

OYSTER CREEK NUCLEAR GENERATING STATION CHEMISTRY DEPARTMENT



Detector Name : DET01
Report Generated On : 4/17/09 2:06:19 PM
Spectral Data File Name : C:\PCNT2K\CAMFILES\1LSOLMDA\2000049.CNF

N.O.

Sample Title : 1-L Solid Releas
Sample Description : dirt #1 near cst
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 : 1030.00 grams

Sample Taken On : 4/17/09 1:10:33 PM
Acquisition Started : 4/17/09 1:51:35 PM
Decay Time : 4.10E+001 Minutes

Live Time : 1182.0 Seconds
Real Time : 1182.6 Seconds
Dead Time : 0.05 %

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

 ***** BACKGROUND SUBTRACT REPORT *****

Detector Name: DET01
 Sample Title: 1-L Solid Releas
 Peak Analysis Performed on: 4/17/09 2:06:19 PM

Peak No.	Energy (keV)	Original Area	Orig. Area Uncert.	Ambient Background	Backgr. Uncert.	Subtracted Area	Subtracted Uncert.
1	238.40	5.56E+001	12.86			5.56E+001	1.29E+001
2	609.28	2.38E+001	5.53			2.38E+001	5.53E+000
3	1460.77	3.10E+001	5.57			3.10E+001	5.57E+000

M = First peak in a multiplet region
 n = 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

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (uCi/gram)	Nuclide MDA (uCi/gram)	Activity (uCi/gram)
CS-134	563.23	8.38	1.12E-006	8.16E-008	7.72E-008
	569.32	15.43	6.54E-007		-3.32E-008
	604.70	97.60	8.16E-008		-4.20E-008
	795.84	85.40	1.94E-007		7.55E-008
	801.93	8.73	1.41E-006		-8.76E-008
	1365.15	3.04	4.17E-006		6.94E-007
CS-137	661.65	85.12	2.02E-007	2.02E-007	6.85E-008

+ = 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
K-40	1.000	1460.81*	10.67	3.25E-006	5.89E-007
PB-212	0.703	87.20	6.30		
		89.80	1.75		
		238.63*	44.60	2.47E-007	5.74E-008
		300.09	3.41		
BI-214	0.662	609.31*	46.30	2.59E-007	6.07E-008
		934.06	3.21		
		1764.49	15.80		

* = 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

 ***** INTERFERENCE CORRECTED REPORT *****

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (uCi/gram)	Wt mean Activity Uncertainty
K-40	1.000	3.25E-006	5.89E-007
PB-212	0.703	2.47E-007	5.74E-008
BI-214	0.662	2.59E-007	6.07E-008
Total Activity		3.76E-006	

? = 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

***** UNIDENTIFIED PEAKS *****

Peak Locate Performed on: 4/17/09 2:06:19 PM
 Peak Locate From Channel: 100
 Peak Locate To Channel: 4096

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