.96	6.6770	22.143	28.874
Stddev	.551	.5587	2.5557	1.04	.0989	.074	3.942
%RSD	2.4151	36.792	62.542	.17238	1.4817	.33528	13.653
#1	22.438	1.9137	2.2792	602.70	6.6071	22.195	26.087
#2	23.217	1.1236	5.8936	601.23	6.7470	22.090	31.661

Sample Name: S 711053-016-016-1/1 Acquired: 12/10/2007 22:18:36 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	13353.	3.1657	653.08	145.24
Stddev	20.	.9584	3.16	.50
%RSD	.14605	30.276	.48330	.34747
#1	13339.	2.4880	655.31	145.60
#2	13367.	3.8434	650.85	144.89

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	47037.	24364.	629390.
Stddev	16.	539.	3293.
%RSD	.03357	2.2118	.52320
#1	47048.	24745.	627060.
#2	47025.	23983.	631710.

Sample Name: S 711053-017-017-1/1 Acquired: 12/10/2007 22:22:02 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	**1.2656**	**33680.**	**19.048**	**-5.2070**	**53.505**	**1.5847**	**561.77**
Stddev	.1174	254.	2.776	.1287	.574	.1272	3.48
%RSD	9.2751	.75530	14.572	2.4716	1.0719	8.0279	.61977
#1	1.1826	33500.	21.011	-5.1160	53.911	1.4948	559.31
#2	1.3486	33860.	17.086	-5.2980	53.100	1.6747	564.24

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.60161**	**27.488**	**521.71**	**325.1**	**336.1**	**231.6**	**230720.**
Stddev	.16680	.309	5.55	.4	2.2	8.3	2426.
%RSD	27.725	1.1253	1.0641	.1151	.6630	3.577	1.0513
#1	.71955	27.270	525.64	325.4	334.6	237.5	229010.
#2	.48367	27.707	517.79	324.8	337.7	225.7	232440.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**723.51**	**1333.**	**1482.**	**1784.3**	**2.8910**	**-97.249**	**96.014**
Stddev	77.76	11.	17.	21.7	.1963	3.627	.912
%RSD	10.748	.8167	1.166	1.2177	6.7905	3.7296	.94962
#1	668.52	1325.	1470.	1799.7	2.7522	-99.813	96.658
#2	778.49	1341.	1494.	1769.0	3.0298	-94.684	95.369

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**40.568**	**2.6238**	**.76913**	**574.91**	**5.9292**	**23.011**	**25.292**
Stddev	.144	1.1071	.53178	10.26	.0670	.304	.674
%RSD	.35587	42.196	69.140	1.7838	1.1298	1.3219	2.6663
#1	40.670	3.4066	1.1452	582.16	5.9766	23.226	24.815
#2	40.466	1.8409	.39311	567.65	5.8818	22.796	25.769

Sample Name: S 711053-017-017-1/1 Acquired: 12/10/2007 22:22:02 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	10178.	2.8257	528.19	168.25
Stddev	69.	1.1247	5.89	.36
%RSD	.67936	39.804	1.1148	.21432
#1	10227.	3.6210	532.35	168.51
#2	10129.	2.0303	524.02	168.00

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	47057.	24551.	638410.
Stddev	40.	96.	381.
%RSD	.08587	.39176	.05965
#1	47086.	24619.	638140.
#2	47029.	24483.	638680.

Sample Name: S 711053-018-018-1/1 Acquired: 12/10/2007 22:25:29 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	1.1123	100620.	11.227	.25035	31.267	^ *****	394.81
Stddev	.0798	825.	3.712	.23040	.343	-----	5.51
%RSD	7.1728	.81985	33.064	92.030	1.0968	-----	1.3962
#1	1.0559	101200.	8.6023	.41326	31.509	^ -----	398.71
#2	1.1687	100040.	13.852	.08743	31.024	^ -----	390.91

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.14094	8.1900	348.97	138.1	247.8	158.0	133720.
Stddev	.14848	.0872	4.52	.2	1.3	2.9	1060.
%RSD	105.35	1.0648	1.2946	.1315	.5439	1.844	.79300
#1	.03595	8.1284	352.17	138.2	248.8	160.0	134470.
#2	.24594	8.2517	345.78	138.0	246.9	155.9	132970.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	214.77	556.9	615.5	358.28	1.7117	-80.939	141.29
Stddev	16.95	5.2	8.6	4.21	.0398	11.809	.39
%RSD	7.8935	.9356	1.405	1.1741	2.3273	14.590	.27773
#1	202.78	560.6	621.6	361.25	1.6835	-72.589	141.02
#2	226.76	553.2	609.4	355.31	1.7398	-89.289	141.57

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	12.976	.12113	7.3497	656.86	4.5637	46.590	15.344
Stddev	.558	.94366	3.5497	6.29	.2163	.547	1.038
%RSD	4.2988	779.07	48.297	.95713	4.7403	1.1746	6.7632
#1	13.371	-.54614	9.8597	661.30	4.7166	46.977	16.077
#2	12.582	.78839	4.8397	652.41	4.4107	46.203	14.610

Sample Name: S 711053-018-018-1/1 Acquired: 12/10/2007 22:25:29 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	5290.9	3.1726	269.79	78.352
Stddev	53.5	.7088	3.12	.404
%RSD	1.0108	22.340	1.1559	.51538
#1	5328.7	3.6738	272.00	78.066
#2	5253.1	2.6715	267.59	78.637

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	47216.	24342.	644700.
Stddev	43.	13.	1092.
%RSD	.09186	.05273	.16944
#1	47247.	24351.	645470.
#2	47185.	24333.	643930.

Sample Name: S 711053-019-019-1/1 Acquired: 12/10/2007 22:28:55 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	1.9054	50861.	20.014	-3.6769	35.782	1.5671	552.16
Stddev	.0672	782.	1.555	.1428	.147	.0542	6.59
%RSD	3.5277	1.5379	7.7677	3.8825	.41191	3.4579	1.1940
#1	1.9529	51414.	21.114	-3.5760	35.886	1.6055	556.82
#2	1.8579	50308.	18.915	-3.7779	35.678	1.5288	547.50

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.98410	12.398	433.23	235.0	304.0	160.8	246640.
Stddev	.36042	.059	.02	4.1	6.7	2.8	4795.
%RSD	36.624	.47647	.00350	1.755	2.209	1.767	1.9441
#1	.72925	12.440	433.24	237.9	308.8	162.8	250030.
#2	1.2390	12.357	433.22	232.1	299.3	158.8	243250.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	47.136	720.1	811.8	372.11	3.6414	-131.30	62.703
Stddev	32.954	12.6	15.0	.64	.0006	6.39	.663
%RSD	69.914	1.746	1.853	.17119	.01734	4.8637	1.0582
#1	23.833	729.0	822.4	372.56	3.6419	-126.79	63.173
#2	70.438	711.2	801.1	371.66	3.6410	-135.82	62.234

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	23.242	3.6005	13.720	748.71	6.5123	52.795	27.344
Stddev	.132	.2045	2.772	1.78	.0486	.169	.187
%RSD	.56604	5.6803	20.204	.23804	.74585	.31924	.68480
#1	23.335	3.4558	15.680	747.44	6.5467	52.914	27.477
#2	23.149	3.7451	11.760	749.97	6.4780	52.676	27.212

Sample Name: S 711053-019-019-1/1 Acquired: 12/10/2007 22:28:55 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	9795.6	2.2460	487.19	82.683
Stddev	90.4	.4469	.08	.354
%RSD	.92329	19.897	.01552	.42802
#1	9859.5	2.5619	487.24	82.433
#2	9731.6	1.9300	487.13	82.933

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	46720.	24022.	638190.
Stddev	34.	304.	417.
%RSD	.07309	1.2648	.06528
#1	46744.	23808.	638480.
#2	46695.	24237.	637890.

Sample Name: S 711053-020-020-1/1 Acquired: 12/10/2007 22:32:21 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	1.5774	51810.	21.164	-3.6101	43.138	1.1678	1165.0
Stddev	.3869	2939.	3.439	.2637	.230	.0409	55.0
%RSD	24.530	5.6729	16.250	7.3039	.53235	3.5009	4.7184
#1	1.3038	49732.	18.732	-3.7966	43.300	1.1389	1126.2
#2	1.8510	53888.	23.596	-3.4237	42.975	1.1967	1203.9

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.28443	18.406	454.37	227.5	293.8	162.0	213080.
Stddev	.70442	.254	1.32	.4	12.3	.8	11543.
%RSD	247.66	1.3782	.29092	.1580	4.198	.5032	5.4173
#1	.78253	18.585	455.30	227.8	285.1	161.4	204910.
#2	-.21367	18.227	453.43	227.3	302.5	162.6	221240.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	629.91	1164.	1306.	1079.4	2.7024	-63.704	90.844
Stddev	3.05	66.	72.	4.8	.0043	3.893	.236
%RSD	.48383	5.674	5.530	.44741	.16041	6.1104	.25932
#1	632.07	1117.	1255.	1082.8	2.6994	-60.951	90.677
#2	627.76	1210.	1357.	1076.0	2.7055	-66.456	91.010

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	18.824	-.47925	1.9922	718.84	5.8853	28.147	27.377
Stddev	.633	.44213	.0697	2.85	.5534	.118	1.907
%RSD	3.3608	92.255	3.5007	.39687	9.4030	.41753	6.9669
#1	19.272	-.16661	1.9429	720.85	6.2766	28.230	26.028
#2	18.377	-.79188	2.0416	716.82	5.4940	28.064	28.725

Sample Name: S 711053-020-020-1/1 Acquired: 12/10/2007 22:32:21 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	8007.1	2.6067	425.13	126.63
Stddev	69.1	.8617	1.68	.83
%RSD	.86338	33.056	.39497	.65459
#1	7958.2	3.2159	426.32	127.21
#2	8056.0	1.9974	423.94	126.04

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	46499.	22359.	634720.
Stddev	75.	1646.	2463.
%RSD	.16223	7.3629	.38800
#1	46445.	23523.	632980.
#2	46552.	21195.	636460.

Sample Name: BLK 102 Acquired: 12/10/2007 22:35:47 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	-.25154	.25575	-2.9303	-.49378	.01736	.03026	179.98	-.17591
Stddev	.24995	14.164	.5397	.10811	.02138	.00002	17.30	.04396
%RSD	99.371	5538.2	18.419	21.895	123.21	.05332	9.6139	24.991
#1	-.07479	10.271	-3.3119	-.57023	.03248	.03027	167.74	-.20700
#2	-.42828	-9.7597	-2.5486	-.41733	.00224	.03025	192.21	-.14483

Elem	Co	Cr	Cu2199	Cu2218	Cu3273	Fe	K	Mg2802
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.39990	1.6529	-.4226	1.139	1.847	1.2134	-204.04	-5.903
Stddev	.11522	.1168	.3739	.274	2.515	6.4416	11.88	.065
%RSD	28.812	7.0676	88.48	24.09	136.2	530.86	5.8228	1.104
#1	-.48137	1.7355	-.1582	1.333	3.625	5.7683	-195.64	-5.857
#2	-.31842	1.5703	-.6869	.9447	.0686	-3.3415	-212.44	-5.949

Elem	Mg2852	Mn	Mo	Na	Ni	Pb	Sb	Se
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-8.297	-.00038	-.21240	-160.01	-.27245	-1.0418	-1.9026	1.3914
Stddev	1.661	.01804	.24767	4.30	.17474	.2595	.7204	.0800
%RSD	20.02	4764.3	116.61	2.6890	64.134	24.906	37.865	5.7517
#1	-7.123	.01238	-.38753	-156.97	-.39601	-1.2253	-1.3932	1.4480
#2	-9.472	-.01313	-.03726	-163.05	-.14890	-.85834	-2.4121	1.3348

Elem	Si	Sn	Sr	Te	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5.8879	29.769	.01482	-2.3310	.48954	-2.6352	-.34092	11.994
Stddev	.5094	.030	.00645	.2655	.10347	.1040	.01041	.019
%RSD	8.6511	.10084	43.530	11.390	21.135	3.9475	3.0523	.15754
#1	6.2480	29.748	.01938	-2.1433	.41638	-2.5617	-.33356	12.007
#2	5.5277	29.790	.01026	-2.5187	.56271	-2.7088	-.34827	11.980

Sample Name: BLK 102 Acquired: 12/10/2007 22:35:47 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	45149.	24037.	620450.
Stddev	295.	666.	8664.
%RSD	.65252	2.7700	1.3964
#1	44941.	24508.	614330.
#2	45357.	23566.	626580.

Sample Name: BKS 102 Acquired: 12/10/2007 22:39:12 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	Cd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**99.217**	**10056.**	**99.336**	**960.00**	**996.12**	**49.573**	**10357.**	**104.10**
Stddev	.702	116.	.033	.74	1.42	.309	98.	.09
%RSD	.70732	1.1583	.03336	.07667	.14215	.62400	.94987	.08575
#1	98.721	9973.7	99.313	960.52	995.12	49.355	10288.	104.04
#2	99.713	10138.	99.360	959.48	997.12	49.792	10427.	104.16

Elem	Co	Cr	Cu2199	Cu2218	Cu3273	Fe	K	Mg2802
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**504.73**	**516.95**	**556.2**	**910.6**	**480.4**	**9971.3**	**10004.**	**10040.**
Stddev	.03	4.17	1.1	.1	4.8	83.8	32.	53.
%RSD	.00584	.80730	.2007	.0107	1.009	.84065	.31547	.5311
#1	504.71	514.00	555.5	910.6	477.0	9912.1	9982.2	10000.
#2	504.75	519.91	557.0	910.7	483.9	10031.	10027.	10080.

Elem	Mg2852	Mn	Mo	Na	Ni	Pb	Sb	Se
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**11020.**	**982.58**	**522.81**	**10213.**	**504.74**	**1020.8**	**96.619**	**100.30**
Stddev	108.	5.76	.34	55.	.66	.2	.010	1.40
%RSD	.9760	.58656	.06560	.53995	.13053	.02317	.01039	1.3947
#1	10950.	978.51	522.57	10174.	505.20	1021.0	96.612	101.29
#2	11100.	986.66	523.06	10252.	504.27	1020.6	96.626	99.314

Elem	Si	Sn	Sr	Te	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**8111.0**	**543.36**	**987.29**	**382.85**	**1945.4**	**100.91**	**509.83**	**1033.8**
Stddev	64.5	.84	3.54	.16	11.4	.36	3.37	.6
%RSD	.79499	.15530	.35891	.04122	.58461	.35850	.66011	.06226
#1	8065.5	543.96	984.78	382.96	1937.3	100.65	507.45	1033.3
#2	8156.6	542.76	989.79	382.74	1953.4	101.16	512.21	1034.2

Sample Name: BKS 102 Acquired: 12/10/2007 22:39:12 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	45595.	23321.	623720.
Stddev	23.	265.	948.
%RSD	.05096	1.1366	.15193
#1	45579.	23509.	624390.
#2	45612.	23134.	623050.

Sample Name: S 711053-021-021-1/1 Acquired: 12/10/2007 22:42:47 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	.78864	40760.	18.726	-2.8807	41.014	1.8570	1043.5
Stddev	.55846	1962.	3.535	.3444	.307	.0776	40.8
%RSD	70.814	4.8133	18.880	11.954	.74938	4.1790	3.9140
#1	.39374	39372.	16.226	-3.1242	41.231	1.8021	1014.7
#2	1.1835	42147.	21.226	-2.6372	40.797	1.9119	1072.4

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.4497	22.568	446.63	283.5	303.3	191.6	208140.
Stddev	.5574	.343	4.19	1.1	12.0	12.7	10309.
%RSD	38.448	1.5193	.93747	.3741	3.942	6.616	4.9530
#1	1.8438	22.326	449.59	282.7	294.8	182.7	200850.
#2	1.0556	22.811	443.67	284.2	311.7	200.6	215430.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	689.68	1393.	1562.	939.93	3.7744	-108.51	85.264
Stddev	27.16	69.	70.	8.37	.1100	2.09	.809
%RSD	3.9386	4.970	4.482	.89033	2.9137	1.9230	.94904
#1	708.89	1344.	1512.	945.85	3.6966	-109.98	84.692
#2	670.47	1442.	1611.	934.01	3.8522	-107.03	85.837

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	28.362	1.7583	1.3019	650.16	6.7013	38.279	22.197
Stddev	1.289	.8039	2.3386	6.57	.2373	.338	4.436
%RSD	4.5429	45.720	179.63	1.0100	3.5416	.88290	19.983
#1	29.273	1.1899	-.35176	654.80	6.8691	38.518	19.060
#2	27.451	2.3268	2.9555	645.51	6.5335	38.040	25.333

Sample Name: S 711053-021-021-1/1 Acquired: 12/10/2007 22:42:47 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	**11121.**	**1.9786**	**535.61**	**162.43**
Stddev	93.	.6735	5.10	.99
%RSD	.83186	34.038	.95288	.61174
#1	11187.	1.5023	539.21	163.13
#2	11056.	2.4548	532.00	161.72

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	46778.	24480.	634070.
Stddev	68.	1109.	3918.
%RSD	.14544	4.5316	.61784
#1	46826.	25264.	631300.
#2	46730.	23695.	636840.

Sample Name: CCV Acquired: 12/10/2007 22:46:12 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	**515.07**	**50948.**	**526.94**	**524.86**	**497.72**	**50.925**	**100430.**
Stddev	.99	1964.	1.24	.18	2.02	.150	3410.
%RSD	.19178	3.8538	.23603	.03357	.40524	.29526	3.3958
#1	514.37	49560.	526.06	524.98	499.15	50.819	98016.
#2	515.77	52337.	527.82	524.73	496.29	51.031	102840.
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	**516.87**	**507.80**	**514.81**	**F 604.3**	**F 571.1**	**541.8**	**49254.**
Stddev	1.38	.61	2.64	4.9	3.3	1.4	1665.
%RSD	.26786	.11941	.51251	.8176	.5836	.2591	3.3801
#1	517.84	508.23	512.95	600.8	568.7	540.8	48077.
#2	515.89	507.37	516.68	607.8	573.4	542.8	50431.
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	**24836.**	**96760.**	**102700.**	**494.49**	**524.92**	**102260.**	**498.58**
Stddev	827.	2441.	3655.	.93	1.16	3163.	1.71
%RSD	3.3306	2.523	3.560	.18843	.22040	3.0928	.34222
#1	24251.	95040.	100100.	493.83	525.73	100030.	499.79
#2	25421.	98490.	105300.	495.15	524.10	104500.	497.38
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV Acquired: 12/10/2007 22:46:12 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	515.53	520.43	524.58	521.82	517.61	497.51	517.57
Stddev	.96	2.48	3.07	.51	.28	2.33	.62
%RSD	.18606	.47731	.58524	.09833	.05324	.46749	.11947
#1	516.21	522.19	526.75	521.46	517.81	495.87	518.01
#2	514.86	518.68	522.41	522.19	517.42	499.16	517.13
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	504.58	515.87	509.78	F 629.65
Stddev	.73	2.75	1.47	1.77
%RSD	.14387	.53289	.28763	.28189
#1	504.06	517.82	508.74	630.91
#2	505.09	513.93	510.82	628.40
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	45459.	24028.	617740.
Stddev	30.	622.	1256.
%RSD	.06633	2.5869	.20334
#1	45437.	24467.	618630.
#2	45480.	23588.	616860.

Sample Name: CCB Acquired: 12/10/2007 22:49:50 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	-.27254	9.2615	1.5429	-.12754	.00704	.02164	12.353	.00427
Stddev	.09061	.0805	1.9795	.39862	.01532	.00314	8.605	.06186
%RSD	33.245	.86948	128.30	312.55	217.66	14.494	69.661	1447.7
#1	-.33661	9.2045	.14317	-.40940	-.00379	.01942	18.437	.04802
#2	-.20847	9.3184	2.9426	.15433	.01787	.02386	6.2681	-.03947
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	-.14468	-.09824	-.1431	-.2622	F 3.703	15.451	27.555	F 8.782
Stddev	.15999	.18530	.3162	.5375	2.554	3.103	9.245	4.162
%RSD	110.59	188.62	220.9	205.0	68.98	20.082	33.553	47.39
#1	-.25781	.03279	.0805	-.6423	5.509	17.645	34.093	11.73
#2	-.03154	-.22927	-.3667	.1178	1.897	13.257	21.018	5.839
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 9.273	.05321	.13518	7.3381	-.35396	-.20426	-.59888	-.67263
Stddev	8.072	.01803	.12550	6.5294	.21177	1.0349	.31908	1.2560
%RSD	87.05	33.882	92.837	88.979	59.829	506.65	53.280	186.73
#1	14.98	.06596	.04644	2.7211	-.20421	.52752	-.37325	-1.5607
#2	3.565	.04046	.22392	11.955	-.50370	-.93605	-.82450	.21548
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: 12/10/2007 22:49:50 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	-.29225	.00007	.01645	-.37569	.43153	.07781	-.11861	-.25880
Stddev	.37638	.58729	.00696	1.6845	.00305	1.1422	.01629	.07539
%RSD	128.78	791980.	42.307	448.38	.70617	1467.8	13.735	29.131
#1	-.55839	-.41520	.02137	.81543	.43368	-.72983	-.10709	-.31211
#2	-.02612	.41535	.01153	-1.5668	.42937	.88545	-.13013	-.20549
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	47525.	23931.	639870.
Stddev	80.	356.	3255.
%RSD	.16920	1.4886	.50874
#1	47468.	23679.	637570.
#2	47582.	24183.	642170.

Sample Name: SP711053-021-021-1/1 Acquired: 12/10/2007 22:53:15 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	**11.215**	**60860.**	**25.640**	**88.854**	**164.44**	**5.1374**	**2163.2**
Stddev	.091	1114.	1.765	.474	1.62	.0338	43.2
%RSD	.81048	1.8299	6.8823	.53370	.98490	.65722	1.9988
#1	11.279	60072.	24.392	89.189	165.59	5.1613	2132.6
#2	11.151	61647.	26.888	88.519	163.30	5.1135	2193.8

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**11.348**	**73.950**	**530.36**	**342.7**	**375.2**	**262.0**	**221370.**
Stddev	.325	.408	2.55	3.0	5.3	4.3	4312.
%RSD	2.8626	.55125	.48172	.8808	1.417	1.639	1.9480
#1	11.578	74.239	532.16	344.8	371.5	265.0	218330.
#2	11.118	73.662	528.55	340.6	379.0	258.9	224420.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1970.8**	**2607.**	**2894.**	**1059.5**	**46.922**	**1019.8**	**162.24**
Stddev	45.0	48.	56.	9.1	.054	23.7	.07
%RSD	2.2836	1.834	1.943	.86133	.11444	2.3238	.04596
#1	1938.9	2573.	2854.	1065.9	46.960	1003.0	162.29
#2	2002.6	2641.	2934.	1053.0	46.884	1036.5	162.19

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**132.42**	**7.1930**	**9.8644**	**684.20**	**55.204**	**177.82**	**60.463**
Stddev	1.53	2.1258	.0199	5.09	.166	1.44	.530
%RSD	1.1586	29.554	.20145	.74393	.30121	.80807	.87645
#1	133.51	5.6898	9.8503	687.80	55.321	178.84	60.838
#2	131.34	8.6962	9.8784	680.60	55.086	176.80	60.088

Sample Name: SP711053-021-021-1/1 Acquired: 12/10/2007 22:53:15 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	11557.	11.198	603.57	279.79
Stddev	29.	1.062	4.16	.99
%RSD	.25120	9.4863	.68924	.35334
#1	11578.	11.949	606.51	280.49
#2	11537.	10.447	600.63	279.09

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	47165.	24509.	643100.
Stddev	52.	397.	1447.
%RSD	.11022	1.6218	.22492
#1	47128.	24790.	642080.
#2	47202.	24228.	644130.

Sample Name: SD711053-021-021-1/1 Acquired: 12/10/2007 22:56:39 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	**11.355**	**65136.**	**30.677**	**88.990**	**170.67**	**5.3302**	**2303.0**
Stddev	.072	1157.	.555	.218	.50	.1255	53.3
%RSD	.63180	1.7755	1.8094	.24539	.29551	2.3537	2.3159
#1	11.406	65954.	31.069	89.144	171.03	5.4189	2340.7
#2	11.304	64318.	30.284	88.835	170.32	5.2415	2265.3

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**10.922**	**74.560**	**532.99**	**360.3**	**395.7**	**272.1**	**235820.**
Stddev	.079	.388	2.65	4.2	6.1	7.4	4126.
%RSD	.72373	.52050	.49635	1.161	1.536	2.715	1.7497
#1	10.978	74.835	534.86	363.3	400.0	277.3	238740.
#2	10.866	74.286	531.12	357.4	391.4	266.8	232900.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1999.0**	**2826.**	**3140.**	**1106.4**	**46.726**	**1064.1**	**168.68**
Stddev	63.0	56.	46.	3.8	.090	55.5	1.39
%RSD	3.1535	1.985	1.468	.33912	.19331	5.2165	.82479
#1	2043.6	2866.	3173.	1109.1	46.790	1103.3	169.66
#2	1954.5	2786.	3107.	1103.8	46.662	1024.8	167.69

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**132.76**	**5.7562**	**12.631**	**674.85**	**55.289**	**185.00**	**65.914**
Stddev	1.11	1.4594	1.015	1.45	.468	.86	.022
%RSD	.83434	25.354	8.0321	.21508	.84618	.46644	.03329
#1	133.55	6.7882	13.348	675.88	55.620	185.61	65.899
#2	131.98	4.7243	11.913	673.83	54.958	184.39	65.930

Sample Name: SD711053-021-021-1/1 Acquired: 12/10/2007 22:56:39 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	12290.	11.492	633.00	287.45
Stddev	211.	.865	1.84	2.13
%RSD	1.7142	7.5279	.29039	.74190
#1	12439.	12.103	634.30	288.95
#2	12141.	10.880	631.70	285.94

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	47220.	23389.	632440.
Stddev	260.	294.	2392.
%RSD	.55157	1.2588	.37819
#1	47035.	23181.	630750.
#2	47404.	23597.	634130.

Sample Name: PS711053-021-021-1/1 Acquired: 12/10/2007 23:00:04 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	**56.131**	**42784.**	**133.89**	**97.273**	**67.311**	**12.735**	**6225.5**
Stddev	3.868	306.	.24	1.218	1.348	.713	375.4
%RSD	6.8907	.71603	.18080	1.2522	2.0019	5.5976	6.0298
#1	53.396	43001.	134.06	96.412	66.358	12.231	5960.1
#2	58.866	42568.	133.72	98.134	68.264	13.239	6490.9

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**30.006**	**64.290**	**458.05**	**323.6**	**723.1**	**212.2**	**213930.**
Stddev	.454	.884	.07	5.2	2.1	6.8	1744.
%RSD	1.5134	1.3751	.01432	1.599	.2941	3.215	.81521
#1	29.685	63.665	458.00	327.2	721.6	207.4	215160.
#2	30.327	64.915	458.09	319.9	724.7	217.0	212690.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**5696.6**	**6552.**	**7246.**	**1024.0**	**47.622**	**4948.8**	**140.44**
Stddev	363.5	363.	408.	.7	.326	407.6	.79
%RSD	6.3807	5.535	5.628	.07192	.68511	8.2363	.56408
#1	5439.6	6296.	6957.	1023.5	47.392	4660.6	139.88
#2	5953.6	6809.	7534.	1024.5	47.853	5237.0	141.00

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**142.80**	**118.12**	**104.56**	**7187.3**	**151.70**	**64.475**	**719.60**
Stddev	.66	1.39	1.86	427.4	1.84	1.487	9.20
%RSD	.46481	1.1773	1.7797	5.9467	1.2159	2.3059	1.2783
#1	142.33	117.13	103.24	6885.1	150.40	63.424	713.09
#2	143.27	119.10	105.87	7489.5	153.01	65.527	726.10

Sample Name: PS711053-021-021-1/1 Acquired: 12/10/2007 23:00:04 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	10890.	149.78	548.06	272.36
Stddev	190.	2.38	.74	1.52
%RSD	1.7414	1.5922	.13531	.55982
#1	11024.	148.10	548.58	271.28
#2	10756.	151.47	547.53	273.44

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	46515.	23631.	628830.
Stddev	41.	54.	142.
%RSD	.08908	.22983	.02251
#1	46544.	23592.	628930.
#2	46486.	23669.	628730.

Sample Name: SE711053-021-021-1/1 Acquired: 12/10/2007 23:03:27 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	.15232	8803.9	4.9734	-2.1581	8.7042	^ *****	217.91	.17459
Stddev	.17015	209.3	.1880	1.1351	.0194	-----	9.15	.01692
%RSD	111.71	2.3779	3.7794	52.594	.22315	-----	4.2008	9.6890
#1	.27264	8655.9	4.8405	-2.9607	8.7179	^ -----	211.43	.18655
#2	.03201	8951.9	5.1063	-1.3555	8.6905	^ -----	224.38	.16263

Elem	Co	Cr	Cu2199	Cu2218	Cu3273	Fe	K	Mg2802
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	4.8813	95.806	61.79	66.70	47.74	45745.	102.22	299.9
Stddev	.0438	.164	.26	2.56	8.07	1215.	19.62	8.0
%RSD	.89714	.17141	.4186	3.833	16.91	2.6568	19.190	2.664
#1	4.8503	95.690	61.61	64.89	42.04	44886.	116.09	294.3
#2	4.9122	95.922	61.97	68.50	53.45	46605.	88.351	305.6

Elem	Mg2852	Mn	Mo	Na	Ni	Pb	Sb	Se
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	329.6	201.85	.69464	-101.40	17.909	5.1575	-1.3366	-.22919
Stddev	7.5	.80	.04844	12.43	.225	.7644	.9758	1.3242
%RSD	2.266	.39539	6.9729	12.260	1.2582	14.822	73.010	577.76
#1	324.4	202.42	.72889	-92.609	17.749	5.6981	-.64654	-1.1655
#2	334.9	201.29	.66039	-110.19	18.068	4.6170	-2.0266	.70716

Elem	Si	Sn	Sr	Te	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	144.55	1.3761	8.0491	4.9509	2443.2	-.35137	115.06	35.992
Stddev	.79	.1451	.0169	.3432	6.0	1.1833	.01	.073
%RSD	.54420	10.543	.21013	6.9314	.24655	336.77	.00761	.20361
#1	143.99	1.2735	8.0611	5.1936	2447.5	.48536	115.07	35.940
#2	145.11	1.4787	8.0372	4.7083	2439.0	-1.1881	115.06	36.044

Sample Name: SE711053-021-021-1/1 Acquired: 12/10/2007 23:03:27 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	46921.	24211.	633200.
Stddev	22.	553.	1909.
%RSD	.04745	2.2835	.30154
#1	46937.	24602.	631850.
#2	46905.	23820.	634550.

Sample Name: S 711053-022-022-1/1 Acquired: 12/10/2007 23:06:51 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	.99130	24722.	23.313	-7.0304	32.749	2.4189	728.64
Stddev	.60062	441.	.995	.2847	.150	.0178	14.40
%RSD	60.589	1.7833	4.2699	4.0495	.45819	.73611	1.9761
#1	.56660	24410.	22.609	-7.2317	32.855	2.4063	718.46
#2	1.4160	25033.	24.016	-6.8291	32.643	2.4315	738.82

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.4138	19.524	470.56	332.4	347.7	194.4	291510.
Stddev	.3796	.126	1.26	1.2	7.0	3.9	5207.
%RSD	26.852	.64287	.26851	.3735	1.999	2.016	1.7863
#1	1.6822	19.435	471.45	331.6	342.8	191.6	287830.
#2	1.1453	19.613	469.66	333.3	352.7	197.2	295200.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	376.03	1140.	1262.	612.47	5.2112	-127.24	61.463
Stddev	24.36	18.	20.	2.09	.2625	2.69	.091
%RSD	6.4776	1.541	1.623	.34190	5.0373	2.1105	.14770
#1	358.81	1127.	1247.	613.95	5.3968	-129.14	61.527
#2	393.26	1152.	1276.	610.98	5.0256	-125.34	61.399

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	27.194	3.0004	7.0921	731.67	7.8047	27.875	32.730
Stddev	.216	1.1750	.6248	21.77	.6572	.171	3.447
%RSD	.79554	39.162	8.8097	2.9748	8.4209	.61426	10.531
#1	27.041	3.8313	6.6503	747.06	8.2694	27.996	30.293
#2	27.347	2.1695	7.5338	716.28	7.3399	27.754	35.167

Sample Name: S 711053-022-022-1/1 Acquired: 12/10/2007 23:06:51 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	**14328.**	**2.6673**	**703.51**	**144.96**
Stddev	20.	.0643	2.76	.71
%RSD	.14269	2.4090	.39259	.48744
#1	14343.	2.6219	705.47	145.46
#2	14314.	2.7127	701.56	144.46

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	46675.	24209.	631780.
Stddev	15.	321.	1662.
%RSD	.03179	1.3244	.26310
#1	46665.	24436.	632960.
#2	46686.	23983.	630610.

Sample Name: S 711053-023-023-1/1 Acquired: 12/10/2007 23:10:17 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
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.4775	39552.	20.238	-4.7638	30.399	1.7969	1210.4
Stddev	.5163	664.	.823	.0071	.387	.0092	15.2
%RSD	34.944	1.6797	4.0673	.14958	1.2745	.51088	1.2572
#1	1.8426	39082.	19.656	-4.7689	30.672	1.8034	1199.6
#2	1.1125	40022.	20.820	-4.7588	30.125	1.7904	1221.1

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.6881	14.631	460.44	268.2	313.9	172.0	286400.
Stddev	.2432	.034	6.31	.3	3.6	3.5	4125.
%RSD	14.408	.23072	1.3695	.0996	1.162	2.041	1.4404
#1	1.8601	14.655	464.89	268.4	311.3	174.5	283480.
#2	1.5161	14.607	455.98	268.0	316.5	169.5	289320.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	520.83	889.0	989.8	447.49	4.6178	-93.197	72.141
Stddev	13.15	16.2	19.1	6.42	.4563	9.741	.295
%RSD	2.5253	1.826	1.928	1.4355	9.8820	10.452	.40869
#1	530.13	877.5	976.3	452.03	4.2951	-86.309	72.349
#2	511.53	900.4	1003.	442.95	4.9404	-100.09	71.932

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	24.455	1.2973	5.5441	605.01	7.1732	30.076	32.589
Stddev	.300	1.1079	1.5532	10.03	.5787	.459	.912
%RSD	1.2257	85.403	28.015	1.6578	8.0683	1.5265	2.7978
#1	24.667	2.0807	4.4459	612.11	7.5824	30.400	31.944
#2	24.243	.51386	6.6424	597.92	6.7639	29.751	33.234

Sample Name: S 711053-023-023-1/1 Acquired: 12/10/2007 23:10:17 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	11189.	1.5611	614.57	117.70
Stddev	127.	.7581	9.24	.83
%RSD	1.1394	48.562	1.5038	.70100
#1	11279.	2.0972	621.10	118.29
#2	11099.	1.0251	608.03	117.12

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	46551.	24712.	638920.
Stddev	58.	512.	2623.
%RSD	.12399	2.0709	.41051
#1	46511.	25074.	637070.
#2	46592.	24351.	640780.

Sample Name: S 711053-024-024-1/1 Acquired: 12/10/2007 23:13:43 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	**1.7313**	**44349.**	**22.717**	**-4.8164**	**35.539**	**1.5811**	**493.74**
Stddev	.2787	419.	1.541	.3082	.065	.1889	.10
%RSD	16.096	.94508	6.7820	6.3986	.18196	11.945	.02046
#1	1.5343	44052.	23.807	-4.5985	35.493	1.7146	493.66
#2	1.9284	44645.	21.628	-5.0343	35.585	1.4475	493.81

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.5102**	**59.228**	**442.89**	**313.1**	**336.2**	**226.4**	**221000.**
Stddev	.1444	.281	1.48	2.0	2.4	2.4	1873.
%RSD	9.5598	.47479	.33498	.6528	.7095	1.054	.84753
#1	1.6123	59.029	441.84	314.5	334.5	224.7	219680.
#2	1.4081	59.426	443.94	311.6	337.8	228.1	222330.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**725.07**	**1212.**	**1355.**	**2443.5**	**3.7197**	**-84.744**	**108.27**
Stddev	32.38	9.	4.	11.5	.2504	5.536	.13
%RSD	4.4661	.7590	.2969	.47164	6.7303	6.5330	.12238
#1	702.17	1206.	1352.	2435.3	3.5427	-80.829	108.36
#2	747.96	1219.	1358.	2451.6	3.8967	-88.659	108.17

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**29.267**	**2.6053**	**1.8923**	**587.80**	**5.2499**	**12.553**	**23.971**
Stddev	.496	1.6267	.4998	.65	.3568	.042	.591
%RSD	1.6943	62.438	26.411	.10983	6.7955	.33222	2.4672
#1	28.916	3.7555	2.2457	588.26	4.9976	12.523	24.390
#2	29.618	1.4550	1.5389	587.34	5.5022	12.582	23.553

Sample Name: S 711053-024-024-1/1 Acquired: 12/10/2007 23:13:43 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	10377.	1.4499	513.17	162.02
Stddev	51.	.0546	1.09	.26
%RSD	.49234	3.7684	.21192	.16004
#1	10413.	1.4886	512.40	161.84
#2	10341.	1.4113	513.94	162.20

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	46119.	24352.	637430.
Stddev	128.	46.	752.
%RSD	.27811	.18903	.11797
#1	46210.	24385.	637960.
#2	46029.	24320.	636900.

Sample Name: S 711053-025-025-1/1 Acquired: 12/10/2007 23:17:16 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	**1.6576**	**28225.**	**21.363**	**-7.6376**	**62.137**	**2.0888**	**332.03**
Stddev	.1260	74.	2.383	.2298	.060	.0016	3.94
%RSD	7.6036	.26382	11.153	3.0086	.09725	.07742	1.1860
#1	1.5685	28278.	19.678	-7.8001	62.095	2.0876	334.81
#2	1.7468	28173.	23.048	-7.4752	62.180	2.0899	329.24

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.6587**	**34.226**	**598.01**	**373.1**	**361.2**	**228.3**	**268280.**
Stddev	.0195	.194	2.22	2.7	1.5	8.2	79.
%RSD	1.1741	.56617	.37073	.7212	.4196	3.577	.02937
#1	1.6449	34.088	596.44	375.0	362.3	222.6	268340.
#2	1.6725	34.363	599.58	371.2	360.1	234.1	268220.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**477.65**	**1529.**	**1711.**	**2217.1**	**3.4772**	**-117.85**	**110.60**
Stddev	19.04	4.	4.	1.3	.0642	7.52	.22
%RSD	3.9855	.2551	.2488	.06006	1.8471	6.3786	.19500
#1	491.12	1532.	1714.	2216.1	3.4318	-123.17	110.45
#2	464.19	1527.	1708.	2218.0	3.5226	-112.54	110.76

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**20.400**	**4.2169**	**3.4480**	**420.29**	**6.3156**	**13.577**	**30.566**
Stddev	.404	.5065	2.6707	.14	.0924	.004	1.820
%RSD	1.9815	12.012	77.455	.03340	1.4625	.03292	5.9554
#1	20.685	4.5751	5.3365	420.39	6.3809	13.580	31.853
#2	20.114	3.8587	1.5596	420.19	6.2503	13.574	29.279

Sample Name: S 711053-025-025-1/1 Acquired: 12/10/2007 23:17:16 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	12862.	2.7467	662.17	204.87
Stddev	103.	1.3651	1.16	.40
%RSD	.80111	49.699	.17498	.19541
#1	12935.	3.7119	661.35	205.15
#2	12789.	1.7814	662.99	204.58

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	46144.	23965.	630820.
Stddev	21.	6.	210.
%RSD	.04595	.02585	.03330
#1	46159.	23970.	630970.
#2	46129.	23961.	630670.

Sample Name: S 711053-026-026-1/1 Acquired: 12/10/2007 23:20:43 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	1.1796	70490.	15.598	-2.9095	27.449	^ *****	635.78
Stddev	.1353	1181.	2.671	.0982	.072	-----	16.52
%RSD	11.474	1.6751	17.126	3.3746	.26410	-----	2.5984
#1	1.2753	69655.	13.709	-2.8400	27.501	^ -----	624.10
#2	1.0839	71325.	17.487	-2.9789	27.398	^ -----	647.46

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.91672	11.291	293.90	167.4	241.7	139.1	176830.
Stddev	.25722	.081	.26	.2	1.0	5.1	2851.
%RSD	28.059	.71815	.08799	.0999	.4007	3.650	1.6123
#1	1.0986	11.349	293.72	167.6	241.0	135.5	174820.
#2	.73484	11.234	294.09	167.3	242.3	142.7	178850.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	406.36	1348.	1505.	312.40	2.9308	-97.519	122.88
Stddev	49.15	22.	24.	.03	.3751	16.106	.12
%RSD	12.095	1.650	1.591	.01017	12.798	16.515	.09482
#1	441.12	1332.	1488.	312.38	3.1960	-108.91	122.96
#2	371.61	1363.	1522.	312.42	2.6656	-86.131	122.80

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	22.302	1.5016	8.6677	598.29	4.3414	17.253	18.524
Stddev	1.877	1.1582	4.7133	.77	.8930	.012	.289
%RSD	8.4175	77.131	54.378	.12936	20.570	.07237	1.5594
#1	23.629	2.3206	12.001	598.84	4.9729	17.261	18.728
#2	20.975	.68264	5.3349	597.74	3.7100	17.244	18.320

Sample Name: S 711053-026-026-1/1 Acquired: 12/10/2007 23:20:43 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	8835.9	2.9207	353.03	81.473
Stddev	27.0	1.2594	.05	.249
%RSD	.30508	43.122	.01508	.30593
#1	8855.0	2.0301	353.07	81.649
#2	8816.9	3.8112	352.99	81.297

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	46365.	24225.	634750.
Stddev	21.	253.	1659.
%RSD	.04625	1.0463	.26137
#1	46350.	24404.	635920.
#2	46380.	24046.	633570.

Sample Name: S 711053-027-027-1/1 Acquired: 12/10/2007 23:24:10 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	**1.3278**	**25323.**	**18.811**	**-7.3232**	**48.654**	**3.2259**	**2783.4**
Stddev	.1407	121.	4.164	.5674	.355	.0265	16.8
%RSD	10.595	.47702	22.136	7.7480	.73018	.81988	.60334
#1	1.2283	25237.	15.867	-7.7244	48.905	3.2072	2771.6
#2	1.4273	25408.	21.756	-6.9220	48.402	3.2446	2795.3

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.6825**	**29.598**	**476.52**	**382.7**	**370.1**	**242.7**	**259500.**
Stddev	.4225	1.551	1.90	1.2	.7	.2	1325.
%RSD	25.109	5.2400	.39896	.3132	.1832	.0981	.51064
#1	1.3837	28.502	477.86	381.8	370.5	242.5	258570.
#2	1.9812	30.695	475.17	383.5	369.6	242.8	260440.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**580.25**	**2025.**	**2274.**	**756.25**	**3.7845**	**-111.30**	**80.382**
Stddev	7.95	10.	9.	6.09	.0686	5.38	.917
%RSD	1.3696	.4919	.3783	.80489	1.8122	4.8372	1.1407
#1	574.63	2018.	2268.	760.56	3.8330	-115.11	79.733
#2	585.87	2032.	2280.	751.95	3.7360	-107.50	81.030

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**34.291**	**2.8010**	**3.4753**	**515.28**	**6.9268**	**56.103**	**33.006**
Stddev	.563	.5174	2.5032	5.56	.4038	.425	3.722
%RSD	1.6418	18.473	72.027	1.0781	5.8303	.75721	11.277
#1	34.689	3.1669	5.2454	519.21	6.6412	56.404	35.638
#2	33.893	2.4351	1.7053	511.35	7.2124	55.803	30.375

Sample Name: S 711053-027-027-1/1 Acquired: 12/10/2007 23:24:10 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	17042.	2.6445	737.58	192.57
Stddev	169.	.4172	4.59	4.11
%RSD	.99322	15.776	.62211	2.1329
#1	17161.	2.9395	740.82	189.66
#2	16922.	2.3495	734.33	195.47

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	46260.	23981.	627000.
Stddev	735.	254.	960.
%RSD	1.5893	1.0577	.15309
#1	46780.	24160.	626330.
#2	45740.	23802.	627680.

Sample Name: CCV Acquired: 12/10/2007 23:27:36 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	**515.93**	**52370.**	**533.41**	**529.30**	**499.34**	**50.973**	**103470.**
Stddev	1.11	929.	4.36	.07	.89	.077	1542.
%RSD	.21457	1.7741	.81679	.01316	.17767	.15156	1.4901
#1	516.72	53027.	536.49	529.35	498.71	51.028	104560.
#2	515.15	51713.	530.33	529.25	499.97	50.919	102380.
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	**519.66**	**508.57**	**515.11**	F **608.2**	F **577.6**	**541.6**	**50986.**
Stddev	1.14	.44	.25	.4	.6	6.3	702.
%RSD	.21987	.08719	.04778	.0706	.1115	1.154	1.3761
#1	518.86	508.89	515.29	608.5	578.1	546.0	51482.
#2	520.47	508.26	514.94	607.9	577.2	537.2	50490.
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	**25484.**	**97990.**	**105300.**	**494.05**	**527.85**	**105890.**	**498.55**
Stddev	377.	852.	1833.	.54	.75	1080.	.59
%RSD	1.4804	.8699	1.740	.10993	.14218	1.0196	.11810
#1	25751.	98590.	106600.	494.44	527.32	106650.	498.14
#2	25217.	97390.	104000.	493.67	528.38	105120.	498.97
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV Acquired: 12/10/2007 23:27:36 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	**515.94**	**520.54**	**528.37**	**523.41**	**522.26**	**501.15**	**522.88**
Stddev	1.38	.92	1.52	1.51	2.44	1.60	2.07
%RSD	.26755	.17680	.28756	.28827	.46724	.31912	.39668
#1	514.96	519.89	527.29	524.47	520.54	502.29	524.34
#2	516.91	521.19	529.44	522.34	523.99	500.02	521.41
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	**502.12**	**519.00**	**509.99**	F **635.99**
Stddev	1.35	3.94	.50	1.86
%RSD	.26807	.75880	.09887	.29209
#1	503.07	516.21	510.34	634.67
#2	501.17	521.78	509.63	637.30
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	45011.	23230.	613220.
Stddev	195.	223.	1354.
%RSD	.43325	.95802	.22087
#1	45149.	23072.	612260.
#2	44873.	23387.	614180.

Sample Name: CCB Acquired: 12/10/2007 23:31:14 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	-.12366	1.4336	1.2486	-.80993	-.01166	.02471	4.5651	.04016
Stddev	.07969	17.726	.0677	.58560	.01794	.00305	3.0323	.09519
%RSD	64.442	1236.4	5.4216	72.303	153.79	12.329	66.423	237.05
#1	-.18001	-11.100	1.2965	-.39585	-.02435	.02256	6.7092	.10746
#2	-.06731	13.968	1.2008	-1.2240	.00102	.02687	2.4209	-.02715
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	-.15531	-.12697	-1.185	-.2855	F 3.482	20.256	-44.350	F 4.448
Stddev	.04289	.37491	.429	.6667	6.472	1.135	40.706	.524
%RSD	27.617	295.29	36.19	233.5	185.9	5.6026	91.783	11.79
#1	-.12498	-.39207	-.8816	.1859	8.059	19.453	-73.133	4.819
#2	-.18563	.13814	-1.488	-.7569	-1.095	21.058	-15.567	4.077
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	2.766	.03394	.20779	-1.5019	-.00802	-.13783	-.68769	-.99456
Stddev	.698	.03359	.27756	9.5016	.06432	.29997	.84477	1.9994
%RSD	25.23	98.952	133.57	632.63	802.31	217.63	122.84	201.04
#1	2.272	.01019	.01153	-8.2205	-.05350	.07428	-.09034	.41926
#2	3.259	.05769	.40406	5.2167	.03747	-.34994	-1.2850	-2.4084
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: 12/10/2007 23:31:14 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	.08145	.18991	-.01538	.49276	.66395	-.93915	-.06157	-.23630
Stddev	.27381	.68684	.01076	.19900	.27811	.88359	.29321	.07605
%RSD	336.18	361.67	69.935	40.385	41.888	94.084	476.25	32.186
#1	-.11216	-.29576	-.02298	.35204	.46729	-.31436	-.26890	-.18252
#2	.27506	.67558	-.00777	.63347	.86061	-1.5639	.14576	-.29008
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	46699.	23860.	632400.
Stddev	70.	119.	4344.
%RSD	.14904	.50057	.68693
#1	46650.	23944.	635470.
#2	46748.	23776.	629330.

Sample Name: S 711053-028-028-1/1 Acquired: 12/10/2007 23:34:38 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	**1.0106**	**49542.**	**19.843**	**-4.1964**	**43.584**	**2.6731**	**2529.8**
Stddev	.1095	752.	.409	.0184	.354	.0613	48.7
%RSD	10.832	1.5180	2.0610	.43844	.81146	2.2928	1.9265
#1	1.0880	50074.	20.132	-4.2094	43.834	2.7164	2564.2
#2	.93316	49010.	19.553	-4.1834	43.334	2.6298	2495.3

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.96246**	**21.015**	**470.11**	**315.6**	**351.4**	**212.4**	**260020.**
Stddev	.22910	.510	2.61	3.2	3.9	2.9	4169.
%RSD	23.804	2.4281	.55526	1.012	1.116	1.355	1.6032
#1	.80046	20.654	471.95	317.9	354.2	210.4	262970.
#2	1.1245	21.375	468.26	313.4	348.6	214.5	257080.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**903.45**	**2110.**	**2352.**	**644.06**	**4.4354**	**-12.273**	**110.19**
Stddev	20.35	37.	24.	4.83	.0217	13.672	.54
%RSD	2.2522	1.759	1.021	.74980	.48929	111.40	.48665
#1	917.84	2136.	2369.	647.47	4.4200	-2.6054	110.57
#2	889.06	2084.	2335.	640.65	4.4507	-21.940	109.81

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**58.657**	**2.9454**	**7.0233**	**682.62**	**6.8887**	**48.839**	**28.642**
Stddev	.969	2.0009	4.0295	5.90	.4339	.439	.348
%RSD	1.6522	67.933	57.374	.86390	6.2984	.89839	1.2134
#1	57.972	1.5305	9.8726	686.79	6.5819	49.150	28.397
#2	59.343	4.3602	4.1740	678.45	7.1955	48.529	28.888

Sample Name: S 711053-028-028-1/1 Acquired: 12/10/2007 23:34:38 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	13642.	2.6612	594.48	153.29
Stddev	185.	2.5634	4.18	.42
%RSD	1.3536	96.323	.70278	.27454
#1	13772.	.84865	597.43	153.00
#2	13511.	4.4738	591.52	153.59

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	46680.	23533.	630460.
Stddev	60.	225.	2035.
%RSD	.12775	.95687	.32273
#1	46638.	23374.	629020.
#2	46723.	23693.	631900.

Sample Name: S 711053-029-029-1/1 Acquired: 12/10/2007 23:38:04 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	**.95480**	**42975.**	**15.020**	**-3.5149**	**91.173**	**2.2169**	**3248.3**
Stddev	.17625	450.	.755	.0742	.873	.0177	34.4
%RSD	18.459	1.0479	5.0284	2.1114	.95729	.79654	1.0580
#1	.83017	42657.	14.486	-3.5674	91.790	2.2294	3224.0
#2	1.0794	43294.	15.554	-3.4625	90.556	2.2044	3272.6

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.78363**	**32.060**	**534.00**	**340.0**	**346.8**	**235.2**	**216640.**
Stddev	.03988	.156	6.81	3.5	2.7	2.5	1807.
%RSD	5.0888	.48598	1.2754	1.022	.7914	1.082	.83399
#1	.81183	32.170	538.81	342.4	344.9	237.0	215360.
#2	.75543	31.950	529.18	337.5	348.8	233.4	217910.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1069.5**	**2333.**	**2597.**	**2139.8**	**2.6294**	**-20.180**	**145.87**
Stddev	39.5	20.	17.	25.9	.0055	13.269	.20
%RSD	3.6954	.8502	.6698	1.2090	.20850	65.753	.14017
#1	1041.6	2319.	2585.	2158.1	2.6332	-29.563	146.01
#2	1097.5	2348.	2609.	2121.5	2.6255	-10.797	145.73

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**73.045**	**1.1977**	**3.9646**	**654.05**	**5.5134**	**64.960**	**24.105**
Stddev	.557	.6897	.7516	10.25	.1203	.738	.116
%RSD	.76213	57.589	18.958	1.5674	2.1817	1.1358	.48066
#1	73.438	.70995	3.4332	661.30	5.4283	65.482	24.187
#2	72.651	1.6854	4.4961	646.80	5.5984	64.439	24.023

Sample Name: S 711053-029-029-1/1 Acquired: 12/10/2007 23:38:04 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	12022.	4.3675	546.26	194.75
Stddev	142.	2.8574	6.52	1.10
%RSD	1.1843	65.424	1.1940	.56493
#1	12122.	6.3880	550.88	195.53
#2	11921.	2.3470	541.65	193.97

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	46950.	23695.	632260.
Stddev	131.	96.	5328.
%RSD	.27899	.40660	.84273
#1	46857.	23763.	628500.
#2	47043.	23627.	636030.

Sample Name: S 711053-030-030-1/1 Acquired: 12/10/2007 23:41:30 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	**1.0313**	**24454.**	**16.732**	**-5.7009**	**49.173**	**2.4402**	**1908.0**
Stddev	.1156	603.	1.319	.0706	.551	.0542	38.8
%RSD	11.206	2.4644	7.8816	1.2386	1.1204	2.2215	2.0313
#1	1.1130	24880.	17.664	-5.6509	49.563	2.4018	1935.4
#2	.94956	24028.	15.799	-5.7508	48.784	2.4785	1880.6

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.52726**	**26.623**	**561.75**	**354.7**	**346.4**	**227.4**	**235210.**
Stddev	.22626	.192	5.09	4.4	4.8	4.7	4581.
%RSD	42.912	.72011	.90614	1.245	1.372	2.059	1.9477
#1	.36727	26.487	565.35	357.8	349.8	230.8	238450.
#2	.68725	26.758	558.15	351.6	343.1	224.1	231970.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**552.63**	**1979.**	**2197.**	**1035.4**	**3.7281**	**-65.567**	**89.988**
Stddev	29.58	46.	46.	12.0	.4379	19.192	1.148
%RSD	5.3519	2.321	2.072	1.1586	11.746	29.270	1.2761
#1	531.71	2011.	2229.	1043.8	4.0378	-79.137	90.800
#2	573.54	1946.	2165.	1026.9	3.4185	-51.996	89.176

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**64.973**	**-.59542**	**6.0024**	**578.29**	**5.4517**	**35.308**	**26.222**
Stddev	1.869	.44547	.4139	10.38	1.1881	.344	3.203
%RSD	2.8759	74.817	6.8953	1.7949	21.793	.97537	12.216
#1	66.294	-.91041	6.2951	585.63	4.6116	35.551	28.487
#2	63.652	-.28042	5.7098	570.95	6.2918	35.064	23.957

Sample Name: S 711053-030-030-1/1 Acquired: 12/10/2007 23:41:30 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	13955.	4.3023	643.67	172.56
Stddev	123.	1.2506	6.85	.12
%RSD	.88192	29.068	1.0649	.06957
#1	14042.	5.1866	648.51	172.64
#2	13868.	3.4180	638.82	172.47

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	46843.	23355.	632470.
Stddev	38.	278.	2348.
%RSD	.08087	1.1895	.37126
#1	46816.	23159.	630810.
#2	46869.	23552.	634130.

Sample Name: S 711053-031-031-1/1 Acquired: 12/10/2007 23:44:57 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	.57783	32041.	16.388	-7.1199	34.814	2.8265	1306.5
Stddev	.20484	171.	1.413	.5052	.345	.2063	6.9
%RSD	35.449	.53480	8.6223	7.0962	.99086	7.2989	.52883
#1	.43299	32163.	17.387	-7.4772	35.057	2.9724	1311.4
#2	.72267	31920.	15.388	-6.7627	34.570	2.6806	1301.6

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.55199	21.703	424.72	319.5	326.8	197.4	238910.
Stddev	.11826	.036	3.39	2.0	1.2	9.9	726.
%RSD	21.424	.16396	.79778	.6128	.3694	5.008	.30388
#1	.46837	21.678	427.11	320.9	327.7	190.5	239420.
#2	.63562	21.728	422.32	318.1	325.9	204.4	238390.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	536.10	1500.	1662.	582.39	3.3475	-107.47	79.504
Stddev	70.72	6.	5.	6.11	.2748	23.96	.177
%RSD	13.192	.4250	.3117	1.0498	8.2090	22.291	.22265
#1	586.11	1504.	1665.	586.71	3.5418	-90.533	79.629
#2	486.10	1495.	1658.	578.06	3.1532	-124.41	79.379

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	14.397	1.0892	5.5677	679.90	6.0521	32.751	27.571
Stddev	1.756	1.6335	.8024	9.81	.3652	.323	.571
%RSD	12.194	149.98	14.412	1.4433	6.0343	.98689	2.0716
#1	15.638	-.06592	6.1351	686.84	5.7939	32.980	27.975
#2	13.156	2.2443	5.0003	672.96	6.3104	32.523	27.167

Sample Name: S 711053-031-031-1/1 Acquired: 12/10/2007 23:44:57 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	14694.	4.0737	627.34	149.01
Stddev	197.	.4429	6.21	.96
%RSD	1.3420	10.873	.99025	.64164
#1	14833.	4.3869	631.73	149.69
#2	14555.	3.7605	622.95	148.34

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	46884.	23562.	633690.
Stddev	91.	68.	1428.
%RSD	.19460	.29039	.22533
#1	46820.	23513.	632680.
#2	46949.	23610.	634700.

Sample Name: S 711053-032-032-1/1 Acquired: 12/10/2007 23:48:23 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	**1.0879**	**76390.**	**16.884**	**-3.4614**	**26.737**	**1.9806**	**951.91**
Stddev	.0161	822.	.209	.3729	.549	.1496	7.26
%RSD	1.4792	1.0762	1.2394	10.773	2.0549	7.5544	.76274
#1	1.0766	75809.	17.032	-3.7251	27.126	2.0864	946.78
#2	1.0993	76972.	16.736	-3.1977	26.349	1.8748	957.05

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.39106**	**12.860**	**379.23**	**216.2**	**285.4**	**171.1**	**210600.**
Stddev	.02695	.256	8.09	2.6	1.8	2.9	1918.
%RSD	6.8920	1.9872	2.1345	1.211	.6446	1.700	.91085
#1	.41012	12.680	384.96	218.1	284.1	169.0	209240.
#2	.37200	13.041	373.51	214.4	286.7	173.1	211960.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**517.44**	**1222.**	**1361.**	**427.27**	**3.4010**	**-76.451**	**123.41**
Stddev	54.26	13.	18.	10.53	.0872	23.056	.66
%RSD	10.486	1.094	1.353	2.4637	2.5649	30.158	.53242
#1	555.81	1212.	1348.	434.72	3.4627	-60.148	123.87
#2	479.08	1231.	1375.	419.83	3.3393	-92.754	122.94

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**22.163**	**2.2465**	**9.4024**	**666.57**	**5.4577**	**23.967**	**20.048**
Stddev	1.321	.4107	2.3793	18.56	.8484	.590	2.471
%RSD	5.9605	18.283	25.306	2.7843	15.545	2.4622	12.324
#1	21.228	2.5369	7.7200	679.69	6.0576	24.384	18.301
#2	23.097	1.9561	11.085	653.44	4.8578	23.549	21.796

Sample Name: S 711053-032-032-1/1 Acquired: 12/10/2007 23:48:23 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	10765.	3.8619	452.03	106.92
Stddev	218.	.5091	10.52	.77
%RSD	2.0290	13.183	2.3280	.71779
#1	10919.	4.2219	459.47	107.47
#2	10610.	3.5019	444.59	106.38

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	47294.	23828.	632680.
Stddev	205.	237.	9321.
%RSD	.43327	.99328	1.4732
#1	47149.	23995.	626090.
#2	47439.	23660.	639270.

Sample Name: S 711053-033-033-1/1 Acquired: 12/10/2007 23:51:48 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	**1.4438**	**41941.**	**17.370**	**-5.7757**	**37.790**	**2.0606**	**760.62**
Stddev	.3552	1240.	3.807	.3511	.197	.1214	28.73
%RSD	24.601	2.9559	21.916	6.0787	.52163	5.8934	3.7774
#1	1.1926	42818.	20.062	-6.0240	37.930	2.1465	780.94
#2	1.6949	41065.	14.678	-5.5275	37.651	1.9747	740.31

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.64285**	**29.174**	**569.93**	**332.9**	**354.6**	**224.9**	**242940.**
Stddev	.25163	.421	3.20	3.3	5.9	5.5	6389.
%RSD	39.142	1.4416	.56113	.9838	1.676	2.435	2.6301
#1	.46492	28.877	572.19	335.2	358.8	221.0	247460.
#2	.82078	29.472	567.67	330.6	350.4	228.8	238420.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**618.08**	**1613.**	**1793.**	**1060.2**	**2.6298**	**-89.916**	**127.81**
Stddev	30.22	42.	53.	5.0	.1233	11.920	.93
%RSD	4.8894	2.606	2.972	.46951	4.6872	13.257	.72928
#1	596.71	1642.	1831.	1063.7	2.7169	-81.487	128.47
#2	639.44	1583.	1755.	1056.6	2.5426	-98.345	127.15

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**18.209**	**2.0708**	**2.5014**	**630.26**	**5.4140**	**20.196**	**26.763**
Stddev	.123	1.4044	1.3760	4.70	.4198	.083	.779
%RSD	.67812	67.817	55.011	.74524	7.7536	.40955	2.9100
#1	18.122	3.0639	3.4744	633.58	5.1172	20.254	27.313
#2	18.296	1.0778	1.5284	626.94	5.7108	20.138	26.212

Sample Name: S 711053-033-033-1/1 Acquired: 12/10/2007 23:51:48 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	11937.	2.0314	572.48	183.49
Stddev	87.	2.7900	1.99	.41
%RSD	.73017	137.34	.34741	.22428
#1	11998.	4.0043	573.88	183.20
#2	11875.	.05857	571.07	183.78

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	47061.	23813.	639740.
Stddev	32.	560.	809.
%RSD	.06819	2.3512	.12643
#1	47084.	23418.	639170.
#2	47038.	24209.	640310.

Sample Name: S 711053-034-034-1/1 Acquired: 12/10/2007 23:55:16 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	**1.0156**	**24949.**	**18.750**	**-6.4201**	**33.921**	**2.2270**	**1089.9**
Stddev	.0376	278.	1.564	.8023	.276	.1359	4.3
%RSD	3.7015	1.1149	8.3404	12.497	.81387	6.1034	.39099
#1	1.0422	24753.	17.644	-6.9874	33.726	2.1309	1086.9
#2	.98899	25146.	19.856	-5.8528	34.116	2.3231	1092.9

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.3444**	**23.578**	**580.68**	**332.1**	**335.4**	**202.2**	**265060.**
Stddev	.1437	.317	4.25	1.3	3.7	10.7	2725.
%RSD	10.686	1.3429	.73205	.3852	1.104	5.269	1.0279
#1	1.4460	23.354	577.68	331.2	332.8	194.7	263130.
#2	1.2428	23.801	583.69	333.0	338.0	209.8	266990.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**471.99**	**1482.**	**1648.**	**747.29**	**4.1060**	**-109.69**	**79.149**
Stddev	72.18	18.	23.	4.16	.2370	7.09	.138
%RSD	15.292	1.247	1.412	.55719	5.7719	6.4597	.17446
#1	420.95	1469.	1632.	744.34	4.2736	-114.70	79.051
#2	523.03	1495.	1665.	750.23	3.9384	-104.68	79.247

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**24.052**	**2.9907**	**4.6504**	**593.16**	**6.0847**	**24.638**	**29.169**
Stddev	.374	1.9143	.0130	3.10	.2556	.130	.560
%RSD	1.5543	64.008	.27953	.52330	4.2000	.52767	1.9182
#1	24.316	1.6371	4.6412	590.97	5.9040	24.546	29.565
#2	23.788	4.3443	4.6596	595.36	6.2654	24.730	28.774

Sample Name: S 711053-034-034-1/1 Acquired: 12/10/2007 23:55:16 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	13386.	1.9179	666.08	145.15
Stddev	21.	.4665	4.37	.18
%RSD	.15949	24.324	.65601	.12104
#1	13401.	2.2478	662.99	145.03
#2	13371.	1.5880	669.17	145.28

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	46824.	24338.	636300.
Stddev	76.	189.	5198.
%RSD	.16142	.77506	.81694
#1	46878.	24471.	639970.
#2	46771.	24204.	632620.

Sample Name: CCV Acquired: 12/11/2007 0:08:47 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	**497.23**	**51098.**	**531.27**	**519.24**	**489.00**	**50.304**	**101510.**
Stddev	.55	504.	2.02	1.07	3.78	.013	771.
%RSD	.10979	.98552	.37960	.20599	.77221	.02549	.75906
#1	497.62	50741.	532.70	518.48	491.67	50.313	100970.
#2	496.85	51454.	529.84	519.99	486.33	50.295	102060.
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	**520.36**	**506.20**	**509.80**	F **602.7**	F **572.7**	**541.0**	**49951.**
Stddev	.76	.66	.49	.4	.8	3.1	288.
%RSD	.14537	.13064	.09646	.0587	.1476	.5794	.57577
#1	520.89	506.67	510.15	603.0	572.1	538.7	49748.
#2	519.82	505.74	509.45	602.5	573.3	543.2	50154.
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	**25054.**	**96080.**	**102200.**	**483.89**	**526.79**	**103670.**	**493.14**
Stddev	165.	423.	1079.	1.27	1.65	704.	.85
%RSD	.65813	.4400	1.055	.26309	.31310	.67899	.17296
#1	24937.	95780.	101500.	484.79	527.95	103170.	493.74
#2	25170.	96380.	103000.	482.99	525.62	104160.	492.53
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV Acquired: 12/11/2007 0:08:47 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	**516.17**	**513.41**	**519.92**	**500.43**	**520.46**	**489.70**	**516.68**
Stddev	.78	2.47	1.75	.13	.89	1.35	1.81
%RSD	.15030	.48178	.33616	.02678	.17124	.27474	.34950
#1	516.72	511.66	521.16	500.34	521.09	488.75	515.41
#2	515.62	515.16	518.69	500.53	519.83	490.65	517.96
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	**488.03**	**517.94**	**502.34**	F **631.80**
Stddev	1.05	1.94	.88	.65
%RSD	.21611	.37434	.17435	.10249
#1	488.77	516.57	502.95	632.26
#2	487.28	519.32	501.72	631.34
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	45294.	23688.	623430.
Stddev	77.	180.	1240.
%RSD	.16898	.76085	.19895
#1	45240.	23816.	624300.
#2	45348.	23561.	622550.

Sample Name: CCB Acquired: 12/11/2007 0:12:24 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	-.16753	-15.640	.23217	-.68405	.02392	.00334	17.670	.02814
Stddev	.08844	15.771	.85039	.14591	.01002	.00508	4.313	.03131
%RSD	52.790	100.83	366.28	21.330	41.872	152.09	24.407	111.24
#1	-.23007	-4.4886	-.36915	-.58088	.01684	.00694	20.720	.00601
#2	-.10499	-26.792	.83349	-.78723	.03101	-.00025	14.620	.05028
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	.15465	.10499	-.6991	1.100	F -4.006	18.300	-32.603	F 12.42
Stddev	.14285	.05165	.8728	.602	12.26	.724	32.234	2.74
%RSD	92.370	49.198	124.8	54.70	306.1	3.9581	98.871	22.04
#1	.05364	.14151	-.0819	1.526	4.665	17.788	-9.8095	14.36
#2	.25566	.06847	-1.316	.6748	-12.68	18.812	-55.396	10.48
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 11.33	.05706	.30126	15.942	-.15509	.00765	1.2958	-1.0872
Stddev	2.57	.00518	.08798	31.912	.25815	.55383	.0100	2.5909
%RSD	22.68	9.0754	29.206	200.17	166.45	7239.2	.77090	238.31
#1	13.14	.06073	.23905	38.508	-.33763	.39927	1.3028	.74484
#2	9.510	.05340	.36348	-6.6229	.02745	-.38397	1.2887	-2.9192
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: 12/11/2007 0:12:24 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	-.74522	.08230	.02313	.18080	.44546	.64008	.14663	-.13298
Stddev	.07750	.09247	.00413	1.5481	.15289	.03530	.31666	.10296
%RSD	10.400	112.35	17.871	856.29	34.320	5.5152	215.95	77.424
#1	-.69042	.01692	.02606	1.2755	.33736	.61512	.37054	-.06018
#2	-.80002	.14769	.02021	-.91391	.55357	.66504	-.07728	-.20579
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	46787.	23791.	634280.
Stddev	101.	26.	1887.
%RSD	.21586	.10844	.29752
#1	46716.	23773.	635620.
#2	46859.	23810.	632950.

GPL Laboratories, LLLP

ICP ANALYSIS LOG

Instrument ID: ICAP 6500 (20072904) Inst. Method: Nebulizer: Analytical Batch No: 071211

Workorder	Project/SDG #	Prep. Seq.	Batch #	Matrix S/W/E	Prep. Date	Method	Comments / Dilution
711053	SC&A	101653	101	S	11-13-07	6010C	10x on all
710216	USACE		056	S	11-01-07	6010B	10x on all
711067	SC&A		119	S	11-20-07	~~3050B~~ 6010C	10x on all
711095	SC&A		131	S	11-27-07	6010C	↓
711096	SC&A		132	S	11-27-07	6010C	
712019	Alson Science		162	S	12-7-07	6010B	

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 0.1 mls of 4153

Samples:

PS 711053-001-001-1
PS 710216-002-006-1
PS 711067-001-001-1
PS 711067-021-021-1
PS 711095-001-001-1
PS 711096-001-001-1
PS 712019-001-001-1

Analyst: Date: 11/12/07 12/11/07 Reviewed: Date: 12/14/07

Supersedes GP

ICP ANALYSIS LOG

	Pos ID	Type	Samplename
1	1	QC	BLK 101
2	2	QC	BKS 101
3	3	Unk	S 711053-001-001-1
4	4	Unk	SP711053-001-001-
5	5	Unk	SD711053-001-001-
6	6	Unk	PS711053-001-001-
7	7	Unk	SE711053-001-001-
8	8	Unk	S 711053-002-002-1
9	9	Unk	S 711053-003-003-1
10	10	Unk	S 711053-004-004-1
11	11	Unk	S 711053-005-005-1
12	12	Unk	S 711053-006-006-1
13	13	Unk	S 711053-007-007-1
14	14	Unk	S 711053-008-008-1
15	15	Unk	S 711053-009-009-1
16	16	Unk	S 711053-010-010-1
17	17	Unk	S 711053-011-011-1
18	18	Unk	S 711053-012-012-1
19	19	Unk	S 711053-013-013-1
20	20	QC	BLK 056
21	21	QC	BKS 056
22	22	Unk	S 710216-002-006-1
23	23	Unk	SP710216-002-006-
24	24	Unk	SD710216-002-006-
25	25	Unk	PS710216-002-006-
26	26	Unk	SE710216-002-006-
27	27	Unk	S 710216-003-008-1
28	28	QC	BLK 119
29	29	QC	BKS 119
30	30	Unk	S 711067-001-001-1
31	31	Unk	SP711067-001-001-
32	32	Unk	SD711067-001-001-
33	33	Unk	PS711067-001-001-
34	34	Unk	SE711067-001-001-
35	35	Unk	S 711067-002-002-1
36	36	Unk	S 711067-003-003-1
37	37	Unk	S 711067-004-004-1
38	38	Unk	S 711067-005-005-1
39	39	Unk	S 711067-006-006-1
40	40	Unk	S 711067-007-007-1
41	41	Unk	S 711067-008-008-1
42	42	Unk	S 711067-009-009-1
43	43	Unk	S 711067-010-010-1
44	44	Unk	S 711067-011-011-1
45	45	Unk	S 711067-012-012-1
46	46	Unk	S 711067-013-013-1
47	47	Unk	S 711067-014-014-1
48	48	Unk	S 711067-015-015-1
49	49	Unk	S 711067-016-016-1
50	50	Unk	S 711067-017-017-1
51	51	Unk	S 711067-018-018-1
52	52	Unk	S 711067-019-019-1
53	53	Unk	S 711067-020-020-1
54	54	QC	BLK 120
55	55	QC	BKS 120
56	56	Unk	S 711067-021-021-1
57	57	Unk	SP711067-021-021-
58	58	Unk	SD711067-021-021-
59	59	Unk	PS711067-021-021-
60	60	Unk	SE711067-021-021-
61	61	Unk	S 711067-022-022-1
62	62	Unk	S 711067-023-023-1
63	63	Unk	S 711067-024-024-1
64	64	Unk	S 711067-025-025-1
65	65	Unk	S 711067-026-026-1
66	66	Unk	S 711067-027-027-1
67	67	Unk	S 711067-028-028-1
68	68	Unk	S 711067-029-029-1
69	69	Unk	S 711067-030-030-1
70	70	Unk	S 711067-031-031-1
71	71	Unk	S 711067-032-032-1
72	72	Unk	S 711067-033-033-1
73	73	Unk	S 711067-034-034-1
74	74	Unk	S 711067-035-035-1
75	75	Unk	S 711067-036-036-1
76	76	Unk	S 711067-037-037-1
77	77	Unk	S 711067-038-038-1
78	78	Unk	S 711067-039-039-1
79	79	QC	ICSA
80	80	QC	ICSAB
81	81	Unk	S 711067-040-040-1
82	82	QC	BLK 131
83	83	QC	BKS 131
84	84	Unk	S 711095-001-001-1
85	85	Unk	SP711095-001-001-
86	86	Unk	SD711095-001-001-
87	87	Unk	PS711095-001-001-
88	88	Unk	SE711095-001-001-
89	89	Unk	S 711095-002-002-1
90	90	Unk	S 711095-003-003-1
91	91	Unk	S 711095-004-004-1
92	92	Unk	S 711095-005-005-1
93	93	Unk	S 711095-006-006-1
94	94	Unk	S 711095-007-007-1
95	95	Unk	S 711095-008-008-1
96	96	Unk	S 711095-009-009-1
97	97	Unk	S 711095-010-010-1
98	98	Unk	S 711095-011-011-1
99	99	Unk	S 711095-012-012-1
100	100	Unk	S 711095-013-013-1
101	101	Unk	S 711095-014-014-1
102	102	QC	BLK 132
103	103	QC	BKS 132
104	104	Unk	S 711096-001-001-1
105	105	Unk	SP711096-001-001-
106	106	Unk	SD711096-001-001-
107	107	Unk	PS711096-001-001-
108	108	Unk	SE711096-001-001-
109	109	Unk	S 711096-002-002-1
110	110	Unk	S 711096-003-003-1
111	111	Unk	S 711096-004-004-1
112	112	Unk	S 711096-005-005-1
113	113	Unk	S 711096-006-006-1
114	114	Unk	S 711096-007-007-1
115	115	Unk	S 711096-008-008-1
116	116	Unk	S 711096-009-009-1
117	117	Unk	S 711096-010-010-1
118	118	Unk	S 711096-011-011-1
119	119	Unk	S 711096-012-012-1
120	120	Unk	S 711096-013-013-1
121	121	Unk	S 711096-014-014-1
122	122	QC	BLK 162
123	123	QC	BKS 162
124	124	Unk	S 712019-001-001-1
	Pos ID	Type	Samplename
125	125	Unk	SP712019-001-001-
126	126	Unk	SD712019-001-001-
127	127	Unk	PS712019-001-001-
128	128	Unk	SE712019-001-001-
129	129	Unk	S 712019-002-003-1
130	130	Unk	S 712019-003-005-1
131	131	Unk	S 712019-004-007-1
132	132	Unk	S 712019-005-009-1
133	133	Unk	S 712019-006-011-1
134	134	Unk	S 712019-007-013-1
135	135	Unk	S 712019-008-015-1
136	136	Unk	S 712019-009-017-1
137	137	Unk	S 712019-010-019-1
138	138	Unk	S 712019-011-021-1
139	139	Unk	S 712019-012-023-1
140	140	Unk	S 712019-013-025-1
141	141	Unk	S 712019-014-027-1
142	142	Unk	S 712019-015-029-1
143	143	Unk	S 712019-016-031-1
144	144	Unk	S 712019-017-033-1
145	145	Unk	S 712019-018-035-1
146	146	Unk	S 712019-019-037-1
147	147	Unk	S 712019-020-039-1
148	148	QC	ICSA
149	149	QC	ICSAB

Sample Dilutions:

Sample Name: STD0 Acquired: 12/11/2007 15:21:34 Type: Cal
Method: TRACEPB(v4) 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	-.00002	-.00004	-.00003	.00027	.00077	.00004	.00519
Stddev	.00001	.00016	.00001	.00001	.00001	.00000	.00014
%RSD	27.670	390.57	46.279	4.5789	1.3060	6.3682	2.6965
#1	-.00003	.00007	-.00004	.00028	.00078	.00004	.00509
#2	-.00002	-.00015	-.00002	.00026	.00076	.00004	.00529

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00009	-.00005	.00000	.0001	.0002	.0001	.00016
Stddev	.00000	.00002	.0000	.0001	.0000	.0001	.00014
%RSD	.72237	33.168	104.08	48.38	18.23	79.77	85.842
#1	.00009	-.00007	-.00001	.0001	.0002	.0002	.00025
#2	.00009	-.00004	.00000	.0002	.0002	.0001	.00006

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.00053	.0095	.0008	.00001	.00002	.00564	.00003
Stddev	.00037	.0026	.0001	.00001	.00001	.00011	.00000
%RSD	69.490	27.44	15.63	113.33	61.732	1.9925	8.4488
#1	-.00027	.0077	.0007	.00000	.00003	.00572	.00003
#2	-.00079	.0114	.0009	.00002	.00001	.00557	.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	-.00021	.00002	.00000	.00014	.00004	.00114	.00003
Stddev	.00003	.00002	.0001	.00001	.00001	.00000	.00004
%RSD	15.528	85.925	1047.3	4.3901	17.171	.20408	123.80
#1	-.00024	.00004	-.00004	.00013	.00004	.00114	.00000
#2	-.00019	.00001	.00003	.00014	.00003	.00115	.00006

Sample Name: STD0 Acquired: 12/11/2007 15:21:34 Type: Cal
Method: TRACEPB(v4) 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	.00055
Stddev	.00000	.00001	.00000	.00002
%RSD	9.0177	43.063	8.5312	3.1932
#1	-.00001	-.00002	.00003	.00054
#2	-.00001	-.00004	.00003	.00057

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	43596.	28857.	581810.
Stddev	103.	73.	5657.
%RSD	.23566	.25450	.97222
#1	43523.	28909.	577810.
#2	43668.	28805.	585810.

Sample Name: STD1 Acquired: 12/11/2007 15:24:56 Type: Cal
Method: TRACEPB(v4) 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	.00913	.37726	.00358	.01764	.19619	.02968	.12283	.04737
Stddev	.00004	.00483	.00004	.00007	.00036	.00011	.00068	.00020
%RSD	.39241	1.2804	1.0489	.40266	.18299	.35637	.55187	.43039
#1	.00910	.37384	.00360	.01769	.19593	.02960	.12331	.04751
#2	.00916	.38067	.00355	.01759	.19644	.02975	.12235	.04722

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	.00643	.0069	.0098	.0030	.46987	.03684	.02639	.02561
Stddev	.00002	.0000	.0000	.0001	.00715	.00014	.00010	.00003
%RSD	.36410	.5867	.1961	4.435	1.5211	.37959	.37662	.12024
#1	.00642	.0069	.0098	.0029	.46481	.03674	.02646	.02563
#2	.00645	.0069	.0098	.0031	.47492	.03694	.02632	.02559

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	.00969	.00479	.00324	.00247	.00943	.43190	.00382	.02363
Stddev	.00004	.00003	.00001	.00002	.00006	.00114	.00004	.00007
%RSD	.37038	.53183	.42984	.87994	.60237	.26421	1.0609	.27654
#1	.00971	.00481	.00324	.00245	.00947	.43109	.00379	.02359
#2	.00966	.00477	.00325	.00248	.00939	.43270	.00385	.02368

Elem	Tl	V	Zn
Units	Cts/S	Cts/S	Cts/S
Avg	.00398	.00901	.08350
Stddev	.00005	.00003	.00030
%RSD	1.2390	.33842	.35620
#1	.00401	.00899	.08371
#2	.00394	.00903	.08329

Sample Name: STD1 Acquired: 12/11/2007 15:24:56 Type: Cal
Method: TRACEPB(v4) 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	43752.	29222.	591150.
Stddev	113.	247.	736.
%RSD	.25749	.84389	.12457
#1	43672.	29397.	591670.
#2	43832.	29048.	590630.

Sample Name: STD2 Acquired: 12/11/2007 15:28:14 Type: Cal
Method: TRACEPB(v4) 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	.02282	.89445	.00868	.04339	.48357	.07386	.30044	.11706
Stddev	.00020	.03384	.00002	.00012	.00326	.00070	.00042	.00007
%RSD	.85959	3.7830	.18338	.27927	.67330	.95035	.13891	.05761
#1	.02296	.87053	.00869	.04347	.48588	.07436	.30073	.11701
#2	.02268	.91838	.00866	.04330	.48127	.07337	.30014	.11711

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	.01575	.0168	.0239	.0076	1.1201	.09280	.06520	.06327
Stddev	.00018	.0000	.0000	.0001	.0458	.00061	.00006	.00013
%RSD	1.1337	.0431	.1452	.9607	4.0907	.65946	.08595	.20774
#1	.01588	.0168	.0239	.0076	1.0877	.09323	.06524	.06318
#2	.01563	.0168	.0239	.0075	1.1525	.09236	.06516	.06336

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	.02408	.01182	.00786	.00587	.02323	1.0668	.00937	.05919
Stddev	.00003	.00001	.00005	.00005	.00003	.0102	.00001	.00053
%RSD	.11342	.09756	.66358	.90206	.12303	.95794	.06450	.90277
#1	.02410	.01181	.00789	.00591	.02321	1.0741	.00937	.05957
#2	.02406	.01183	.00782	.00584	.02325	1.0596	.00936	.05881

Elem	Tl	V	Zn
Units	Cts/S	Cts/S	Cts/S
Avg	.00976	.02241	.20266
Stddev	.00006	.00021	.00050
%RSD	.60861	.91802	.24596
#1	.00980	.02255	.20301
#2	.00972	.02226	.20230

Sample Name: STD2 Acquired: 12/11/2007 15:28:14 Type: Cal
Method: TRACEPB(v4) 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	43520.	30262.	586950.
Stddev	32.	1087.	4068.
%RSD	.07422	3.5925	.69301
#1	43543.	31031.	584080.
#2	43497.	29494.	589830.

Sample Name: STD3 Acquired: 12/11/2007 15:31:47 Type: Cal
Method: TRACEPB(v4) 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	.04471	1.8697	.01716	.08478	.95513	.14467	.59336	.23100
Stddev	.00130	.0187	.00000	.00013	.02447	.00426	.00077	.00046
%RSD	2.8997	.99814	.00108	.15270	2.5622	2.9420	.12989	.19842
#1	.04563	1.8829	.01716	.08487	.97243	.14768	.59391	.23132
#2	.04379	1.8565	.01716	.08469	.93783	.14166	.59282	.23067

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	.03065	.0331	.0470	.0151	2.3153	.18180	.12874	.12500
Stddev	.00092	.0000	.0001	.0000	.0261	.00537	.00021	.00032
%RSD	2.9893	.0322	.3167	.0159	1.1277	2.9541	.16127	.25207
#1	.03129	.0331	.0471	.0151	2.3338	.18559	.12888	.12523
#2	.03000	.0331	.0469	.0151	2.2968	.17800	.12859	.12478

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	.04754	.02345	.01531	.01120	.04572	2.0600	.01834	.11626
Stddev	.00016	.00006	.00003	.00034	.00003	.0566	.00002	.00328
%RSD	.33628	.25370	.17456	3.0360	.06044	2.7495	.09237	2.8233
#1	.04766	.02349	.01533	.01144	.04574	2.1001	.01835	.11858
#2	.04743	.02340	.01529	.01096	.04570	2.0200	.01833	.11394

Elem	Tl	V	Zn
Units	Cts/S	Cts/S	Cts/S
Avg	.01931	.04376	.39952
Stddev	.00010	.00135	.00088
%RSD	.52669	3.0760	.21959
#1	.01938	.04471	.40014
#2	.01923	.04281	.39890

Sample Name: STD3 Acquired: 12/11/2007 15:31:47 Type: Cal
Method: TRACEPB(v4) 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	43403.	28818.	593240.
Stddev	5.	119.	15953.
%RSD	.01254	.41441	2.6891
#1	43399.	28733.	581960.
#2	43406.	28902.	604520.

Sample Name: STD4 Acquired: 12/11/2007 15:35:20 Type: Cal
Method: TRACEPB(v4) 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	1.8510	.06564	26.34	2.746	1.8020
Stddev	.0352	.00118	.80	.048	.0323
%RSD	1.8993	1.8018	3.050	1.739	1.7924
#1	1.8262	.06480	25.78	2.713	1.7792
#2	1.8759	.06648	26.91	2.780	1.8248

Int. Std.	Y_3774
Units	Cts/S
Avg	29319.
Stddev	652.
%RSD	2.2248
#1	29780.
#2	28858.

Sample Name: STD5 Acquired: 12/11/2007 15:38:50 Type: Cal
Method: TRACEPB(v4) 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	4.5571	.12910	61.61	6.482	4.4168
Stddev	.1177	.00372	.51	.147	.1052
%RSD	2.5836	2.8796	.8247	2.276	2.3814
#1	4.4738	.12647	61.25	6.378	4.3424
#2	4.6404	.13173	61.97	6.586	4.4912

Int. Std.	Y_3774
Units	Cts/S
Avg	29914.
Stddev	575.
%RSD	1.9227
#1	30320.
#2	29507.

Sample Name: STD6 Acquired: 12/11/2007 15:42:20 Type: Cal
Method: TRACEPB(v4) 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	9.1937	.33193	110.5	12.15	8.9143
Stddev	.0057	.00131	1.0	.03	.0244
%RSD	.06198	.39326	.9081	.2181	.27419
#1	9.1897	.33285	111.2	12.17	8.9316
#2	9.1977	.33101	109.8	12.13	8.8970

Int. Std.	Y_3774
Units	Cts/S
Avg	28959.
Stddev	64.
%RSD	.22103
#1	28914.
#2	29005.

Sample Name: Blank Acquired: 12/11/2007 15:45:55 Type: Cal
Method: TRACEPB(v4) 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	.000
%RSD	12.54	117.1
#1	.0001	-.0001
#2	.0001	.0000

Int. Std.	Y_2243
Units	Cts/S
Avg	43879.
Stddev	5.
%RSD	.01043
#1	43876.
#2	43883.

Sample Name: PBLK Acquired: 12/11/2007 15:49:19 Type: QC
Method: TRACEPB(v4) 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	-.15233	-1.4205	.15281	-.86528	-.08129	.01278	-31.278	-.18096
Stddev	.06959	2.2061	.84165	.51896	.00252	.00231	1.563	.01402
%RSD	45.680	155.31	550.79	59.976	3.1002	18.099	4.9980	7.7449
#1	-.10313	-2.9805	-.44233	-.49832	-.07950	.01442	-30.173	-.19087
#2	-.20154	.13948	.74794	-1.2322	-.08307	.01115	-32.384	-.17105
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	-.13969	.10404	-1.542	-.3514	.9027	-3.2575	140.31	F -11.45
Stddev	.01853	.06363	.575	.7927	1.721	3.4176	18.54	.81
%RSD	13.262	61.163	37.28	225.6	190.6	104.92	13.215	7.079
#1	-.15279	.05904	-1.135	-.9119	-.3140	-.84083	127.19	-10.88
#2	-.12659	.14903	-1.948	.2092	2.119	-5.6741	153.42	-12.02
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 -16.33	-.06506	.11222	61.496	-.27839	.03088	.74496	1.1871
Stddev	.62	.05452	.19602	5.001	.15218	.75282	.42900	.1099
%RSD	3.816	83.790	174.67	8.1315	54.664	2437.8	57.587	9.2604
#1	-15.89	-.10361	-.02639	57.960	-.38600	.56321	1.0483	1.2649
#2	-16.77	-.02651	.25083	65.032	-.17078	-.50145	.44161	1.1094
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: 12/11/2007 15:49:19 Type: QC
Method: TRACEPB(v4) 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	-3.9268	-.33962	-.07132	-1.6597	-.09479	.71605	-.22512	-.54600
Stddev	.2976	.23547	.01251	2.2565	.04327	.10596	.14422	.05965
%RSD	7.5775	69.335	17.534	135.96	45.649	14.798	64.061	10.924
#1	-3.7164	-.50613	-.08016	-3.2552	-.12539	.64112	-.12315	-.58818
#2	-4.1372	-.17311	-.06248	-.06409	-.06419	.79098	-.32710	-.50383
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	43467.	31505.	595800.
Stddev	10.	1070.	2525.
%RSD	.02332	3.3952	.42384
#1	43474.	32261.	597580.
#2	43460.	30748.	594010.

Sample Name: ICV Acquired: 12/11/2007 15:52:45 Type: QC
Method: TRACEPB(v4) 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	400.95	4998.7	439.48	434.25	431.02	41.283	5135.6
Stddev	1.48	87.4	2.21	1.11	2.14	.138	65.0
%RSD	.37005	1.7477	.50349	.25476	.49594	.33361	1.2654
#1	402.00	5060.5	437.92	433.46	432.53	41.380	5181.6
#2	399.91	4936.9	441.05	435.03	429.51	41.186	5089.7
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	41.812	435.20	404.69	435.0	373.1	426.3	5105.2
Stddev	.083	.82	1.15	1.6	.8	5.5	81.4
%RSD	.19761	.18819	.28529	.3706	.2083	1.281	1.5945
#1	41.754	434.62	405.51	433.9	372.5	422.4	5162.7
#2	41.870	435.78	403.88	436.2	373.6	430.2	5047.6
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5256.5	5149.	F 5659.	408.02	411.95	10251.	420.93
Stddev	66.2	60.	79.	2.26	1.26	99.	2.38
%RSD	1.2603	1.159	1.396	.55389	.30478	.96664	.56554
#1	5303.3	5192.	5714.	409.62	411.06	10321.	419.24
#2	5209.7	5107.	5603.	406.43	412.84	10181.	422.61
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			5000.				
Range			10.00%				

Sample Name: ICV Acquired: 12/11/2007 15:52:45 Type: QC
Method: TRACEPB(v4) 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	421.21	414.04	424.27	F 86.059	413.08	414.48	F 12.888
Stddev	.90	1.50	4.85	.251	1.16	.30	.792
%RSD	.21302	.36198	1.1433	.29116	.28021	.07298	6.1423
#1	420.58	415.10	420.84	86.236	412.26	414.70	13.447
#2	421.85	412.98	427.70	85.881	413.90	414.27	12.328
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	405.23	412.07	413.18	432.13
Stddev	2.08	4.51	1.40	.54
%RSD	.51238	1.0943	.33789	.12456
#1	406.70	408.88	414.17	431.75
#2	403.76	415.26	412.19	432.51
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	43352.	30747.	600290.
Stddev	38.	264.	3070.
%RSD	.08697	.85892	.51137
#1	43379.	30561.	598120.
#2	43325.	30934.	602460.

Sample Name: ICB Acquired: 12/11/2007 15:56:11 Type: QC
Method: TRACEPB(v4) 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	.02850	7.3080	2.5458	-.67340	-.04731	.00261	-19.241	-.11980
Stddev	.12196	2.6587	.3286	.32575	.04294	.00567	.048	.07287
%RSD	427.94	36.381	12.908	48.374	90.757	216.86	.24957	60.827
#1	.11474	5.4280	2.3135	-.44306	-.07768	.00662	-19.207	-.06827
#2	-.05774	9.1879	2.7782	-.90374	-.01695	-.00139	-19.275	-.17133
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	.00310	.22536	-1.251	-.6024	F -4.722	.05338	209.88	F -9.603
Stddev	.13847	.02448	1.166	.1100	10.03	1.8771	9.76	.038
%RSD	4461.3	10.862	93.21	18.25	212.5	3516.7	4.6509	.3996
#1	-.09481	.24267	-.4264	-.5246	-11.82	-1.2740	202.98	-9.631
#2	.10102	.20805	-2.075	-.6802	2.372	1.3807	216.78	-9.576
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 -11.93	.01062	.52237	65.544	-.33291	.25968	1.2781	.41665
Stddev	.18	.02190	.10774	7.624	.40401	1.4562	.7766	1.3897
%RSD	1.519	206.33	20.626	11.632	121.36	560.76	60.761	333.55
#1	-12.06	-.00487	.44619	60.153	-.04723	-.76999	1.8273	1.3994
#2	-11.80	.02610	.59856	70.935	-.61859	1.2893	.72899	-.56605
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: ICB Acquired: 12/11/2007 15:56:11 Type: QC
Method: TRACEPB(v4) 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	-3.9738	-.55497	-.03687	-1.2309	-.11252	1.3668	-.23655	.01470
Stddev	.1693	.01120	.00889	.2334	.09692	.7795	.28878	.05902
%RSD	4.2613	2.0178	24.102	18.964	86.140	57.032	122.08	401.65
#1	-4.0935	-.56289	-.04315	-1.0658	-.18105	1.9180	-.03235	-.02704
#2	-3.8541	-.54705	-.03059	-1.3960	-.04398	.81561	-.44075	.05643
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	43285.	30944.	594670.
Stddev	131.	883.	6655.
%RSD	.30190	2.8550	1.1191
#1	43193.	31569.	599380.
#2	43378.	30319.	589970.

Sample Name: CCV Acquired: 12/11/2007 15:59:38 Type: QC
Method: TRACEPB(v4) 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	503.30	50079.	511.25	513.09	504.98	49.351	100630.
Stddev	1.09	215.	4.08	1.73	.61	.135	276.
%RSD	.21716	.42851	.79747	.33764	.12085	.27344	.27463
#1	502.53	50231.	514.13	514.32	505.41	49.256	100830.
#2	504.07	49927.	508.37	511.87	504.55	49.447	100440.
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	495.36	494.91	491.41	F 595.3	F 556.0	F 591.1	49226.
Stddev	.89	.02	1.55	.3	1.8	5.1	61.
%RSD	.17904	.00486	.31510	.0563	.3299	.8656	.12321
#1	495.99	494.93	490.32	595.1	557.3	587.5	49269.
#2	494.73	494.89	492.51	595.6	554.7	594.7	49183.
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	24788.	98650.	104400.	488.25	510.15	100800.	491.68
Stddev	32.	853.	486.	1.11	.78	443.	.52
%RSD	.12747	.8642	.4654	.22645	.15286	.43944	.10652
#1	24811.	99250.	104800.	487.47	510.70	101110.	491.31
#2	24766.	98050.	104100.	489.03	509.60	100490.	492.05
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV Acquired: 12/11/2007 15:59:38 Type: QC
Method: TRACEPB(v4) 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	490.13	508.21	504.00	501.76	494.66	499.90	503.36
Stddev	1.71	2.73	2.84	6.25	.96	4.39	3.06
%RSD	.34804	.53626	.56279	1.2455	.19350	.87855	.60850
#1	491.34	510.14	506.01	506.17	495.33	496.79	505.53
#2	488.93	506.28	502.00	497.34	493.98	503.00	501.19
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	499.23	497.65	498.99	F 605.56
Stddev	1.33	.89	1.76	1.32
%RSD	.26698	.17928	.35333	.21839
#1	498.29	498.28	497.75	606.50
#2	500.17	497.02	500.24	604.62
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	41664.	30023.	581890.
Stddev	4.	59.	2875.
%RSD	.00979	.19750	.49400
#1	41661.	29981.	583920.
#2	41667.	30065.	579860.

Sample Name: CCB Acquired: 12/11/2007 16:03:14 Type: QC
Method: TRACEPB(v4) 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	.09725	-4.7361	1.7814	-.13306	-.07807	-.00088	-28.809
Stddev	.07154	.3766	2.9380	.04135	.01691	.01478	3.796
%RSD	73.559	7.9507	164.93	31.079	21.654	1684.7	13.176
#1	.04667	-5.0023	-.29612	-.10382	-.06612	-.01133	-26.125
#2	.14784	-4.4698	3.8588	-.16230	-.09003	.00958	-31.493
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	ppb	ppb	ppb
Avg	-.20090	-.15327	.31155	-2.330	-.9754	F 4.040	1.3602
Stddev	.02973	.27967	.15352	.413	.9527	5.003	2.2457
%RSD	14.801	182.48	49.275	17.71	97.68	123.8	165.10
#1	-.17987	-.35102	.42010	-2.622	-1.649	7.577	2.9481
#2	-.22192	.04449	.20300	-2.038	-.3017	.5020	-.22776
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						3.000	
Low Limit						-3.000	

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 255.90	F -9.316	F -11.23	-.02079	.36420	99.917	.02487
Stddev	38.61	1.577	4.34	.02415	.40048	11.418	.41178
%RSD	15.087	16.93	38.61	116.16	109.96	11.427	1656.0
#1	228.60	-8.201	-8.167	-.03786	.64738	91.844	-.26631
#2	283.20	-10.43	-14.30	-.00371	.08102	107.99	.31604
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	250.00	3.000	3.000				
Low Limit	-250.00	-3.000	-3.000				

Sample Name: CCB Acquired: 12/11/2007 16:03:14 Type: QC
Method: TRACEPB(v4) 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	-.31379	-.71789	1.6797	-4.8835	-.88104	-.05117	.18054
Stddev	.75243	.31298	2.8639	.5077	.38470	.00608	.55059
%RSD	239.79	43.597	170.50	10.397	43.664	11.876	304.96
#1	-.84584	-.93920	3.7048	-5.2425	-1.1531	-.05547	.56987
#2	.21826	-.49658	-.34536	-4.5245	-.60902	-.04687	-.20878
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	-.01353	.35830	-.20553	-.52091
Stddev	.17675	1.2617	.18387	.13013
%RSD	1306.2	352.14	89.464	24.982
#1	-.13851	1.2505	-.07551	-.61292
#2	.11145	-.53388	-.33555	-.42889
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	43362.	30910.	606620.
Stddev	171.	191.	5945.
%RSD	.39499	.61716	.97998
#1	43241.	31045.	602420.
#2	43483.	30775.	610830.

Sample Name: PQL Acquired: 12/11/2007 16:06:42 Type: QC
Method: TRACEPB(v4) 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	4.8672	205.43	22.318	15.015	5.0736	1.9701	981.30
Stddev	.3950	4.88	.080	.332	.0394	.0037	2.10
%RSD	8.1150	2.3744	.35932	2.2123	.77667	.18668	.21405
#1	5.1464	201.98	22.261	14.780	5.1015	1.9727	979.82
#2	4.5879	208.88	22.375	15.250	5.0458	1.9675	982.79
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	6.0353	4.9565	5.3876	F 8.935	F 12.11	F 9.866	150.55
Stddev	.0970	.0291	.2162	1.157	.03	.898	6.61
%RSD	1.6074	.58789	4.0127	12.95	.2540	9.099	4.3911
#1	6.1039	4.9771	5.2347	8.117	12.09	9.231	145.87
#2	5.9667	4.9359	5.5404	9.753	12.13	10.50	155.22
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Pass
Value				5.000	5.000	5.000	
Range				20.00%	20.00%	20.00%	

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 511.01	F 241.8	F 264.0	4.8618	5.3319	2609.3	9.7453
Stddev	12.97	1.2	1.1	.0050	.1447	24.0	.0947
%RSD	2.5373	.4900	.4278	.10391	2.7133	.91862	.97213
#1	520.18	241.0	264.8	4.8583	5.4342	2592.4	9.6783
#2	501.84	242.7	263.2	4.8654	5.2296	2626.3	9.8123
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	250.00	5.000	5.000				
Range	20.000%	20.00%	20.00%				

Sample Name: PQL Acquired: 12/11/2007 16:06:42 Type: QC
Method: TRACEPB(v4) 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	10.413	19.305	22.261	49.939	25.497	4.9516	.77949
Stddev	.685	1.199	.456	.878	.421	.0158	1.2990
%RSD	6.5797	6.2123	2.0483	1.7575	1.6515	.31840	166.65
#1	10.897	18.457	22.583	50.560	25.795	4.9628	-.13904
#2	9.9281	20.153	21.938	49.319	25.199	4.9405	1.6980
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
Value							
Range							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	24.614	30.377	9.5761	22.296
Stddev	.013	1.126	.0212	.198
%RSD	.05407	3.7077	.22110	.88657
#1	24.605	29.581	9.5911	22.436
#2	24.623	31.173	9.5611	22.156
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	43526.	31038.	604110.
Stddev	137.	104.	1461.
%RSD	.31465	.33430	.24177
#1	43429.	30965.	603080.
#2	43623.	31111.	605150.

Sample Name: ICSA Acquired: 12/11/2007 16:10:07 Type: QC
Method: TRACEPB(v4) 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	.07982	488710.	12.174	5.1672	1.8978	-.06148
Stddev	.06656	786.	.334	.7518	.0217	.00126
%RSD	83.385	.16074	2.7444	14.550	1.1418	2.0507
#1	.03276	488160.	12.410	5.6988	1.8824	-.06059
#2	.12689	489270.	11.938	4.6355	1.9131	-.06237
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	479450.	1.9185	-.02722	.30308	F -181.1	F 283.2
Stddev	1230.	.0495	.02656	.16861	1.6	.0
%RSD	.25664	2.5781	97.604	55.632	.8748	.0121
#1	480320.	1.9534	-.00843	.42231	-179.9	283.2
#2	478580.	1.8835	-.04600	.18386	-182.2	283.2
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 191.8	186690.	F 282.77	F 227600.	F 223700.	.47315
Stddev	1.2	362.	35.68	285.	664.	.05621
%RSD	.6203	.19381	12.616	.1252	.2969	11.880
#1	191.0	186430.	308.00	227400.	223300.	.43341
#2	192.7	186950.	257.54	227800.	224200.	.51290
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Pass
High Limit	3.000		250.00	3.000	3.000	
Low Limit	-3.000		-250.00	-3.000	-3.000	

Sample Name: ICSA Acquired: 12/11/2007 16:10:07 Type: QC
Method: TRACEPB(v4) 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	.50065	-11.148	-3.8382	F 11.555	-.41275	3.9520
Stddev	.18180	4.272	.5795	1.096	1.1156	4.2345
%RSD	36.312	38.320	15.097	9.4887	270.28	107.15
#1	.37210	-8.1273	-3.4285	12.330	-1.2016	6.9463
#2	.62920	-14.169	-4.2479	10.779	.37609	.95771
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	-4.6930	-.83799	.24028	16.388	1.0013	1.0675
Stddev	.3961	.98038	.04482	2.758	.0550	.7557
%RSD	8.4392	116.99	18.656	16.828	5.4944	70.786
#1	-4.4130	-.14476	.20858	18.338	.96237	.53319
#2	-4.9731	-1.5312	.27197	14.438	1.0402	1.6019
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	V	Zn
Units	ppb	ppb
Avg	-.69326	-1.5559
Stddev	.04231	.1245
%RSD	6.1038	8.0028
#1	-.66333	-1.6439
#2	-.72318	-1.4678
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Sample Name: ICSA Acquired: 12/11/2007 16:10:07 Type: QC
Method: TRACEPB(v4) 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	40075.	29934.	553260.
Stddev	60.	31.	4420.
%RSD	.14861	.10314	.79888
#1	40033.	29956.	556380.
#2	40117.	29913.	550130.

Sample Name: ICSAB Acquired: 12/11/2007 16:13:40 Type: QC
Method: TRACEPB(v4) 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	208.80	499690.	112.09	923.21	506.50	499.00	475050.
Stddev	.25	8890.	.78	2.86	1.70	5.08	7886.
%RSD	.11752	1.7791	.69592	.30967	.33536	1.0189	1.6600
#1	208.63	493400.	111.54	921.19	505.29	502.60	469470.
#2	208.98	505970.	112.64	925.23	507.70	495.41	480620.
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	932.42	460.39	485.97	F 331.5	F 772.0	F 733.8	185510.
Stddev	1.52	1.11	.05	.7	9.8	6.9	3252.
%RSD	.16322	.24151	.01116	.2187	1.272	.9410	1.7528
#1	933.49	461.17	486.01	331.0	765.1	728.9	183210.
#2	931.34	459.60	485.93	332.0	779.0	738.7	187810.
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	5037.5	235100.	235300.	481.87	919.58	10372.	926.14
Stddev	183.6	14560.	7933.	1.47	.52	204.	1.86
%RSD	3.6454	6.195	3.372	.30530	.05660	1.9669	.20133
#1	4907.6	224800.	229700.	480.83	919.21	10227.	927.45
#2	5167.3	245400.	240900.	482.91	919.94	10516.	924.82
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: ICSAB Acquired: 12/11/2007 16:13:40 Type: QC
Method: TRACEPB(v4) 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	54.434	592.99	49.552	1146.0	878.77	503.03	208.06
Stddev	2.571	1.10	3.777	3.6	.27	1.31	1.47
%RSD	4.7226	.18521	7.6228	.31152	.03038	.26069	.70854
#1	56.251	592.21	46.881	1143.4	878.96	503.96	207.02
#2	52.616	593.77	52.223	1148.5	878.58	502.10	209.10
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	930.69	97.488	491.97	1056.2
Stddev	4.12	.723	.14	.8
%RSD	.44294	.74136	.02875	.07250
#1	927.77	97.999	491.87	1056.7
#2	933.60	96.977	492.07	1055.7
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	40134.	29102.	547180.
Stddev	1.	488.	594.
%RSD	.00153	1.6768	.10850
#1	40134.	29447.	547600.
#2	40134.	28757.	546760.

Sample Name: STD0 Acquired: 12/11/2007 16:26:54 Type: Cal
Method: TRACEPB(v4) 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	-.00002	.00021	.00000	.00030	.00119	.00009	.00539
Stddev	.00001	.00008	.0000	.00001	.00015	.00000	.00020
%RSD	33.194	39.452	3106.9	1.9266	13.005	5.3951	3.7053
#1	-.00002	.00015	-.00002	.00030	.00108	.00009	.00525
#2	-.00001	.00026	.00002	.00029	.00130	.00009	.00553

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00012	.00016	.00001	.0001	.0002	-.0001	.00064
Stddev	.00001	.00005	.00000	.0000	.0000	.0000	.00004
%RSD	10.042	32.741	20.354	3.329	4.029	7.172	6.1321
#1	.00011	.00012	.00001	.0001	.0002	-.0001	.00061
#2	.00013	.00019	.00001	.0001	.0002	-.0001	.00066

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00134	.0124	.0012	.00009	.00016	.00909	.00009
Stddev	.00046	.0010	.0001	.00002	.00001	.00006	.00001
%RSD	34.062	8.105	10.95	20.405	8.2314	.68022	7.3840
#1	.00102	.0117	.0011	.00008	.00015	.00913	.00009
#2	.00167	.0131	.0013	.00010	.00017	.00904	.00010

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.00013	.00004	.00003	.00009	.00006	.00130	-.00002
Stddev	.00001	.00002	.00003	.00000	.00003	.00008	.00001
%RSD	8.0462	43.906	86.420	3.8398	54.995	5.7938	54.202
#1	-.00014	.00006	.00005	.00009	.00003	.00125	-.00003
#2	-.00012	.00003	.00001	.00009	.00008	.00135	-.00001

Sample Name: STD0 Acquired: 12/11/2007 16:26:54 Type: Cal
Method: TRACEPB(v4) 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	.00005	-.00002	.00005	.00090
Stddev	.00002	.00002	.00001	.00002
%RSD	30.998	63.980	11.309	2.6096
#1	.00004	-.00001	.00005	.00092
#2	.00006	-.00003	.00004	.00088

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	42918.	29578.	586280.
Stddev	24.	514.	3485.
%RSD	.05609	1.7361	.59440
#1	42901.	29215.	583810.
#2	42935.	29941.	588740.

Sample Name: STD1 Acquired: 12/11/2007 16:30:16 Type: Cal
Method: TRACEPB(v4) 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	.00897	.36688	.00347	.01750	.20003	.02872	.12046	.04710
Stddev	.00007	.00469	.00004	.00009	.00131	.00015	.00039	.00013
%RSD	.73805	1.2776	1.1869	.48633	.65256	.52978	.32323	.26939
#1	.00893	.37020	.00350	.01756	.19910	.02861	.12018	.04701
#2	.00902	.36357	.00344	.01744	.20095	.02883	.12073	.04719

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	.00611	.0068	.0096	.0030	.45757	.03675	.02631	.02549
Stddev	.00002	.0000	.0000	.0001	.00668	.00024	.00004	.00002
%RSD	.34353	.6166	.3723	2.505	1.4600	.66647	.16635	.07156
#1	.00609	.0068	.0096	.0030	.46230	.03658	.02628	.02548
#2	.00612	.0069	.0097	.0029	.45285	.03692	.02634	.02551

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	.00945	.00478	.00315	.00233	.00924	.43434	.00374	.02315
Stddev	.00002	.00002	.00003	.00003	.00004	.00375	.00004	.00024
%RSD	.24795	.52171	.88851	1.2218	.39535	.86355	.93964	1.0154
#1	.00944	.00480	.00313	.00231	.00921	.43169	.00372	.02298
#2	.00947	.00477	.00317	.00235	.00926	.43700	.00377	.02331

Elem	Tl	V	Zn
Units	Cts/S	Cts/S	Cts/S
Avg	.00386	.00890	.08194
Stddev	.00001	.00005	.00009
%RSD	.20915	.50697	.11294
#1	.00386	.00886	.08188
#2	.00385	.00893	.08201

Sample Name: STD1 Acquired: 12/11/2007 16:30:16 Type: Cal
Method: TRACEPB(v4) 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	42938.	29399.	592500.
Stddev	24.	281.	5063.
%RSD	.05664	.95603	.85459
#1	42955.	29200.	596080.
#2	42920.	29598.	588920.

Sample Name: STD2 Acquired: 12/11/2007 16:33:40 Type: Cal
Method: TRACEPB(v4) 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	.02243	.90511	.00854	.04274	.49762	.07258	.29498	.11585
Stddev	.00007	.01161	.00005	.00005	.00007	.00038	.00054	.00016
%RSD	.29686	1.2830	.60464	.10701	.01449	.51807	.18301	.13828
#1	.02238	.89690	.00850	.04277	.49768	.07231	.29537	.11597
#2	.02248	.91333	.00858	.04271	.49757	.07284	.29460	.11574

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	.01531	.0166	.0236	.0074	1.1216	.09236	.06469	.06270
Stddev	.00008	.0000	.0000	.0000	.0148	.00027	.00004	.00002
%RSD	.49332	.1815	.0661	.1201	1.3192	.29243	.06399	.03015
#1	.01526	.0166	.0236	.0074	1.1112	.09217	.06466	.06272
#2	.01537	.0166	.0236	.0074	1.1321	.09255	.06472	.06269

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	.02350	.01167	.00760	.00563	.02268	1.0717	.00911	.05823
Stddev	.00002	.00005	.00001	.00001	.00001	.0044	.00001	.00030
%RSD	.08197	.38713	.08516	.24689	.04916	.40719	.08541	.50775
#1	.02352	.01164	.00761	.00562	.02268	1.0686	.00912	.05803
#2	.02349	.01170	.00760	.00564	.02267	1.0748	.00911	.05844

Elem	Tl	V	Zn
Units	Cts/S	Cts/S	Cts/S
Avg	.00961	.02220	.19924
Stddev	.00001	.00011	.00012
%RSD	.08550	.47478	.05985
#1	.00960	.02212	.19932
#2	.00961	.02227	.19915

Sample Name: STD2 Acquired: 12/11/2007 16:33:40 Type: Cal
Method: TRACEPB(v4) 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	43063.	29135.	586010.
Stddev	94.	219.	2647.
%RSD	.21830	.75199	.45161
#1	42996.	29289.	587880.
#2	43129.	28980.	584140.

Sample Name: STD3 Acquired: 12/11/2007 16:37:13 Type: Cal
Method: TRACEPB(v4) 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	.04360	1.8372	.01688	.08391	.96514	.14114	.58472	.22950
Stddev	.00048	.0243	.00006	.00007	.00867	.00128	.00042	.00002
%RSD	1.1071	1.3239	.38404	.07815	.89801	.90659	.07131	.00891
#1	.04326	1.8544	.01683	.08386	.95901	.14024	.58443	.22951
#2	.04394	1.8200	.01692	.08396	.97127	.14205	.58502	.22948

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	.02965	.0328	.0467	.0149	2.2786	.18007	.12825	.12438
Stddev	.00023	.0001	.0001	.0002	.0267	.00198	.00005	.00008
%RSD	.76053	.2599	.1895	1.249	1.1723	1.0991	.03816	.06039
#1	.02949	.0327	.0467	.0151	2.2975	.17867	.12829	.12433
#2	.02981	.0329	.0466	.0148	2.2598	.18147	.12822	.12443

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	.04659	.02312	.01493	.01075	.04497	2.0641	.01798	.11307
Stddev	.00002	.00000	.00003	.00012	.00005	.0181	.00002	.00132
%RSD	.03761	.01701	.17500	1.1253	.12077	.87696	.08647	1.1699
#1	.04657	.02313	.01495	.01067	.04501	2.0513	.01799	.11213
#2	.04660	.02312	.01492	.01084	.04493	2.0769	.01796	.11400

Elem	Tl	V	Zn
Units	Cts/S	Cts/S	Cts/S
Avg	.01898	.04322	.39418
Stddev	.00001	.00041	.00018
%RSD	.03502	.95538	.04590
#1	.01898	.04293	.39431
#2	.01897	.04351	.39405

Sample Name: STD3 Acquired: 12/11/2007 16:37:13 Type: Cal
Method: TRACEPB(v4) 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	42980.	28542.	598850.
Stddev	113.	167.	6073.
%RSD	.26193	.58453	1.0141
#1	43060.	28424.	603140.
#2	42900.	28660.	594550.

Sample Name: STD4 Acquired: 12/11/2007 16:40:46 Type: Cal
Method: TRACEPB(v4) 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	1.7987	.06643	25.81	2.640	1.7654
Stddev	.0505	.00195	.34	.068	.0444
%RSD	2.8062	2.9335	1.331	2.559	2.5175
#1	1.7630	.06505	25.56	2.593	1.7340
#2	1.8344	.06781	26.05	2.688	1.7968

Int. Std.	Y_3774
Units	Cts/S
Avg	29167.
Stddev	787.
%RSD	2.6977
#1	29724.
#2	28611.

Sample Name: STD5 Acquired: 12/11/2007 16:44:16 Type: Cal
Method: TRACEPB(v4) 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	4.6780	.13598	62.22	6.645	4.6031
Stddev	.0508	.00193	.73	.086	.0579
%RSD	1.0855	1.4218	1.180	1.288	1.2573
#1	4.7139	.13734	62.74	6.705	4.6441
#2	4.6421	.13461	61.70	6.584	4.5622

Int. Std.	Y_3774
Units	Cts/S
Avg	28026.
Stddev	301.
%RSD	1.0738
#1	27814.
#2	28239.

Sample Name: STD6 Acquired: 12/11/2007 16:47:47 Type: Cal
Method: TRACEPB(v4) 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	8.9880	.33020	106.9	11.81	8.8700
Stddev	.0901	.00234	.3	.05	.0790
%RSD	1.0029	.70746	.2982	.4540	.89009
#1	8.9243	.32855	106.6	11.77	8.8141
#2	9.0518	.33186	107.1	11.84	8.9258

Int. Std.	Y_3774
Units	Cts/S
Avg	28683.
Stddev	170.
%RSD	.59148
#1	28803.
#2	28563.

Sample Name: Blank Acquired: 12/11/2007 16:51:21 Type: Cal
Method: TRACEPB(v4) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Cu2218	Cu3273
Units	Cts/S	Cts/S
Avg	.0002	.0000
Stddev	.0000	.0001
%RSD	20.35	4880.
#1	.0001	.0001
#2	.0002	-.0001

Int. Std.	Y_2243
Units	Cts/S
Avg	42930.
Stddev	192.
%RSD	.44649
#1	42795.
#2	43066.

Sample Name: PBLK Acquired: 12/11/2007 16:54:46 Type: QC
Method: TRACEPB(v4) 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	-.06121	-18.570	-.40130	-.97546	-.51889	-.03926	-37.892	-.15310
Stddev	.19350	16.295	.62049	.02227	.00102	.00765	3.673	.04085
%RSD	316.13	87.748	154.62	2.2831	.19588	19.477	9.6919	26.680
#1	.07562	-7.0480	.03746	-.95972	-.51817	-.04467	-35.295	-.18198
#2	-.19803	-30.093	-.84005	-.99121	-.51961	-.03385	-40.489	-.12422
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	-.91430	-.49167	-.9557	-1.564	-1.892	-23.128	-49.225	F -13.69
Stddev	.08362	.02436	1.111	.515	10.82	1.357	51.273	.21
%RSD	9.1462	4.9548	116.2	32.93	571.6	5.8663	104.16	1.567
#1	-.97343	-.50890	-1.741	-1.928	5.756	-22.169	-12.969	-13.84
#2	-.85517	-.47445	-.1704	-1.200	-9.540	-24.088	-85.480	-13.54
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 -18.35	-.49711	-1.0028	15.993	-.50745	-1.8606	-.71530	-.97037
Stddev	.84	.00416	.1345	3.802	.01767	.8512	.15046	1.2122
%RSD	4.595	.83777	13.412	23.774	3.4827	45.751	21.035	124.92
#1	-17.75	-.50006	-1.0979	13.305	-.51995	-2.4625	-.60891	-1.8275
#2	-18.95	-.49417	-.90766	18.681	-.49496	-1.2587	-.82169	-.11322
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: 12/11/2007 16:54:46 Type: QC
Method: TRACEPB(v4) 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	-1.9439	-1.0302	-.15235	2.2284	-.55342	-.06230	-.53066	-1.5074
Stddev	.1921	.9111	.00007	.0663	.01839	.92246	.10110	.0459
%RSD	9.8847	88.445	.04703	2.9761	3.3228	1480.6	19.051	3.0437
#1	-1.8080	-1.6744	-.15230	2.1815	-.54041	.58997	-.45917	-1.4750
#2	-2.0798	-.38590	-.15240	2.2753	-.56642	-.71458	-.60214	-1.5399
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	43346.	29264.	586490.
Stddev	133.	899.	976.
%RSD	.30595	3.0728	.16639
#1	43252.	29900.	585800.
#2	43439.	28628.	587180.

Sample Name: ICV Acquired: 12/11/2007 16:58:13 Type: QC
Method: TRACEPB(v4) 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	406.54	4965.8	429.22	424.85	414.57	41.937	4831.4
Stddev	.97	104.1	2.79	.13	1.40	.105	112.8
%RSD	.23822	2.0964	.65039	.02955	.33873	.25136	2.3338
#1	407.22	4892.2	427.25	424.76	415.56	42.012	4751.7
#2	405.86	5039.4	431.19	424.94	413.57	41.863	4911.2
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	41.423	430.48	409.99	434.8	367.6	394.9	4877.1
Stddev	.304	.06	.72	.1	1.7	4.2	101.4
%RSD	.73506	.01500	.17593	.0141	.4625	1.070	2.0788
#1	41.638	430.52	410.50	434.9	366.4	391.9	4805.4
#2	41.207	430.43	409.48	434.8	368.8	397.9	4948.8
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	4920.8	5007.	F 5602.	412.56	404.43	9926.1	422.23
Stddev	97.9	113.	132.	1.77	.51	231.9	.15
%RSD	1.9889	2.256	2.360	.42945	.12591	2.3364	.03490
#1	4851.6	4927.	5508.	413.81	404.79	9762.1	422.34
#2	4990.0	5087.	5695.	411.31	404.07	10090.	422.13
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			5000.				
Range			10.00%				

Sample Name: ICV Acquired: 12/11/2007 16:58:13 Type: QC
Method: TRACEPB(v4) 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	418.58	405.99	418.46	F 90.463	410.89	411.61	F 17.283
Stddev	.12	.88	4.46	.024	1.31	5.32	.978
%RSD	.02774	.21669	1.0666	.02659	.31761	1.2937	5.6563
#1	418.50	405.37	421.62	90.446	409.97	415.37	17.974
#2	418.66	406.62	415.31	90.480	411.82	407.84	16.592
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	421.41	402.73	414.77	422.28
Stddev	1.47	1.15	.83	.34
%RSD	.34899	.28594	.19938	.08098
#1	422.45	403.55	415.36	422.52
#2	420.37	401.92	414.19	422.04
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	43367.	29374.	595130.
Stddev	33.	418.	2094.
%RSD	.07639	1.4219	.35190
#1	43390.	29669.	593650.
#2	43343.	29079.	596610.

Sample Name: ICB Acquired: 12/11/2007 17:01:40 Type: QC
Method: TRACEPB(v4) 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	.04319	-6.2670	-.26091	-1.0027	-.48317	-.03104	-34.979	-.18976
Stddev	.26399	12.046	.08946	.0533	.02696	.00772	2.219	.02295
%RSD	611.22	192.22	34.287	5.3165	5.5790	24.868	6.3446	12.094
#1	.22986	2.2512	-.32417	-.96498	-.50223	-.02558	-36.548	-.17354
#2	-.14348	-14.785	-.19766	-1.0404	-.46411	-.03649	-33.410	-.20599
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	-.92531	-.22495	-1.718	-.8485	F 3.637	-21.871	-6.1544	F -12.18
Stddev	.07516	.16093	1.826	.4863	3.437	2.978	16.719	.22
%RSD	8.1230	71.542	106.3	57.31	94.50	13.615	271.67	1.776
#1	-.97846	-.11115	-3.010	-.5046	1.207	-23.977	-17.977	-12.03
#2	-.87217	-.33874	-.4271	-1.192	6.068	-19.765	5.6680	-12.34
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 -16.27	-.37585	-1.0434	-6.9403	-.72938	-1.3403	-.61936	-2.0543
Stddev	2.24	.02470	.2516	3.1342	.21674	1.1547	.22107	.3962
%RSD	13.79	6.5708	24.109	45.160	29.715	86.149	35.694	19.286
#1	-14.69	-.39331	-.86552	-4.7241	-.88263	-2.1568	-.46304	-1.7742
#2	-17.86	-.35839	-1.2213	-9.1566	-.57612	-.52385	-.77568	-2.3345
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: ICB Acquired: 12/11/2007 17:01:40 Type: QC
Method: TRACEPB(v4) 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	-1.2600	-1.0497	-.11622	1.5083	-.52864	-.29336	-.34251	-.88330
Stddev	.3175	.3549	.00406	.0422	.07107	.77747	.27893	.12250
%RSD	25.198	33.816	3.4962	2.7971	13.445	265.02	81.435	13.868
#1	-1.0355	-.79867	-.11334	1.4785	-.47838	-.84311	-.14528	-.79668
#2	-1.4845	-1.3006	-.11909	1.5381	-.57890	.25639	-.53975	-.96992
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	43557.	29222.	591320.
Stddev	87.	341.	423.
%RSD	.19952	1.1656	.07158
#1	43496.	29463.	591030.
#2	43619.	28981.	591620.

Sample Name: CCV Acquired: 12/11/2007 17:05:07 Type: QC
Method: TRACEPB(v4) 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	506.22	49480.	497.05	499.53	484.65	49.470	96928.
Stddev	4.86	620.	4.33	.03	.70	.336	1036.
%RSD	.95962	1.2526	.87042	.00505	.14358	.68007	1.0684
#1	509.65	49042.	493.99	499.51	485.15	49.708	96196.
#2	502.78	49919.	500.11	499.54	484.16	49.233	97660.
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	487.53	488.23	490.47	F 588.7	544.6	F 553.7	47469.
Stddev	.05	.76	2.65	1.3	.7	3.9	482.
%RSD	.01028	.15636	.53990	.2124	.1350	.7116	1.0149
#1	487.50	488.77	492.34	587.8	544.1	550.9	47128.
#2	487.57	487.69	488.59	589.5	545.1	556.4	47809.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	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	ppb	ppb	ppb	ppb	ppb
Avg	24228.	97140.	102700.	494.03	496.49	98147.	491.14
Stddev	350.	1069.	1183.	3.99	.07	1297.	.36
%RSD	1.4465	1.101	1.152	.80783	.01411	1.3219	.07259
#1	23981.	96380.	101800.	496.85	496.54	97230.	490.89
#2	24476.	97890.	103500.	491.20	496.44	99065.	491.39
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV Acquired: 12/11/2007 17:05:07 Type: QC
Method: TRACEPB(v4) 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	485.23	504.86	498.70	511.47	488.61	493.61	491.26
Stddev	2.64	1.31	.29	4.65	1.35	6.14	.62
%RSD	.54357	.25904	.05797	.90896	.27701	1.2433	.12571
#1	487.09	505.78	498.90	514.75	487.65	497.95	491.69
#2	483.36	503.93	498.50	508.18	489.57	489.27	490.82
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	511.41	484.39	497.94	F 587.86
Stddev	4.06	1.69	3.27	.63
%RSD	.79383	.34862	.65715	.10695
#1	514.28	483.20	500.25	588.30
#2	508.53	485.59	495.62	587.41
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	42398.	29029.	584770.
Stddev	43.	128.	2544.
%RSD	.10152	.44213	.43497
#1	42429.	29120.	582970.
#2	42368.	28938.	586570.

Sample Name: CCB Acquired: 12/11/2007 17:08:44 Type: QC
Method: TRACEPB(v4) 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	-.08903	-19.125	-2.4223	-.74695	-.51945	-.03754	-30.532	-.17094
Stddev	.39476	2.527	.2963	.63671	.02494	.01406	3.064	.04393
%RSD	443.40	13.215	12.233	85.242	4.8012	37.444	10.036	25.697
#1	-.36816	-20.912	-2.2127	-.29672	-.50181	-.02760	-28.365	-.13988
#2	.19011	-17.338	-2.6318	-1.1972	-.53708	-.04748	-32.699	-.20200
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	-1.1895	-.58847	-.1828	-.8022	F 3.232	-22.848	-30.620	F -9.145
Stddev	.0037	.25623	.0160	.2791	3.069	5.096	28.765	3.145
%RSD	.31532	43.543	8.760	34.80	94.95	22.305	93.942	34.39
#1	-1.1868	-.40728	-.1941	-.9996	5.402	-19.245	-10.280	-6.921
#2	-1.1921	-.76965	-.1714	-.6048	1.062	-26.452	-50.960	-11.37
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 -14.06	-.45539	-.93659	23.672	-.43971	-.67077	-.94007	-.08759
Stddev	1.96	.02839	.27079	1.644	.10539	1.8977	.99437	.01797
%RSD	13.94	6.2350	28.912	6.9433	23.968	282.91	105.78	20.519
#1	-12.67	-.47546	-.74511	24.834	-.36519	-2.0126	-.23695	-.07488
#2	-15.44	-.43531	-1.1281	22.510	-.51424	.67109	-1.6432	-.10030
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: 12/11/2007 17:08:44 Type: QC
Method: TRACEPB(v4) 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	-1.5864	-.38428	-.13994	1.4398	-.61914	1.0717	-.44005	-1.5852
Stddev	.2001	.49842	.00418	1.3977	.02058	1.1620	.03319	.0018
%RSD	12.611	129.70	2.9860	97.076	3.3247	108.42	7.5423	.11427
#1	-1.7278	-.03184	-.13698	.45148	-.60458	.25009	-.41658	-1.5839
#2	-1.4449	-.73671	-.14289	2.4282	-.63369	1.8934	-.46352	-1.5865
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	43875.	28669.	598880.
Stddev	225.	307.	2588.
%RSD	.51305	1.0719	.43220
#1	44034.	28451.	597050.
#2	43716.	28886.	600710.

Sample Name: PQL Acquired: 12/11/2007 17:12:11 Type: QC
Method: TRACEPB(v4) 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	5.0129	189.94	21.305	14.880	4.5220	1.9740	926.80
Stddev	.2167	8.52	1.794	.781	.0185	.0129	10.00
%RSD	4.3233	4.4845	8.4180	5.2464	.40806	.65537	1.0785
#1	4.8596	183.92	22.573	14.328	4.5089	1.9649	919.74
#2	5.1661	195.96	20.037	15.432	4.5350	1.9832	933.87
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	6.0399	F 3.9787	4.6351	F 9.526	F 11.62	F 15.25	125.75
Stddev	.0017	.1331	.0758	.478	.07	.90	2.79
%RSD	.02876	3.3457	1.6358	5.013	.5863	5.908	2.2164
#1	6.0387	4.0729	4.6887	9.189	11.57	15.89	123.78
#2	6.0412	3.8846	4.5815	9.864	11.67	14.62	127.72
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Pass
Value		5.0000		5.000	5.000	5.000	
Range		-20.000%		20.00%	20.00%	20.00%	

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 194.58	F 235.3	F 260.6	4.5740	F 3.8493	2432.2	9.0788
Stddev	9.35	3.9	6.4	.0195	.1572	12.9	.0489
%RSD	4.8050	1.663	2.467	.42538	4.0843	.53032	.53833
#1	201.19	232.5	256.1	4.5602	3.7381	2423.1	9.1134
#2	187.97	238.1	265.1	4.5878	3.9605	2441.3	9.0443
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value	250.00	5.000	5.000		5.0000		
Range	-20.000%	20.00%	20.00%		-20.000%		

Sample Name: PQL Acquired: 12/11/2007 17:12:11 Type: QC
Method: TRACEPB(v4) 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	9.1198	19.987	21.172	56.851	25.180	4.8692	.94255
Stddev	.2007	.498	1.091	.111	.291	.0263	1.4559
%RSD	2.2008	2.4918	5.1524	.19598	1.1565	.54109	154.47
#1	9.2617	19.635	20.401	56.773	24.974	4.8506	-.08695
#2	8.9779	20.340	21.943	56.930	25.386	4.8878	1.9721
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
Value							
Range							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	24.798	30.352	9.7404	21.333
Stddev	.046	1.037	.1062	.039
%RSD	.18350	3.4154	1.0905	.18410
#1	24.830	31.085	9.6653	21.361
#2	24.766	29.619	9.8155	21.306
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	43295.	29314.	593600.
Stddev	121.	426.	2952.
%RSD	.27997	1.4534	.49724
#1	43209.	29615.	595690.
#2	43380.	29013.	591520.

Sample Name: ICSA Acquired: 12/11/2007 17:15:35 Type: QC
Method: TRACEPB(v4) 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	-.46528	485060.	6.9984	5.2633	1.4218	-.06270
Stddev	.06055	589.	.5309	.6864	.0211	.00794
%RSD	13.015	.12136	7.5853	13.041	1.4825	12.669
#1	-.50809	485480.	6.6231	5.7487	1.4069	-.05708
#2	-.42246	484650.	7.3738	4.7780	1.4367	-.06831
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	500330.	1.6245	-.72069	.10180	F -173.9	F 275.5
Stddev	672.	.0859	.02021	.05040	4.2	.5
%RSD	.13428	5.2905	2.8049	49.509	2.395	.1647
#1	499860.	1.5637	-.73498	.13743	-176.8	275.2
#2	500810.	1.6853	-.70640	.06616	-170.9	275.9
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 200.1	182310.	-117.55	F 239500.	F 221100.	-.17903
Stddev	14.3	463.	34.75	2270.	1501.	.02125
%RSD	7.156	.25397	29.563	.9478	.6788	11.869
#1	210.2	182630.	-142.12	237900.	220000.	-.16400
#2	190.0	181980.	-92.976	241200.	222200.	-.19405
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: 12/11/2007 17:15:35 Type: QC
Method: TRACEPB(v4) 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	-.09599	-118.19	-4.2566	F 11.672	-2.0253	1.2706
Stddev	.86172	4.57	.1064	1.814	1.8071	1.3493
%RSD	897.67	3.8701	2.5000	15.539	89.226	106.20
#1	.51333	-121.43	-4.3318	10.389	-3.3031	.31646
#2	-.70532	-114.96	-4.1814	12.954	-.74749	2.2247
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	-.97649	-.99888	-.04529	17.538	.43436	.69006
Stddev	.45853	1.0203	.00920	2.166	.09279	2.9144
%RSD	46.957	102.15	20.307	12.350	21.363	422.35
#1	-1.3007	-.27741	-.05180	19.070	.36875	-1.3708
#2	-.65226	-1.7203	-.03879	16.007	.49997	2.7509
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	V	Zn
Units	ppb	ppb
Avg	-1.0289	-2.7117
Stddev	.0806	.2031
%RSD	7.8360	7.4878
#1	-.97187	-2.8553
#2	-1.0859	-2.5682
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Sample Name: ICSA Acquired: 12/11/2007 17:15:35 Type: QC
Method: TRACEPB(v4) 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	40348.	28816.	553680.
Stddev	25.	209.	651.
%RSD	.06247	.72522	.11765
#1	40330.	28964.	554140.
#2	40366.	28669.	553220.

Sample Name: ICSAB Acquired: 12/11/2007 17:19:09 Type: QC
Method: TRACEPB(v4) 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	211.26	484890.	109.44	927.27	501.32	495.47	504810.
Stddev	1.23	1390.	5.11	.81	3.75	3.09	6404.
%RSD	.58424	.28656	4.6687	.08709	.74806	.62318	1.2686
#1	212.13	485870.	105.83	927.84	503.97	497.66	509340.
#2	210.39	483900.	113.05	926.70	498.66	493.29	500290.
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	934.40	460.12	485.11	F 348.7	F 771.8	F 719.8	182070.
Stddev	.16	.04	1.83	.2	3.3	8.8	495.
%RSD	.01667	.00907	.37734	.0578	.4258	1.224	.27205
#1	934.51	460.15	486.40	348.6	774.2	726.0	182420.
#2	934.29	460.09	483.81	348.9	769.5	713.5	181720.
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	4534.8	251300.	229900.	487.51	907.01	9622.1	926.55
Stddev	22.3	3104.	782.	2.80	.67	23.0	1.37
%RSD	.49130	1.235	.3400	.57520	.07410	.23934	.14786
#1	4550.5	249100.	229400.	489.49	906.54	9638.4	927.52
#2	4519.0	253500.	230500.	485.52	907.49	9605.8	925.58
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: ICSAB Acquired: 12/11/2007 17:19:09 Type: QC
Method: TRACEPB(v4) 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	57.726	601.45	53.060	1196.3	886.76	500.61	213.62
Stddev	.011	3.05	.004	3.8	2.78	.36	1.96
%RSD	.01883	.50714	.00778	.32120	.31336	.07112	.91779
#1	57.733	599.29	53.057	1199.0	888.72	500.87	212.23
#2	57.718	603.60	53.063	1193.6	884.79	500.36	215.01
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	927.48	94.981	492.79	1058.4
Stddev	5.16	.416	2.89	.7
%RSD	.55587	.43781	.58684	.06397
#1	931.13	94.687	494.83	1058.0
#2	923.83	95.275	490.74	1058.9
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	40297.	28547.	550580.
Stddev	117.	70.	2208.
%RSD	.29033	.24670	.40106
#1	40214.	28597.	549020.
#2	40379.	28498.	552140.

Sample Name: LR Acquired: 12/11/2007 17:23:04 Type: QC
Method: TRACEPB(v4) 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	1017.0	-62.691	2044.2	4992.5	9381.3	484.52	10.629
Stddev	2.4	4.162	.9	1.6	3.7	3.96	3.023
%RSD	.23142	6.6381	.04299	.03299	.03955	.81756	28.439
#1	1018.6	-65.634	2043.6	4991.4	9383.9	487.32	8.4916
#2	1015.3	-59.748	2044.8	4993.7	9378.7	481.72	12.766
Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
Value							
Range							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2025.7	9997.3	10215.	F 10910.	F 9846.	F 9985.	459970.
Stddev	1.7	7.2	46.	4.	14.	14.	11840.
%RSD	.08188	.07172	.44563	.0389	.1462	.1368	2.5741
#1	2026.8	10002.	10247.	10910.	9836.	9995.	451600.
#2	2024.5	9992.3	10182.	10910.	9856.	9976.	468350.
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	-327.08	F 136.0	F 162.8	9640.6	9964.3	-172.38	7530.4
Stddev	20.65	.7	.5	73.2	9.0	2.44	8.2
%RSD	6.3122	.5157	.2990	.75951	.09060	1.4178	.10843
#1	-312.48	136.5	163.1	9692.4	9970.7	-174.11	7536.2
#2	-341.68	135.5	162.4	9588.8	9957.9	-170.65	7524.7
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: 12/11/2007 17:23:04 Type: QC
Method: TRACEPB(v4) 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	20118.	5074.2	2020.3	10919.	10030.	1946.6	359.04
Stddev	14.	5.6	5.9	10.	11.	12.8	.53
%RSD	.06900	.11076	.29232	.09246	.10547	.65874	.14851
#1	20128.	5078.1	2016.1	10911.	10038.	1955.6	359.42
#2	20109.	5070.2	2024.5	10926.	10023.	1937.5	358.67
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
Value							
Range							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	9818.2	2030.3	10158.	9954.6
Stddev	7.9	2.8	30.	.9
%RSD	.08026	.13886	.29200	.00910
#1	9823.7	2028.3	10179.	9953.9
#2	9812.6	2032.3	10137.	9955.2
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	41930.	28768.	585250.
Stddev	67.	491.	1921.
%RSD	.16047	1.7077	.32817
#1	41882.	29115.	583890.
#2	41977.	28421.	586600.

Sample Name: PBLK Acquired: 12/11/2007 17:27:01 Type: QC
Method: TRACEPB(v4) 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	-.09507	5.7434	.13777	4.4174	.12153	.01419	-11.579	-.02750
Stddev	.12895	14.456	.13390	.0548	.20721	.00047	3.116	.05140
%RSD	135.63	251.69	97.192	1.2406	170.50	3.3173	26.911	186.91
#1	-.18625	15.965	.04309	4.4562	-.02499	.01452	-9.3755	.00885
#2	-.00389	-4.4783	.23245	4.3787	.26805	.01386	-13.782	-.06385
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	-.24250	.08436	-1.129	.0232	F 4.465	21.821	-204.52	-2.380
Stddev	.08745	.21797	1.156	1.023	4.721	8.348	46.43	1.645
%RSD	36.060	258.38	102.4	4402.	105.7	38.258	22.704	69.12
#1	-.30434	-.06977	-.3119	-.7002	7.803	27.725	-237.36	-1.217
#2	-.18067	.23849	-1.946	.7467	1.127	15.918	-171.69	-3.544
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
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 -7.995	.09949	2.5344	-103.49	-.32223	.04136	-.71246	1.5325
Stddev	2.247	.14943	.5365	4.19	.11366	.85552	.22833	1.9598
%RSD	28.11	150.20	21.169	4.0468	35.272	2068.3	32.048	127.88
#1	-6.405	-.00617	2.9137	-100.53	-.24187	-.56358	-.55101	2.9183
#2	-9.584	.20516	2.1550	-106.45	-.40260	.64631	-.87391	.14676
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: 12/11/2007 17:27:01 Type: QC
Method: TRACEPB(v4) 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	6.8625	.20907	-.02009	.56566	.02290	.93520	-.17633	-.62162
Stddev	1.5821	.14032	.04677	.43950	.13451	1.4303	.06544	.03158
%RSD	23.054	67.117	232.84	77.697	587.32	152.94	37.112	5.0800
#1	7.9812	.30830	-.05316	.87644	-.07221	-.07615	-.22260	-.59929
#2	5.7438	.10985	.01298	.25488	.11801	1.9466	-.13006	-.64395
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	43362.	28097.	592710.
Stddev	147.	644.	1524.
%RSD	.33887	2.2937	.25713
#1	43258.	27642.	591640.
#2	43466.	28553.	593790.

Sample Name: CCV Acquired: 12/11/2007 17:30:27 Type: QC
Method: TRACEPB(v4) 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	513.53	49358.	511.24	513.66	492.05	50.229	96623.
Stddev	4.60	1657.	3.58	1.19	.77	.498	3146.
%RSD	.89576	3.3561	.70012	.23174	.15701	.99116	3.2562
#1	516.78	48187.	508.71	512.82	492.59	50.581	94399.
#2	510.27	50530.	513.77	514.50	491.50	49.877	98848.
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	495.25	492.29	502.59	F 593.5	549.7	F 557.6	47255.
Stddev	1.36	1.21	4.66	3.5	4.6	2.1	1432.
%RSD	.27559	.24526	.92716	.5941	.8346	.3722	3.0311
#1	494.29	491.44	505.89	591.0	546.5	559.1	46242.
#2	496.22	493.15	499.30	596.0	553.0	556.2	48268.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	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	ppb	ppb	ppb	ppb	ppb
Avg	24360.	96360.	101900.	495.22	504.45	98198.	491.18
Stddev	772.	2667.	3499.	5.33	1.85	3375.	1.45
%RSD	3.1701	2.768	3.435	1.0757	.36662	3.4368	.29529
#1	23814.	94480.	99400.	498.99	503.14	95812.	490.16
#2	24906.	98250.	104300.	491.45	505.76	100580.	492.21
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV Acquired: 12/11/2007 17:30:27 Type: QC
Method: TRACEPB(v4) 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	494.53	510.01	508.45	520.51	497.83	494.61	505.07
Stddev	.95	.09	5.82	7.95	1.45	1.90	1.77
%RSD	.19253	.01667	1.1448	1.5278	.29101	.38411	.34950
#1	493.86	510.07	504.33	526.14	496.80	495.95	503.82
#2	495.20	509.94	512.56	514.89	498.85	493.26	506.32
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	511.99	497.10	503.75	F 603.57
Stddev	5.07	3.09	5.39	1.60
%RSD	.99112	.62259	1.0702	.26511
#1	515.58	494.91	507.56	602.43
#2	508.40	499.29	499.94	604.70
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	41918.	29091.	576440.
Stddev	166.	781.	5453.
%RSD	.39591	2.6848	.94594
#1	42035.	29643.	572580.
#2	41801.	28539.	580290.

Sample Name: CCB Acquired: 12/11/2007 17:34:04 Type: QC
Method: TRACEPB(v4) 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	-.08493	-5.8708	-.06719	1.0968	-.49207	-.01793	-25.482	-.05504
Stddev	.18933	3.5674	1.6905	.5015	.01663	.00529	1.228	.04657
%RSD	222.93	60.765	2516.1	45.726	3.3800	29.518	4.8172	84.609
#1	.04895	-3.3483	1.1282	1.4515	-.50383	-.01419	-24.614	-.08797
#2	-.21880	-8.3934	-1.2626	.74218	-.48031	-.02167	-26.350	-.02211
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	-.79037	-.43020	-.7278	-.2796	F 6.922	-16.138	-170.93	F -6.993
Stddev	.15396	.13997	1.168	.2317	5.023	1.258	26.70	2.263
%RSD	19.479	32.535	160.5	82.85	72.56	7.7954	15.621	32.36
#1	-.89923	-.52917	-1.554	-.1158	10.47	-15.249	-152.05	-5.393
#2	-.68150	-.33123	.0983	-.4434	3.370	-17.028	-189.81	-8.594
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 -12.22	-.48615	-.43439	-31.262	-.62395	-.26782	-.29196	-.12109
Stddev	3.06	.01059	.21462	11.529	.19768	1.1914	.02998	2.0015
%RSD	25.00	2.1780	49.406	36.880	31.681	444.84	10.267	1652.9
#1	-10.06	-.49364	-.58614	-23.110	-.48418	.57461	-.27077	1.2942
#2	-14.39	-.47867	-.28263	-39.415	-.76373	-1.1103	-.31316	-1.5364
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: 12/11/2007 17:34:04 Type: QC
Method: TRACEPB(v4) 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	-1.2135	-.39227	-.12384	3.2860	-.55338	.69393	-.35923	-1.4332
Stddev	.7594	.00138	.00206	.0624	.00925	.53139	.07774	.0945
%RSD	62.581	.35133	1.6659	1.8980	1.6724	76.577	21.640	6.5933
#1	-1.7505	-.39325	-.12529	3.2419	-.54684	1.0697	-.41420	-1.5000
#2	-.67651	-.39130	-.12238	3.3301	-.55992	.31818	-.30426	-1.3664
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	43249.	28300.	588680.
Stddev	301.	33.	1648.
%RSD	.69528	.11655	.27990
#1	43462.	28324.	587520.
#2	43037.	28277.	589850.

Sample Name: BLK 101 Acquired: 12/11/2007 17:37:30 Type: QC
Method: TRACEPB(v4) 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	.02018	1.0020	-3.5684	1.6102	-.46531	-.00125	-12.649
Stddev	.02784	3.5925	.0137	.4709	.01732	.00426	5.119
%RSD	137.96	358.53	.38306	29.242	3.7217	339.98	40.467
#1	.00049	3.5422	-3.5781	1.2773	-.45306	.00176	-9.0299
#2	.03986	-1.5383	-3.5588	1.9432	-.47755	-.00427	-16.269
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	ppb	ppb	ppb
Avg	-.34595	-1.3602	1.4670	-.3407	-.0893	F 9.720	-15.361
Stddev	.02100	.0855	.0817	.9152	.0464	3.303	2.754
%RSD	6.0690	6.2860	5.5716	268.6	52.00	33.98	17.926
#1	-.36080	-1.2997	1.5248	.3064	-.0565	12.06	-13.414
#2	-.33111	-1.4206	1.4092	-.9879	-.1221	7.385	-17.308
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						3.000	
Low Limit						-3.000	

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-153.25	F -12.02	F -18.65	-.42425	-.36722	-71.858	-.91137
Stddev	23.63	.76	2.49	.04765	.02659	13.761	.42280
%RSD	15.421	6.298	13.35	11.232	7.2417	19.151	46.392
#1	-136.54	-11.48	-16.89	-.45794	-.34842	-62.127	-.61240
#2	-169.96	-12.55	-20.42	-.39056	-.38602	-81.589	-1.2103
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		3.000	3.000				
Low Limit		-3.000	-3.000				

Sample Name: BLK 101 Acquired: 12/11/2007 17:37:30 Type: QC
Method: TRACEPB(v4) 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	-1.5525	.82900	1.3210	7.1751	F 26.865	-.14170	1.4568
Stddev	1.1507	.66505	1.3196	.6058	.575	.00327	1.9879
%RSD	74.117	80.223	99.896	8.4437	2.1400	2.3091	136.46
#1	-2.3662	.35874	.38787	6.7467	26.458	-.13939	.05107
#2	-.73886	1.2993	2.2541	7.6035	27.271	-.14402	2.8624
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	-.02760	-2.8802	-.57168	5.4063
Stddev	.11872	.8518	.06417	.0495
%RSD	430.10	29.573	11.225	.91585
#1	-.11155	-3.4825	-.61706	5.3713
#2	.05635	-2.2779	-.52631	5.4413
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	41371.	26731.	579720.
Stddev	45.	1545.	8739.
%RSD	.10960	5.7780	1.5074
#1	41403.	25639.	573540.
#2	41339.	27823.	585900.

Sample Name: BKS 101 Acquired: 12/11/2007 17:40:56 Type: QC
Method: TRACEPB(v4) 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	**103.21**	**10323.**	**98.884**	**969.29**	**1023.3**	**51.697**	**10074.**
Stddev	.49	39.	1.896	3.51	1.1	.341	28.
%RSD	.47293	.37951	1.9173	.36230	.10928	.65888	.27978
#1	103.56	10350.	97.544	971.77	1022.5	51.938	10094.
#2	102.87	10295.	100.22	966.80	1024.1	51.456	10054.
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	**104.57**	**512.35**	**532.18**	F **572.4**	F **961.2**	F **501.8**	**10013.**
Stddev	.62	1.44	2.47	2.5	4.1	4.8	7.
%RSD	.59288	.28171	.46406	.4346	.4258	.9515	.06493
#1	105.00	513.37	533.92	574.1	964.1	498.4	10017.
#2	104.13	511.33	530.43	570.6	958.3	505.2	10008.
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	ppb	ppb	ppb	ppb	ppb
Avg	**9874.8**	F **10260.**	F **11380.**	**1033.6**	**526.11**	**10109.**	**521.91**
Stddev	41.5	.	11.	6.0	3.09	16.	1.78
%RSD	.42045	.0018	.0980	.57762	.58790	.15876	.34061
#1	9904.1	10260.	11390.	1037.8	528.30	10098.	523.16
#2	9845.4	10260.	11370.	1029.3	523.92	10121.	520.65
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 101 Acquired: 12/11/2007 17:40:56 Type: QC
Method: TRACEPB(v4) 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	**1027.8**	**97.647**	**97.232**	**8516.3**	**546.61**	F **1025.5**	**384.28**
Stddev	2.9	.298	3.096	50.6	2.70	3.4	1.29
%RSD	.27786	.30548	3.1846	.59456	.49398	.32822	.33677
#1	1029.8	97.436	95.042	8552.1	548.52	1027.9	385.19
#2	1025.7	97.858	99.421	8480.5	544.70	1023.2	383.36
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	**2086.4**	**101.67**	**528.69**	**1028.2**
Stddev	12.5	.69	3.71	5.6
%RSD	.59790	.67525	.70110	.54914
#1	2095.3	102.16	531.31	1032.1
#2	2077.6	101.18	526.07	1024.2
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	41288.	27444.	573250.
Stddev	150.	4.	3690.
%RSD	.36364	.01532	.64369
#1	41182.	27447.	570640.
#2	41394.	27441.	575860.

Sample Name: S 711053-001-001-1/1 Acquired: 12/11/2007 17:44:31 Type: Unk
Method: TRACEPB(v4) 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	.57848	35991.	15.468	-2.9839	44.099	2.6836	2221.8
Stddev	.49413	469.	2.878	.1124	.480	.0478	32.8
%RSD	85.419	1.3036	18.609	3.7662	1.0877	1.7808	1.4777
#1	.22908	35659.	17.504	-3.0634	44.438	2.7174	2198.6
#2	.92789	36323.	13.433	-2.9045	43.759	2.6498	2245.0

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.6880	14.368	557.56	297.7	310.8	195.4	253690.
Stddev	.5386	.147	8.85	4.2	2.4	3.3	4106.
%RSD	31.908	1.0227	1.5872	1.399	.7615	1.683	1.6184
#1	2.0689	14.471	563.82	300.6	309.1	197.7	250790.
#2	1.3072	14.264	551.30	294.7	312.4	193.1	256590.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	605.50	1715.	1938.	558.35	2.9525	-24.364	72.257
Stddev	.12	25.	30.	7.69	.1393	.081	.979
%RSD	.01957	1.443	1.561	1.3773	4.7173	.33307	1.3549
#1	605.58	1698.	1917.	563.79	3.0509	-24.307	72.950
#2	605.42	1733.	1960.	552.91	2.8540	-24.422	71.565

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	41.307	-1.6742	5.6576	594.37	4.9167	59.754	38.077
Stddev	.026	.6499	1.6868	8.85	.0055	.808	.002
%RSD	.06255	38.818	29.816	1.4898	.11175	1.3522	.00474
#1	41.289	-2.1337	4.4648	600.63	4.9128	60.326	38.076
#2	41.326	-1.2146	6.8503	588.11	4.9206	59.183	38.078

Sample Name: S 711053-001-001-1/1 Acquired: 12/11/2007 17:44:31 Type: Unk
Method: TRACEPB(v4) 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	13337.	.66107	589.70	121.11
Stddev	271.	.13372	8.92	2.63
%RSD	2.0327	20.227	1.5135	2.1683
#1	13529.	.56652	596.01	122.97
#2	13145.	.75562	583.39	119.26

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	42740.	28386.	588310.
Stddev	10.	512.	2903.
%RSD	.02379	1.8030	.49342
#1	42747.	28748.	586260.
#2	42733.	28024.	590370.

Sample Name: SP711053-001-001-1/1 Acquired: 12/11/2007 17:47:57 Type: Unk
Method: TRACEPB(v4) 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	**11.554**	**48205.**	**24.851**	**88.779**	**164.82**	^ *****	**3324.7**
Stddev	.019	458.	2.393	1.300	2.22	-----	19.5
%RSD	.16618	.94922	9.6298	1.4642	1.3494	-----	.58688
#1	11.568	48529.	23.159	89.698	166.39	6.0011	3338.5
#2	11.541	47882.	26.543	87.860	163.24	^ -----	3310.9

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**11.365**	**63.973**	**623.43**	**360.3**	**386.4**	**255.9**	**262070.**
Stddev	.228	.536	7.52	4.3	3.1	3.5	2282.
%RSD	2.0097	.83826	1.2060	1.190	.8122	1.374	.87062
#1	11.526	64.352	628.75	363.3	388.6	258.4	263680.
#2	11.203	63.593	618.12	357.2	384.2	253.4	260460.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1683.1**	**2929.**	**3307.**	**679.41**	**44.821**	**1042.0**	**145.16**
Stddev	39.1	29.	31.	8.46	.960	12.2	1.14
%RSD	2.3211	.9836	.9485	1.2445	2.1416	1.1664	.78523
#1	1710.7	2949.	3329.	685.39	45.500	1050.6	145.96
#2	1655.4	2909.	3285.	673.44	44.143	1033.4	144.35

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**142.86**	**3.9913**	**14.238**	**773.29**	**52.826**	**188.10**	**78.056**
Stddev	2.95	.4022	.429	7.15	.469	2.44	2.102
%RSD	2.0649	10.076	3.0099	.92434	.88705	1.2974	2.6934
#1	144.95	3.7070	13.935	778.34	53.158	189.82	76.569
#2	140.78	4.2757	14.541	768.23	52.495	186.37	79.542

Sample Name: SP711053-001-001-1/1 Acquired: 12/11/2007 17:47:57 Type: Unk
Method: TRACEPB(v4) 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	**14198.**	**13.311**	**658.03**	**229.46**
Stddev	159.	.908	8.48	2.49
%RSD	1.1211	6.8196	1.2883	1.0862
#1	14311.	13.953	664.03	231.22
#2	14085.	12.669	652.04	227.70

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	42629.	27932.	582210.
Stddev	184.	83.	1289.
%RSD	.43062	.29719	.22145
#1	42499.	27873.	583120.
#2	42759.	27990.	581300.

Sample Name: SD711053-001-001-1/1 Acquired: 12/11/2007 17:51:21 Type: Unk
Method: TRACEPB(v4) 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	**10.979**	**47536.**	**22.869**	**90.984**	**163.55**	^ *****	**3261.4**
Stddev	.263	732.	.644	.162	.07	-----	33.3
%RSD	2.3973	1.5401	2.8162	.17817	.04414	-----	1.0211
#1	11.165	48054.	22.413	90.870	163.50	^ -----	3285.0
#2	10.793	47019.	23.324	91.099	163.60	^ -----	3237.9

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**12.747**	**67.469**	**622.23**	**365.9**	**386.1**	**257.3**	**258240.**
Stddev	.267	.037	1.46	2.5	2.0	11.2	3041.
%RSD	2.0912	.05463	.23484	.6872	.5292	4.368	1.1774
#1	12.559	67.443	621.20	364.1	387.6	265.2	260390.
#2	12.936	67.495	623.26	367.7	384.7	249.4	256090.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1607.6**	**2874.**	**3251.**	**676.67**	**46.085**	**1019.7**	**148.95**
Stddev	62.0	43.	45.	1.24	.037	26.6	.14
%RSD	3.8595	1.511	1.369	.18318	.08030	2.6077	.09689
#1	1651.5	2905.	3283.	675.80	46.111	1038.5	148.85
#2	1563.7	2844.	3220.	677.55	46.059	1000.9	149.06

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**150.68**	**6.1462**	**11.967**	**841.30**	**53.686**	**187.46**	**72.456**
Stddev	1.20	1.0445	1.236	3.24	.743	.23	.538
%RSD	.79740	16.994	10.327	.38556	1.3847	.12480	.74192
#1	149.83	5.4076	12.841	839.00	53.161	187.30	72.836
#2	151.53	6.8847	11.093	843.59	54.212	187.63	72.076

Sample Name: SD711053-001-001-1/1 Acquired: 12/11/2007 17:51:21 Type: Unk
Method: TRACEPB(v4) 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	14142.	11.540	656.43	238.04
Stddev	72.	1.138	1.35	.71
%RSD	.50778	9.8621	.20524	.29848
#1	14092.	12.345	655.48	237.54
#2	14193.	10.736	657.38	238.55

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	42220.	28023.	583220.
Stddev	99.	313.	2406.
%RSD	.23480	1.1177	.41259
#1	42290.	27801.	584920.
#2	42150.	28244.	581520.

Sample Name: PS711053-001-001-1/1 Acquired: 12/11/2007 17:54:46 Type: Unk
Method: TRACEPB(v4) 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	**47.816**	**35232.**	**103.57**	**73.834**	**64.780**	**10.930**	**7488.3**
Stddev	.320	275.	2.24	.150	.465	.058	85.2
%RSD	.66828	.77978	2.1672	.20297	.71827	.53251	1.1379
#1	48.042	35427.	105.16	73.940	65.109	10.971	7548.5
#2	47.590	35038.	101.99	73.728	64.451	10.889	7428.0

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**24.476**	**47.405**	**556.72**	**322.4**	**636.9**	**222.0**	**242460.**
Stddev	.206	.368	1.31	.7	2.9	3.3	2639.
%RSD	.84044	.77709	.23515	.2099	.4513	1.504	1.0884
#1	24.330	47.145	557.64	322.8	638.9	224.3	244330.
#2	24.621	47.666	555.79	321.9	634.9	219.6	240600.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**5922.7**	**7057.**	**7912.**	**621.22**	**35.975**	**5425.1**	**114.78**
Stddev	130.5	72.	65.	3.74	.186	57.2	.18
%RSD	2.2038	1.025	.8228	.60241	.51814	1.0545	.15439
#1	6015.0	7108.	7958.	623.87	35.843	5465.6	114.91
#2	5830.5	7006.	7866.	618.58	36.106	5384.7	114.66

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**130.10**	**88.918**	**81.707**	**6020.3**	**114.82**	**79.701**	**553.66**
Stddev	.55	2.165	1.019	31.5	.82	.421	1.36
%RSD	.42238	2.4354	1.2466	.52402	.71004	.52816	.24633
#1	129.71	90.449	80.987	6042.6	115.40	79.998	552.69
#2	130.48	87.387	82.428	5998.0	114.24	79.403	554.62

Sample Name: PS711053-001-001-1/1 Acquired: 12/11/2007 17:54:46 Type: Unk
Method: TRACEPB(v4) 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	12877.	109.72	587.77	209.01
Stddev	71.	.16	2.99	.15
%RSD	.55043	.14526	.50824	.07310
#1	12927.	109.83	589.89	208.90
#2	12827.	109.60	585.66	209.12

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	42187.	27580.	579560.
Stddev	82.	305.	1809.
%RSD	.19349	1.1043	.31210
#1	42245.	27364.	578280.
#2	42129.	27795.	580840.

Sample Name: SE711053-001-001-1/1 Acquired: 12/11/2007 17:58:10 Type: Unk
Method: TRACEPB(v4) 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	**1.4499**	**7162.5**	**-.73596**	**-2.4291**	**8.3553**	^ *****	**420.02**	**.28230**
Stddev	.7115	25.1	2.5145	1.9292	.0364	-----	7.20	.02359
%RSD	49.068	.35065	341.66	79.420	.43618	-----	1.7132	8.3553
#1	.94685	7144.8	-2.5139	-3.7933	8.3811	-.00611	425.11	.26563
#2	1.9530	7180.3	1.0420	-1.0650	8.3295	^ -----	414.93	.29898

Elem	Co	Cr	Cu2199	Cu2218	Cu3273	Fe	K	Mg2802
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**3.0840**	**110.20**	**60.54**	**64.00**	**39.79**	**51513.**	**-92.576**	**329.5**
Stddev	.9937	1.32	.34	1.97	3.35	162.	27.630	1.0
%RSD	32.220	1.1972	.5610	3.083	8.419	.31538	29.845	.3124
#1	3.7866	111.14	60.30	65.40	42.16	51628.	-73.038	330.3
#2	2.3814	109.27	60.78	62.60	37.43	51398.	-112.11	328.8

Elem	Mg2852	Mn	Mo	Na	Ni	Pb	Sb	Se
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**366.8**	**108.67**	**.35805**	**-92.783**	**13.920**	**5.6330**	**-1.0295**	**-1.1599**
Stddev	2.1	.91	1.4424	6.297	.554	2.0635	1.1597	1.0031
%RSD	.5608	.83465	402.84	6.7863	3.9774	36.633	112.64	86.480
#1	368.3	109.31	1.3780	-97.236	14.311	4.1739	-1.8496	-1.8691
#2	365.4	108.03	-.66186	-88.331	13.528	7.0922	-.20949	-.45060

Elem	Si	Sn	Sr	Te	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**121.93**	**1.6299**	**11.640**	**9.4907**	**2728.1**	**.99129**	**115.69**	**25.794**
Stddev	3.43	2.0440	.048	2.2455	14.6	1.7515	.94	1.378
%RSD	2.8102	125.41	.41519	23.660	.53535	176.68	.81191	5.3403
#1	119.50	3.0751	11.674	11.079	2738.4	2.2298	116.35	26.768
#2	124.35	.18456	11.606	7.9029	2717.7	-.24718	115.02	24.820

Sample Name: SE711053-001-001-1/1 Acquired: 12/11/2007 17:58:10 Type: Unk
Method: TRACEPB(v4) 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	41545.	27045.	548310.
Stddev	1874.	335.	5833.
%RSD	4.5117	1.2399	1.0638
#1	40220.	27282.	552440.
#2	42871.	26808.	544190.

Sample Name: S 711053-002-002-1/1 Acquired: 12/11/2007 18:01:28 Type: Unk
Method: TRACEPB(v4) 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	**.27559**	**27030.**	**16.939**	**-5.2132**	**47.282**	**2.7782**	**988.63**
Stddev	.10398	45.	.307	.6721	.314	.0095	.31
%RSD	37.730	.16647	1.8148	12.891	.66457	.34019	.03123
#1	.34912	26999.	16.722	-5.6884	47.504	2.7849	988.41
#2	.20206	27062.	17.156	-4.7380	47.060	2.7715	988.85

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**2.3898**	**18.520**	**523.08**	**353.8**	**347.2**	**241.1**	**268420.**
Stddev	.1379	.524	2.84	1.5	1.7	7.5	103.
%RSD	5.7697	2.8316	.54367	.4363	.4844	3.121	.03855
#1	2.4873	18.891	525.09	354.9	346.0	235.8	268490.
#2	2.2923	18.149	521.07	352.7	348.3	246.4	268340.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**169.71**	**1452.**	**1629.**	**591.21**	**3.4191**	**-60.866**	**72.669**
Stddev	43.80	3.	5.	3.94	.1987	19.135	.259
%RSD	25.810	.2324	.3279	.66656	5.8126	31.438	.35669
#1	200.69	1450.	1633.	594.00	3.2786	-74.396	72.852
#2	138.74	1455.	1625.	588.42	3.5597	-47.336	72.486

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**44.759**	**-1.4694**	**3.4850**	**578.00**	**5.0381**	**57.302**	**40.823**
Stddev	.331	.0354	.0519	3.73	.8393	.409	.055
%RSD	.73988	2.4070	1.4884	.64465	16.659	.71314	.13503
#1	44.524	-1.4944	3.5217	580.64	4.4447	57.591	40.784
#2	44.993	-1.4444	3.4483	575.37	5.6316	57.013	40.862

Sample Name: S 711053-002-002-1/1 Acquired: 12/11/2007 18:01:28 Type: Unk
Method: TRACEPB(v4) 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	13956.	2.9907	680.37	139.68
Stddev	8.	.7495	4.03	.85
%RSD	.05973	25.063	.59167	.61002
#1	13950.	3.5207	683.21	140.28
#2	13962.	2.4607	677.52	139.08

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	42192.	27657.	579620.
Stddev	58.	77.	1083.
%RSD	.13759	.27689	.18683
#1	42151.	27711.	578860.
#2	42233.	27602.	580390.

Sample Name: S 711053-003-003-1/1 Acquired: 12/11/2007 18:04:55 Type: Unk
Method: TRACEPB(v4) 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	.62182	25383.	12.552	-6.9486	36.172	3.5661	1803.6
Stddev	.02237	46.	2.301	.1993	.231	.0510	12.3
%RSD	3.5982	.18206	18.334	2.8679	.63734	1.4304	.68336
#1	.63764	25350.	14.179	-7.0895	36.335	3.6021	1794.9
#2	.60600	25415.	10.925	-6.8077	36.009	3.5300	1812.3

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.3750	20.037	494.59	351.5	332.1	217.6	254260.
Stddev	.1613	.813	2.12	2.0	2.9	12.3	1125.
%RSD	6.7933	4.0552	.42923	.5591	.8781	5.666	.44252
#1	2.4890	20.611	496.09	352.9	330.0	208.9	253470.
#2	2.2609	19.462	493.09	350.1	334.1	226.3	255060.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	283.23	1776.	2000.	721.81	3.6299	-80.217	70.713
Stddev	41.72	3.	3.	4.21	.1492	4.770	.897
%RSD	14.732	.1749	.1692	.58390	4.1112	5.9462	1.2682
#1	253.72	1774.	1998.	724.79	3.5244	-76.844	71.347
#2	312.73	1778.	2003.	718.83	3.7355	-83.590	70.079

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	39.772	-.19907	4.4343	561.82	6.2283	38.211	40.999
Stddev	.562	1.3734	1.8124	10.90	.7285	.278	1.513
%RSD	1.4129	689.91	40.872	1.9405	11.697	.72881	3.6911
#1	40.169	.77206	5.7159	569.53	5.7131	38.408	42.069
#2	39.375	-1.1702	3.1527	554.11	6.7434	38.014	39.929

Sample Name: S 711053-003-003-1/1 Acquired: 12/11/2007 18:04:55 Type: Unk
Method: TRACEPB(v4) 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	17042.	1.8950	757.18	167.58
Stddev	34.	.2929	5.28	1.70
%RSD	.20037	15.459	.69697	1.0141
#1	17066.	2.1021	760.91	168.79
#2	17018.	1.6878	753.45	166.38

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	42103.	27967.	577720.
Stddev	31.	200.	874.
%RSD	.07266	.71361	.15125
#1	42081.	28108.	578340.
#2	42125.	27826.	577100.

Sample Name: S 711053-004-004-1/1 Acquired: 12/11/2007 18:08:22 Type: Unk
Method: TRACEPB(v4) 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	**.61345**	**37491.**	**17.222**	**-4.3861**	**178.59**	**2.2069**	**2829.9**
Stddev	.03852	564.	.623	.0065	1.61	.0482	50.7
%RSD	6.2789	1.5046	3.6185	.14725	.90357	2.1844	1.7917
#1	.64068	37890.	17.662	-4.3907	179.73	2.1728	2865.7
#2	.58621	37092.	16.781	-4.3816	177.45	2.2410	2794.0

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**2.0180**	**40.267**	**512.15**	**423.6**	**389.2**	**302.3**	**218470.**
Stddev	.0207	.329	6.69	2.2	5.9	.8	3773.
%RSD	1.0251	.81618	1.3064	.5179	1.513	.2542	1.7269
#1	2.0034	40.499	516.88	425.1	393.3	302.8	221140.
#2	2.0326	40.035	507.42	422.0	385.0	301.7	215800.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1116.9**	**2297.**	**2601.**	**5512.7**	**2.4019**	**-42.933**	**123.42**
Stddev	26.8	30.	39.	115.1	.0116	12.086	1.64
%RSD	2.3998	1.314	1.495	2.0884	.48289	28.150	1.3290
#1	1135.8	2319.	2628.	5594.1	2.4101	-34.387	124.58
#2	1097.9	2276.	2573.	5431.3	2.3937	-51.479	122.26

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**334.21**	**.13136**	**1.9763**	**567.34**	**4.2943**	**74.943**	**34.723**
Stddev	3.56	1.5580	2.6038	6.70	.0854	.633	.532
%RSD	1.0638	1186.0	131.75	1.1810	1.9888	.84499	1.5331
#1	336.72	-.97028	3.8174	572.08	4.2339	75.391	34.346
#2	331.69	1.2330	.13515	562.60	4.3546	74.495	35.099

Sample Name: S 711053-004-004-1/1 Acquired: 12/11/2007 18:08:22 Type: Unk
Method: TRACEPB(v4) 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	11302.	1.4303	547.41	208.29
Stddev	185.	.5998	5.50	1.43
%RSD	1.6391	41.938	1.0050	.68563
#1	11433.	1.8545	551.30	209.30
#2	11171.	1.0062	543.52	207.28

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	42086.	27198.	578550.
Stddev	144.	343.	4235.
%RSD	.34138	1.2603	.73204
#1	41984.	26955.	575550.
#2	42187.	27440.	581540.

Sample Name: CCV Acquired: 12/11/2007 18:11:54 Type: QC
Method: TRACEPB(v4) 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	515.34	48980.	508.91	509.10	495.29	50.586	95842.
Stddev	2.56	1580.	8.61	7.47	2.59	.326	3235.
%RSD	.49635	3.2248	1.6925	1.4666	.52301	.64423	3.3750
#1	517.15	47863.	515.00	514.37	497.12	50.816	93554.
#2	513.53	50097.	502.82	503.82	493.45	50.355	98129.
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	496.60	495.02	506.40	F 593.6	F 550.4	534.3	46697.
Stddev	5.84	5.33	3.33	5.4	.3	.9	1575.
%RSD	1.1768	1.0772	.65659	.9020	.0510	.1707	3.3731
#1	500.73	498.79	508.75	597.4	550.6	533.7	45584.
#2	492.47	491.25	504.05	589.8	550.2	535.0	47811.
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	24180.	95670.	100800.	499.23	504.88	97592.	493.65
Stddev	886.	3112.	3286.	3.31	6.51	3172.	6.53
%RSD	3.6639	3.253	3.259	.66380	1.2885	3.2507	1.3238
#1	23554.	93470.	98510.	501.58	509.48	95349.	498.27
#2	24807.	97870.	103200.	496.89	500.28	99835.	489.03
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV Acquired: 12/11/2007 18:11:54 Type: QC
Method: TRACEPB(v4) 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	496.45	509.83	508.08	521.41	498.72	498.19	503.48
Stddev	6.59	7.61	2.14	1.82	6.45	5.69	6.34
%RSD	1.3265	1.4919	.42130	.34879	1.2925	1.1419	1.2592
#1	501.10	515.21	509.59	522.69	503.28	502.21	507.96
#2	491.79	504.45	506.57	520.12	494.16	494.17	499.00
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	515.98	496.56	506.56	F 601.37
Stddev	3.09	2.52	3.56	7.87
%RSD	.59889	.50722	.70346	1.3087
#1	518.16	498.34	509.08	606.94
#2	513.79	494.78	504.04	595.81
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	41035.	27988.	563280.
Stddev	218.	849.	2933.
%RSD	.53177	3.0329	.52063
#1	40881.	28588.	561200.
#2	41190.	27387.	565350.

Sample Name: CCB Acquired: 12/11/2007 18:15:29 Type: QC
Method: TRACEPB(v4) 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	.02502	-1.0052	-.55943	-.76603	-.45788	-.02507	-24.518	-.06412
Stddev	.07756	21.973	.75863	.20264	.01344	.00186	1.529	.01673
%RSD	309.94	2185.9	135.61	26.454	2.9352	7.4359	6.2374	26.097
#1	-.02982	-16.542	-1.0959	-.62274	-.46738	-.02639	-23.436	-.05229
#2	.07986	14.532	-.02300	-.90932	-.44838	-.02376	-25.599	-.07595
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	-.89976	-.35778	-1.955	-1.201	F 14.95	-3.4527	-245.76	-1.341
Stddev	.13099	.25664	1.279	.021	6.45	8.1739	2.96	2.376
%RSD	14.558	71.730	65.42	1.788	43.14	236.74	1.2049	177.2
#1	-.99239	-.53925	-2.859	-1.216	10.39	2.3271	-243.67	.3394
#2	-.80714	-.17631	-1.050	-1.186	19.50	-9.2325	-247.85	-3.021
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
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	-2.057	-.29330	-.83232	-31.226	-.80339	-1.8401	1.4239	-2.2893
Stddev	3.635	.08618	.06226	4.371	.28962	1.1067	1.8803	2.0843
%RSD	176.7	29.383	7.4808	13.997	36.051	60.145	132.05	91.045
#1	.5132	-.35423	-.87634	-28.136	-.59859	-2.6226	2.7535	-3.7631
#2	-4.628	-.23236	-.78829	-34.317	-1.0082	-1.0575	.09437	-.81548
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: 12/11/2007 18:15:29 Type: QC
Method: TRACEPB(v4) 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	-1.3980	-.33672	-.08236	1.3004	.00801	-.36435	-.52352	-1.2403
Stddev	.7546	.38572	.01996	2.5777	.12245	.03113	.13770	.0051
%RSD	53.973	114.55	24.233	198.22	1528.0	8.5431	26.303	.41241
#1	-1.9316	-.06397	-.09648	3.1231	-.07857	-.34234	-.62090	-1.2367
#2	-.86448	-.60947	-.06825	-.52232	.09460	-.38636	-.42615	-1.2439
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	42764.	27736.	585320.
Stddev	150.	318.	7644.
%RSD	.35148	1.1448	1.3059
#1	42870.	27961.	579920.
#2	42657.	27512.	590730.

Sample Name: S 711053-005-005-1/1 Acquired: 12/11/2007 18:18:56 Type: Unk
Method: TRACEPB(v4) 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	.37563	58022.	21.269	-1.9594	69.983	1.7467	1978.9
Stddev	.03340	1108.	1.152	.2035	1.033	.0548	30.2
%RSD	8.8916	1.9101	5.4145	10.385	1.4761	3.1384	1.5272
#1	.35201	58806.	22.083	-2.1033	70.713	1.7855	2000.2
#2	.39925	57238.	20.454	-1.8155	69.253	1.7080	1957.5

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.5447	15.057	510.74	269.1	326.9	207.1	227010.
Stddev	.0015	.022	8.98	4.0	6.6	6.1	3976.
%RSD	.09579	.14929	1.7581	1.482	2.025	2.941	1.7513
#1	1.5437	15.072	517.09	271.9	331.6	202.8	229820.
#2	1.5458	15.041	504.39	266.2	322.2	211.4	224200.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	453.31	1555.	1757.	769.63	2.5956	6.7509	111.65
Stddev	1.10	29.	28.	11.34	.1434	17.517	1.63
%RSD	.24252	1.864	1.566	1.4735	5.5246	259.48	1.4610
#1	454.09	1576.	1776.	777.65	2.6970	19.137	112.80
#2	452.53	1535.	1737.	761.61	2.4942	-5.6356	110.49

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	62.606	-.65998	5.6355	846.26	4.6622	115.57	37.139
Stddev	.129	.76568	.7484	14.80	.5934	1.77	.127
%RSD	.20658	116.02	13.280	1.7485	12.727	1.5308	.34307
#1	62.514	-1.2014	5.1063	856.73	4.2426	116.83	37.229
#2	62.697	-.11856	6.1647	835.80	5.0818	114.32	37.049

Sample Name: S 711053-005-005-1/1 Acquired: 12/11/2007 18:18:56 Type: Unk
Method: TRACEPB(v4) 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	9832.6	1.4484	530.25	141.95
Stddev	140.6	.6968	8.30	2.57
%RSD	1.4300	48.109	1.5656	1.8117
#1	9932.0	.95567	536.12	143.76
#2	9733.1	1.9411	524.38	140.13

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	42610.	27596.	584020.
Stddev	140.	406.	2814.
%RSD	.32955	1.4710	.48189
#1	42510.	27309.	582030.
#2	42709.	27883.	586010.

Sample Name: S 711053-006-006-1/1 Acquired: 12/11/2007 18:22:24 Type: Unk
Method: TRACEPB(v4) 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	**.60906**	**37006.**	**15.337**	**-3.6648**	**47.840**	**2.3177**	**1306.0**
Stddev	.03770	599.	1.637	.5367	.135	.0136	19.3
%RSD	6.1899	1.6195	10.675	14.645	.28236	.58601	1.4745
#1	.63572	37430.	16.495	-3.2853	47.935	2.3274	1319.6
#2	.58241	36582.	14.179	-4.0443	47.744	2.3081	1292.4

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**2.6145**	**13.773**	**465.51**	**293.7**	**344.1**	**194.4**	**270100.**
Stddev	.2330	.004	.54	1.5	3.8	5.3	3887.
%RSD	8.9116	.03187	.11557	.5128	1.107	2.748	1.4390
#1	2.4498	13.777	465.89	292.7	346.8	190.6	272840.
#2	2.7793	13.770	465.13	294.8	341.4	198.2	267350.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**8.0938**	**1107.**	**1243.**	**559.16**	**3.5789**	**-82.313**	**70.027**
Stddev	69.384	19.	16.	1.51	.3339	10.410	.083
%RSD	857.25	1.683	1.318	.27022	9.3300	12.647	.11893
#1	57.156	1121.	1255.	560.23	3.3428	-89.674	70.086
#2	-40.968	1094.	1232.	558.09	3.8150	-74.952	69.968

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**45.283**	**.23861**	**6.9381**	**1133.2**	**5.3708**	**68.995**	**37.710**
Stddev	.580	2.3180	2.4658	2.0	.3645	.112	.573
%RSD	1.2804	971.43	35.541	.17696	6.7865	.16281	1.5185
#1	45.692	-1.4004	8.6817	1134.6	5.1131	69.074	38.115
#2	44.873	1.8777	5.1945	1131.7	5.6285	68.915	37.305

Sample Name: S 711053-006-006-1/1 Acquired: 12/11/2007 18:22:24 Type: Unk
Method: TRACEPB(v4) 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	11740.	1.1915	598.18	103.14
Stddev	45.	.2727	1.95	.79
%RSD	.37954	22.889	.32661	.76533
#1	11709.	1.3843	599.56	102.59
#2	11772.	.99864	596.79	103.70

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	42004.	27523.	581080.
Stddev	137.	354.	988.
%RSD	.32550	1.2849	.17003
#1	42101.	27273.	581780.
#2	41907.	27773.	580390.

Sample Name: S 711053-007-007-1/1 Acquired: 12/11/2007 18:25:51 Type: Unk
Method: TRACEPB(v4) 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	.71085	40084.	15.791	-1.8683	92.840	^ *****	3550.7
Stddev	.08749	246.	1.416	.5675	.945	-----	26.3
%RSD	12.308	.61455	8.9639	30.376	1.0177	-----	.74169
#1	.77272	39909.	14.791	-2.2696	93.508	^ -----	3532.1
#2	.64898	40258.	16.792	-1.4670	92.172	1.9776	3569.4

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.4130	26.824	437.65	305.8	307.8	211.9	205380.
Stddev	.0596	.146	2.13	4.7	1.2	6.8	867.
%RSD	4.2211	.54512	.48634	1.547	.4027	3.186	.42190
#1	1.3708	26.928	439.16	309.1	308.6	207.1	204770.
#2	1.4551	26.721	436.15	302.4	306.9	216.7	205990.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	852.95	2263.	2552.	2907.9	1.9690	-14.631	105.33
Stddev	26.83	9.	17.	16.8	.4981	11.130	.70
%RSD	3.1458	.4145	.6661	.57744	25.295	76.070	.66357
#1	871.92	2256.	2540.	2919.8	1.6168	-6.7612	105.83
#2	833.98	2270.	2564.	2896.0	2.3212	-22.501	104.84

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	41.242	-1.1114	3.7397	550.71	4.2591	70.445	33.504
Stddev	1.068	1.5224	.0774	4.10	.6688	.514	1.117
%RSD	2.5905	136.98	2.0694	.74408	15.703	.72910	3.3339
#1	41.998	-.03489	3.7944	553.61	4.7320	70.809	34.294
#2	40.487	-2.1879	3.6850	547.81	3.7862	70.082	32.714

Sample Name: S 711053-007-007-1/1 Acquired: 12/11/2007 18:25:51 Type: Unk
Method: TRACEPB(v4) 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	10521.	2.3395	506.07	170.50
Stddev	168.	2.9312	4.13	2.33
%RSD	1.5945	125.29	.81598	1.3639
#1	10640.	.26685	508.99	172.14
#2	10403.	4.4122	503.15	168.85

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	42028.	27563.	582080.
Stddev	50.	286.	3044.
%RSD	.11897	1.0359	.52292
#1	41993.	27765.	584230.
#2	42064.	27361.	579930.

Sample Name: S 711053-008-008-1/1 Acquired: 12/11/2007 18:29:23 Type: Unk
Method: TRACEPB(v4) 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	.40215	32939.	15.193	-3.7098	54.791	^ *****	2904.1
Stddev	.31039	12.	1.179	.2722	.287	-----	.8
%RSD	77.181	.03678	7.7610	7.3382	.52419	-----	.02670
#1	.18268	32947.	16.027	-3.9023	54.994	^ -----	2904.7
#2	.62163	32930.	14.359	-3.5173	54.588	^ -----	2903.6

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.1291	25.608	443.88	327.8	321.0	225.7	206670.
Stddev	.1461	.323	2.25	.1	1.3	.7	553.
%RSD	6.8606	1.2623	.50624	.0364	.3923	.3099	.26770
#1	2.2323	25.380	445.47	327.9	321.9	225.2	207060.
#2	2.0258	25.837	442.29	327.7	320.1	226.2	206270.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	672.77	2189.	2470.	1154.6	2.6279	-69.520	82.330
Stddev	18.76	7.	2.	8.0	.1475	3.117	.325
%RSD	2.7889	.3413	.0722	.69362	5.6135	4.4837	.39481
#1	686.04	2194.	2469.	1160.2	2.5236	-67.316	82.100
#2	659.50	2183.	2471.	1148.9	2.7322	-71.724	82.560

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	78.897	.00672	3.3201	603.17	4.4658	70.339	31.666
Stddev	.987	.28852	1.5565	4.96	.8472	.399	.658
%RSD	1.2512	4294.3	46.880	.82284	18.970	.56734	2.0795
#1	79.595	.21073	2.2195	606.68	5.0649	70.621	32.131
#2	78.199	-.19729	4.4207	599.66	3.8668	70.057	31.200

Sample Name: S 711053-008-008-1/1 Acquired: 12/11/2007 18:29:23 Type: Unk
Method: TRACEPB(v4) 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	12708.	.88263	575.11	191.76
Stddev	91.	.69315	3.37	.28
%RSD	.71810	78.532	.58523	.14365
#1	12773.	1.3728	577.49	191.95
#2	12644.	.39250	572.73	191.56

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	41955.	27398.	575560.
Stddev	110.	12.	3286.
%RSD	.26207	.04528	.57090
#1	41878.	27389.	573230.
#2	42033.	27406.	577880.

Sample Name: S 711053-009-009-1/1 Acquired: 12/11/2007 18:32:50 Type: Unk
Method: TRACEPB(v4) 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	**.68381**	**24548.**	**17.522**	**-6.1022**	**39.857**	**2.9388**	**1645.5**
Stddev	.24317	659.	1.536	.7244	.142	.0730	37.6
%RSD	35.561	2.6842	8.7676	11.870	.35509	2.4830	2.2845
#1	.85576	25014.	18.608	-6.6144	39.757	2.9904	1672.1
#2	.51186	24083.	16.435	-5.5900	39.957	2.8872	1618.9

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**2.6834**	**19.576**	**443.63**	**332.2**	**326.6**	**204.6**	**266710.**
Stddev	.4447	.026	1.49	1.4	8.0	12.2	6617.
%RSD	16.574	.13265	.33617	.4238	2.455	5.943	2.4808
#1	2.3689	19.558	442.58	333.2	332.2	213.2	271390.
#2	2.9978	19.594	444.69	331.2	320.9	196.0	262030.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**284.81**	**1589.**	**1794.**	**650.84**	**3.4401**	**-77.908**	**64.029**
Stddev	75.91	38.	48.	2.61	.1180	.722	.260
%RSD	26.652	2.364	2.663	.40047	3.4314	.92677	.40645
#1	338.49	1616.	1827.	648.99	3.3566	-77.397	64.213
#2	231.14	1563.	1760.	652.68	3.5236	-78.418	63.845

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**49.268**	**-.94257**	**4.5933**	**577.36**	**5.5363**	**40.809**	**40.028**
Stddev	2.136	.44391	2.6749	2.43	.2511	.117	1.992
%RSD	4.3353	47.095	58.234	.42161	4.5356	.28685	4.9762
#1	47.757	-.62868	2.7018	579.08	5.3588	40.726	41.436
#2	50.778	-1.2565	6.4847	575.64	5.7139	40.891	38.619

Sample Name: S 711053-009-009-1/1 Acquired: 12/11/2007 18:32:50 Type: Unk
Method: TRACEPB(v4) 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	14273.	.08066	674.56	147.63
Stddev	15.	.26106	3.32	1.01
%RSD	.10361	323.64	.49227	.68516
#1	14284.	.26526	672.21	146.91
#2	14263.	-.10393	676.91	148.34

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	41526.	27081.	578840.
Stddev	99.	563.	3253.
%RSD	.23805	2.0790	.56202
#1	41596.	26683.	581140.
#2	41456.	27479.	576540.

Sample Name: S 711053-010-010-1/1 Acquired: 12/11/2007 18:36:17 Type: Unk
Method: TRACEPB(v4) 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	**.45816**	**33668.**	**16.618**	**-4.4949**	**48.948**	**2.5322**	**2710.4**
Stddev	.00727	6.	2.745	.3192	.250	.1185	5.1
%RSD	1.5871	.01876	16.520	7.1012	.50977	4.6789	.18765
#1	.46331	33672.	14.677	-4.2692	49.125	2.6160	2706.8
#2	.45302	33663.	18.559	-4.7206	48.772	2.4484	2714.0

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**3.2029**	**15.571**	**465.85**	**312.4**	**318.9**	**191.8**	**272360.**
Stddev	.1181	.119	2.28	1.0	2.7	2.2	386.
%RSD	3.6858	.76435	.48903	.3355	.8557	1.163	.14191
#1	3.2864	15.487	467.47	313.1	317.0	190.2	272080.
#2	3.1194	15.655	464.24	311.6	320.9	193.4	272630.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**422.50**	**1605.**	**1808.**	**579.38**	**3.1998**	**-77.990**	**70.842**
Stddev	46.34	1.	8.	2.63	.3561	.531	.033
%RSD	10.969	.0618	.4528	.45446	11.128	.68047	.04721
#1	455.27	1605.	1802.	581.24	3.4516	-78.365	70.865
#2	389.73	1604.	1813.	577.51	2.9480	-77.615	70.818

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**51.265**	**-1.7891**	**4.7274**	**565.14**	**5.4821**	**54.040**	**38.255**
Stddev	1.605	3.3911	2.7738	5.00	.3813	.192	1.677
%RSD	3.1318	189.54	58.674	.88458	6.9547	.35544	4.3843
#1	50.130	-4.1870	6.6888	568.67	5.2125	54.176	37.069
#2	52.400	.60874	2.7661	561.60	5.7517	53.905	39.441

Sample Name: S 711053-010-010-1/1 Acquired: 12/11/2007 18:36:17 Type: Unk
Method: TRACEPB(v4) 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	12959.	.60108	660.59	134.01
Stddev	21.	.43424	2.73	.68
%RSD	.15822	72.243	.41384	.50544
#1	12973.	.29403	662.52	134.49
#2	12944.	.90814	658.65	133.53

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	41762.	27162.	572230.
Stddev	191.	43.	1221.
%RSD	.45716	.15661	.21330
#1	41627.	27132.	571370.
#2	41897.	27192.	573090.

Sample Name: S 711053-011-011-1/1 Acquired: 12/11/2007 18:39:43 Type: Unk
Method: TRACEPB(v4) 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	.81027	45544.	17.780	-3.7984	68.182	2.1289	1382.9
Stddev	.11235	204.	1.789	.7282	1.262	.0486	8.4
%RSD	13.866	.44817	10.064	19.170	1.8503	2.2826	.60957
#1	.73083	45688.	16.515	-4.3133	69.074	2.1632	1388.8
#2	.88971	45400.	19.045	-3.2835	67.290	2.0945	1376.9

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.7018	56.825	427.50	329.2	324.6	228.9	201100.
Stddev	.0062	.095	8.00	4.6	2.8	5.2	433.
%RSD	.36532	.16744	1.8705	1.385	.8745	2.277	.21529
#1	1.6974	56.758	433.16	332.4	326.6	232.6	201400.
#2	1.7062	56.892	421.85	326.0	322.6	225.2	200790.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	670.25	1679.	1892.	3866.0	2.5749	-52.086	137.44
Stddev	16.32	9.	1.	62.8	.0476	12.669	1.06
%RSD	2.4349	.5591	.0344	1.6246	1.8507	24.324	.77334
#1	658.71	1685.	1892.	3910.4	2.5412	-43.127	138.19
#2	681.79	1672.	1891.	3821.6	2.6086	-61.044	136.69

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	53.984	.05399	2.0768	633.66	3.6784	31.657	30.726
Stddev	1.213	1.0809	.0088	14.66	.2287	.648	1.992
%RSD	2.2473	2002.0	.42401	2.3141	6.2183	2.0458	6.4845
#1	54.841	.81830	2.0706	644.02	3.8401	32.115	32.135
#2	53.126	-.71032	2.0830	623.29	3.5166	31.199	29.317

Sample Name: S 711053-011-011-1/1 Acquired: 12/11/2007 18:39:43 Type: Unk
Method: TRACEPB(v4) 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	11242.	.29007	506.59	167.70
Stddev	263.	1.0283	8.46	1.44
%RSD	2.3376	354.50	1.6694	.85903
#1	11427.	1.0172	512.57	168.72
#2	11056.	-.43705	500.61	166.68

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	41831.	27115.	579410.
Stddev	169.	15.	7741.
%RSD	.40419	.05577	1.3359
#1	41712.	27104.	573940.
#2	41951.	27125.	584880.

Sample Name: S 711053-012-012-1/1 Acquired: 12/11/2007 18:43:15 Type: Unk
Method: TRACEPB(v4) 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	.66383	30856.	13.073	-6.8416	170.48	2.7685	1788.3
Stddev	.06010	81.	1.806	.3521	1.12	.0646	1.0
%RSD	9.0542	.26330	13.812	5.1464	.65620	2.3320	.05343
#1	.70633	30798.	11.796	-6.5926	171.27	2.8142	1789.0
#2	.62133	30913.	14.349	-7.0906	169.69	2.7229	1787.6

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.7180	36.513	572.57	416.3	366.9	279.2	245070.
Stddev	.2054	.404	3.91	.9	1.2	5.4	1312.
%RSD	7.5577	1.1063	.68354	.2084	.3404	1.936	.53550
#1	2.8632	36.799	575.34	416.9	366.0	283.0	244140.
#2	2.5727	36.228	569.80	415.7	367.7	275.4	246000.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	605.31	2050.	2313.	4586.0	2.9308	-90.702	135.99
Stddev	19.23	2.	2.	22.8	.2414	4.187	.30
%RSD	3.1777	.0741	.0820	.49642	8.2374	4.6166	.21925
#1	591.71	2049.	2311.	4602.1	3.1015	-93.663	136.20
#2	618.91	2051.	2314.	4569.9	2.7600	-87.742	135.78

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	36.663	.67796	1.1038	422.46	4.3796	50.648	39.921
Stddev	1.014	1.0616	.4242	10.81	1.0648	.425	1.160
%RSD	2.7654	156.59	38.434	2.5589	24.314	.83851	2.9065
#1	37.380	-.07273	1.4038	430.10	3.6267	50.948	39.100
#2	35.946	1.4287	.80383	414.81	5.1326	50.348	40.741

Sample Name: S 711053-012-012-1/1 Acquired: 12/11/2007 18:43:15 Type: Unk
Method: TRACEPB(v4) 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	13868.	2.2860	667.66	223.59
Stddev	11.	.6128	4.09	1.09
%RSD	.08193	26.808	.61322	.48811
#1	13860.	1.8526	670.56	224.36
#2	13876.	2.7193	664.77	222.82

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	41512.	27147.	573840.
Stddev	7.	236.	1589.
%RSD	.01672	.86754	.27694
#1	41517.	27314.	574970.
#2	41508.	26981.	572720.

Sample Name: S 711053-013-013-1/1 Acquired: 12/11/2007 18:46:48 Type: Unk
Method: TRACEPB(v4) 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	.42055	42645.	12.117	-4.9021	37.886	2.6757	1154.4
Stddev	.15633	465.	2.037	.2287	.345	.0812	11.0
%RSD	37.172	1.0913	16.814	4.6649	.91174	3.0334	.95094
#1	.53109	42316.	10.677	-5.0638	38.130	2.7331	1146.6
#2	.31001	42974.	13.558	-4.7404	37.642	2.6183	1162.2

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.0400	16.174	359.60	270.3	286.7	181.8	220640.
Stddev	.2318	.096	3.55	1.8	2.3	5.3	2236.
%RSD	11.363	.59357	.98807	.6768	.8126	2.919	1.0135
#1	2.2039	16.106	362.12	271.6	285.0	178.0	219060.
#2	1.8761	16.242	357.09	269.0	288.3	185.5	222220.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	260.75	1665.	1884.	518.17	2.6647	-100.17	85.202
Stddev	19.77	17.	12.	4.14	.0517	.51	.115
%RSD	7.5813	1.005	.6551	.79969	1.9389	.51315	.13522
#1	246.77	1654.	1875.	521.10	2.6281	-99.802	85.121
#2	274.73	1677.	1893.	515.24	2.7012	-100.53	85.284

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	61.016	1.4091	6.9686	546.80	4.1068	27.422	32.085
Stddev	1.000	.2230	.2858	7.14	.0612	.233	2.120
%RSD	1.6384	15.826	4.1014	1.3049	1.4894	.84850	6.6067
#1	60.309	1.2514	7.1707	551.84	4.0636	27.587	33.584
#2	61.723	1.5668	6.7665	541.75	4.1501	27.258	30.586

Sample Name: S 711053-013-013-1/1 Acquired: 12/11/2007 18:46:48 Type: Unk
Method: TRACEPB(v4) 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	12997.	1.5375	534.16	118.85
Stddev	109.	.7470	5.00	.67
%RSD	.84177	48.586	.93566	.56200
#1	13074.	1.0093	537.70	119.32
#2	12919.	2.0657	530.63	118.38

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	41691.	27278.	574640.
Stddev	84.	418.	102.
%RSD	.20162	1.5322	.01773
#1	41631.	27574.	574710.
#2	41750.	26983.	574560.

Sample Name: CCV Acquired: 12/11/2007 18:53:42 Type: QC
Method: TRACEPB(v4) 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	514.06	50068.	510.35	511.12	491.66	50.403	97545.
Stddev	4.18	1310.	3.86	3.28	6.40	.458	2531.
%RSD	.81367	2.6166	.75541	.64144	1.3021	.90942	2.5947
#1	511.10	49142.	507.62	508.80	487.13	50.079	95756.
#2	517.01	50994.	513.07	513.44	496.19	50.727	99335.
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	501.25	497.26	505.64	F 593.8	F 555.5	530.8	47185.
Stddev	3.74	2.69	4.63	6.4	7.9	12.5	1237.
%RSD	.74624	.54076	.91597	1.076	1.414	2.355	2.6220
#1	498.60	495.35	502.36	589.3	549.9	521.9	46311.
#2	503.89	499.16	508.91	598.3	561.0	539.6	48060.
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	24736.	97250.	102700.	496.73	508.66	99946.	496.93
Stddev	561.	2691.	2499.	3.29	3.17	2389.	2.61
%RSD	2.2684	2.767	2.434	.66326	.62380	2.3907	.52482
#1	24339.	95350.	100900.	494.40	506.42	98256.	495.08
#2	25132.	99160.	104400.	499.06	510.90	101640.	498.77
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV Acquired: 12/11/2007 18:53:42 Type: QC
Method: TRACEPB(v4) 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	501.87	512.64	512.29	522.71	505.13	493.13	505.30
Stddev	5.46	3.17	3.11	5.61	3.39	1.48	4.23
%RSD	1.0881	.61881	.60661	1.0729	.67123	.30030	.83662
#1	498.01	510.40	510.10	518.74	502.73	492.09	502.31
#2	505.73	514.88	514.49	526.67	507.52	494.18	508.29
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	513.60	502.95	504.79	F 607.25
Stddev	3.77	5.36	3.83	4.53
%RSD	.73454	1.0661	.75820	.74586
#1	510.93	499.16	502.09	604.05
#2	516.27	506.74	507.50	610.45
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	41142.	26967.	570520.
Stddev	224.	522.	4690.
%RSD	.54360	1.9343	.82209
#1	41300.	27336.	573830.
#2	40983.	26598.	567200.

Sample Name: CCB Acquired: 12/11/2007 18:57:17 Type: QC
Method: TRACEPB(v4) 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	.03125	-5.6967	-1.3608	-.81835	-.31604	-.01265	-12.895
Stddev	.07769	25.961	.5670	.78264	.01758	.00245	6.499
%RSD	248.61	455.73	41.666	95.637	5.5634	19.341	50.402
#1	-.02369	-24.054	-.95989	-.26494	-.30360	-.01438	-17.490
#2	.08619	12.661	-1.7617	-1.3718	-.32847	-.01092	-8.2990
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	ppb	ppb	ppb
Avg	-.06213	-1.0138	-.27933	-.1617	-.8736	-.5191	-5.1270
Stddev	.00445	.0630	.17348	1.798	.2951	11.94	.2999
%RSD	7.1650	6.2172	62.105	1112.	33.78	2301.	5.8501
#1	-.06528	-.96923	-.40199	1.110	-1.082	-8.964	-4.9149
#2	-.05898	-1.0584	-.15666	-1.433	-.6649	7.926	-5.3391
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	ppb	ppb	ppb	ppb	ppb
Avg	F -265.96	F 8.328	F 4.619	-.17986	-.74945	-44.879	-.54364
Stddev	20.75	.610	1.406	.04058	.07711	11.335	.05358
%RSD	7.8019	7.319	30.43	22.564	10.289	25.257	9.8551
#1	-251.29	7.897	3.625	-.15116	-.80397	-36.864	-.50575
#2	-280.64	8.759	5.614	-.20856	-.69492	-52.894	-.58152
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	250.00	3.000	3.000				
Low Limit	-250.00	-3.000	-3.000				

Sample Name: CCB Acquired: 12/11/2007 18:57:17 Type: QC
Method: TRACEPB(v4) 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	-.99283	-1.2526	-.55378	-1.3605	-1.0071	.03550	3.0788
Stddev	.60868	.0001	.52778	.4238	.1085	.03489	2.9277
%RSD	61.308	.01210	95.305	31.149	10.772	98.283	95.093
#1	-.56242	-1.2525	-.92698	-1.6602	-.93043	.06018	5.1490
#2	-1.4232	-1.2527	-.18058	-1.0609	-1.0839	.01083	1.0086
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	.20168	.50708	-.23001	-1.3628
Stddev	.02283	.43702	.02673	.0289
%RSD	11.319	86.183	11.623	2.1174
#1	.18553	.81610	-.24891	-1.3832
#2	.21782	.19806	-.21110	-1.3424
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	42066.	27422.	582760.
Stddev	328.	512.	2147.
%RSD	.78047	1.8677	.36834
#1	42298.	27784.	581240.
#2	41834.	27060.	584280.

Metals Preparation & Sample Description Log

Prep: 200.7 / 3005A / 3020A / 3050B / 3010A/ ILC03.1 / ILM04.1 / ILM05.3 / ILM05.4

Batch No.: 202-101

Date: 11-13-2007

Analyst: D.S.S. Comments: MOD BLOCK DIGESTION (SOIL)

Reviewed by: [illegible] Date: 11/19/07 Spike Witness: Pep. Seq: 101653

	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			1.00	100	S				clear	—
2	BKS			1.00							—
3	711053	001	001-1/1	1.18		SOIL	Brown	Yellow	Medium		—
4		MS		1:20							
5		MSD	✓	1.25							
6		002	002-1/1	1.17							
7		003	003-1/1	1.19							
8		004	004-1/1	1.21							
9		005	005-1/1	1.25							
10		006	006-1/1	1.19							
11		007	007-1/1	1.19							
12		008	008-1/1	1.20							
13		009	009-1/1	1.21							
14		010	010-1/1	1.26							
15		011	011-1/1	1.19							
16		012	012-1/1	1.24							
17		013	013-1/1	1.23							
18		014	014-1/1	1.19							
19		015	015-1/1	1.20							
20		016	016-1/1	1.25							
21		017	017-1/1	1.21							
22		018	018-1/1	1.22							
23		019	019-1/1	1.19							
24	✓	020	020-1/1	1.20	✓	✓	✓	✓	DSS-11-13-2007		✓

LCS ID/ Amt. Added (ml ,g): 0.2 ml (41862 41863 41864)

Spiking ID / Amt. Added (ml): 0.2 ml (41862 41863 41864)

10 ml 1:1 HNO_3, 10 ml HNO_3 CHC, 7 ml H_2O_2, 10 ml HCL CHC

Temperature C: 94°C

HNO3(1+1) ID: GP-057-164-06

HNO3(conc) ID: GP-129-11-08

HCl(conc) ID: GP-129-11-06

HCl(1+1) ID: ~~GP-057-164-06~~

Peroxide ID: GP-129-10-12

Metals Preparation & Sample Description Log

Prep: 200.7 / 3005A / 3020A / 3050B / 3010A/ ILC03.1 / ILM04.1 / ILM05.3 / ILM05.4

Date: 11-13-2007 Batch No.: 202-102

Analyst: D.S.S. Comments: MAD BLOCK DIGESTION (SOIL)

Reviewed by: Date: Spike Witness: Pep. Seq: 101655

	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	102		1.00	100	S				Clear	—
2	BKS	102		1.01							—
3	711053	021	021 1/1	1.20		SOIL	Brown	Yellow	Medium		—
4		MS		1.24							
5		MSD		1.27							
6		022	022 1/1	1.26							
7		023	023 1/1	1.22							
8		024	024 1/1	1.25							
9		025	025 1/1	1.19							
10		026	026 1/1	1.19							
11		027	027 1/1	1.27							
12		028	028 1/1	1.25							
13		029	029 1/1	1.24							
14		030	030 1/1	1.21							
15		031	031 1/1	1.21							
16		032	032 1/1	1.26							
17		033	033 1/1	1.25							
18		034	034 1/1	1.25							
19	711016	001	001 3/6	1.33			Black				
20		MS		1.38							
21		MSD		1.43							
22											
23				D.S.S. - 11-13-2007							
24											

LCS ID/ Amt. Added (ml ,g): 0.2 ml (41862 41863 41864)

Spiking ID / Amt. Added (ml): 0.2 ml (41862 41863 41864)

10 ml 1:1 HNO3, 10 ml HNO3 conc, 7 ml H2O2, 10 ml HCl conc

Temperature C: 95°C

HNO3(1+1) ID: GP-057-164-07

HNO3(conc) ID: GP-129-11-08

HCl(conc) ID: GP-129-11-06

HCl(1+1) ID: —

Peroxide ID: GP-129-10-12