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\*\*\*\*\*         G A M M A   S P E C T R U M   A N A L Y S I S  
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          OYSTER CREEK NUCLEAR GENERATING STATION CHEMISTRY DEPARTMENT

Detector Name                         : DET02  
Report Generated On                   : 4/25/09  2:18:15 AM  
Spectral Data File Name               : C:\PCNT2K\CAMFILES\1LSOLMDA  
  \2000075.CNF

*Cs-137 1.66E-7*  
*+ N.D.*

Sample Title                          : 1-L Solid Releas  
Sample Description                     : soil n of cst 1'  
User ID                               : nc226  
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                           : 1613.00 grams

Sample Taken On                       : 4/25/09  2:00:05 AM  
Acquisition Started                   : 4/25/09  2:05:07 AM  
Decay Time                             : 5:04E+000 Minutes

Live Time                             : 1086.0 Seconds  
Real Time                              : 1086.2 Seconds  
Dead Time                              : 0.02 %

Energy Calibration Used Done On       : 3/21/08  
Efficiency Calibration Used Done On    : 3/21/08

*LAB*

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                  B A C K G R O U N D   S U B T R A C T   R E P O R T  
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Detector Name: DET02  
Sample Title: 1-L Solid Releas  
Peak Analysis Performed on: 4/25/09 2:18:15 AM

Peak Subtracted No.	Energy (keV)	Original Area	Orig. Uncert.	Area Background	Ambient Uncert.	Backgr. Uncert.	Subtracted Area
1	238.51	1.17E+002	18.74				1.17E+002
1.87E+001							
2	295.18	4.47E+001	12.14				4.47E+001
1.21E+001							
3	352.01	8.48E+001	12.04				8.48E+001
1.20E+001							
4	583.11	4.76E+001	9.61				4.76E+001
9.61E+000							
5	609.11	3.90E+001	8.03				3.90E+001
8.03E+000							
6	661.83	5.89E+001	9.55				5.89E+001
9.55E+000							
7	1332.97	1.85E+001	4.91				1.85E+001
4.91E+000							
8	1461.22	5.93E+001	8.57				5.93E+001
8.57E+000							

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

Errors quoted at 1.000 sigma

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                  N U C L I D E   M D A   R E P O R T  
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Detector Name:            DET02  
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)	
1.95E-008	CS-134	563.23	8.38	6.06E-007	5.08E-008	-
9.60E-009		569.32	15.43	2.89E-007		
6.29E-009		604.70	97.60	5.08E-008		-
1.34E-008		795.84	85.40	9.08E-008		
2.18E-008		801.93	8.73	4.61E-007		-
0.00E+000		1365.15	3.04	4.11E-007		
+ 1.66E-007	CS-137	661.65*	85.12	8.21E-008	8.21E-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

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\*\*\*\*\* 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  
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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	0.973	1460.81*	10.67	2.72E-006	3.99E-007
CS-137	0.995	661.65*	85.12	1.66E-007	2.72E-008
PB-212	0.672	87.20	6.30		
		89.80	1.75		
		238.63*	44.60	2.48E-007	4.01E-008
		300.09	3.41		
BI-214	0.656	609.31*	46.30	1.87E-007	3.88E-008
		934.06	3.21		
		1764.49	15.80		
PB-214	0.676	87.20	3.70		
		89.80	1.03		
		241.98	7.49		
		295.21*	19.20	2.65E-007	7.22E-008
		351.92*	37.20	3.05E-007	4.37E-008

\* = 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

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 \*\*\*\*\* INTERFERENCE CORRECTED REPORT \*\*\*\*\*  
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	Nuclide Name	Nuclide Id Confidence	Wt mean Activity (uCi/gram)	Wt mean Activity Uncertainty
	K-40	0.973	2.72E-006	3.99E-007
	CS-137	0.995	1.66E-007	2.72E-008
X	BI-211	0.522		
	PB-212	0.672	2.48E-007	4.01E-008
	BI-214	0.656	1.87E-007	3.88E-008
	PB-214	0.676	2.94E-007	3.74E-008
Total Activity			3.62E-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: 4/25/09 2:18:15 AM  
 Peak Locate From Channel: 100  
 Peak Locate To Channel: 4096

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
4	583.11	4.39E-002	20.16
7	1332.97	1.70E-002	26.57

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

Errors quoted at 1.000 sigma