[redacted]

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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	: 4/18/09 2:29:49 PM	
Spectral Data File Name \2000059.CNF	: C:\PCNT2K\CAMFILES\1LSOLMDA	
	: Co-60	2.84 E-7
	: Cs-137	1.10 E-7
Sample Title	: 1-L Solid Releas	
Sample Description	: 'Soil near CST; 4' depth	
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	: 886.00 grams	
Sample Taken On	: 4/17/09 7:00:55 PM	
Acquisition Started	: 4/18/09 2:07:58 PM	
Decay Time	: 1.15E+003 Minutes	
Live Time	: 1610.0 Seconds	
Real Time	: 1610.2 Seconds	
Dead Time	: 0.01 %	

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

C-14

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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: 4/18/09 2:29:49 PM

Peak No.	Energy (keV)	Original Area	Orig. Area Uncert.	Ambient Background	Backgr. Uncert.	Subtracted Area	Subtracted Uncert.
1	238.44	6.08E+001	16.95			6.08E+001	1.70E+001
2	351.74	4.87E+001	13.45			4.87E+001	1.35E+001
3	583.13	1.76E+001	6.15			1.76E+001	6.15E+000
4	609.24	2.74E+001	8.53			2.74E+001	8.53E+000
5	661.57	3.18E+001	7.61			3.18E+001	7.61E+000
6	910.83	1.31E+001	5.53			1.31E+001	5.53E+000
7	1173.57	5.41E+001	9.19			5.41E+001	9.19E+000
8	1332.73	5.36E+001	7.55			5.36E+001	7.55E+000
9	1461.39	3.53E+001	6.89			3.53E+001	6.89E+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

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (uCi/gram)	Nuclide MDA (uCi/gram)	Activity (uCi/gram)
	CS-134	563.23	8.38	5.29E-007	7.84E-008	1.19E-007
		569.32	15.43	4.08E-007		1.57E-007
		604.70	97.60	7.84E-008		1.19E-008
		795.84	85.40	9.16E-008		- 7.56E-010
		801.93	8.73	8.09E-007		- 9.00E-008
		1365.15	3.04	3.51E-006		1.01E-006
+	CS-137	661.65*	85.12	9.15E-008	9.15E-008	1.10E-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

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***** 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
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Nuclide Name	Nuclide Id Confidence	Wt mean Activity (uCi/gram)	Wt mean Activity Uncertainty
K-40	0.947	1.99E-006	3.91E-007
CO-60	0.985	2.84E-007	3.10E-008
CS-137	0.999	1.10E-007	2.64E-008
BI-211	0.569	6.55E-007	1.82E-007
PB-212	0.670	1.58E-007	4.42E-008
BI-214	0.660	1.62E-007	5.05E-008
Total Activity		3.36E-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

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

Peak Locate Performed on: 4/18/09 2:29:49 PM
Peak Locate From Channel: 100
Peak Locate To Channel: 4096

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
3	583.13	1.09E-002	34.93
6	910.83	8.16E-003	42.08

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

Errors quoted at 1.000 sigma