

800247

***** GAMMA SPECTRUM ANALYSIS *****

OYSTER CREEK NUCLEAR GENERATING STATION CHEMISTRY DEPARTMENT

Detector Name : DET02
Report Generated On : 4/25/09 8:48:23 PM
Spectral Data File Name : C:\PCNT2K\CAMFILES\3LLIQMAR\800247.CNF

Sample Title : 3-L Liq Mar'lli
Sample Description : CST
User ID : n4283
Sample Type : 8
Sample Geometry : 3-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 : 3000.00 mL
Sample Taken On : 4/25/09 8:11:00 PM
Acquisition Started : 4/25/09 8:31:41 PM
Decay Time : 2.07E+001 Minutes
Live Time : 1000.0 Seconds
Real Time : 1000.1 Seconds
Dead Time : 0.01 %

Energy Calibration Used Done On : 3/21/08
Efficiency Calibration Used Done On : 8/5/06

Background Subtract Report 4/25/09 8:48:23 PM Page 2

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

Detector Name: DET02
Sample Title: 3-L Liq Mar'lli
Peak Analysis Performed on: 4/25/09 8:48:23 PM

Peak No.	Energy (keV)	Original Area	Orig. Uncert.	Ambient Background	Backgr. Uncert.	Subtracted Area	Subtracted Uncert.
1	80.89	4.34E+001	12.27			4.34E+001	1.23E+001
2	249.56	4.19E+002	21.71			4.19E+002	2.17E+001

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

***** 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: 3-L Liq Mar'lli
Nuclide Library Used: C:\GENIE2K\CAMFILES\ANL002.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Confidence	Energy (keV)	Yield (%)	Activity (uCi/mL)	Activity Uncertainty
XE-133	0.998	81.00*	36.72	1.17E-007	3.36E-008
XE-135	0.958	249.79* 608.18	89.90 2.89	4.71E-007	2.94E-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

***** 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/mL)	Wt mean Activity Uncertainty
XE-133	0.998	1.17E-007	3.36E-008
XE-135	0.958	4.71E-007	2.94E-008

Total Activity 5.88E-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: 4/25/09 8:48:23 PM
Peak Locate From Channel: 100
Peak Locate To Channel: 4096

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

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Errors quoted at 1.000 sigma