
*
***** G A M M A S P E C T R U M A N A L Y S I S

*

OYSTER CREEK NUCLEAR GENERATING STATION CHEMISTRY DEPARTMENT

Detector Name : DET01
Report Generated On : 4/21/09 12:04:23 PM
Spectral Data File Name : C:\PCNT2K\CAMFILES\1LSOLMDA
\2000063.CNF

Pb-212

Sample Title : 1-L Solid Releas
Sample Description : Soil from New Hole; Depth 1'
User ID : kg
Sample Type : 20
Sample Geometry : 1-L Marinelli

Peak Locate Threshold : 3.00
Peak Locate Range (in channels) : 1 - 4096
Peak Area Range (in channels) : 100 - 4096
Identification Energy Tolerance : 1.000 keV

Sample Size : 872.00 grams

Sample Taken On : 4/21/09 11:25:22 AM
Acquisition Started : 4/21/09 11:49:24 AM
Decay Time : 2.40E+001 Minutes

Live Time : 1197.0 Seconds
Real Time : 1197.5 Seconds
Dead Time : 0.04 %

Energy Calibration Used Done On : 1/8/09
Efficiency Calibration Used Done On : 1/8/09

[Handwritten signature]

**
***** B A C K G R O U N D S U B T R A C T R E P O R T

**

Detector Name: DET01
Sample Title: 1-L Solid Releas
Peak Analysis Performed on: 4/21/09 12:04:23 PM

Peak Subtracted	Energy No. (keV)	Original Area	Orig. Area Uncert.	Ambient Background	Backgr. Uncert.	Subtracted Area
1	238.54	2.30E+001	10.40			2.30E+001
1.04E+001						

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.000 sigma

**

 N U C L I D E M D A R E P O R T

**

Detector Name: DET01
Sample Geometry: 1-L Marinelli
Sample Title: 1-L Solid Releas
Nuclide Library Used: C:\GENIE2K\CAMFILES\AnSolMDA.NLB

Activity (uCi/gram)	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (uCi/gram)	Nuclide MDA (uCi/gram)	
3.64E-007	CS-134	563.23	8.38	1.03E-006	7.20E-008	-
8.35E-008		569.32	15.43	6.73E-007		-
1.53E-007		604.70	97.60	7.20E-008		-
6.66E-009		795.84	85.40	1.07E-007		-
2.63E-007		801.93	8.73	1.23E-006		-
1.01E-007		1365.15	3.04	3.76E-006		-
5.00E-009	CS-137	661.65	85.12	1.41E-007	1.41E-007	

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

*
***** N U C L I D E I D E N T I F I C A T I O N R E P O R T

*

Sample Title: 1-L Solid Releas
Nuclide Library Used: C:\GENIE2K\CAMFILES\AnSolMDA.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Confidence	Energy (keV)	Yield (%)	Activity (uCi/gram)	Activity Uncertainty
PB-212	0.709	87.20	6.30		
		89.80	1.75		
		238.63*	44.60	1.19E-007	5.40E-008
		300.09	3.41		

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.000 keV
Nuclide confidence index threshold = 0.30
Errors quoted at 1.000 sigma

*
***** I N T E R F E R E N C E C O R R E C T E D R E P O R T

*

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (uCi/gram)	Wt mean Activity Uncertainty
PB-212	0.709	1.19E-007	5.40E-008
Total Activity		1.19E-007	

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.000 sigma

***** U N I D E N T I F I E D P E A K S *****

Peak Locate Performed on: 4/21/09 12:04:23 PM
Peak Locate From Channel: 100
Peak Locate To Channel: 4096

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
----------	--------------	--------------------------------	------------------------

All peaks were identified.

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.000 sigma