Report Generated On 5/22/2006 3:13:26 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: GRN7780

Spectrum File: GRN7780
Sample ID: NOL-05-01-101-F-
Sample Title: NOL-05-01-101-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/22/2006 3:03:22 PM
Live Time: 600.0 seconds
Real Time: 601.0 seconds

Energy Calibration Date: 4/19/2006
Eff Calibration Date: 3/23/2006
Calibration Efficiency: 7780Soil1M180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: GRN7780
Log Number: NOL-05-01-101-F-
Title: NOL-05-01-101-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	946-	962	951.93	237.94	0.85	2.51E+002	72.00	3.51E+002
2	2321-	2344	2332.03	582.97	0.42	1.85E+002	46.33	9.32E+001
3	3632-	3655	3645.42	911.32	2.63	1.31E+002	35.23	4.73E+001
4	3864-	3877	3871.33	967.80	0.75	2.54E+001	27.78	6.26E+001
5	4890-	4901	4895.53	1223.85	0.31	1.49E+001	14.45	1.51E+001
6	5828-	5857	5842.12	1460.50	2.42	8.34E+002	59.02	1.52E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: GRN7780

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.997	1460.81*	10.67	1.83025E+001	1.96820E+000
TL-208	0.471	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	4.02976E-001	1.13814E-001
		860.37	12.46		
Pb-212	0.445	74.81 @	10.70		
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	8.11687E-001	2.65303E-001
Ac-228	0.618	338.32	11.40		
		911.07*	27.70	9.59358E-001	2.81092E-001
		969.11*	16.60	3.15229E-001	3.46715E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:GRN7780

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40		0.997	1.830248E+001	1.968205E+000
TL-208		0.471	4.029760E-001	1.138138E-001
Pb-212	@	0.445	8.116872E-001	2.653025E-001
Ac-228		0.618	7.038938E-001	2.183486E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
5	1223.85	2.4778E-002	97.21

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:GRN7780
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	1.0737E-001	8.95E-002	-5.4460E-002
	1332.49	100.00	8.9472E-002		-7.2267E-002
Nb-94	702.63	100.00	1.1910E-001	9.96E-002	6.2109E-002
	871.10	100.00	9.9637E-002		-8.4808E-003
Ag-108m	79.20	7.10	1.0415E+001	1.44E-001	-1.3062E+001
	433.93	89.90	1.4598E-001		6.0717E-002
	614.37	90.40	1.5906E-001		-2.9549E-002
	722.95	90.50	1.4366E-001		1.0035E-001
Sb-125	176.33	6.89	2.8789E+000	4.31E-001	2.2455E+000
	427.89	29.33	4.3149E-001		-2.6205E-001
	463.38	10.35	1.2813E+000		6.3490E-001
	600.56	17.80	6.7275E-001		-1.7549E-001
	606.64	5.02	3.0506E+000		3.9235E+000
	635.90	11.32	1.0208E+000		3.6374E-001
Cs-134	563.23	8.38	1.4623E+000	1.46E-001	2.9698E-001
	569.32	15.43	7.9498E-001		-9.2203E-001
	604.70	97.60	1.5040E-001		-8.3631E-002
	795.84	85.40	1.4571E-001		1.2787E-001
	801.93	8.73	1.3604E+000		-7.1825E-001
Cs-137	661.65	85.12	1.3877E-001	1.39E-001	6.7880E-003
Eu-152	121.78	28.40	9.8295E-001	4.14E-001	4.5508E-001
	244.69	7.49	2.2987E+000		-4.9915E+000
	344.27	26.50	5.5764E-001		-5.8621E-001
	778.89	12.74	8.6953E-001		-7.1149E-001
	867.32	4.16	2.3593E+000		-4.9124E+000
	964.01	14.40	9.7326E-001		9.1073E-001
	1085.78	10.00	1.0969E+000		-7.4786E-001
	1112.02	13.30	8.0797E-001		-8.7629E-001
	1407.95	20.70	4.1366E-001		2.2157E-001
Eu-154	123.07	40.50	6.8391E-001	2.97E-001	-6.3182E-003
	247.94	6.60	2.4788E+000		-8.3871E-001
	591.81	4.83	2.4808E+000		-3.0814E+000
	723.30	19.70	6.6002E-001		3.7895E-001
	756.87	4.33	2.5355E+000		-2.3580E-001
	873.19	11.50	8.9471E-001		-3.5549E-001
	996.32	10.30	1.0160E+000		2.8257E-001
	1004.76	17.90	6.1915E-001		2.6076E-001
	1274.45	35.50	2.9650E-001		-1.0595E-001
Eu-155	86.54	30.90	1.8202E+000	1.71E+000	2.0921E+000
	105.31	20.70	1.7106E+000		-1.7407E-001
Am-241	59.54	35.90	4.7100E+000	4.71E+000	1.9842E+000
Cm-243	228.19	10.56	1.6816E+000	1.13E+000	-5.1233E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.1291E+000	1.13E+000	5.9810E-001

+ = 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

Report Generated On 5/22/2006 3:35:17 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: GRN7780

Spectrum File: GRN7780
Sample ID: NOL-05-01-102-F-
Sample Title: NOL-05-01-102-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/22/2006 3:25:14 PM
Live Time: 600.0 seconds
Real Time: 600.9 seconds

Energy Calibration Date: 4/19/2006
Eff Calibration Date: 3/23/2006
Calibration Efficiency: 7780Soil1M180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: GRN7780
Log Number: NOL-05-01-102-F-
Title: NOL-05-01-102-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	945-	961	951.54	237.84	0.70	1.74E+002	68.82	3.36E+002
2	2321-	2338	2329.87	582.43	0.85	1.05E+002	39.96	9.45E+001
3	3634-	3651	3641.71	910.39	0.64	8.65E+001	30.88	4.95E+001
4	3865-	3878	3871.97	967.96	1.16	2.80E+001	26.75	5.60E+001
5	4685-	4697	4691.59	1172.86	0.38	3.92E+001	19.53	2.28E+001
6	5413-	5426	5419.39	1354.82	0.44	1.33E+001	8.37	1.73E+000
7	5828-	5857	5842.36	1460.56	2.97	6.89E+002	55.28	2.25E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: GRN7780

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.998	1460.81*	10.67	1.51128E+001	1.72317E+000
TL-208	0.460	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	2.29840E-001	9.20986E-002
		860.37	12.46		
Pb-212	0.443	74.81 @	10.70		
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	5.63883E-001	2.39406E-001
Ac-228	0.616	338.32	11.40		
		911.07*	27.70	6.34472E-001	2.38053E-001
		969.11*	16.60	3.47560E-001	3.34409E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:GRN7780

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40		0.998	1.511285E+001	1.723173E+000
TL-208		0.460	2.298396E-001	9.209864E-002
Pb-212	@	0.443	5.638834E-001	2.394065E-001
Ac-228		0.616	5.379782E-001	1.939338E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
5	1172.86	6.5349E-002	49.81
6	1354.82	2.2111E-002	63.09

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:GRN7780
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	1.2564E-001	1.04E-001	1.5117E-002
	1332.49	100.00	1.0387E-001		5.7580E-002
Nb-94	702.63	100.00	1.1695E-001	9.82E-002	-9.2216E-003
	871.10	100.00	9.8227E-002		-7.0242E-002
Ag-108m	79.20	7.10	9.5849E+000	1.25E-001	-2.6512E+001
	433.93	89.90	1.3297E-001		-1.1693E-003
	614.37	90.40	1.5324E-001		-1.9658E-001
	722.95	90.50	1.2498E-001		-1.1745E-001
Sb-125	176.33	6.89	2.7849E+000	4.10E-001	-7.1356E-001
	427.89	29.33	4.1013E-001		6.6132E-002
	463.38	10.35	1.2305E+000		5.9756E-001
	600.56	17.80	6.1159E-001		-8.8841E-001
	606.64	5.02	2.9998E+000		6.3870E+000
	635.90	11.32	9.4366E-001		-5.0919E-001
Cs-134	563.23	8.38	1.4182E+000	1.41E-001	-1.1649E+000
	569.32	15.43	7.8101E-001		-1.4345E-001
	604.70	97.60	1.4795E-001		1.5927E-001
	795.84	85.40	1.4104E-001		9.6886E-002
	801.93	8.73	1.2290E+000		-8.5584E-001
Cs-137	661.65	85.12	1.5942E-001	1.59E-001	1.7022E-001
Eu-152	121.78	28.40	9.4414E-001	3.81E-001	4.1694E-001
	244.69	7.49	2.2232E+000		-1.7394E-001
	344.27	26.50	5.1552E-001		-3.3705E-001
	778.89	12.74	8.1776E-001		-7.3502E-001
	867.32	4.16	2.4918E+000		-8.8261E-001
	964.01	14.40	9.6850E-001		8.9220E-001
	1085.78	10.00	9.7770E-001		-3.1755E-001
	1112.02	13.30	7.8580E-001		-1.1083E+000
	1407.95	20.70	3.8088E-001		1.0724E-001
Eu-154	123.07	40.50	6.5172E-001	2.59E-001	1.7039E-002
	247.94	6.60	2.3743E+000		-4.2245E-001
	591.81	4.83	2.4608E+000		4.8879E-001
	723.30	19.70	5.9130E-001		7.0087E-002
	756.87	4.33	2.4890E+000		-4.2694E-001
	873.19	11.50	8.8286E-001		-1.0330E-001
	996.32	10.30	9.6428E-001		-8.2023E-001
	1004.76	17.90	5.4471E-001		-3.4786E-001
	1274.45	35.50	2.5947E-001		-7.9060E-002
Eu-155	86.54	30.90	1.6965E+000	1.63E+000	1.0716E+000
	105.31	20.70	1.6337E+000		-2.7310E+000
Am-241	59.54	35.90	4.6565E+000	4.66E+000	1.2263E+000
Cm-243	228.19	10.56	1.6139E+000	1.11E+000	7.4229E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.1111E+000	1.11E+000	1.4762E+000

+ = 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

Report Generated On 5/22/2006 6:08:57 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: GRN7780

Spectrum File: GRN7780
Sample ID: NOL-05-01-103-
Sample Title: NOL-05-01-103-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/22/2006 5:58:55 PM
Live Time: 600.0 seconds
Real Time: 601.0 seconds

Energy Calibration Date: 4/19/2006
Eff Calibration Date: 3/23/2006
Calibration Efficiency: 7780Soil1M180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: GRN7780
Log Number: NOL-05-01-103-
Title: NOL-05-01-103-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	947-	957	952.12	237.99	0.58	5.17E+001	54.63	2.97E+002
2	3632-	3648	3640.73	910.15	1.73	6.96E+001	30.92	5.64E+001
3	5292-	5305	5298.99	1324.72	0.55	1.40E+001	11.40	6.98E+000
4	5828-	5857	5841.75	1460.41	2.86	7.26E+002	55.98	1.88E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: GRN7780

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.995	1460.81*		10.67	1.59396E+001	1.78196E+000
Pb-212	0.446	74.81	@	10.70		
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	1.67052E-001	1.78555E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:GRN7780

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40		0.995	1.593958E+001	1.781958E+000
Pb-212	@	0.446	1.670524E-001	1.785551E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
2	910.15	1.1602E-001	44.41
3	1324.72	2.3373E-002	81.31

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:GRN7780
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	1.1824E-001	1.00E-001	9.7612E-002
	1332.49	100.00	1.0048E-001		3.1258E-002
Nb-94	702.63	100.00	1.1363E-001	9.82E-002	1.9578E-002
	871.10	100.00	9.8227E-002		2.2023E-002
Ag-108m	79.20	7.10	1.0022E+001	1.34E-001	-1.9907E+001
	433.93	89.90	1.3413E-001		-1.5026E-001
	614.37	90.40	1.5324E-001		-1.6546E-001
	722.95	90.50	1.4582E-001		1.2716E-001
Sb-125	176.33	6.89	2.8479E+000	4.55E-001	-7.1549E-001
	427.89	29.33	4.5496E-001		3.7649E-001
	463.38	10.35	1.2428E+000		-6.8368E-002
	600.56	17.80	6.4674E-001		-4.3390E-001
	606.64	5.02	2.9533E+000		2.3995E+000
	635.90	11.32	9.9261E-001		7.1656E-002
Cs-134	563.23	8.38	1.4404E+000	1.29E-001	1.1673E+000
	569.32	15.43	7.7494E-001		-1.4756E-001
	604.70	97.60	1.4657E-001		-6.8030E-002
	795.84	85.40	1.2930E-001		3.8376E-002
	801.93	8.73	1.1751E+000		-8.2107E-001
Cs-137	661.65	85.12	1.5690E-001	1.57E-001	2.1352E-001
Eu-152	121.78	28.40	9.5802E-001	3.88E-001	-4.4770E-001
	244.69	7.49	2.2695E+000		-5.8280E+000
	344.27	26.50	5.0093E-001		-7.8769E-001
	778.89	12.74	8.8506E-001		6.1193E-001
	867.32	4.16	2.4265E+000		3.4076E-002
	964.01	14.40	1.0013E+000		7.6552E-001
	1085.78	10.00	1.0588E+000		-7.7465E-002
	1112.02	13.30	8.0432E-001		-7.7435E-001
	1407.95	20.70	3.8842E-001		-1.5841E-001
Eu-154	123.07	40.50	6.6240E-001	2.79E-001	-3.8338E-001
	247.94	6.60	2.4897E+000		6.2475E-001
	591.81	4.83	2.5006E+000		1.1190E+000
	723.30	19.70	6.6500E-001		1.9147E-001
	756.87	4.33	2.6170E+000		7.3984E-001
	873.19	11.50	8.4626E-001		4.0404E-001
	996.32	10.30	9.6911E-001		3.7308E-001
	1004.76	17.90	5.6704E-001		1.7053E-001
	1274.45	35.50	2.7944E-001		2.1395E-002
Eu-155	86.54	30.90	1.7601E+000	1.73E+000	3.2061E+000
	105.31	20.70	1.7274E+000		-1.0347E-001
Am-241	59.54	35.90	4.6005E+000	4.60E+000	-5.8126E+000
Cm-243	228.19	10.56	1.6177E+000	1.13E+000	-1.5920E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.1302E+000	1.13E+000	-2.7240E-001

+ = 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

Report Generated On 5/22/2006 9:45:46 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: GRN7780

Spectrum File: GRN7780
Sample ID: NOL-05-01-104
Sample Title: NOL-05-01-104-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/22/2006 9:35:44 PM
Live Time: 600.0 seconds
Real Time: 600.8 seconds

Energy Calibration Date: 4/19/2006
Eff Calibration Date: 3/23/2006
Calibration Efficiency: 7780Soil1M180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: GRN7780
Log Number: NOL-05-01-104
Title: NOL-05-01-104-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	293-	306	297.97	74.45	0.42	1.46E+002	100.71	9.05E+002
2	944-	956	951.97	237.95	0.75	7.51E+001	56.50	2.80E+002
3	1398-	1415	1404.61	351.11	1.03	1.03E+002	49.51	1.64E+002
4	2426-	2447	2435.12	608.74	0.84	1.34E+002	39.28	7.12E+001
5	3634-	3651	3642.29	910.54	0.48	7.69E+001	32.49	5.91E+001
6	5827-	5857	5842.23	1460.53	2.69	7.46E+002	54.21	3.85E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: GRN7780

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.997	1460.81*	10.67	1.63781E+001	1.78156E+000
Pb-212	0.590	74.81* @	10.70	6.06502E+000	4.35193E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	2.42785E-001	1.86595E-001
Bi-214	0.397	609.31*	46.30	5.37895E-001	1.71295E-001
		1120.29	15.10		
		1764.49	15.80		

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:GRN7780

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40		0.997	1.637807E+001	1.781564E+000
Pb-212	@	0.590	2.427849E-001	1.865954E-001
Bi-214		0.397	5.378947E-001	1.712950E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
3	351.11	1.7154E-001	48.10
5	910.54	1.2819E-001	42.24

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:GRN7780
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	1.1271E-001	9.01E-002	6.3652E-002
	1332.49	100.00	9.0121E-002		1.5677E-002
Nb-94	702.63	100.00	1.1099E-001	1.05E-001	-1.1388E-002
	871.10	100.00	1.0463E-001		-6.5805E-002
Ag-108m	79.20	7.10	9.5240E+000	1.34E-001	-9.7387E+000
	433.93	89.90	1.3442E-001		-1.2478E-001
	614.37	90.40	1.5846E-001		5.2516E-003
	722.95	90.50	1.3388E-001		1.1473E-001
Sb-125	176.33	6.89	2.7544E+000	4.03E-001	-1.6349E+000
	427.89	29.33	4.0305E-001		-1.6409E-001
	463.38	10.35	1.2131E+000		-1.3982E-001
	600.56	17.80	6.3137E-001		-2.8938E-002
	606.64	5.02	3.0151E+000		5.5884E+000
	635.90	11.32	1.0084E+000		-4.3992E-001
Cs-134	563.23	8.38	1.3726E+000	1.31E-001	-1.4625E+000
	569.32	15.43	7.6266E-001		-1.6577E-001
	604.70	97.60	1.4517E-001		-3.8067E-002
	795.84	85.40	1.3071E-001		2.5793E-002
	801.93	8.73	1.1999E+000		-9.7492E-001
Cs-137	661.65	85.12	1.4985E-001	1.50E-001	1.4570E-001
Eu-152	121.78	28.40	9.2632E-001	4.07E-001	6.7500E-002
	244.69	7.49	2.1740E+000		-2.4191E+000
	344.27	26.50	5.2378E-001		-4.8496E-001
	778.89	12.74	9.0031E-001		-2.2019E-001
	867.32	4.16	2.5132E+000		-7.8964E-001
	964.01	14.40	9.4679E-001		1.8538E+000
	1085.78	10.00	9.7240E-001		-4.4564E-001
	1112.02	13.30	7.5125E-001		-2.7035E-001
	1407.95	20.70	4.0662E-001		-4.4465E-002
Eu-154	123.07	40.50	6.4844E-001	2.54E-001	2.5954E-001
	247.94	6.60	2.3191E+000		1.2490E+000
	591.81	4.83	2.3228E+000		-9.1146E-001
	723.30	19.70	6.2045E-001		6.5931E-001
	756.87	4.33	2.3236E+000		9.3602E-001
	873.19	11.50	9.4796E-001		2.0590E-001
	996.32	10.30	9.2975E-001		-3.0591E-001
	1004.76	17.90	5.5320E-001		9.4053E-002
	1274.45	35.50	2.5421E-001		1.6211E-001
Eu-155	86.54	30.90	1.7052E+000	1.71E+000	2.3024E+000
	105.31	20.70	1.7101E+000		-2.9707E-002
Am-241	59.54	35.90	4.4321E+000	4.43E+000	-3.7821E+000
Cm-243	228.19	10.56	1.5194E+000	1.09E+000	-8.4162E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.0916E+000	1.09E+000	3.1660E-001

+ = 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

Report Generated On 5/22/2006 10:12:40 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: GRN7780

Spectrum File: GRN7780
Sample ID: NOL-05-01-105
Sample Title: NOL-05-01-105-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/22/2006 10:02:39 PM
Live Time: 600.0 seconds
Real Time: 600.9 seconds

Energy Calibration Date: 4/19/2006
Eff Calibration Date: 3/23/2006
Calibration Efficiency: 7780Soil1M180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: GRN7780
Log Number: NOL-05-01-105
Title: NOL-05-01-105-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	293-	306	297.48	74.33	0.89	2.26E+002	105.28	9.62E+002
2	946-	962	951.91	237.94	0.62	1.47E+002	72.45	3.84E+002
3	2427-	2447	2434.87	608.68	0.85	1.00E+002	39.04	8.15E+001
4	3632-	3656	3642.61	910.62	1.33	1.01E+002	34.41	5.01E+001
5	5827-	5857	5842.51	1460.60	2.48	8.03E+002	58.68	1.93E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: GRN7780

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.999	1460.81*	10.67	1.76204E+001	1.92205E+000
Pb-212	0.589	74.81* @	10.70	9.46914E+000	4.77782E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	4.75832E-001	2.45828E-001
Bi-214	0.395	609.31*	46.30	4.04094E-001	1.64696E-001
		1120.29	15.10		
		1764.49	15.80		

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:GRN7780

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40		0.999	1.762041E+001	1.922055E+000
Pb-212	@	0.589	4.758320E-001	2.458277E-001
Bi-214		0.395	4.040937E-001	1.646962E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
4	910.62	1.6818E-001	34.10

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:GRN7780
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	1.1128E-001	9.76E-002	2.7508E-002
	1332.49	100.00	9.7552E-002		-5.5948E-003
Nb-94	702.63	100.00	1.1549E-001	1.02E-001	-6.9329E-003
	871.10	100.00	1.0194E-001		3.6865E-003
Ag-108m	79.20	7.10	9.7990E+000	1.43E-001	-1.1002E+001
	433.93	89.90	1.4251E-001		-6.1719E-003
	614.37	90.40	1.4975E-001		-1.4659E-001
	722.95	90.50	1.4330E-001		-3.8321E-002
Sb-125	176.33	6.89	2.9685E+000	4.53E-001	4.7084E-002
	427.89	29.33	4.5338E-001		-1.4219E-001
	463.38	10.35	1.2861E+000		6.9836E-002
	600.56	17.80	6.4484E-001		4.6859E-002
	606.64	5.02	2.9166E+000		4.8597E+000
	635.90	11.32	1.0980E+000		7.6021E-001
Cs-134	563.23	8.38	1.5500E+000	1.29E-001	4.5591E-001
	569.32	15.43	7.9300E-001		-3.8571E-001
	604.70	97.60	1.4177E-001		-1.9590E-002
	795.84	85.40	1.2883E-001		-1.3204E-002
	801.93	8.73	1.2805E+000		-8.4501E-001
Cs-137	661.65	85.12	1.5360E-001	1.54E-001	-5.5449E-002
Eu-152	121.78	28.40	9.7557E-001	3.99E-001	-3.3676E-001
	244.69	7.49	2.3611E+000		-2.2914E+000
	344.27	26.50	5.2601E-001		-3.9797E-001
	778.89	12.74	9.6722E-001		2.9086E-001
	867.32	4.16	2.5238E+000		-3.8646E+000
	964.01	14.40	9.3698E-001		7.2932E-001
	1085.78	10.00	1.0875E+000		3.4261E-001
	1112.02	13.30	7.6681E-001		-1.3011E+000
	1407.95	20.70	3.9945E-001		2.5737E-001
Eu-154	123.07	40.50	6.7584E-001	2.92E-001	-1.2126E-001
	247.94	6.60	2.5112E+000		-1.1209E+000
	591.81	4.83	2.4940E+000		-6.0236E-001
	723.30	19.70	6.6335E-001		2.3797E-001
	756.87	4.33	2.7388E+000		2.7186E+000
	873.19	11.50	8.9863E-001		4.1405E-001
	996.32	10.30	1.0431E+000		-5.2982E-001
	1004.76	17.90	5.7517E-001		-2.3512E-001
	1274.45	35.50	2.9195E-001		-1.9247E-001
Eu-155	86.54	30.90	1.7889E+000	1.76E+000	2.6992E+000
	105.31	20.70	1.7581E+000		-7.3057E-001
Am-241	59.54	35.90	4.8204E+000	4.82E+000	5.8646E+000
Cm-243	228.19	10.56	1.6314E+000	1.13E+000	1.0354E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.1336E+000	1.13E+000	-1.2300E-001

+ = 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

Report Generated On 5/23/2006 12:29:19 AM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: GRN7780

Spectrum File: GRN7780
Sample ID: NOL-05-01-106
Sample Title: NOL-05-01-106-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/23/2006 12:19:09 AM
Live Time: 600.0 seconds
Real Time: 601.0 seconds

Energy Calibration Date: 4/19/2006
Eff Calibration Date: 3/23/2006
Calibration Efficiency: 7780Soil1M180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: GRN7780
Log Number: NOL-05-01-106
Title: NOL-05-01-106-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	293-	305	297.19	74.25	0.70	2.05E+002	104.18	9.95E+002
2	2322-	2343	2331.38	582.81	2.00	1.54E+002	43.76	9.20E+001
3	4471-	4484	4477.51	1119.34	0.62	2.37E+001	22.31	3.83E+001
4	5828-	5858	5843.03	1460.73	2.26	8.20E+002	60.46	2.71E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: GRN7780

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	1.000	1460.81*	10.67	1.79990E+001	1.97109E+000
TL-208	0.469	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.35699E-001	1.04927E-001
		860.37	12.46		

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:GRN7780

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40	1.000	1.799903E+001	1.971090E+000
TL-208	0.469	3.356989E-001	1.049267E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
1	74.25	3.4107E-001	50.91
3	1119.34	3.9489E-002	94.18

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:GRN7780
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	1.0836E-001	9.01E-002	5.0784E-002
	1332.49	100.00	9.0121E-002		3.5009E-002
Nb-94	702.63	100.00	1.2087E-001	1.06E-001	1.1196E-001
	871.10	100.00	1.0551E-001		2.9949E-003
Ag-108m	79.20	7.10	1.0187E+001	1.38E-001	-1.7854E+001
	433.93	89.90	1.4937E-001		5.7411E-002
	614.37	90.40	1.5936E-001		-1.3202E-001
	722.95	90.50	1.3811E-001		9.5362E-002
Sb-125	176.33	6.89	2.9699E+000	4.48E-001	7.0556E-001
	427.89	29.33	4.4781E-001		1.6080E-001
	463.38	10.35	1.2355E+000		-8.2226E-001
	600.56	17.80	6.5428E-001		-2.5252E-001
	606.64	5.02	3.1251E+000		4.4897E+000
	635.90	11.32	1.1122E+000		1.2776E+000
Cs-134	563.23	8.38	1.5703E+000	1.40E-001	1.9563E+000
	569.32	15.43	7.9498E-001		-4.7954E-001
	604.70	97.60	1.4986E-001		8.4459E-002
	795.84	85.40	1.3974E-001		9.1613E-002
	801.93	8.73	1.2667E+000		-5.1683E-001
Cs-137	661.65	85.12	1.5544E-001	1.55E-001	1.3104E-001
Eu-152	121.78	28.40	1.0169E+000	3.81E-001	-9.3126E-002
	244.69	7.49	2.3310E+000		-4.4579E+000
	344.27	26.50	5.5062E-001		-6.4993E-001
	778.89	12.74	8.8814E-001		-3.5649E-001
	867.32	4.16	2.6476E+000		2.2061E-001
	964.01	14.40	9.9437E-001		1.1615E+000
	1085.78	10.00	1.0588E+000		1.2806E-001
	1112.02	13.30	8.0065E-001		3.4796E-001
	1407.95	20.70	3.8088E-001		-3.5645E-002
Eu-154	123.07	40.50	7.0842E-001	2.90E-001	4.3190E-001
	247.94	6.60	2.4940E+000		-1.5598E+000
	591.81	4.83	2.6164E+000		2.4721E+000
	723.30	19.70	6.2752E-001		1.5316E-001
	756.87	4.33	2.6170E+000		2.1093E-001
	873.19	11.50	9.4055E-001		4.9204E-001
	996.32	10.30	1.0206E+000		-1.9929E-001
	1004.76	17.90	5.9370E-001		-3.8259E-001
	1274.45	35.50	2.9042E-001		1.1741E-001
Eu-155	86.54	30.90	1.8151E+000	1.80E+000	2.9815E+000
	105.31	20.70	1.7957E+000		-1.1075E+000
Am-241	59.54	35.90	4.7891E+000	4.79E+000	2.4919E+000
Cm-243	228.19	10.56	1.6948E+000	1.11E+000	1.0896E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.1111E+000	1.11E+000	-1.4498E+000

+ = 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

Report Generated On 5/23/2006 1:15:13 AM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: GRN7780

Spectrum File: GRN7780
Sample ID: NOL-05-01-107
Sample Title: NOL-05-01-107-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/23/2006 1:05:10 AM
Live Time: 600.0 seconds
Real Time: 600.9 seconds

Energy Calibration Date: 4/19/2006
Eff Calibration Date: 3/23/2006
Calibration Efficiency: 7780Soil1M180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: GRN7780
Log Number: NOL-05-01-107
Title: NOL-05-01-107-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	2323-	2342	2330.57	582.60	0.41	1.31E+002	43.16	1.00E+002
2	5829-	5858	5842.69	1460.64	2.32	7.39E+002	57.66	2.65E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: GRN7780

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.999	1460.81*	10.67	1.62113E+001	1.82340E+000
TL-208	0.465	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	2.84647E-001	1.01105E-001
		860.37	12.46		

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:GRN7780

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40	0.999	1.621133E+001	1.823400E+000
TL-208	0.465	2.846473E-001	1.011053E-001

? = 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 1.960 sigma

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

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

All peaks were identified.

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:GRN7780
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	1.1597E-001	8.82E-002	-5.5635E-002
	1332.49	100.00	8.8158E-002		6.0972E-002
Nb-94	702.63	100.00	1.1326E-001	1.07E-001	-4.1168E-002
	871.10	100.00	1.0726E-001		6.4260E-002
Ag-108m	79.20	7.10	1.0297E+001	1.34E-001	-1.2666E+001
	433.93	89.90	1.4624E-001		1.3868E-001
	614.37	90.40	1.5694E-001		-2.9983E-002
	722.95	90.50	1.3388E-001		1.8364E-002
Sb-125	176.33	6.89	2.9940E+000	4.55E-001	-1.1002E-001
	427.89	29.33	4.5496E-001		4.9929E-001
	463.38	10.35	1.2718E+000		-2.4729E-001
	600.56	17.80	6.9425E-001		1.4914E-001
	606.64	5.02	3.0606E+000		4.6769E+000
	635.90	11.32	1.0361E+000		5.5930E-001
Cs-134	563.23	8.38	1.4514E+000	1.38E-001	5.8759E-001
	569.32	15.43	8.0284E-001		2.5506E-001
	604.70	97.60	1.4931E-001		3.7741E-002
	795.84	85.40	1.3842E-001		8.7868E-002
	801.93	8.73	1.2713E+000		-6.1460E-001
Cs-137	661.65	85.12	1.4203E-001	1.42E-001	8.9267E-002
Eu-152	121.78	28.40	1.0364E+000	3.69E-001	7.6040E-001
	244.69	7.49	2.2456E+000		-5.4420E+000
	344.27	26.50	5.1703E-001		-7.3904E-001
	778.89	12.74	9.0634E-001		6.6661E-002
	867.32	4.16	2.4811E+000		-2.1387E+000
	964.01	14.40	9.5651E-001		8.2686E-001
	1085.78	10.00	9.7770E-001		-1.6542E+000
	1112.02	13.30	7.6681E-001		-1.2175E+000
	1407.95	20.70	3.6924E-001		-1.5563E-001
Eu-154	123.07	40.50	7.1228E-001	2.81E-001	-1.6487E-001
	247.94	6.60	2.3902E+000		-1.1241E+000
	591.81	4.83	2.5203E+000		-3.0161E+000
	723.30	19.70	6.1330E-001		7.2091E-002
	756.87	4.33	2.6612E+000		-7.0074E-002
	873.19	11.50	9.2931E-001		3.2639E-001
	996.32	10.30	9.8343E-001		-9.7411E-001
	1004.76	17.90	5.6704E-001		2.7420E-001
	1274.45	35.50	2.8104E-001		1.2898E-001
Eu-155	86.54	30.90	1.8688E+000	1.83E+000	2.4929E+000
	105.31	20.70	1.8341E+000		9.2472E-001
Am-241	59.54	35.90	5.1013E+000	5.10E+000	3.0356E+000
Cm-243	228.19	10.56	1.6959E+000	1.15E+000	3.9136E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.1524E+000	1.15E+000	-7.4129E-002

+ = 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

Report Generated On 5/24/2006 5:33:27 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: RED6264

Spectrum File: RED6264
Sample ID: NOL-05-01-108
Sample Title: NOL-05-01-108-F-G
Description: 40% water

Sample Type:
Geometry:

Acquisition Started: 5/24/2006 5:23:26 PM
Live Time: 600.0 seconds
Real Time: 601.0 seconds

Energy Calibration Date: 3/22/2006
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number: NOL-05-01-108
Title: NOL-05-01-108-F-G
Description: 40% water

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	283-	307	291.86	72.87	1.39	3.99E+002	72.70	2.05E+003
m	2	283-	307	300.61	75.06	1.39	6.81E+002	81.74	2.37E+003
	3	331-	347	340.90	85.13	0.94	2.02E+002	151.83	1.85E+003
	4	947-	961	954.10	238.47	0.97	2.17E+002	65.38	3.10E+002
	5	1397-	1416	1406.61	351.63	1.81	1.57E+002	55.88	1.87E+002
	6	2322-	2343	2330.92	582.77	1.72	1.40E+002	42.06	8.50E+001
	7	2425-	2447	2436.01	609.05	1.11	1.93E+002	40.97	6.30E+001
	8	3635-	3652	3643.41	910.98	1.45	1.05E+002	33.63	5.72E+001
	9	5829-	5859	5843.88	1461.24	2.35	9.11E+002	63.03	2.60E+001
	10	7054-	7069	7061.47	1765.72	0.56	4.02E+001	18.02	1.48E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
K-40	0.994	1460.81*	10.67	1.57627E+001	1.67866E+000
TL-208	0.468	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	2.44395E-001	8.00065E-002
		860.37	12.46		
Pb-212	0.520	74.81* @	10.70	1.00862E+001	2.31827E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	5.43925E-001	1.84898E-001
Bi-214	0.687	609.31*	46.30	6.21401E-001	1.52537E-001
		1120.29	15.10		
		1764.49*	15.80	4.88195E-001	2.24034E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
K-40	0.994	1.576265E+001	1.678657E+000
TL-208	0.468	2.443946E-001	8.000647E-002
Pb-212 @	0.520	5.439245E-001	1.848976E-001
Bi-214	0.687	5.792090E-001	1.260863E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.87	6.6469E-001	18.23
3	85.13	3.3625E-001	75.25
5	351.63	2.6096E-001	35.69
8	910.98	1.7475E-001	32.08

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Co-60	1173.22	100.00	1.0093E-001	7.94E-002	1.0474E-002
	1332.49	100.00	7.9387E-002		8.8699E-002
Nb-94	702.63	100.00	1.0157E-001	8.80E-002	1.1515E-001
	871.10	100.00	8.8037E-002		-7.8701E-002
Ag-108m	79.20	7.10	5.9022E+000	1.11E-001	-5.1220E+000
	433.93	89.90	1.1568E-001		-2.2708E-002
	614.37	90.40	1.3508E-001		-3.0614E-002
	722.95	90.50	1.1079E-001		1.5712E-001
Sb-125	176.33	6.89	2.2720E+000	3.42E-001	-3.9637E-001
	427.89	29.33	3.4236E-001		-6.6973E-002
	463.38	10.35	1.0249E+000		3.8849E-001
	600.56	17.80	5.6148E-001		3.0088E-001
	606.64	5.02	2.6288E+000		5.7767E+000
	635.90	11.32	8.4426E-001		-3.0278E-001
Cs-134	563.23	8.38	1.2489E+000	1.18E-001	-2.1708E-001
	569.32	15.43	6.6726E-001		-1.6646E-001
	604.70	97.60	1.3235E-001		-2.6586E-002
	795.84	85.40	1.1842E-001		5.6481E-002
	801.93	8.73	1.0545E+000		-2.4765E-001
Cs-137	661.65	85.12	1.1787E-001	1.18E-001	-3.3744E-002
Eu-152	121.78	28.40	7.9156E-001	3.27E-001	-1.9943E-001
	244.69	7.49	1.8249E+000		-3.1252E-001
	344.27	26.50	4.1604E-001		-7.3442E-001
	778.89	12.74	7.2074E-001		-4.5877E-001
	867.32	4.16	2.2334E+000		-1.4929E+000
	964.01	14.40	8.4325E-001		1.2306E+000
	1085.78	10.00	9.0169E-001		-5.9604E-001
	1112.02	13.30	6.3848E-001		-1.5716E+000
	1407.95	20.70	3.2664E-001		-2.6559E-002
Eu-154	123.07	40.50	5.5617E-001	2.35E-001	6.5802E-001
	247.94	6.60	1.9544E+000		-2.2571E+000
	591.81	4.83	2.0335E+000		5.8699E-001
	723.30	19.70	5.0481E-001		4.2113E-001
	756.87	4.33	2.2659E+000		-1.0737E+000
	873.19	11.50	8.2010E-001		4.8219E-002
	996.32	10.30	8.1801E-001		-7.5146E-001
	1004.76	17.90	4.6534E-001		8.6157E-002
	1274.45	35.50	2.3547E-001		-1.6918E-001
Eu-155	86.54	30.90	1.1803E+000	1.18E+000	4.2442E-001
	105.31	20.70	1.2418E+000		-1.7958E+000
Am-241	59.54	35.90	1.5017E+000	1.50E+000	-3.2355E-001
Cm-243	228.19	10.56	1.3548E+000	9.27E-001	-6.7044E-002

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Cm-243	277.60	14.00	9.2672E-001	9.27E-001	2.1910E-002

+ = 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

Report Generated On 5/24/2006 4:47:56 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: RED6264

Spectrum File: RED6264
Sample ID: NOL-05-01-109
Sample Title: NOL-05-01-109-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/24/2006 4:37:55 PM
Live Time: 600.0 seconds
Real Time: 601.1 seconds

Energy Calibration Date: 3/22/2006
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number: NOL-05-01-109
Title: NOL-05-01-109-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	283-	308	292.12	72.93	1.48	3.88E+002	76.62	1.96E+003
m	2	283-	308	300.11	74.93	1.49	7.38E+002	83.51	2.41E+003
	3	330-	346	339.04	84.66	1.25	2.40E+002	145.05	1.67E+003
	4	948-	960	954.33	238.53	0.97	2.63E+002	63.72	3.00E+002
	5	1172-	1186	1179.96	294.95	0.84	7.72E+001	49.70	1.97E+002
	6	1400-	1416	1406.60	351.62	2.09	1.74E+002	53.48	1.82E+002
	7	1924-	1933	1928.66	482.18	0.52	1.93E+001	23.98	5.77E+001
	8	2031-	2054	2042.03	510.53	1.02	1.37E+002	53.50	1.52E+002
	9	2323-	2342	2330.93	582.77	1.71	1.68E+002	48.01	1.23E+002
	10	2423-	2448	2435.79	608.99	1.60	2.13E+002	48.90	9.50E+001
	11	3633-	3655	3643.03	910.88	1.53	1.59E+002	37.69	5.44E+001
	12	3864-	3881	3873.29	968.46	0.92	6.22E+001	33.34	6.98E+001
	13	5504-	5517	5510.57	1377.89	0.35	2.40E+001	15.46	1.30E+001
	14	5828-	5858	5843.40	1461.12	2.44	1.05E+003	68.08	3.13E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	0.993	511.00*		100.00	1.92724E-001	7.96517E-002
K-40	0.997	1460.81*		10.67	1.82140E+001	1.88738E+000
TL-208	0.748	277.35		6.80		
		510.84*		21.60	8.92239E-001	3.75888E-001
		583.14*		84.20	2.92482E-001	9.20413E-002
		860.37		12.46		
Pb-212	0.521	74.81*	@	10.70	1.09622E+001	2.48075E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	6.58772E-001	1.90378E-001
Bi-214	0.396	609.31*		46.30	6.85956E-001	1.78697E-001
		1120.29		15.10		
		1764.49		15.80		
PB-214	0.581	74.82*	@	6.21	1.88881E+001	4.48893E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	4.78231E-001	3.18100E-001
		351.92*		37.20	5.84677E-001	2.04539E-001
Ac-228	0.629	338.32		11.40		
		911.07*		27.70	9.37677E-001	2.47590E-001
		969.11*		16.60	6.24866E-001	3.41053E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN		0.993	1.295477E-001	8.206954E-002
K-40		0.997	1.821402E+001	1.887383E+000
TL-208		0.748	2.924815E-001	9.154639E-002
Pb-212	@	0.521	6.587717E-001	1.903776E-001
Bi-214		0.396	6.859558E-001	1.786967E-001
PB-214	@	0.581	5.535402E-001	1.720424E-001
Ac-228		0.629	8.297174E-001	2.003604E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.93	6.4644E-001	19.75
3	84.66	3.9990E-001	60.45
7	482.18	3.2240E-002	123.95
13	1377.89	4.0023E-002	64.39

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Co-60	1173.22	100.00	1.0896E-001	8.80E-002	1.8914E-002
	1332.49	100.00	8.7964E-002		2.9230E-002
Nb-94	702.63	100.00	1.0050E-001	9.98E-002	-1.0634E-001
	871.10	100.00	9.9792E-002		1.1662E-002
Ag-108m	79.20	7.10	5.6113E+000	1.26E-001	-4.9784E+000
	433.93	89.90	1.2587E-001		-2.2155E-002
	614.37	90.40	1.4491E-001		6.8230E-002
	722.95	90.50	1.2817E-001		9.9496E-002
Sb-125	176.33	6.89	2.4120E+000	3.82E-001	1.1767E+000
	427.89	29.33	3.8223E-001		-1.5489E-001
	463.38	10.35	1.1276E+000		3.0208E-001
	600.56	17.80	5.7798E-001		-4.5283E-001
	606.64	5.02	2.7917E+000		-8.1570E-002
	635.90	11.32	9.7065E-001		5.8895E-001
Cs-134	563.23	8.38	1.2757E+000	1.16E-001	-7.6521E-001
	569.32	15.43	6.9527E-001		-6.8337E-001
	604.70	97.60	1.4107E-001		-5.7585E-002
	795.84	85.40	1.1574E-001		-4.8872E-003
	801.93	8.73	1.0828E+000		-1.0550E+000
Cs-137	661.65	85.12	1.1880E-001	1.19E-001	-6.7564E-002
Eu-152	121.78	28.40	7.9716E-001	3.64E-001	-2.0195E-001
	244.69	7.49	1.9689E+000		-2.4826E+000
	344.27	26.50	4.6915E-001		1.8060E-002
	778.89	12.74	8.1212E-001		-2.3095E-001
	867.32	4.16	2.4322E+000		-1.3418E+000
	964.01	14.40	8.8661E-001		1.5323E-001
	1085.78	10.00	9.5621E-001		-2.0476E-001
	1112.02	13.30	7.7030E-001		-4.8364E-001
	1407.95	20.70	3.6362E-001		2.0570E-001
Eu-154	123.07	40.50	5.5342E-001	2.65E-001	-7.0921E-002
	247.94	6.60	2.1252E+000		4.3608E-001
	591.81	4.83	2.2404E+000		-1.5970E+000
	723.30	19.70	5.9480E-001		8.0008E-001
	756.87	4.33	2.1782E+000		-1.5104E+000
	873.19	11.50	8.6559E-001		-8.1985E-001
	996.32	10.30	9.8278E-001		3.2036E-001
	1004.76	17.90	5.4150E-001		-7.9304E-001
	1274.45	35.50	2.6470E-001		-1.4379E-001
Eu-155	86.54	30.90	1.1425E+000	1.14E+000	1.6119E-001
	105.31	20.70	1.2270E+000		-3.7300E-001
Am-241	59.54	35.90	1.4041E+000	1.40E+000	3.2874E-001
Cm-243	228.19	10.56	1.4014E+000	9.98E-001	-6.1653E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Cm-243	277.60	14.00	9.9813E-001	9.98E-001	5.0478E-002

+ = 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

Report Generated On 5/23/2006 6:23:50 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BRN7722

Spectrum File: BRN7722
Sample ID: NOL-05-01-110
Sample Title: NOL-05-01-110-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/23/2006 6:13:46 PM
Live Time: 600.0 seconds
Real Time: 601.1 seconds

Energy Calibration Date: 4/7/2006
Eff Calibration Date: 3/23/2006
Calibration Efficiency: 7722Soil1m180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: BRN7722
Log Number: NOL-05-01-110
Title: NOL-05-01-110-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	285-	309	291.47	73.06	0.97	2.89E+002	55.30	9.43E+002
m	2	285-	309	300.08	75.21	0.98	4.58E+002	63.03	9.67E+002
	3	333-	345	338.89	84.92	1.02	1.12E+002	106.64	1.08E+003
	4	943-	958	953.88	238.65	1.12	2.68E+002	67.40	3.03E+002
	5	1163-	1186	1179.83	295.13	0.52	7.46E+001	67.09	2.73E+002
	6	1399-	1412	1406.38	351.76	1.10	1.27E+002	41.10	1.14E+002
	7	2029-	2052	2040.54	510.28	0.66	1.67E+002	47.61	1.05E+002
	8	2322-	2341	2330.45	582.75	0.98	1.28E+002	37.82	6.95E+001
	9	2427-	2444	2435.12	608.92	1.03	1.06E+002	35.79	6.95E+001
	10	3633-	3650	3641.94	910.59	1.42	1.08E+002	30.85	4.27E+001
	11	3867-	3882	3873.82	968.55	2.12	5.00E+001	23.45	3.10E+001
	12	4474-	4486	4479.72	1120.01	0.70	3.26E+001	19.27	2.34E+001
	13	5829-	5854	5841.70	1460.47	1.83	7.65E+002	55.70	9.88E+000
	14	7051-	7064	7057.74	1764.45	0.74	3.01E+001	11.73	1.91E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: BRN7722

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
ANN	0.984	511.00*		100.00	2.85405E-001	8.99913E-002
K-40	0.996	1460.81*		10.67	1.62273E+001	1.76682E+000
TL-208	0.748	277.35		6.80		
		510.84*		21.60	1.32132E+000	4.30374E-001
		583.14*		84.20	2.71654E-001	8.74521E-002
		860.37		12.46		
Pb-212	0.580	74.81*	@	10.70	1.48167E+001	3.54825E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	8.35327E-001	2.47682E-001
Bi-214	0.997	609.31*		46.30	4.15200E-001	1.48653E-001
		1120.29*		15.10	4.47769E-001	2.69357E-001
		1764.49*		15.80	4.69125E-001	1.88763E-001
PB-214	0.619	74.82*	@	6.21	2.55296E+001	6.38844E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	5.69173E-001	5.20586E-001
		351.92*		37.20	5.23509E-001	1.90162E-001
Ac-228	0.628	338.32		11.40		
		911.07*		27.70	7.77942E-001	2.39000E-001
		969.11*		16.60	6.06941E-001	2.91651E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:BRN7722

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
ANN		0.984	2.267278E-001	9.193258E-002
K-40		0.996	1.622729E+001	1.766819E+000
TL-208		0.748	2.716536E-001	8.700287E-002
Pb-212	@	0.580	8.353273E-001	2.476817E-001
Bi-214		0.997	4.377289E-001	1.071486E-001
PB-214	@	0.619	5.288846E-001	1.786181E-001
Ac-228		0.628	7.092430E-001	1.848588E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	73.06	4.8187E-001	19.13
3	84.92	1.8743E-001	94.83

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:BRN7722
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	1.1345E-001	9.40E-002	8.2838E-002
	1332.49	100.00	9.3962E-002		9.2887E-002
Nb-94	702.63	100.00	1.1907E-001	1.01E-001	1.4369E-001
	871.10	100.00	1.0104E-001		-9.3362E-003
Ag-108m	79.20	7.10	9.8838E+000	1.28E-001	-3.6219E+000
	433.93	89.90	1.2842E-001		-3.4736E-002
	614.37	90.40	1.5425E-001		7.9632E-002
	722.95	90.50	1.3499E-001		6.5239E-002
Sb-125	176.33	6.89	2.8581E+000	4.07E-001	-1.8908E-001
	427.89	29.33	4.0717E-001		-1.6324E-002
	463.38	10.35	1.1860E+000		6.6137E-001
	600.56	17.80	6.8855E-001		1.2957E-001
	606.64	5.02	2.9438E+000		2.5764E+000
	635.90	11.32	9.8667E-001		4.6942E-001
Cs-134	563.23	8.38	1.3578E+000	1.28E-001	-5.7271E-001
	569.32	15.43	7.2989E-001		-5.4140E-001
	604.70	97.60	1.5573E-001		4.8769E-002
	795.84	85.40	1.2793E-001		-1.2576E-001
	801.93	8.73	1.2219E+000		-7.2567E-001
Cs-137	661.65	85.12	1.3921E-001	1.39E-001	7.4767E-002
Eu-152	121.78	28.40	1.0513E+000	4.26E-001	8.5021E-002
	244.69	7.49	2.2873E+000		-2.6955E+000
	344.27	26.50	5.3645E-001		-9.6539E-001
	778.89	12.74	8.0341E-001		-7.7713E-001
	867.32	4.16	2.5094E+000		-3.5953E+000
	964.01	14.40	8.9582E-001		7.1427E-002
	1085.78	10.00	9.9658E-001		-3.6994E-001
	1112.02	13.30	7.8562E-001		-5.3429E-001
	1407.95	20.70	4.2624E-001		4.5785E-001
Eu-154	123.07	40.50	7.2880E-001	2.85E-001	2.0209E-003
	247.94	6.60	2.4738E+000		-2.9413E+000
	591.81	4.83	2.4510E+000		1.8893E+000
	723.30	19.70	6.2353E-001		4.3286E-001
	756.87	4.33	2.3864E+000		-2.9161E+000
	873.19	11.50	8.9045E-001		-3.7769E-001
	996.32	10.30	1.0309E+000		1.1846E-001
	1004.76	17.90	5.5051E-001		-2.5661E-001
	1274.45	35.50	2.8457E-001		-1.1742E-001
Eu-155	86.54	30.90	1.7763E+000	1.78E+000	2.8792E+000
	105.31	20.70	1.8827E+000		1.5028E+000
Am-241	59.54	35.90	3.7717E+000	3.77E+000	-1.6438E+000
Cm-243	228.19	10.56	1.6174E+000	1.13E+000	-1.6080E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.1287E+000	1.13E+000	-1.3128E-001

+ = 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

Report Generated On 5/21/2006 6:33:00 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-01-111
Sample Title: NOL-05-01-111-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/21/2006 6:22:58 PM
Live Time: 600.0 seconds
Real Time: 601.3 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-01-111
Title: NOL-05-01-111-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	284-	305	291.81	72.78	0.91	3.69E+002	70.60	1.86E+003
m	2	284-	305	300.28	74.90	0.91	7.39E+002	84.63	1.77E+003
M	3	333-	356	339.79	84.78	1.18	3.45E+002	69.85	1.67E+003
m	4	333-	356	348.88	87.05	1.19	1.87E+002	64.92	2.16E+003
	5	944-	960	954.18	238.42	1.11	4.08E+002	78.98	3.89E+002
	6	1176-	1185	1180.79	295.09	0.42	8.06E+001	39.86	1.47E+002
	7	1347-	1363	1353.11	338.19	1.16	1.15E+002	48.71	1.59E+002
	8	1398-	1413	1407.18	351.71	0.59	1.36E+002	49.33	1.66E+002
	9	1846-	1858	1851.35	462.78	0.81	4.20E+001	30.83	7.80E+001
	10	2032-	2053	2042.14	510.49	2.11	1.64E+002	50.62	1.33E+002
	11	2321-	2340	2331.56	582.87	0.96	2.19E+002	46.06	9.51E+001
	12	2427-	2447	2436.01	608.99	1.27	2.02E+002	46.64	9.98E+001
	13	2902-	2915	2908.51	727.15	1.04	4.32E+001	23.80	3.78E+001
	14	3634-	3652	3643.59	910.98	0.94	1.44E+002	35.95	5.70E+001
	15	3866-	3882	3874.84	968.81	1.35	8.49E+001	31.04	5.31E+001
	16	4472-	4486	4480.10	1120.17	0.49	5.73E+001	27.54	4.87E+001
	17	4945-	4957	4950.34	1237.77	0.29	2.30E+001	20.11	3.10E+001
	18	5830-	5857	5842.96	1460.99	1.93	1.04E+003	67.59	3.44E+001
	19	7051-	7068	7059.43	1765.20	1.61	6.15E+001	18.47	8.54E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
ANN	0.991	511.00*	100.00	2.23800E-001	7.53998E-002
K-40	0.999	1460.81*	10.67	1.73698E+001	1.80637E+000
Eu-155	0.327	86.54*	30.90	9.61675E-001	3.83125E-001
		105.31	20.70		
TL-208	0.749	277.35	6.80		
		510.84*	21.60	1.03611E+000	3.59182E-001
		583.14*	84.20	3.70416E-001	9.16527E-002
		860.37	12.46		
Bi-212	1.000	727.17*	11.80	5.54461E-001	3.12192E-001
Pb-212	0.676	74.81* @	10.70	1.05777E+001	2.40110E+000
		77.11 @	18.00		
		87.30* @	8.00	2.91352E+000	1.16073E+000
		238.63*	44.60	9.92578E-001	2.47124E-001
Bi-214	0.994	609.31*	46.30	6.31953E-001	1.65215E-001
		1120.29*	15.10	6.39039E-001	3.14647E-001
		1764.49*	15.80	7.22718E-001	2.28835E-001
PB-214	0.669	74.82* @	6.21	1.82394E+001	4.34684E+000
		77.11 @	10.50		
		87.30* @	4.67	4.99480E+000	2.02536E+000
		241.98	7.49		
		295.21*	19.20	4.84014E-001	2.52837E-001
		351.92*	37.20	4.44308E-001	1.77074E-001
Ac-228	0.999	338.32*	11.40	1.21334E+000	5.46069E-001
		911.07*	27.70	8.24120E-001	2.26558E-001
		969.11*	16.60	8.25680E-001	3.13917E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
ANN		0.991	1.437897E-001	7.791187E-002
K-40		0.999	1.736983E+001	1.806368E+000
Eu-155		0.327	5.460038E-001	3.926874E-001
TL-208		0.749	3.704159E-001	9.085421E-002
Bi-212		1.000	5.544607E-001	3.121921E-001
Pb-212	@	0.676	9.925782E-001	2.471236E-001
Bi-214		0.994	6.593689E-001	1.232476E-001
PB-214	@	0.669	4.573082E-001	1.436764E-001
Ac-228		0.999	8.641731E-001	1.741206E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.78	6.1433E-001	19.15
M 3	84.78	5.7487E-001	20.25
9	462.78	7.0000E-002	73.40
17	1237.77	3.8264E-002	87.61

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
	Co-60	1173.22	100.00	1.1417E-001	9.26E-002	4.9786E-003
		1332.49	100.00	9.2600E-002		3.5351E-002
	Nb-94	702.63	100.00	9.7938E-002	8.78E-002	-3.3341E-002
		871.10	100.00	8.7817E-002		4.9127E-002
	Ag-108m	79.20	7.10	5.3687E+000	1.16E-001	-7.3667E+000
		433.93	89.90	1.1630E-001		-1.0222E-002
		614.37	90.40	1.2839E-001		-2.6092E-002
		722.95	90.50	1.1639E-001		-4.4628E-002
	Sb-125	176.33	6.89	3.6974E+000	5.55E-001	-7.8660E-001
		427.89	29.33	5.5511E-001		-2.7158E-001
		463.38	10.35	1.6097E+000		1.0882E-001
		600.56	17.80	8.0463E-001		-1.7396E-001
		606.64	5.02	4.1763E+000		-3.9345E-001
		635.90	11.32	1.3103E+000		2.2706E-002
	Cs-134	563.23	8.38	2.1859E+000	2.03E-001	7.7019E-001
		569.32	15.43	1.1682E+000		9.1615E-001
		604.70	97.60	2.3522E-001		-6.6579E-002
		795.84	85.40	2.0339E-001		6.5066E-002
		801.93	8.73	1.8627E+000		-1.1053E+000
	Cs-137	661.65	85.12	1.1512E-001	1.15E-001	1.0446E-001
	Eu-152	121.78	28.40	8.7376E-001	3.21E-001	-2.4558E-001
		244.69	7.49	2.0403E+000		-3.1777E-001
		344.27	26.50	4.7421E-001		2.2026E-001
		778.89	12.74	7.7560E-001		-5.0783E-001
		867.32	4.16	2.1750E+000		-3.1007E+000
		964.01	14.40	9.0337E-001		-2.4812E-001
		1085.78	10.00	9.8981E-001		-5.3215E-001
		1112.02	13.30	7.7218E-001		-2.3025E-002
		1407.95	20.70	3.2135E-001		-2.3866E-001
	Eu-154	123.07	40.50	6.4050E-001	2.82E-001	-1.5450E-002
		247.94	6.60	2.3470E+000		-4.6015E-001
		591.81	4.83	2.1845E+000		2.5498E-002
		723.30	19.70	6.0306E-001		-2.1286E-001
		756.87	4.33	2.5466E+000		2.6377E-001
		873.19	11.50	8.6319E-001		-5.8704E-001
		996.32	10.30	9.0018E-001		-9.3418E-001
		1004.76	17.90	5.5636E-001		6.5838E-001
		1274.45	35.50	2.8184E-001		-2.2888E-001
+	Eu-155	86.54*	30.90	1.1238E+000	1.12E+000	9.6167E-001
		105.31	20.70	1.7234E+000		4.5487E-001
	Am-241	59.54	35.90	1.4604E+000	1.46E+000	5.1140E-001
	Cm-243	228.19	10.56	1.4151E+000	9.99E-001	1.3925E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	9.9939E-001	9.99E-001	6.1190E-001

+ = 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

Report Generated On 5/21/2006 6:50:13 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-01-112
Sample Title: NOL-05-01-112-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/21/2006 6:40:10 PM
Live Time: 600.0 seconds
Real Time: 601.2 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-01-112
Title: NOL-05-01-112-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	285-	306	291.76	72.77	0.91	3.59E+002	70.12	1.85E+003
m	2	285-	306	300.27	74.90	0.91	8.09E+002	85.85	1.90E+003
M	3	332-	356	339.79	84.78	1.20	4.26E+002	70.83	1.66E+003
m	4	332-	356	349.24	87.14	1.20	1.41E+002	62.13	2.02E+003
	5	947-	960	954.50	238.50	0.92	2.84E+002	67.45	3.26E+002
	6	1176-	1186	1181.06	295.16	0.96	6.06E+001	39.90	1.48E+002
	7	1347-	1363	1352.89	338.13	0.59	1.19E+002	46.95	1.45E+002
	8	1397-	1413	1407.28	351.73	1.15	1.74E+002	50.63	1.58E+002
	9	2325-	2341	2331.79	582.93	1.68	1.79E+002	41.35	8.49E+001
	10	2427-	2444	2436.00	608.99	1.40	1.77E+002	38.63	6.50E+001
	11	3634-	3654	3643.57	910.97	1.51	1.56E+002	36.96	5.49E+001
M	12	3852-	3883	3858.07	964.61	1.59	2.80E+001	15.43	4.47E+001
m	13	3852-	3883	3874.70	968.78	1.59	9.65E+001	22.59	6.10E+001
	14	5829-	5856	5843.07	1461.01	1.72	9.08E+002	62.96	2.77E+001
	15	7050-	7066	7058.74	1765.02	1.46	5.05E+001	17.21	8.50E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.999	1460.81*	10.67	1.52353E+001	1.62381E+000
Eu-155	0.325	86.54*	30.90	7.21027E-001	3.48687E-001
		105.31	20.70		
TL-208	0.470	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.03122E-001	8.03337E-002
		860.37	12.46		
Pb-212	0.677	74.81* @	10.70	1.15772E+001	2.58048E+000
		77.11 @	18.00		
		87.30* @	8.00	2.18444E+000	1.05639E+000
		238.63*	44.60	6.90105E-001	1.96444E-001
Bi-214	0.694	609.31*	46.30	5.53066E-001	1.38589E-001
		1120.29	15.10		
		1764.49*	15.80	5.93784E-001	2.10841E-001
PB-214	0.669	74.82* @	6.21	1.99629E+001	4.67963E+000
		77.11 @	10.50		
		87.30* @	4.67	3.74490E+000	1.83299E+000
		241.98	7.49		
		295.21*	19.20	3.64179E-001	2.47358E-001
		351.92*	37.20	5.67718E-001	1.90344E-001
Ac-228	0.998	338.32*	11.40	1.25118E+000	5.30870E-001
		911.07*	27.70	8.93263E-001	2.35167E-001
		969.11*	16.60	9.37759E-001	2.40651E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40		0.999	1.523532E+001	1.623812E+000
Eu-155		0.325	3.983075E-001	3.558258E-001
TL-208		0.470	3.031222E-001	8.033370E-002
Pb-212	@	0.677	6.901045E-001	1.964444E-001
Bi-214		0.694	5.653507E-001	1.158106E-001
PB-214	@	0.669	4.930698E-001	1.491898E-001
Ac-228		0.998	9.456662E-001	1.603390E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.77	5.9791E-001	19.55
M 3	84.78	7.1075E-001	16.61
M 12	964.61	4.6711E-002	55.05

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
	Co-60	1173.22	100.00	1.1733E-001	9.85E-002	-1.0202E-001
		1332.49	100.00	9.8499E-002		8.6250E-002
	Nb-94	702.63	100.00	9.6095E-002	8.97E-002	-2.8106E-002
		871.10	100.00	8.9709E-002		5.9232E-002
	Ag-108m	79.20	7.10	5.3113E+000	1.10E-001	-3.6106E+000
		433.93	89.90	1.2048E-001		7.8722E-002
		614.37	90.40	1.1407E-001		-2.3057E-002
		722.95	90.50	1.0957E-001		5.0735E-002
	Sb-125	176.33	6.89	3.5924E+000	5.53E-001	1.8893E+000
		427.89	29.33	5.5326E-001		3.3221E-001
		463.38	10.35	1.5547E+000		2.0410E-003
		600.56	17.80	8.4726E-001		8.8931E-002
		606.64	5.02	3.9319E+000		5.6365E+000
		635.90	11.32	1.2134E+000		-8.5858E-002
	Cs-134	563.23	8.38	1.9845E+000	1.93E-001	4.5001E-001
		569.32	15.43	1.1231E+000		6.9821E-002
		604.70	97.60	2.3085E-001		-2.0596E-002
		795.84	85.40	1.9261E-001		-4.4233E-002
		801.93	8.73	1.8688E+000		-1.3494E+000
	Cs-137	661.65	85.12	1.2914E-001	1.29E-001	9.6761E-002
	Eu-152	121.78	28.40	8.5287E-001	3.61E-001	-2.4839E-001
		244.69	7.49	1.9732E+000		4.5904E-001
		344.27	26.50	4.2401E-001		2.8462E-001
		778.89	12.74	7.3118E-001		-1.5328E-001
		867.32	4.16	2.3622E+000		-2.2505E+000
		964.01	14.40	9.3980E-001		-1.0817E-002
		1085.78	10.00	1.0012E+000		-2.2370E-001
		1112.02	13.30	7.4358E-001		-2.0191E-001
		1407.95	20.70	3.6057E-001		3.5152E-001
	Eu-154	123.07	40.50	6.2269E-001	2.52E-001	2.3677E-001
		247.94	6.60	2.2598E+000		-9.0561E-001
		591.81	4.83	2.1665E+000		-1.3092E+000
		723.30	19.70	5.7639E-001		4.2822E-001
		756.87	4.33	2.4729E+000		-6.9086E-001
		873.19	11.50	8.7602E-001		4.4003E-001
		996.32	10.30	9.6063E-001		-8.8296E-001
		1004.76	17.90	5.6303E-001		5.3797E-002
		1274.45	35.50	2.5196E-001		-1.0595E-001
+	Eu-155	86.54*	30.90	1.0878E+000	1.09E+000	7.2103E-001
		105.31	20.70	1.6529E+000		1.1042E+000
	Am-241	59.54	35.90	1.4217E+000	1.42E+000	-3.2931E-001
	Cm-243	228.19	10.56	1.3535E+000	9.34E-001	9.5245E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	9.3410E-001	9.34E-001	-4.1140E-001

+ = 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

Report Generated On 5/23/2006 6:49:13 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BRN7722

Spectrum File: BRN7722
Sample ID: NOL-05-01-113
Sample Title: NOL-05-01-113-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/23/2006 6:39:10 PM
Live Time: 600.0 seconds
Real Time: 601.0 seconds

Energy Calibration Date: 4/7/2006
Eff Calibration Date: 3/23/2006
Calibration Efficiency: 7722Soil1m180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: BRN7722
Log Number: NOL-05-01-113
Title: NOL-05-01-113-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	286-	304	291.33	73.03	0.91	2.40E+002	53.70	8.09E+002
m	2	286-	304	299.96	75.19	0.92	4.13E+002	61.34	8.84E+002
M	3	331-	356	339.54	85.08	1.28	2.28E+002	56.07	1.21E+003
m	4	331-	356	350.02	87.70	1.28	1.43E+002	53.02	1.28E+003
	5	949-	961	953.97	238.67	1.02	2.19E+002	57.55	2.38E+002
	6	1174-	1187	1179.98	295.17	1.20	6.52E+001	46.67	1.80E+002
	7	1400-	1414	1406.67	351.83	0.89	9.54E+001	41.12	1.19E+002
	8	2033-	2052	2040.90	510.37	2.17	1.30E+002	39.79	8.03E+001
	9	2323-	2339	2330.70	582.82	0.57	9.85E+001	35.18	7.15E+001
	10	2427-	2444	2434.73	608.82	0.59	1.32E+002	33.30	4.83E+001
	11	2900-	2915	2906.72	726.80	1.26	5.70E+001	24.48	3.10E+001
	12	3434-	3446	3439.42	859.97	0.98	1.85E+001	20.73	3.55E+001
	13	3634-	3647	3641.79	910.55	1.36	6.94E+001	26.03	3.86E+001
	14	3866-	3882	3873.52	968.48	0.56	7.16E+001	26.35	3.44E+001
	15	4468-	4487	4478.03	1119.59	0.65	7.00E+001	27.19	3.50E+001
	16	5830-	5854	5841.18	1460.34	1.76	7.30E+002	54.11	8.48E+000
	17	7050-	7063	7056.94	1764.24	0.48	3.95E+001	13.74	3.50E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: BRN7722

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
ANN	0.987	511.00*	100.00	2.21378E-001	7.42518E-002
K-40	0.993	1460.81*	10.67	1.54718E+001	1.69879E+000
TL-208	0.900	277.35	6.80		
		510.84*	21.60	1.02490E+000	3.53801E-001
		583.14*	84.20	2.08241E-001	7.91784E-002
		860.37*	12.46	2.92290E-001	3.28835E-001
Bi-212	0.996	727.17*	11.80	9.14814E-001	4.07199E-001
Pb-212	0.726	74.81* @	10.70	1.33702E+001	3.28832E+000
		77.11 @	18.00		
		87.30* @	8.00	3.86255E+000	1.62264E+000
		238.63*	44.60	6.81694E-001	2.08913E-001
Bi-214	0.992	609.31*	46.30	5.13574E-001	1.44444E-001
		1120.29*	15.10	9.62763E-001	3.87770E-001
		1764.49*	15.80	6.15886E-001	2.22874E-001
PB-214	0.697	74.82* @	6.21	2.30373E+001	5.90752E+000
		77.11 @	10.50		
		87.30* @	4.67	6.61679E+000	2.82427E+000
		241.98	7.49		
		295.21*	19.20	4.97598E-001	3.65678E-001
		351.92*	37.20	3.91906E-001	1.81153E-001
Ac-228	0.627	338.32	11.40		
		911.07*	27.70	4.98119E-001	1.95544E-001
		969.11*	16.60	8.69229E-001	3.32601E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:BRN7722

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
ANN		0.987	1.754093E-001	7.607798E-002
K-40		0.993	1.547179E+001	1.698795E+000
TL-208		0.900	2.128186E-001	7.670872E-002
Bi-212		0.996	9.148144E-001	4.071990E-001
Pb-212	@	0.726	6.816941E-001	2.089131E-001
Bi-214		0.992	5.811272E-001	1.156926E-001
PB-214	@	0.697	4.127328E-001	1.623267E-001
Ac-228		0.627	5.934447E-001	1.685689E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	73.03	4.0000E-001	22.37
M 3	85.08	3.8008E-001	24.59

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:BRN7722
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	1.1301E-001	9.04E-002	4.1289E-002
	1332.49	100.00	9.0413E-002		-4.7884E-002
Nb-94	702.63	100.00	1.1428E-001	1.04E-001	6.8150E-002
	871.10	100.00	1.0364E-001		-2.4727E-002
Ag-108m	79.20	7.10	9.6840E+000	1.35E-001	-1.6274E+001
	433.93	89.90	1.3534E-001		-1.2916E-001
	614.37	90.40	1.4677E-001		-1.0868E-001
	722.95	90.50	1.3644E-001		-5.6771E-002
Sb-125	176.33	6.89	2.9594E+000	4.27E-001	-1.7934E-001
	427.89	29.33	4.2672E-001		-1.5400E-001
	463.38	10.35	1.1714E+000		1.1463E+000
	600.56	17.80	6.6301E-001		4.8478E-001
	606.64	5.02	2.9043E+000		3.6645E+000
	635.90	11.32	1.0075E+000		1.9586E-001
Cs-134	563.23	8.38	1.4739E+000	1.26E-001	1.2330E+000
	569.32	15.43	7.8086E-001		2.6820E-001
	604.70	97.60	1.5201E-001		2.2189E-002
	795.84	85.40	1.2609E-001		-1.2015E-001
	801.93	8.73	1.2401E+000		-1.3584E+000
Cs-137	661.65	85.12	1.4779E-001	1.48E-001	1.1741E-001
Eu-152	121.78	28.40	1.0440E+000	3.97E-001	-9.7408E-001
	244.69	7.49	2.2012E+000		7.0114E-001
	344.27	26.50	5.1623E-001		-6.1601E-001
	778.89	12.74	8.4124E-001		-3.1174E-001
	867.32	4.16	2.5195E+000		-1.2887E+000
	964.01	14.40	9.8934E-001		4.5022E-001
	1085.78	10.00	9.7176E-001		-2.8339E-004
	1112.02	13.30	7.2664E-001		-4.9961E-001
	1407.95	20.70	3.9678E-001		-4.7895E-002
Eu-154	123.07	40.50	7.3462E-001	2.73E-001	1.6617E-001
	247.94	6.60	2.4738E+000		-2.7747E+000
	591.81	4.83	2.3934E+000		-3.3184E-001
	723.30	19.70	6.2353E-001		-2.3861E-001
	756.87	4.33	2.5823E+000		9.2300E-001
	873.19	11.50	9.0539E-001		2.1427E-002
	996.32	10.30	9.9594E-001		3.4698E-001
	1004.76	17.90	5.6635E-001		3.0011E-003
	1274.45	35.50	2.7251E-001		1.6380E-001
Eu-155	86.54	30.90	1.7378E+000	1.74E+000	2.0544E+000
	105.31	20.70	1.8479E+000		2.0053E+000
Am-241	59.54	35.90	3.7571E+000	3.76E+000	1.9949E+000
Cm-243	228.19	10.56	1.6519E+000	1.09E+000	7.4570E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.0948E+000	1.09E+000	-1.0592E-001

+ = 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

Report Generated On 5/24/2006 5:10:32 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: RED6264

Spectrum File: RED6264
Sample ID: NOL-05-01-114
Sample Title: NOL-05-01-114-F-G
Description: 40% water

Sample Type:
Geometry:

Acquisition Started: 5/24/2006 5:00:28 PM
Live Time: 600.0 seconds
Real Time: 601.2 seconds

Energy Calibration Date: 3/22/2006
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number: NOL-05-01-114
Title: NOL-05-01-114-F-G
Description: 40% water

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
	1	291-	309	300.68	75.07	1.50	8.31E+002	191.36	2.57E+003
	2	331-	345	339.24	84.72	1.23	2.34E+002	139.06	1.66E+003
	3	948-	963	954.17	238.49	1.59	2.82E+002	76.22	4.05E+002
M	4	1379-	1417	1384.02	345.98	1.47	2.84E+001	21.98	1.31E+002
m	5	1379-	1417	1406.53	351.61	1.48	1.58E+002	31.94	2.35E+002
	6	2031-	2052	2040.29	510.09	1.33	1.55E+002	52.61	1.51E+002
	7	2321-	2343	2331.14	582.82	1.16	2.02E+002	48.78	1.08E+002
	8	2424-	2446	2435.69	608.97	1.40	1.76E+002	50.96	1.29E+002
	9	2903-	2914	2908.06	727.09	0.34	2.43E+001	28.87	7.58E+001
	10	3630-	3655	3643.51	911.00	0.73	1.71E+002	41.45	6.49E+001
M	11	3849-	3883	3856.04	964.15	1.67	3.64E+001	15.40	3.38E+001
m	12	3849-	3883	3874.44	968.75	1.67	7.54E+001	21.07	6.03E+001
	13	5829-	5858	5843.85	1461.23	2.32	1.16E+003	69.11	1.85E+001
	14	7055-	7070	7061.82	1765.80	1.06	4.22E+001	18.87	1.68E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	0.974	511.00*	100.00	2.18248E-001	7.96852E-002
K-40	0.994	1460.81*	10.67	2.00106E+001	2.01361E+000
TL-208	0.747	277.35	6.80		
		510.84*	21.60	1.01041E+000	3.78029E-001
		583.14*	84.20	3.52767E-001	9.67301E-002
		860.37	12.46		
Bi-212	1.000	727.17*	11.80	3.21049E-001	3.84135E-001
Pb-212	0.521	74.81* @	10.70	1.23083E+001	3.72177E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	7.07794E-001	2.21139E-001
Bi-214	0.685	609.31*	46.30	5.67093E-001	1.78335E-001
		1120.29	15.10		
		1764.49*	15.80	5.11501E-001	2.34572E-001
Ac-228	0.632	338.32	11.40		
		911.07*	27.70	1.01186E+000	2.71321E-001
		969.11*	16.60	7.56696E-001	2.25961E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN	0.974	1.420505E-001	8.234144E-002
K-40	0.994	2.001061E+001	2.013613E+000
TL-208	0.747	3.527673E-001	9.604447E-002
Bi-212	1.000	3.210489E-001	3.841353E-001
Pb-212 @	0.521	7.077942E-001	2.211390E-001
Bi-214	0.685	5.467310E-001	1.419661E-001
Ac-228	0.632	8.611972E-001	1.736322E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
2	84.72	3.8919E-001	59.55
M 4	345.98	4.7395E-002	77.28
m 5	351.61	2.6380E-001	20.18
M 11	964.15	6.0597E-002	42.37

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Co-60	1173.22	100.00	1.1275E-001	8.36E-002	9.9623E-002
	1332.49	100.00	8.3566E-002		-2.0412E-002
Nb-94	702.63	100.00	1.0779E-001	9.98E-002	3.6044E-002
	871.10	100.00	9.9792E-002		-1.0037E-001
Ag-108m	79.20	7.10	5.8399E+000	1.32E-001	-4.6036E+000
	433.93	89.90	1.3252E-001		2.0275E-002
	614.37	90.40	1.5070E-001		3.1576E-002
	722.95	90.50	1.3227E-001		-6.5846E-002
Sb-125	176.33	6.89	2.4967E+000	4.14E-001	-5.5473E-001
	427.89	29.33	4.1381E-001		2.0214E-001
	463.38	10.35	1.1328E+000		-1.4036E-001
	600.56	17.80	6.2228E-001		-1.9533E-002
	606.64	5.02	2.9587E+000		5.8659E+000
	635.90	11.32	9.1526E-001		-1.1451E-001
Cs-134	563.23	8.38	1.4183E+000	1.30E-001	5.9751E-001
	569.32	15.43	7.3725E-001		2.2022E-001
	604.70	97.60	1.5065E-001		7.0105E-002
	795.84	85.40	1.2978E-001		3.6614E-002
	801.93	8.73	1.1699E+000		-1.2656E+000
Cs-137	661.65	85.12	1.3490E-001	1.35E-001	-1.7993E-002
Eu-152	121.78	28.40	8.2941E-001	3.71E-001	1.0597E-001
	244.69	7.49	2.1159E+000		-6.2753E-001
	344.27	26.50	4.6126E-001		-2.7496E-001
	778.89	12.74	7.5171E-001		-1.3506E+000
	867.32	4.16	2.5017E+000		-2.1310E+000
	964.01	14.40	8.7982E-001		3.1075E-002
	1085.78	10.00	9.6323E-001		3.1631E-001
	1112.02	13.30	7.9247E-001		-3.6659E-001
	1407.95	20.70	3.7103E-001		1.8725E-001
Eu-154	123.07	40.50	5.7439E-001	2.48E-001	-2.5002E-001
	247.94	6.60	2.3447E+000		2.0189E+000
	591.81	4.83	2.2914E+000		-5.4275E-001
	723.30	19.70	6.1345E-001		2.2113E-001
	756.87	4.33	2.4005E+000		-1.3914E+000
	873.19	11.50	8.7077E-001		-1.6037E-001
	996.32	10.30	8.9594E-001		-5.3071E-002
	1004.76	17.90	5.2451E-001		3.9004E-002
	1274.45	35.50	2.4760E-001		-1.6032E-001
Eu-155	86.54	30.90	1.1945E+000	1.19E+000	5.7680E-002
	105.31	20.70	1.3264E+000		4.4996E-001
Am-241	59.54	35.90	1.4058E+000	1.41E+000	-9.5988E-001
Cm-243	228.19	10.56	1.4844E+000	1.05E+000	6.2164E-003

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Cm-243	277.60	14.00	1.0515E+000	1.05E+000	2.5690E-001

+ = 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

Report Generated On 5/24/2006 5:50:53 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: RED6264

Spectrum File: RED6264
Sample ID: NOL-05-01-115
Sample Title: NOL-05-01-115-F-G
Description: 10% water

Sample Type:
Geometry:

Acquisition Started: 5/24/2006 5:40:52 PM
Live Time: 600.0 seconds
Real Time: 601.1 seconds

Energy Calibration Date: 3/22/2006
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number: NOL-05-01-115
Title: NOL-05-01-115-F-G
Description: 10% water

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
	1	291-	309	300.46	75.02	0.96	7.35E+002	188.71	2.52E+003
	2	333-	346	338.91	84.63	1.00	1.27E+002	132.44	1.60E+003
	3	945-	963	954.05	238.46	1.48	2.75E+002	82.89	4.46E+002
	4	1398-	1414	1406.77	351.67	1.44	1.86E+002	52.01	1.66E+002
	5	2031-	2050	2042.42	510.62	1.39	1.32E+002	50.34	1.50E+002
	6	2323-	2341	2330.88	582.76	0.95	1.51E+002	44.08	1.05E+002
	7	2425-	2448	2436.05	609.06	1.44	2.09E+002	47.13	9.29E+001
	8	3632-	3654	3644.11	911.15	1.26	1.27E+002	38.41	6.62E+001
M	9	3850-	3884	3856.55	964.27	1.97	3.54E+001	15.70	3.38E+001
m	10	3850-	3884	3875.31	968.97	1.97	9.72E+001	20.66	3.49E+001
	11	4475-	4487	4480.75	1120.37	0.39	3.16E+001	22.95	3.94E+001
	12	5506-	5519	5512.08	1378.27	0.87	2.36E+001	13.20	7.40E+000
	13	5828-	5859	5843.37	1461.11	2.15	1.06E+003	66.91	2.02E+001
	14	7052-	7070	7060.74	1765.53	0.35	5.80E+001	14.93	0.00E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	0.996	511.00*		100.00	1.85928E-001	7.51580E-002
K-40	0.997	1460.81*		10.67	1.83877E+001	1.88583E+000
TL-208	0.749	277.35		6.80		
		510.84*		21.60	8.60778E-001	3.54984E-001
		583.14*		84.20	2.63255E-001	8.42261E-002
		860.37		12.46		
Pb-212	0.520	74.81*	@	10.70	1.08966E+001	3.51964E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	6.90479E-001	2.34491E-001
Bi-214	0.992	609.31*		46.30	6.73478E-001	1.72966E-001
		1120.29*		15.10	3.63053E-001	2.66771E-001
		1764.49*		15.80	7.03710E-001	1.94291E-001
Ac-228	0.633	338.32		11.40		
		911.07*		27.70	7.49796E-001	2.42927E-001
		969.11*		16.60	9.75928E-001	2.31236E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN		0.996	1.290649E-001	7.730633E-002
K-40		0.997	1.838769E+001	1.885829E+000
TL-208		0.749	2.632548E-001	8.378805E-002
Pb-212	@	0.520	6.904787E-001	2.344913E-001
Bi-214		0.992	6.253350E-001	1.162727E-001
Ac-228		0.633	8.684342E-001	1.674892E-001

? = 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 1.960 sigma

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

	Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
	2	84.63	2.1170E-001	104.27
	4	351.67	3.1057E-001	27.91
M	9	964.27	5.9016E-002	44.33
	12	1378.27	3.9328E-002	55.95

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Co-60	1173.22	100.00	1.0058E-001	8.13E-002	-2.2379E-003
	1332.49	100.00	8.1272E-002		-3.1488E-002
Nb-94	702.63	100.00	1.0264E-001	9.80E-002	3.2890E-002
	871.10	100.00	9.7986E-002		-1.9048E-002
Ag-108m	79.20	7.10	5.8287E+000	1.17E-001	-5.2046E+000
	433.93	89.90	1.2933E-001		1.4153E-003
	614.37	90.40	1.3932E-001		1.4022E-002
	722.95	90.50	1.1669E-001		3.0355E-002
Sb-125	176.33	6.89	2.3876E+000	4.09E-001	-8.0553E-001
	427.89	29.33	4.0881E-001		1.4496E-001
	463.38	10.35	1.0325E+000		5.6470E-001
	600.56	17.80	5.8472E-001		-3.0992E-001
	606.64	5.02	2.8542E+000		-4.1614E-001
	635.90	11.32	9.3482E-001		2.4020E-001
Cs-134	563.23	8.38	1.3096E+000	1.21E-001	1.7561E-001
	569.32	15.43	7.3725E-001		5.3038E-001
	604.70	97.60	1.4398E-001		-4.7612E-002
	795.84	85.40	1.2104E-001		-1.8936E-002
	801.93	8.73	1.1104E+000		-1.1728E+000
Cs-137	661.65	85.12	1.2567E-001	1.26E-001	1.1133E-001
Eu-152	121.78	28.40	8.1007E-001	3.69E-001	3.2029E-002
	244.69	7.49	1.9459E+000		-1.9687E+000
	344.27	26.50	4.6863E-001		-2.0072E-001
	778.89	12.74	8.0996E-001		-2.0686E-001
	867.32	4.16	2.5492E+000		-1.4750E-001
	964.01	14.40	8.7641E-001		-7.8312E-002
	1085.78	10.00	9.8399E-001		4.7807E-002
	1112.02	13.30	7.2383E-001		-7.2506E-001
	1407.95	20.70	3.6858E-001		2.3232E-001
Eu-154	123.07	40.50	5.6046E-001	2.64E-001	2.6695E-001
	247.94	6.60	2.1343E+000		-9.4728E-001
	591.81	4.83	2.1297E+000		-1.1186E+000
	723.30	19.70	5.3612E-001		1.5650E-001
	756.87	4.33	2.2593E+000		-7.2156E-001
	873.19	11.50	8.3914E-001		-4.1604E-001
	996.32	10.30	8.8916E-001		-3.6023E-001
	1004.76	17.90	5.0891E-001		-5.3738E-001
	1274.45	35.50	2.6359E-001		-1.9251E-002
Eu-155	86.54	30.90	1.1757E+000	1.18E+000	2.1310E+000
	105.31	20.70	1.2996E+000		4.2903E-001
Am-241	59.54	35.90	1.4741E+000	1.47E+000	6.7982E-002
Cm-243	228.19	10.56	1.4048E+000	1.02E+000	9.1208E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Cm-243	277.60	14.00	1.0165E+000	1.02E+000	1.2426E+000

+ = 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

Report Generated On 5/23/2006 1:31:35 AM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: GRN7780

Spectrum File: GRN7780
Sample ID: NOL-05-01-116
Sample Title: NOL-05-01-116-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/23/2006 1:21:48 AM
Live Time: 600.0 seconds
Real Time: 601.0 seconds

Energy Calibration Date: 4/19/2006
Eff Calibration Date: 3/23/2006
Calibration Efficiency: 7780Soil1M180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: GRN7780
Log Number: NOL-05-01-116
Title: NOL-05-01-116-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	293-	306	297.96	74.45	1.18	2.47E+002	109.65	1.04E+003
2	943-	962	952.57	238.10	0.56	2.44E+002	79.17	3.96E+002
3	3528-	3540	3533.83	883.42	0.69	1.32E+001	15.64	1.88E+001
4	3631-	3655	3644.02	910.97	0.78	1.36E+002	36.96	5.28E+001
5	5828-	5858	5842.88	1460.69	2.84	7.75E+002	56.52	1.16E+001
6	7057-	7070	7063.28	1765.79	0.30	2.33E+001	15.79	1.27E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: GRN7780

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	1.000	1460.81*	10.67	1.70219E+001	1.85435E+000
Pb-212	0.593	74.81* @	10.70	1.02890E+001	4.98469E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	7.88109E-001	2.84259E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:GRN7780

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40	1.000	1.702190E+001	1.854347E+000
Pb-212 @	0.593	7.881088E-001	2.842591E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
3	883.42	2.1927E-002	118.90
4	910.97	2.2701E-001	27.14
6	1765.79	3.8854E-002	67.73

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:GRN7780
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	1.0587E-001	9.20E-002	-4.1073E-002
	1332.49	100.00	9.2039E-002		6.0535E-002
Nb-94	702.63	100.00	1.0944E-001	1.01E-001	1.0028E-002
	871.10	100.00	1.0056E-001		-1.1054E-001
Ag-108m	79.20	7.10	1.0486E+001	1.31E-001	-1.2843E+001
	433.93	89.90	1.4412E-001		1.8399E-002
	614.37	90.40	1.5071E-001		-1.9038E-001
	722.95	90.50	1.3072E-001		-2.3284E-002
Sb-125	176.33	6.89	3.0554E+000	4.53E-001	-3.2761E-001
	427.89	29.33	4.5338E-001		4.9321E-001
	463.38	10.35	1.2550E+000		4.8546E-001
	600.56	17.80	6.9776E-001		4.9627E-001
	606.64	5.02	2.9946E+000		5.3767E+000
	635.90	11.32	1.0392E+000		3.7963E-001
Cs-134	563.23	8.38	1.5190E+000	1.29E-001	5.2996E-001
	569.32	15.43	8.2025E-001		-3.0775E-001
	604.70	97.60	1.4767E-001		-1.0316E-002
	795.84	85.40	1.2883E-001		5.8466E-002
	801.93	8.73	1.2527E+000		-2.7879E-001
Cs-137	661.65	85.12	1.4363E-001	1.44E-001	-3.4850E-003
Eu-152	121.78	28.40	1.0545E+000	4.07E-001	5.8460E-001
	244.69	7.49	2.3699E+000		-2.2966E+000
	344.27	26.50	5.4062E-001		-8.0247E-001
	778.89	12.74	8.1104E-001		-6.0267E-001
	867.32	4.16	2.5132E+000		-3.4037E+000
	964.01	14.40	9.7563E-001		8.6041E-001
	1085.78	10.00	1.0539E+000		2.7038E-001
	1112.02	13.30	7.3936E-001		-2.2798E+000
	1407.95	20.70	4.0662E-001		1.2721E-001
Eu-154	123.07	40.50	7.2310E-001	2.52E-001	-4.8438E-001
	247.94	6.60	2.5517E+000		-1.0419E-001
	591.81	4.83	2.5911E+000		-2.3965E+000
	723.30	19.70	6.0788E-001		9.9610E-002
	756.87	4.33	2.6436E+000		5.7722E-001
	873.19	11.50	9.1793E-001		2.4325E-001
	996.32	10.30	9.7391E-001		-2.4667E-001
	1004.76	17.90	5.7517E-001		3.7701E-001
	1274.45	35.50	2.5244E-001		1.0779E-001
Eu-155	86.54	30.90	1.9427E+000	1.88E+000	2.1465E+000
	105.31	20.70	1.8803E+000		2.0610E-001
Am-241	59.54	35.90	4.5695E+000	4.57E+000	-8.8703E-001
Cm-243	228.19	10.56	1.6924E+000	1.15E+000	1.1553E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.1480E+000	1.15E+000	-2.4812E-001

+ = 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

Report Generated On 5/23/2006 12:53:44 AM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: GRN7780

Spectrum File: GRN7780
Sample ID: NOL-05-01-117
Sample Title: NOL-05-01-117-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/23/2006 12:43:41 AM
Live Time: 600.0 seconds
Real Time: 601.0 seconds

Energy Calibration Date: 4/19/2006
Eff Calibration Date: 3/23/2006
Calibration Efficiency: 7780Soil1M180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: GRN7780
Log Number: NOL-05-01-117
Title: NOL-05-01-117-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	944-	962	952.08	237.98	1.08	1.99E+002	78.46	4.15E+002
2	1345-	1360	1349.77	337.40	0.82	7.14E+001	44.54	1.48E+002
3	1400-	1416	1405.47	351.33	1.36	1.48E+002	45.74	1.27E+002
4	2321-	2345	2332.92	583.19	0.57	1.90E+002	43.00	7.15E+001
5	5829-	5857	5842.30	1460.54	2.74	7.97E+002	59.23	2.52E+001
6	7052-	7065	7058.41	1764.57	0.95	1.98E+001	14.34	1.22E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: GRN7780

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.998	1460.81*		10.67	1.74889E+001	1.92228E+000
TL-208	0.472	277.35		6.80		
		510.84		21.60		
		583.14*		84.20	4.13238E-001	1.08088E-001
		860.37		12.46		
Pb-212	0.446	74.81	@	10.70		
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	6.42474E-001	2.72962E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:GRN7780

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40	0.998	1.748892E+001	1.922278E+000
TL-208	0.472	4.132378E-001	1.080883E-001
Pb-212 @	0.446	6.424738E-001	2.729622E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
2	337.40	1.1898E-001	62.39
3	351.33	2.4708E-001	30.85
6	1764.57	3.2930E-002	72.57

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:GRN7780
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	1.0737E-001	9.27E-002	2.6128E-002
	1332.49	100.00	9.2669E-002		1.2381E-001
Nb-94	702.63	100.00	1.1288E-001	1.09E-001	3.4386E-002
	871.10	100.00	1.0897E-001		6.1162E-002
Ag-108m	79.20	7.10	1.0505E+001	1.34E-001	-2.3406E+001
	433.93	89.90	1.4223E-001		-5.3322E-002
	614.37	90.40	1.5876E-001		2.6430E-002
	722.95	90.50	1.3427E-001		-1.1852E-001
Sb-125	176.33	6.89	2.9812E+000	4.26E-001	-1.5838E+000
	427.89	29.33	4.2562E-001		1.2605E-001
	463.38	10.35	1.2281E+000		2.1943E-001
	600.56	17.80	6.7275E-001		-5.3985E-001
	606.64	5.02	2.9946E+000		4.3675E+000
	635.90	11.32	9.7009E-001		-4.3222E-001
Cs-134	563.23	8.38	1.3956E+000	1.33E-001	-7.1649E-001
	569.32	15.43	7.8101E-001		-5.2115E-001
	604.70	97.60	1.4850E-001		-2.7424E-002
	795.84	85.40	1.3303E-001		6.9697E-003
	801.93	8.73	1.2338E+000		-3.9087E-001
Cs-137	661.65	85.12	1.4755E-001	1.48E-001	1.0788E-001
Eu-152	121.78	28.40	1.0730E+000	3.77E-001	5.9280E-002
	244.69	7.49	2.3167E+000		-2.9521E+000
	344.27	26.50	5.1779E-001		-1.0173E-001
	778.89	12.74	9.0933E-001		-8.7338E-001
	867.32	4.16	2.6777E+000		-2.4613E+000
	964.01	14.40	9.6132E-001		1.5512E+000
	1085.78	10.00	1.0292E+000		1.0583E+000
	1112.02	13.30	8.2596E-001		-6.9942E-001
	1407.95	20.70	3.7704E-001		-2.0312E-001
Eu-154	123.07	40.50	7.4651E-001	2.56E-001	-1.0954E-001
	247.94	6.60	2.4592E+000		1.3661E+000
	591.81	4.83	2.4541E+000		1.1601E+000
	723.30	19.70	6.2576E-001		-1.5439E-001
	756.87	4.33	2.6259E+000		-3.8224E-001
	873.19	11.50	9.4055E-001		6.2032E-001
	996.32	10.30	9.4472E-001		2.4872E-002
	1004.76	17.90	5.4756E-001		3.1686E-001
	1274.45	35.50	2.5598E-001		-2.2450E-001
Eu-155	86.54	30.90	1.8812E+000	1.83E+000	2.8392E+000
	105.31	20.70	1.8321E+000		-1.0535E+000
Am-241	59.54	35.90	4.6637E+000	4.66E+000	-6.9677E-001
Cm-243	228.19	10.56	1.7279E+000	1.13E+000	5.3279E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.1336E+000	1.13E+000	-2.1866E-001

+ = 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

Report Generated On 5/22/2006 10:41:53 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: GRN7780

Spectrum File: GRN7780
Sample ID: NOL-05-01-118
Sample Title: NOL-05-01-118-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/22/2006 10:31:52 PM
Live Time: 600.0 seconds
Real Time: 601.0 seconds

Energy Calibration Date: 4/19/2006
Eff Calibration Date: 3/23/2006
Calibration Efficiency: 7780Soil1M180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: GRN7780
Log Number: NOL-05-01-118
Title: NOL-05-01-118-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	942-	962	951.82	237.91	0.80	2.34E+002	83.60	4.37E+002
2	3867-	3881	3873.06	968.23	0.50	4.07E+001	28.38	5.83E+001
3	5828-	5858	5843.11	1460.75	2.85	7.94E+002	58.39	1.93E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: GRN7780

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	1.000	1460.81*		10.67	1.74229E+001	1.90602E+000
Pb-212	0.445	74.81	@	10.70		
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	7.55642E-001	2.95112E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:GRN7780

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40	1.000	1.742287E+001	1.906022E+000
Pb-212 @	0.445	7.556425E-001	2.951125E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
2	968.23	6.7837E-002	69.72

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:GRN7780
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	1.2394E-001	1.06E-001	8.3183E-002
	1332.49	100.00	1.0552E-001		1.2695E-001
Nb-94	702.63	100.00	1.2834E-001	1.04E-001	1.2986E-001
	871.10	100.00	1.0374E-001		-6.9071E-002
Ag-108m	79.20	7.10	1.0428E+001	1.43E-001	-2.3879E+001
	433.93	89.90	1.5764E-001		1.8023E-001
	614.37	90.40	1.6026E-001		-2.1559E-001
	722.95	90.50	1.4257E-001		4.8360E-002
Sb-125	176.33	6.89	3.0498E+000	4.68E-001	-6.8382E-001
	427.89	29.33	4.6816E-001		-6.5057E-002
	463.38	10.35	1.3661E+000		2.8341E-001
	600.56	17.80	6.9601E-001		-1.8434E-001
	606.64	5.02	3.0049E+000		2.0066E+000
	635.90	11.32	1.1646E+000		-2.2858E-001
Cs-134	563.23	8.38	1.5294E+000	1.48E-001	1.3135E+000
	569.32	15.43	8.3165E-001		-9.8168E-002
	604.70	97.60	1.5147E-001		-3.5948E-002
	795.84	85.40	1.4778E-001		7.9279E-002
	801.93	8.73	1.3343E+000		3.9976E-001
Cs-137	661.65	85.12	1.5360E-001	1.54E-001	4.4160E-003
Eu-152	121.78	28.40	1.0190E+000	4.03E-001	-3.5249E-001
	244.69	7.49	2.3238E+000		-1.1268E+000
	344.27	26.50	5.6664E-001		-6.4561E-001
	778.89	12.74	9.0634E-001		-8.0982E-001
	867.32	4.16	2.5658E+000		-1.8924E+000
	964.01	14.40	9.8739E-001		1.6512E-003
	1085.78	10.00	9.9862E-001		-1.0208E+000
	1112.02	13.30	8.5392E-001		-1.1756E+000
	1407.95	20.70	4.0305E-001		-1.0993E-001
Eu-154	123.07	40.50	7.1164E-001	2.95E-001	-3.4355E-001
	247.94	6.60	2.5219E+000		-6.5918E-001
	591.81	4.83	2.6351E+000		1.0725E+000
	723.30	19.70	6.5332E-001		-1.0650E-001
	756.87	4.33	2.7641E+000		-2.3734E+000
	873.19	11.50	9.2174E-001		2.9447E-001
	996.32	10.30	1.0738E+000		1.5253E-001
	1004.76	17.90	6.4594E-001		-2.1858E-001
	1274.45	35.50	2.9499E-001		9.9309E-002
Eu-155	86.54	30.90	1.8668E+000	1.84E+000	4.0024E+000
	105.31	20.70	1.8434E+000		-3.2664E-001
Am-241	59.54	35.90	4.6277E+000	4.63E+000	-1.9142E+000
Cm-243	228.19	10.56	1.7197E+000	1.16E+000	-3.2176E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.1600E+000	1.16E+000	-5.6978E-001

+ = 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

Report Generated On 5/22/2006 9:19:46 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: GRN7780

Spectrum File: GRN7780
Sample ID: NOL-05-01-119
Sample Title: NOL-05-01-119-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/22/2006 9:09:43 PM
Live Time: 600.0 seconds
Real Time: 600.9 seconds

Energy Calibration Date: 4/19/2006
Eff Calibration Date: 3/23/2006
Calibration Efficiency: 7780Soil1M180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: GRN7780
Log Number: NOL-05-01-119
Title: NOL-05-01-119-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	944-	963	952.86	238.17	1.39	2.08E+002	76.44	3.75E+002
2	2321-	2340	2328.74	582.14	0.95	1.11E+002	38.89	7.94E+001
3	2427-	2446	2433.69	608.38	1.14	1.18E+002	40.82	9.00E+001
4	3631-	3653	3641.37	910.31	1.63	1.15E+002	35.53	5.48E+001
5	3869-	3881	3874.56	968.60	0.57	2.38E+001	25.55	5.42E+001
6	5828-	5857	5842.06	1460.48	2.54	6.69E+002	54.58	2.25E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: GRN7780

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.997	1460.81*		10.67	1.46735E+001	1.68715E+000
TL-208	0.450	277.35		6.80		
		510.84		21.60		
		583.14*		84.20	2.41061E-001	9.03859E-002
		860.37		12.46		
Pb-212	0.450	74.81	@	10.70		
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	6.72627E-001	2.68752E-001
Bi-214	0.386	609.31*		46.30	4.74390E-001	1.74221E-001
		1120.29		15.10		
		1764.49		15.80		
Ac-228	0.624	338.32		11.40		
		911.07*		27.70	8.45340E-001	2.78261E-001
		969.11*		16.60	2.95844E-001	3.19051E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:GRN7780

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40		0.997	1.467348E+001	1.687149E+000
TL-208		0.450	2.410608E-001	9.038589E-002
Pb-212	@	0.450	6.726265E-001	2.687518E-001
Bi-214		0.386	4.743897E-001	1.742207E-001
Ac-228		0.624	6.079417E-001	2.097084E-001

? = 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 1.960 sigma

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

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

All peaks were identified.

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:GRN7780
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	1.1271E-001	8.75E-002	-8.5712E-002
	1332.49	100.00	8.7494E-002		-6.2541E-002
Nb-94	702.63	100.00	1.1251E-001	1.12E-001	8.4990E-002
	871.10	100.00	1.1231E-001		2.7460E-002
Ag-108m	79.20	7.10	9.6997E+000	1.37E-001	-2.2913E+001
	433.93	89.90	1.3670E-001		-1.0500E-002
	614.37	90.40	1.5876E-001		-4.5823E-002
	722.95	90.50	1.4366E-001		2.4463E-002
Sb-125	176.33	6.89	2.8316E+000	4.26E-001	-5.2088E-001
	427.89	29.33	4.2646E-001		-2.4100E-001
	463.38	10.35	1.3256E+000		1.4453E+000
	600.56	17.80	6.6174E-001		-5.3627E-001
	606.64	5.02	3.1787E+000		6.4968E+000
	635.90	11.32	1.0052E+000		7.8505E-003
Cs-134	563.23	8.38	1.4980E+000	1.27E-001	1.3763E+000
	569.32	15.43	7.5644E-001		-2.9176E-001
	604.70	97.60	1.5518E-001		2.0852E-002
	795.84	85.40	1.2739E-001		8.0504E-002
	801.93	8.73	1.1497E+000		-1.3290E+000
Cs-137	661.65	85.12	1.4442E-001	1.44E-001	1.1616E-001
Eu-152	121.78	28.40	9.5900E-001	3.77E-001	-7.2904E-002
	244.69	7.49	2.1988E+000		-4.2838E+000
	344.27	26.50	5.3410E-001		-8.5598E-001
	778.89	12.74	8.0426E-001		-1.2727E+000
	867.32	4.16	2.5132E+000		-1.2944E+000
	964.01	14.40	9.2205E-001		-3.1859E-001
	1085.78	10.00	1.0490E+000		-1.4026E-001
	1112.02	13.30	7.3535E-001		-1.2694E-001
	1407.95	20.70	3.7704E-001		1.8342E-001
Eu-154	123.07	40.50	6.7199E-001	2.49E-001	3.1096E-001
	247.94	6.60	2.3606E+000		-1.3020E+000
	591.81	4.83	2.5720E+000		-1.4190E+000
	723.30	19.70	6.6335E-001		5.0050E-001
	756.87	4.33	2.6873E+000		1.3819E+000
	873.19	11.50	9.5531E-001		-5.2372E-001
	996.32	10.30	9.7868E-001		4.2396E-001
	1004.76	17.90	5.8847E-001		2.7054E-001
	1274.45	35.50	2.4884E-001		-1.3243E-002
Eu-155	86.54	30.90	1.7362E+000	1.74E+000	1.2369E+000
	105.31	20.70	1.7596E+000		1.4653E+000
Am-241	59.54	35.90	4.5933E+000	4.59E+000	-1.6803E+000
Cm-243	228.19	10.56	1.6177E+000	1.10E+000	9.0783E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.0974E+000	1.10E+000	4.6875E-001

+ = 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

Report Generated On 5/22/2006 6:51:22 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: GRN7780

Spectrum File: GRN7780
Sample ID: NOL-05-01-120-
Sample Title: NOL-05-01-120-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/22/2006 6:41:19 PM
Live Time: 600.0 seconds
Real Time: 601.0 seconds

Energy Calibration Date: 4/19/2006
Eff Calibration Date: 3/23/2006
Calibration Efficiency: 7780Soil1M180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: GRN7780
Log Number: NOL-05-01-120-
Title: NOL-05-01-120-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	945-	963	953.03	238.22	0.76	2.12E+002	73.94	3.59E+002
2	2320-	2335	2329.58	582.35	0.58	4.81E+001	41.55	1.27E+002
3	3634-	3653	3643.23	910.77	1.98	9.85E+001	31.88	4.75E+001
4	3867-	3879	3873.18	968.26	0.70	3.32E+001	26.19	5.28E+001
5	5828-	5857	5842.15	1460.51	2.25	7.07E+002	55.87	2.24E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: GRN7780

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.997	1460.81*	10.67	1.55107E+001	1.75520E+000
TL-208	0.458	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	1.04893E-001	9.15722E-002
		860.37	12.46		
Pb-212	0.451	74.81 @	10.70		
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	6.86943E-001	2.62258E-001
Ac-228	0.627	338.32	11.40		
		911.07*	27.70	7.23136E-001	2.48332E-001
		969.11*	16.60	4.12981E-001	3.28388E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:GRN7780

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40		0.997	1.551074E+001	1.755199E+000
TL-208		0.458	1.048934E-001	9.157221E-002
Pb-212	@	0.451	6.869430E-001	2.622581E-001
Ac-228		0.627	6.102985E-001	1.980728E-001

? = 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 1.960 sigma

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

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

All peaks were identified.

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:GRN7780
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	1.1128E-001	9.33E-002	-2.8996E-002
	1332.49	100.00	9.3294E-002		3.4429E-002
Nb-94	702.63	100.00	1.1731E-001	1.01E-001	3.6689E-002
	871.10	100.00	1.0056E-001		-6.3811E-002
Ag-108m	79.20	7.10	1.0028E+001	1.36E-001	-1.6339E+001
	433.93	89.90	1.4703E-001		-3.1284E-002
	614.37	90.40	1.5166E-001		-7.5577E-002
	722.95	90.50	1.3620E-001		3.1355E-002
Sb-125	176.33	6.89	2.8848E+000	4.43E-001	-1.2172E+000
	427.89	29.33	4.4298E-001		1.3018E-001
	463.38	10.35	1.2861E+000		9.5434E-001
	600.56	17.80	6.6543E-001		-5.6412E-001
	606.64	5.02	2.9585E+000		2.3810E+000
	635.90	11.32	1.0631E+000		-1.6285E-001
Cs-134	563.23	8.38	1.3726E+000	1.36E-001	-9.3448E-001
	569.32	15.43	7.7291E-001		-1.7225E-001
	604.70	97.60	1.4931E-001		6.8647E-003
	795.84	85.40	1.3575E-001		9.1570E-002
	801.93	8.73	1.2851E+000		1.2166E+000
Cs-137	661.65	85.12	1.5211E-001	1.52E-001	1.9867E-001
Eu-152	121.78	28.40	9.8423E-001	3.77E-001	-2.0289E-002
	244.69	7.49	2.2288E+000		-2.1463E+000
	344.27	26.50	5.0713E-001		-1.0221E-001
	778.89	12.74	8.2772E-001		3.9347E-001
	867.32	4.16	2.4918E+000		-5.1800E-001
	964.01	14.40	9.5892E-001		7.6098E-001
	1085.78	10.00	9.7770E-001		-6.5082E-001
	1112.02	13.30	7.1077E-001		-2.1458E+000
	1407.95	20.70	3.7704E-001		-2.9180E-001
Eu-154	123.07	40.50	6.8011E-001	2.54E-001	-1.3560E-001
	247.94	6.60	2.3606E+000		-1.9893E+000
	591.81	4.83	2.5268E+000		-1.6630E+000
	723.30	19.70	6.2045E-001		-1.6933E-001
	756.87	4.33	2.7388E+000		-4.7575E-001
	873.19	11.50	8.9471E-001		1.6355E-001
	996.32	10.30	9.7391E-001		2.5376E-001
	1004.76	17.90	5.5320E-001		-8.7708E-002
	1274.45	35.50	2.5421E-001		-3.1417E-001
Eu-155	86.54	30.90	1.7667E+000	1.77E+000	2.5630E+000
	105.31	20.70	1.7982E+000		4.2782E-001
Am-241	59.54	35.90	5.2145E+000	5.21E+000	1.7013E+000
Cm-243	228.19	10.56	1.6755E+000	1.08E+000	4.8341E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.0764E+000	1.08E+000	-1.7993E-001

+ = 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

Report Generated On 5/22/2006 4:28:38 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: GRN7780

Spectrum File: GRN7780
Sample ID: NOL-05-01-121-F-
Sample Title: NOL-05-01-121-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/22/2006 4:18:36 PM
Live Time: 600.0 seconds
Real Time: 600.9 seconds

Energy Calibration Date: 4/19/2006
Eff Calibration Date: 3/23/2006
Calibration Efficiency: 7780Soil1M180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: GRN7780
Log Number: NOL-05-01-121-F-
Title: NOL-05-01-121-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	212-	226	221.07	55.22	0.55	7.99E+001	82.96	5.91E+002
2	943-	961	951.13	237.74	1.51	2.43E+002	76.74	3.81E+002
3	1397-	1417	1406.05	351.47	1.01	9.72E+001	51.01	1.60E+002
4	2426-	2438	2433.62	608.37	0.70	5.42E+001	33.28	8.48E+001
5	2659-	2670	2664.28	666.03	0.25	2.14E+001	18.42	2.66E+001
6	5830-	5857	5842.40	1460.57	3.44	7.52E+002	57.39	2.38E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: GRN7780

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.998	1460.81*		10.67	1.65117E+001	1.83680E+000
Pb-212	0.440	74.81	@	10.70		
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	7.86114E-001	2.76994E-001
Bi-214	0.386	609.31*		46.30	2.17959E-001	1.36446E-001
		1120.29		15.10		
		1764.49		15.80		

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:GRN7780

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40		0.998	1.651175E+001	1.836798E+000
Pb-212	@	0.440	7.861144E-001	2.769942E-001
Bi-214		0.386	2.179590E-001	1.364456E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
1	55.22	1.3310E-001	103.88
3	351.47	1.6201E-001	52.47
5	666.03	3.5712E-002	85.97

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:GRN7780
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	1.0068E-001	9.27E-002	-5.0877E-002
	1332.49	100.00	9.2669E-002		2.2725E-002
Nb-94	702.63	100.00	1.1549E-001	1.00E-001	5.0788E-002
	871.10	100.00	1.0010E-001		-5.2400E-002
Ag-108m	79.20	7.10	1.0086E+001	1.32E-001	-9.7107E+000
	433.93	89.90	1.3180E-001		-1.0324E-001
	614.37	90.40	1.6526E-001		-1.2660E-001
	722.95	90.50	1.3961E-001		8.6159E-002
Sb-125	176.33	6.89	2.8950E+000	4.15E-001	8.9558E-001
	427.89	29.33	4.1536E-001		-2.7715E-001
	463.38	10.35	1.2694E+000		9.0685E-001
	600.56	17.80	6.5052E-001		-1.5388E-001
	606.64	5.02	3.1153E+000		4.5082E+000
	635.90	11.32	9.7658E-001		3.5364E-002
Cs-134	563.23	8.38	1.4802E+000	1.39E-001	-7.5808E-002
	569.32	15.43	8.0088E-001		1.9116E-001
	604.70	97.60	1.4959E-001		-8.4979E-002
	795.84	85.40	1.3886E-001		4.6239E-002
	801.93	8.73	1.2713E+000		-5.1306E-001
Cs-137	661.65	85.12	1.4243E-001	1.42E-001	-3.6468E-002
Eu-152	121.78	28.40	9.4547E-001	3.96E-001	-2.6592E-002
	244.69	7.49	2.3256E+000		-2.8786E+000
	344.27	26.50	5.4778E-001		4.0468E-001
	778.89	12.74	8.2109E-001		-3.6592E-001
	867.32	4.16	2.4043E+000		-2.1771E+000
	964.01	14.40	9.1195E-001		1.7297E-001
	1085.78	10.00	1.0292E+000		-3.6269E-001
	1112.02	13.30	7.7065E-001		-8.3382E-001
	1407.95	20.70	3.9581E-001		-3.7262E-001
Eu-154	123.07	40.50	6.5196E-001	2.65E-001	-4.2376E-001
	247.94	6.60	2.5091E+000		-1.4103E+000
	591.81	4.83	2.3790E+000		-2.4874E+000
	723.30	19.70	6.4313E-001		4.6836E-001
	756.87	4.33	2.7217E+000		1.0761E+000
	873.19	11.50	9.3682E-001		1.5432E+000
	996.32	10.30	9.3976E-001		2.7672E-001
	1004.76	17.90	5.5320E-001		-1.6326E-001
	1274.45	35.50	2.6461E-001		4.0467E-002
Eu-155	86.54	30.90	1.7106E+000	1.71E+000	2.2013E+000
	105.31	20.70	1.7154E+000		2.0977E-001
Am-241	59.54	35.90	4.4434E+000	4.44E+000	4.1175E-001
Cm-243	228.19	10.56	1.6816E+000	1.14E+000	1.4549E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.1436E+000	1.14E+000	5.9679E-001

+ = 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

Report Generated On 5/22/2006 4:00:54 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: GRN7780

Spectrum File: GRN7780
Sample ID: NOL-05-01-122-F-
Sample Title: NOL-05-01-122-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/22/2006 3:50:52 PM
Live Time: 600.0 seconds
Real Time: 600.9 seconds

Energy Calibration Date: 4/19/2006
Eff Calibration Date: 3/23/2006
Calibration Efficiency: 7780Soil1M180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: GRN7780
Log Number: NOL-05-01-122-F-
Title: NOL-05-01-122-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	946-	962	951.85	237.92	0.35	1.80E+002	74.08	3.99E+002
2	2323-	2342	2330.49	582.58	1.93	1.28E+002	42.24	9.61E+001
3	2426-	2446	2435.67	608.88	0.92	1.21E+002	42.16	9.41E+001
4	3633-	3652	3641.42	910.32	0.62	1.08E+002	30.37	3.76E+001
5	3864-	3880	3872.19	968.01	0.36	4.47E+001	32.19	7.13E+001
6	5829-	5857	5842.21	1460.52	2.63	8.46E+002	60.61	2.45E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: GRN7780

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.997	1460.81*		10.67	1.85595E+001	2.00687E+000
TL-208	0.465	277.35		6.80		
		510.84		21.60		
		583.14*		84.20	2.78783E-001	9.89693E-002
		860.37		12.46		
Pb-212	0.445	74.81	@	10.70		
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	5.80902E-001	2.56241E-001
Bi-214	0.399	609.31*		46.30	4.86332E-001	1.79808E-001
		1120.29		15.10		
		1764.49		15.80		
Ac-228	0.615	338.32		11.40		
		911.07*		27.70	7.95669E-001	2.40970E-001
		969.11*		16.60	5.55432E-001	4.04275E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:GRN7780

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40		0.997	1.855946E+001	2.006865E+000
TL-208		0.465	2.787831E-001	9.896926E-002
Pb-212	@	0.445	5.809019E-001	2.562414E-001
Bi-214		0.399	4.863317E-001	1.798075E-001
Ac-228		0.615	7.326919E-001	2.069895E-001

? = 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 1.960 sigma

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

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

All peaks were identified.

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:GRN7780
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	1.1080E-001	8.34E-002	-3.8370E-002
	1332.49	100.00	8.3385E-002		4.6355E-002
Nb-94	702.63	100.00	1.1251E-001	1.13E-001	6.7131E-002
	871.10	100.00	1.1313E-001		9.4418E-002
Ag-108m	79.20	7.10	9.9420E+000	1.28E-001	-1.2354E+001
	433.93	89.90	1.3950E-001		-1.1652E-001
	614.37	90.40	1.6145E-001		3.2389E-002
	722.95	90.50	1.2788E-001		-7.9734E-002
Sb-125	176.33	6.89	2.8613E+000	4.36E-001	6.1094E-002
	427.89	29.33	4.3563E-001		-1.8013E-001
	463.38	10.35	1.2670E+000		3.6543E-001
	600.56	17.80	6.7819E-001		-4.8050E-001
	606.64	5.02	3.1738E+000		7.3285E+000
	635.90	11.32	1.0084E+000		3.1578E-001
Cs-134	563.23	8.38	1.4069E+000	1.38E-001	-5.1184E-001
	569.32	15.43	7.6266E-001		-6.3000E-001
	604.70	97.60	1.5803E-001		-6.9540E-003
	795.84	85.40	1.3842E-001		1.8150E-002
	801.93	8.73	1.2290E+000		-2.7922E+000
Cs-137	661.65	85.12	1.4363E-001	1.44E-001	5.6731E-002
Eu-152	121.78	28.40	9.5900E-001	3.81E-001	-5.5589E-001
	244.69	7.49	2.3487E+000		-2.8655E+000
	344.27	26.50	5.4493E-001		-4.5915E-001
	778.89	12.74	9.3294E-001		2.9106E-001
	867.32	4.16	2.6777E+000		-2.0575E+000
	964.01	14.40	1.0241E+000		1.3717E+000
	1085.78	10.00	9.7240E-001		-1.2459E+000
	1112.02	13.30	7.9327E-001		-8.2085E-001
	1407.95	20.70	3.8088E-001		4.3245E-001
Eu-154	123.07	40.50	6.6698E-001	2.84E-001	2.1902E-001
	247.94	6.60	2.4438E+000		-6.9627E-001
	591.81	4.83	2.5203E+000		-1.1425E+000
	723.30	19.70	6.0057E-001		3.2093E-002
	756.87	4.33	2.4701E+000		8.4115E-001
	873.19	11.50	9.5896E-001		8.1861E-001
	996.32	10.30	9.9287E-001		4.0131E-001
	1004.76	17.90	5.8847E-001		1.9257E-001
	1274.45	35.50	2.8420E-001		-5.4678E-002
Eu-155	86.54	30.90	1.7398E+000	1.69E+000	2.8920E+000
	105.31	20.70	1.6936E+000		2.5367E-001
Am-241	59.54	35.90	4.4716E+000	4.47E+000	-1.2985E+000
Cm-243	228.19	10.56	1.6152E+000	1.13E+000	-7.1660E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.1258E+000	1.13E+000	-3.1508E-001

+ = 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

Report Generated On 5/22/2006 5:47:28 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: GRN7780

Spectrum File: GRN7780
Sample ID: NOL-05-01-123-
Sample Title: NOL-05-01-123-F-G
Description: 10% WATER

Sample Type:
Geometry:

Acquisition Started: 5/22/2006 5:37:26 PM
Live Time: 600.0 seconds
Real Time: 601.0 seconds

Energy Calibration Date: 4/19/2006
Eff Calibration Date: 3/23/2006
Calibration Efficiency: 7780Soil1M180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: GRN7780
Log Number: NOL-05-01-123-
Title: NOL-05-01-123-F-G
Description: 10% WATER

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	946-	961	951.32	237.79	1.04	2.72E+002	67.60	3.03E+002
2	2320-	2342	2330.22	582.52	0.55	1.50E+002	45.10	9.78E+001
3	2428-	2447	2435.12	608.74	2.26	1.51E+002	35.02	4.77E+001
4	3867-	3882	3873.93	968.45	0.93	5.15E+001	30.50	6.35E+001
5	5828-	5857	5841.85	1460.43	2.63	8.99E+002	59.86	7.32E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: GRN7780

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.995	1460.81*	10.67	1.97255E+001	2.06810E+000
TL-208	0.463	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.27388E-001	1.07143E-001
		860.37	12.46		
Pb-212	0.441	74.81 @	10.70		
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	8.77874E-001	2.58281E-001
Bi-214	0.397	609.31*	46.30	6.08477E-001	1.59532E-001
		1120.29	15.10		
		1764.49	15.80		

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:GRN7780

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40	0.995	1.972546E+001	2.068104E+000
TL-208	0.463	3.273876E-001	1.071426E-001
Pb-212 @	0.441	8.778744E-001	2.582812E-001
Bi-214	0.397	6.084774E-001	1.595320E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
4	968.45	8.5899E-002	59.18

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:GRN7780
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	1.1914E-001	9.39E-002	4.6504E-002
	1332.49	100.00	9.3915E-002		5.0300E-002
Nb-94	702.63	100.00	1.2191E-001	1.17E-001	-5.4188E-002
	871.10	100.00	1.1713E-001		7.7716E-002
Ag-108m	79.20	7.10	1.0372E+001	1.39E-001	-1.2584E+001
	433.93	89.90	1.3950E-001		-5.2533E-002
	614.37	90.40	1.5936E-001		-3.0796E-002
	722.95	90.50	1.4724E-001		-6.7421E-002
Sb-125	176.33	6.89	2.9197E+000	4.45E-001	1.4544E+000
	427.89	29.33	4.4460E-001		2.6793E-001
	463.38	10.35	1.2978E+000		7.1508E-001
	600.56	17.80	6.6727E-001		7.8188E-002
	606.64	5.02	3.0606E+000		4.4752E+000
	635.90	11.32	1.0778E+000		-2.3860E-001
Cs-134	563.23	8.38	1.5294E+000	1.42E-001	-1.4897E-001
	569.32	15.43	8.1063E-001		5.1350E-001
	604.70	97.60	1.5334E-001		4.1925E-002
	795.84	85.40	1.4233E-001		1.6537E-001
	801.93	8.73	1.1999E+000		-1.6672E+000
Cs-137	661.65	85.12	1.4716E-001	1.47E-001	-8.4342E-002
Eu-152	121.78	28.40	1.0147E+000	4.03E-001	5.2433E-001
	244.69	7.49	2.3716E+000		-4.3981E+000
	344.27	26.50	5.4920E-001		-3.6631E-001
	778.89	12.74	8.6953E-001		-1.3252E+000
	867.32	4.16	2.7464E+000		-5.6489E+000
	964.01	14.40	1.0375E+000		-5.6087E-001
	1085.78	10.00	1.1109E+000		-9.4034E-002
	1112.02	13.30	8.2240E-001		-2.1665E+000
	1407.95	20.70	4.0305E-001		1.0283E-001
Eu-154	123.07	40.50	7.0064E-001	2.93E-001	-2.7088E-001
	247.94	6.60	2.5177E+000		-4.8273E-001
	591.81	4.83	2.3928E+000		-2.7068E-001
	723.30	19.70	6.7322E-001		-3.4479E-001
	756.87	4.33	2.6259E+000		2.9524E-001
	873.19	11.50	1.0190E+000		4.5329E-001
	996.32	10.30	9.9755E-001		-1.6972E-003
	1004.76	17.90	6.0911E-001		2.2297E-001
	1274.45	35.50	2.9348E-001		-5.1535E-002
Eu-155	86.54	30.90	1.8468E+000	1.77E+000	2.0307E+000
	105.31	20.70	1.7693E+000		1.4289E-002
Am-241	59.54	35.90	4.4716E+000	4.47E+000	-1.7221E+000
Cm-243	228.19	10.56	1.7430E+000	1.16E+000	5.5198E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.1567E+000	1.16E+000	6.2862E-001

+ = 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

Report Generated On 5/22/2006 4:50:15 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: GRN7780

Spectrum File: GRN7780
Sample ID: NOL-05-01-124-F-
Sample Title: NOL-05-01-124-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/22/2006 4:40:12 PM
Live Time: 600.0 seconds
Real Time: 601.0 seconds

Energy Calibration Date: 4/19/2006
Eff Calibration Date: 3/23/2006
Calibration Efficiency: 7780Soil1M180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: GRN7780
Log Number: NOL-05-01-124-F-
Title: NOL-05-01-124-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	947-	962	952.55	238.09	0.62	2.35E+002	69.20	3.35E+002
2	2033-	2046	2041.68	510.38	0.62	4.76E+001	39.64	1.30E+002
3	2322-	2341	2328.79	582.16	0.68	1.59E+002	42.26	8.73E+001
4	3633-	3654	3641.07	910.23	1.40	1.68E+002	34.08	3.58E+001
5	5827-	5857	5841.57	1460.36	2.78	8.62E+002	60.60	1.94E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: GRN7780

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.993	1460.81*		10.67	1.89120E+001	2.02824E+000
TL-208	0.730	277.35		6.80		
		510.84*		21.60	3.87604E-001	3.28323E-001
		583.14*		84.20	3.45744E-001	1.02519E-001
		860.37		12.46		
Pb-212	0.449	74.81	@	10.70		
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	7.59241E-001	2.53465E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:GRN7780

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
X	ANN	0.988		
	K-40	0.993	1.891197E+001	2.028242E+000
	TL-208	0.730	3.494624E-001	9.785900E-002
	Pb-212 @	0.449	7.592414E-001	2.534647E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
4	910.23	2.8040E-001	20.26

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:GRN7780
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	1.2002E-001	9.81E-002	3.7195E-002
	1332.49	100.00	9.8144E-002		2.3514E-002
Nb-94	702.63	100.00	1.2295E-001	1.15E-001	4.7495E-002
	871.10	100.00	1.1474E-001		8.5858E-002
Ag-108m	79.20	7.10	1.0121E+001	1.35E-001	-2.5198E+001
	433.93	89.90	1.4223E-001		-9.5850E-002
	614.37	90.40	1.7066E-001		-8.9061E-002
	722.95	90.50	1.3466E-001		2.4348E-002
Sb-125	176.33	6.89	2.9742E+000	4.70E-001	-1.3280E-001
	427.89	29.33	4.7045E-001		5.5889E-001
	463.38	10.35	1.2884E+000		3.1571E-001
	600.56	17.80	6.9248E-001		-1.4035E-001
	606.64	5.02	3.2313E+000		3.8058E+000
	635.90	11.32	1.0482E+000		-1.3386E-002
Cs-134	563.23	8.38	1.6068E+000	1.36E-001	2.5857E+000
	569.32	15.43	8.1256E-001		-5.1929E-001
	604.70	97.60	1.5751E-001		-2.7522E-002
	795.84	85.40	1.3620E-001		9.2761E-003
	801.93	8.73	1.3211E+000		5.6795E-002
Cs-137	661.65	85.12	1.4638E-001	1.46E-001	4.2113E-002
Eu-152	121.78	28.40	9.8710E-001	3.88E-001	-5.8328E-001
	244.69	7.49	2.2567E+000		-2.7990E+000
	344.27	26.50	5.5203E-001		-6.5042E-001
	778.89	12.74	9.1232E-001		-1.7447E-001
	867.32	4.16	2.6577E+000		-3.3647E+000
	964.01	14.40	1.0397E+000		1.5907E+000
	1085.78	10.00	9.9862E-001		-1.0375E+000
	1112.02	13.30	8.8426E-001		2.4308E-001
	1407.95	20.70	3.8842E-001		-3.3783E-001
Eu-154	123.07	40.50	6.9430E-001	2.99E-001	6.5879E-001
	247.94	6.60	2.4526E+000		-3.5925E-001
	591.81	4.83	2.3651E+000		-1.9972E+000
	723.30	19.70	6.2752E-001		7.0968E-001
	756.87	4.33	2.7046E+000		-2.3878E+000
	873.19	11.50	9.8058E-001		4.2530E-001
	996.32	10.30	1.0206E+000		7.7907E-002
	1004.76	17.90	5.8584E-001		1.4230E-001
	1274.45	35.50	2.9949E-001		-2.6728E-001
Eu-155	86.54	30.90	1.8014E+000	1.77E+000	2.5883E+000
	105.31	20.70	1.7750E+000		1.3746E+000
Am-241	59.54	35.90	4.9536E+000	4.95E+000	3.4656E+000
Cm-243	228.19	10.56	1.6864E+000	1.14E+000	-1.4037E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.1391E+000	1.14E+000	8.5823E-001

+ = 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

Report Generated On 5/22/2006 7:27:32 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: GRN7780

Spectrum File: GRN7780
Sample ID: NOL-05-01-125-
Sample Title: NOL-05-01-125-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/22/2006 7:17:30 PM
Live Time: 600.0 seconds
Real Time: 601.0 seconds

Energy Calibration Date: 4/19/2006
Eff Calibration Date: 3/23/2006
Calibration Efficiency: 7780Soil1M180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: GRN7780
Log Number: NOL-05-01-125-
Title: NOL-05-01-125-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	2322-	2344	2331.79	582.91	1.67	1.38E+002	42.66	8.68E+001
2	2423-	2447	2434.71	608.64	1.65	1.59E+002	44.62	8.72E+001
3	5827-	5858	5842.98	1460.71	2.66	8.48E+002	61.63	2.81E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: GRN7780

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	1.000	1460.81*	10.67	1.86128E+001	2.02517E+000
TL-208	0.470	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.01340E-001	1.00929E-001
		860.37	12.46		
Bi-214	0.394	609.31*	46.30	6.38588E-001	1.95906E-001
		1120.29	15.10		
		1764.49	15.80		

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:GRN7780

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40	1.000	1.861281E+001	2.025172E+000
TL-208	0.470	3.013399E-001	1.009291E-001
Bi-214	0.394	6.385882E-001	1.959058E-001

? = 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 1.960 sigma

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

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

All peaks were identified.

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:GRN7780
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	1.1505E-001	8.05E-002	4.1729E-002
	1332.49	100.00	8.0520E-002		3.6391E-002
Nb-94	702.63	100.00	1.1658E-001	1.06E-001	2.3644E-002
	871.10	100.00	1.0595E-001		4.6810E-002
Ag-108m	79.20	7.10	1.0127E+001	1.43E-001	-2.1328E+001
	433.93	89.90	1.4305E-001		-9.8355E-003
	614.37	90.40	1.6293E-001		-4.7812E-002
	722.95	90.50	1.4546E-001		2.2828E-001
Sb-125	176.33	6.89	2.8716E+000	4.45E-001	2.0479E-001
	427.89	29.33	4.4460E-001		-5.4604E-002
	463.38	10.35	1.2281E+000		4.7985E-002
	600.56	17.80	6.5988E-001		1.5476E-001
	606.64	5.02	3.2027E+000		5.5821E+000
	635.90	11.32	1.0512E+000		6.4265E-001
Cs-134	563.23	8.38	1.4659E+000	1.37E-001	-6.4979E-001
	569.32	15.43	8.0284E-001		-3.3147E-001
	604.70	97.60	1.5466E-001		-4.6815E-003
	795.84	85.40	1.3665E-001		-3.7049E-003
	801.93	8.73	1.3032E+000		-8.7571E-001
Cs-137	661.65	85.12	1.3501E-001	1.35E-001	-7.5219E-002
Eu-152	121.78	28.40	9.8135E-001	3.99E-001	5.8697E-001
	244.69	7.49	2.3131E+000		-3.9116E+000
	344.27	26.50	5.1476E-001		-4.0589E-001
	778.89	12.74	7.9052E-001		-1.0263E+000
	867.32	4.16	2.5658E+000		-1.6488E+000
	964.01	14.40	1.0507E+000		1.6029E+000
	1085.78	10.00	1.1605E+000		8.2281E-002
	1112.02	13.30	8.6416E-001		-7.3096E-001
	1407.95	20.70	3.9945E-001		9.1710E-002
Eu-154	123.07	40.50	6.8190E-001	2.90E-001	6.6553E-001
	247.94	6.60	2.5155E+000		8.1975E-001
	591.81	4.83	2.4808E+000		1.7197E-001
	723.30	19.70	6.6002E-001		5.7936E-001
	756.87	4.33	2.6259E+000		4.4506E-002
	873.19	11.50	9.3307E-001		2.3872E-001
	996.32	10.30	1.0651E+000		-9.6747E-002
	1004.76	17.90	6.0657E-001		3.0999E-002
	1274.45	35.50	2.9042E-001		-1.6190E-001
Eu-155	86.54	30.90	1.8505E+000	1.76E+000	2.8803E+000
	105.31	20.70	1.7555E+000		-3.5792E-001
Am-241	59.54	35.90	4.5860E+000	4.59E+000	-1.5261E+000
Cm-243	228.19	10.56	1.6658E+000	1.14E+000	1.5519E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.1358E+000	1.14E+000	8.5068E-001

+ = 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

Report Generated On 5/22/2006 8:55:45 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: GRN7780

Spectrum File: GRN7780
Sample ID: NOL-05-01-126-
Sample Title: NOL-05-01-126-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/22/2006 8:45:43 PM
Live Time: 600.0 seconds
Real Time: 600.9 seconds

Energy Calibration Date: 4/19/2006
Eff Calibration Date: 3/23/2006
Calibration Efficiency: 7780Soil1M180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: GRN7780
Log Number: NOL-05-01-126-
Title: NOL-05-01-126-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	289-	306	297.74	74.39	0.86	3.40E+002	126.26	1.17E+003
2	945-	962	952.22	238.01	1.91	1.69E+002	72.37	3.66E+002
3	1397-	1410	1405.15	351.25	0.51	6.62E+001	40.90	1.34E+002
4	2321-	2342	2330.13	582.49	0.90	1.44E+002	43.79	9.39E+001
5	3635-	3653	3642.57	910.61	0.35	1.03E+002	33.86	5.74E+001
6	3848-	3860	3854.69	963.64	0.83	1.98E+001	21.64	3.82E+001
7	5829-	5857	5842.39	1460.57	3.04	8.11E+002	58.66	1.82E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: GRN7780

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.998	1460.81*	10.67	1.77964E+001	1.93232E+000
TL-208	0.462	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.14127E-001	1.03842E-001
		860.37	12.46		
Pb-212	0.591	74.81* @	10.70	1.41925E+001	5.95357E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	5.44967E-001	2.49124E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:GRN7780

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40	0.998	1.779638E+001	1.932323E+000
TL-208	0.462	3.141269E-001	1.038420E-001
Pb-212 @	0.591	5.449669E-001	2.491242E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
3	351.25	1.1040E-001	61.75
5	910.61	1.7101E-001	33.00
6	963.64	3.3046E-002	109.15

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:GRN7780
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	1.1643E-001	7.52E-002	1.6272E-001
	1332.49	100.00	7.5222E-002		6.1623E-003
Nb-94	702.63	100.00	1.1251E-001	9.58E-002	4.5879E-002
	871.10	100.00	9.5830E-002		-3.2299E-002
Ag-108m	79.20	7.10	1.0335E+001	1.27E-001	-1.8621E+001
	433.93	89.90	1.3585E-001		4.5847E-002
	614.37	90.40	1.5071E-001		-1.1504E-001
	722.95	90.50	1.2706E-001		-1.1338E-001
Sb-125	176.33	6.89	2.7651E+000	4.45E-001	-1.9107E-001
	427.89	29.33	4.4540E-001		2.9511E-001
	463.38	10.35	1.1645E+000		-3.5488E-001
	600.56	17.80	6.5615E-001		-3.6619E-001
	606.64	5.02	3.0955E+000		3.4403E+000
	635.90	11.32	9.8943E-001		-7.1712E-001
Cs-134	563.23	8.38	1.4909E+000	1.34E-001	1.2075E+000
	569.32	15.43	7.5017E-001		-9.8424E-002
	604.70	97.60	1.5281E-001		5.6913E-002
	795.84	85.40	1.3394E-001		6.4622E-002
	801.93	8.73	1.2338E+000		-7.9970E-001
Cs-137	661.65	85.12	1.4793E-001	1.48E-001	1.6044E-001
Eu-152	121.78	28.40	9.3913E-001	3.57E-001	-4.6717E-002
	244.69	7.49	2.2157E+000		-2.4010E+000
	344.27	26.50	5.3337E-001		-1.8251E-001
	778.89	12.74	8.8506E-001		1.1999E-001
	867.32	4.16	2.3819E+000		-3.7345E+000
	964.01	14.40	9.8739E-001		8.2258E-001
	1085.78	10.00	1.0539E+000		1.2035E+000
	1112.02	13.30	7.7065E-001		-1.1977E+000
	1407.95	20.70	3.5720E-001		-1.0297E-001
Eu-154	123.07	40.50	6.4844E-001	2.63E-001	-3.4946E-002
	247.94	6.60	2.3720E+000		-7.9670E-001
	591.81	4.83	2.4473E+000		6.2819E-001
	723.30	19.70	5.8566E-001		-3.4208E-001
	756.87	4.33	2.7809E+000		1.5947E+000
	873.19	11.50	8.6273E-001		3.3404E-001
	996.32	10.30	9.8816E-001		4.5374E-001
	1004.76	17.90	5.8584E-001		-6.2236E-002
	1274.45	35.50	2.6291E-001		-2.6141E-002
Eu-155	86.54	30.90	1.7967E+000	1.71E+000	1.9611E+000
	105.31	20.70	1.7117E+000		-1.0597E+000
Am-241	59.54	35.90	4.3885E+000	4.39E+000	2.9020E+000
Cm-243	228.19	10.56	1.6536E+000	1.12E+000	4.1697E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.1179E+000	1.12E+000	2.0789E-001

+ = 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

Report Generated On 5/25/2006 2:54:29 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: GRN7780

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-127-F-G
Sample ID: NOL-05-01-127
Sample Title: NOL-05-01-127-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/23/2006 8:15:13 AM
Live Time: 600.0 seconds
Real Time: 600.9 seconds

Energy Calibration Date: 4/19/2006
Eff Calibration Date: 3/23/2006
Calibration Efficiency: 7780Soil1M180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-127-F-G
Log Number: NOL-05-01-127
Title: NOL-05-01-127-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
F	1	946-	957	952.10	237.98	1.28	8.02E+001	33.89	3.28E+002
F	2	1401-	1417	1406.65	351.62	1.38	8.88E+001	24.40	1.43E+002
F	3	2320-	2342	2331.99	582.96	1.53	1.41E+002	51.26	7.76E+001
F	4	3634-	3653	3642.39	910.56	1.71	8.81E+001	20.91	5.04E+001
F	5	3867-	3881	3874.67	968.63	1.73	4.87E+001	19.82	6.54E+001
F	6	5829-	5857	5843.17	1460.76	1.94	6.69E+002	80.18	3.14E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-127-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	1.000	1460.81*		10.67	1.53291E+001	2.06073E+000
TL-208	0.470	277.35		6.80		
		510.84		21.60		
		583.14*		84.20	3.23610E-001	1.22058E-001
		860.37		12.46		
Pb-212	0.439	74.81	@	10.70		
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	2.60204E-001	1.16685E-001
Ac-228	0.629	338.32		11.40		
		911.07*		27.70	6.78230E-001	1.66424E-001
		969.11*		16.60	6.33427E-001	2.60519E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-127-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40	1.000	1.532906E+001	2.060726E+000
TL-208	0.470	3.236099E-001	1.220576E-001
Pb-212 @	0.439	2.602040E-001	1.166846E-001
Ac-228	0.629	6.652457E-001	1.402492E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
F 2	351.62	1.4805E-001	27.47

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-127-F-G
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	1.2071E-001	1.01E-001	1.1731E-001
	1332.49	100.00	1.0147E-001		9.5105E-002
Nb-94	702.63	100.00	1.2321E-001	1.22E-001	9.5378E-002
	871.10	100.00	1.2241E-001		1.0845E-001
Ag-108m	79.20	7.10	9.8512E+000	1.41E-001	-1.9832E+001
	433.93	89.90	1.5151E-001		-1.6903E-002
	614.37	90.40	1.7099E-001		-8.8551E-002
	722.95	90.50	1.4109E-001		-2.1557E-002
Sb-125	176.33	6.89	3.0127E+000	4.60E-001	5.5739E-001
	427.89	29.33	4.5958E-001		-2.2427E-001
	463.38	10.35	1.3434E+000		4.8316E-001
	600.56	17.80	7.0159E-001		-5.0821E-001
	606.64	5.02	3.3241E+000		8.0049E+000
	635.90	11.32	1.1121E+000		1.4305E-002
Cs-134	563.23	8.38	1.5143E+000	1.43E-001	7.4397E-001
	569.32	15.43	8.1832E-001		-3.1153E-001
	604.70	97.60	1.5860E-001		-7.9560E-002
	795.84	85.40	1.4303E-001		6.9178E-002
	801.93	8.73	1.3017E+000		-5.7798E-001
Cs-137	661.65	85.12	1.5771E-001	1.58E-001	5.4730E-002
Eu-152	121.78	28.40	1.0227E+000	4.61E-001	-2.8912E-001
	244.69	7.49	2.2633E+000		-4.6436E+000
	344.27	26.50	5.8416E-001		-1.7071E-001
	778.89	12.74	9.3244E-001		-9.6734E-001
	867.32	4.16	2.9598E+000		-1.4595E+000
	964.01	14.40	1.0938E+000		-2.7220E-001
	1085.78	10.00	1.1035E+000		-8.4930E-001
	1112.02	13.30	8.6519E-001		-7.8281E-001
	1407.95	20.70	4.6095E-001		1.5206E-001
Eu-154	123.07	40.50	6.9990E-001	3.11E-001	-2.0166E-001
	247.94	6.60	2.3918E+000		-4.8965E-004
	591.81	4.83	2.5622E+000		-8.1861E-001
	723.30	19.70	6.4997E-001		-6.3363E-002
	756.87	4.33	2.8553E+000		1.6987E+000
	873.19	11.50	1.0209E+000		-3.7566E-001
	996.32	10.30	1.0542E+000		-7.6883E-001
	1004.76	17.90	6.1886E-001		-1.7436E-002
	1274.45	35.50	3.1148E-001		3.4073E-002
Eu-155	86.54	30.90	1.8964E+000	1.76E+000	3.2078E+000
	105.31	20.70	1.7605E+000		1.6872E-001
Am-241	59.54	35.90	5.0280E+000	5.03E+000	3.2933E-002
Cm-243	228.19	10.56	1.6261E+000	1.16E+000	1.9562E-002

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.1581E+000	1.16E+000	3.0589E-001

+ = 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

Report Generated On 5/24/2006 10:37:47 AM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: RED6264

Spectrum File: RED6264
Sample ID: NOL-05-01-128
Sample Title: NOL-05-01-128-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/24/2006 10:27:44 AM
Live Time: 600.0 seconds
Real Time: 601.0 seconds

Energy Calibration Date: 3/22/2006
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number: NOL-05-01-128
Title: NOL-05-01-128-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	282-	306	291.02	72.66	1.35	3.26E+002	66.65	1.79E+003
m	2	282-	306	299.92	74.88	1.36	6.75E+002	79.05	2.03E+003
	3	945-	963	953.86	238.41	1.29	3.06E+002	79.60	3.98E+002
	4	1398-	1412	1406.73	351.66	1.07	1.44E+002	42.88	1.16E+002
	5	2321-	2342	2330.56	582.68	1.00	1.78E+002	45.14	9.35E+001
	6	2425-	2446	2435.46	608.91	1.01	1.57E+002	44.61	9.60E+001
	7	3631-	3653	3642.97	910.87	1.66	1.43E+002	38.60	6.23E+001
	8	3867-	3884	3873.38	968.48	1.19	7.75E+001	28.55	4.15E+001
	9	5829-	5857	5842.66	1460.94	2.04	9.58E+002	64.58	2.81E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
K-40	1.000	1460.81*	10.67	1.65725E+001	1.74601E+000
TL-208	0.467	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.09746E-001	8.84950E-002
		860.37	12.46		
Pb-212	0.520	74.81* @	10.70	1.00359E+001	2.29119E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	7.68392E-001	2.33256E-001
Bi-214	0.395	609.31*	46.30	5.05385E-001	1.56558E-001
		1120.29	15.10		
		1764.49	15.80		
Ac-228	0.629	338.32	11.40		
		911.07*	27.70	8.43425E-001	2.47995E-001
		969.11*	16.60	7.78338E-001	2.97972E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
K-40	1.000	1.657253E+001	1.746007E+000
TL-208	0.467	3.097457E-001	8.849501E-002
Pb-212 @	0.520	7.683921E-001	2.332560E-001
Bi-214	0.395	5.053855E-001	1.565577E-001
Ac-228	0.629	8.167900E-001	1.906143E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.66	5.4403E-001	20.42
4	351.66	2.3942E-001	29.85

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Co-60	1173.22	100.00	1.0960E-001	8.03E-002	2.3538E-002
	1332.49	100.00	8.0335E-002		-9.8331E-003
Nb-94	702.63	100.00	9.9954E-002	1.00E-001	4.5764E-002
	871.10	100.00	1.0068E-001		2.6191E-002
Ag-108m	79.20	7.10	5.5970E+000	1.17E-001	-1.1655E+001
	433.93	89.90	1.1716E-001		7.1361E-002
	614.37	90.40	1.3755E-001		1.2944E-002
	722.95	90.50	1.2338E-001		5.8024E-002
Sb-125	176.33	6.89	2.2774E+000	3.65E-001	-2.5244E-001
	427.89	29.33	3.6507E-001		1.7966E-001
	463.38	10.35	1.0230E+000		7.6400E-001
	600.56	17.80	5.4012E-001		-2.0474E-001
	606.64	5.02	2.6622E+000		4.8403E+000
	635.90	11.32	8.4187E-001		-2.3130E-001
Cs-134	563.23	8.38	1.3326E+000	1.15E-001	1.5710E+000
	569.32	15.43	7.0530E-001		-9.2333E-002
	604.70	97.60	1.3410E-001		-1.9121E-002
	795.84	85.40	1.1540E-001		1.4209E-001
	801.93	8.73	1.0179E+000		-1.3389E+000
Cs-137	661.65	85.12	1.2273E-001	1.23E-001	8.2415E-002
Eu-152	121.78	28.40	7.6760E-001	3.27E-001	2.7757E-001
	244.69	7.49	1.7958E+000		-1.3330E+000
	344.27	26.50	4.1839E-001		-5.2009E-001
	778.89	12.74	7.3996E-001		-7.5114E-001
	867.32	4.16	2.3017E+000		-4.3669E+000
	964.01	14.40	8.2525E-001		-1.2378E-001
	1085.78	10.00	9.3480E-001		-9.4651E-001
	1112.02	13.30	7.1036E-001		-9.5269E-001
	1407.95	20.70	3.2664E-001		-2.4919E-002
Eu-154	123.07	40.50	5.2723E-001	2.17E-001	-2.6068E-001
	247.94	6.60	1.9460E+000		-6.7214E-001
	591.81	4.83	2.1297E+000		2.0234E+000
	723.30	19.70	5.6562E-001		2.7026E-001
	756.87	4.33	2.1782E+000		-5.2252E-001
	873.19	11.50	8.6298E-001		9.7656E-001
	996.32	10.30	8.9256E-001		1.6717E-001
	1004.76	17.90	4.9074E-001		4.5338E-001
	1274.45	35.50	2.1728E-001		-2.9518E-001
Eu-155	86.54	30.90	1.1195E+000	1.12E+000	2.3228E+000
	105.31	20.70	1.2063E+000		1.1725E-001
Am-241	59.54	35.90	1.3863E+000	1.39E+000	3.9737E-001
Cm-243	228.19	10.56	1.2991E+000	9.26E-001	-4.7961E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Cm-243	277.60	14.00	9.2588E-001	9.26E-001	4.7192E-002

+ = 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

Report Generated On 5/24/2006 10:19:28 AM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: RED6264

Spectrum File: RED6264
Sample ID: NOL-05-01-129
Sample Title: NOL-05-01-129-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/24/2006 10:09:25 AM
Live Time: 600.0 seconds
Real Time: 601.0 seconds

Energy Calibration Date: 3/22/2006
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number: NOL-05-01-129
Title: NOL-05-01-129-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	282-	309	291.14	72.69	1.51	4.17E+002	72.24	1.84E+003
m	2	282-	309	299.99	74.90	1.51	7.53E+002	81.37	2.54E+003
	3	947-	959	954.18	238.49	1.03	2.43E+002	61.93	2.88E+002
	4	1399-	1419	1408.05	351.99	0.42	1.74E+002	54.74	1.67E+002
	5	2030-	2052	2041.92	510.50	1.97	1.52E+002	47.14	1.10E+002
	6	2322-	2342	2330.11	582.56	0.98	1.86E+002	44.19	8.93E+001
	7	2428-	2447	2436.35	609.13	1.12	1.31E+002	43.15	1.00E+002
	8	3632-	3649	3642.41	910.73	0.37	1.11E+002	31.78	4.67E+001
	9	3866-	3885	3874.19	968.69	1.58	8.34E+001	32.48	5.46E+001
	10	5323-	5336	5329.44	1332.59	0.29	1.57E+001	16.69	2.03E+001
	11	5829-	5858	5842.63	1460.93	2.25	1.01E+003	65.92	2.55E+001
	12	7049-	7065	7057.15	1764.64	0.95	3.93E+001	17.43	1.28E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	0.992	511.00*		100.00	2.14468E-001	7.23948E-002
K-40	1.000	1460.81*		10.67	1.75184E+001	1.82001E+000
TL-208	0.744	277.35		6.80		
		510.84*		21.60	9.92906E-001	3.44831E-001
		583.14*		84.20	3.24031E-001	8.78980E-002
		860.37		12.46		
Pb-212	0.521	74.81*	@	10.70	1.11844E+001	2.50341E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	6.10824E-001	1.82561E-001
Bi-214	0.698	609.31*		46.30	4.21872E-001	1.48357E-001
		1120.29		15.10		
		1764.49*		15.80	4.76170E-001	2.16763E-001
Ac-228	0.630	338.32		11.40		
		911.07*		27.70	6.57761E-001	2.02581E-001
		969.11*		16.60	8.36960E-001	3.37643E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN	0.992	1.444771E-001	7.480827E-002
K-40	1.000	1.751845E+001	1.820010E+000
TL-208	0.744	3.240310E-001	8.726133E-002
Pb-212 @	0.521	6.108237E-001	1.825615E-001
Bi-214	0.698	4.391930E-001	1.224280E-001
Ac-228	0.630	7.051945E-001	1.737129E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.69	6.9431E-001	17.34
4	351.99	2.9031E-001	31.43
10	1332.59	2.6204E-002	106.14

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Co-60	1173.22	100.00	1.0602E-001	8.13E-002	2.7143E-002
	1332.49	100.00	8.1272E-002		-2.1944E-002
Nb-94	702.63	100.00	9.6632E-002	9.52E-002	-2.8217E-002
	871.10	100.00	9.5210E-002		-2.2133E-002
Ag-108m	79.20	7.10	5.6046E+000	1.19E-001	-7.8701E+000
	433.93	89.90	1.2528E-001		-2.7422E-002
	614.37	90.40	1.3888E-001		-2.9435E-002
	722.95	90.50	1.1925E-001		4.8501E-002
Sb-125	176.33	6.89	2.3420E+000	3.80E-001	-3.6888E-001
	427.89	29.33	3.7983E-001		-2.3033E-001
	463.38	10.35	1.0249E+000		-8.3949E-002
	600.56	17.80	6.0056E-001		-3.5110E-001
	606.64	5.02	2.6988E+000		4.1031E+000
	635.90	11.32	8.5377E-001		-3.8648E-001
Cs-134	563.23	8.38	1.2543E+000	1.25E-001	6.7373E-001
	569.32	15.43	6.3163E-001		-2.6506E-001
	604.70	97.60	1.3735E-001		-2.5883E-002
	795.84	85.40	1.2518E-001		1.5750E-001
	801.93	8.73	1.1239E+000		1.1810E-001
Cs-137	661.65	85.12	1.2421E-001	1.24E-001	1.0076E-001
Eu-152	121.78	28.40	7.8725E-001	3.71E-001	3.4461E-001
	244.69	7.49	1.8180E+000		-3.5811E+000
	344.27	26.50	4.3392E-001		-5.1839E-001
	778.89	12.74	7.4703E-001		-3.3171E-001
	867.32	4.16	2.3387E+000		-2.2214E-001
	964.01	14.40	8.7812E-001		-6.0007E-002
	1085.78	10.00	9.5973E-001		1.8491E-001
	1112.02	13.30	7.4227E-001		-3.7418E-001
	1407.95	20.70	3.7103E-001		2.3753E-001
Eu-154	123.07	40.50	5.4763E-001	2.34E-001	2.9427E-001
	247.94	6.60	1.9693E+000		-2.1710E+000
	591.81	4.83	2.1591E+000		3.1263E-001
	723.30	19.70	5.5555E-001		7.1148E-001
	756.87	4.33	2.2460E+000		1.5687E+000
	873.19	11.50	8.0901E-001		-3.7849E-001
	996.32	10.30	8.4003E-001		-3.8309E-001
	1004.76	17.90	5.0092E-001		-2.0270E-001
	1274.45	35.50	2.3422E-001		-2.6936E-001
Eu-155	86.54	30.90	1.1482E+000	1.15E+000	2.4815E+000
	105.31	20.70	1.2437E+000		2.9326E-001
Am-241	59.54	35.90	1.3857E+000	1.39E+000	-8.3594E-001
Cm-243	228.19	10.56	1.3405E+000	9.11E-001	-6.6987E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Cm-243	277.60	14.00	9.1073E-001	9.11E-001	-4.7694E-001

+ = 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

Report Generated On 5/24/2006 8:58:16 AM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: RED6264

Spectrum File: RED6264
Sample ID: NOL-05-01-130
Sample Title: NOL-05-01-130-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/24/2006 8:48:13 AM
Live Time: 600.0 seconds
Real Time: 601.0 seconds

Energy Calibration Date: 3/22/2006
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number: NOL-05-01-130
Title: NOL-05-01-130-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	286-	307	291.47	72.77	1.16	3.90E+002	68.50	1.42E+003
m	2	286-	307	300.46	75.02	1.17	6.28E+002	77.74	1.98E+003
M	3	331-	356	339.04	84.66	1.08	3.21E+002	65.19	1.46E+003
m	4	331-	356	348.28	86.98	1.08	1.42E+002	57.04	1.44E+003
	5	739-	750	743.66	185.85	0.96	5.95E+001	56.14	3.03E+002
	6	943-	961	953.70	238.37	1.15	2.32E+002	80.84	4.30E+002
	7	1399-	1414	1406.48	351.60	1.20	9.94E+001	48.35	1.70E+002
	8	2029-	2053	2041.32	510.35	1.32	1.69E+002	49.15	1.10E+002
	9	2319-	2339	2331.25	582.85	0.86	1.93E+002	46.31	1.01E+002
	10	2428-	2445	2435.29	608.87	0.54	1.30E+002	42.35	1.03E+002
	11	3634-	3650	3643.01	910.88	1.30	1.17E+002	35.25	6.59E+001
	12	5829-	5856	5843.08	1461.04	1.69	8.96E+002	61.15	1.74E+001
	13	7049-	7066	7059.12	1765.13	0.62	5.05E+001	15.82	4.50E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	0.987	511.00*	100.00	2.37529E-001	7.62582E-002
K-40	0.998	1460.81*	10.67	1.54959E+001	1.64119E+000
Eu-155	0.329	86.54*	30.90	5.92742E-001	2.65183E-001
		105.31	20.70		
TL-208	0.749	277.35	6.80		
		510.84*	21.60	1.09967E+000	3.64290E-001
		583.14*	84.20	3.36785E-001	9.19478E-002
		860.37	12.46		
Pb-212	0.676	74.81* @	10.70	9.30972E+000	2.15816E+000
		77.11 @	18.00		
		87.30* @	8.00	2.28947E+000	1.02427E+000
		238.63*	44.60	5.82763E-001	2.22478E-001
Bi-214	0.692	609.31*	46.30	4.17051E-001	1.45709E-001
		1120.29	15.10		
		1764.49*	15.80	6.12685E-001	2.01461E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN	0.987	1.647830E-001	7.876633E-002
K-40	0.998	1.549593E+001	1.641187E+000
Eu-155	0.329	4.418652E-001	2.713664E-001
TL-208	0.749	3.367853E-001	9.129045E-002
Pb-212 @	0.676	5.827628E-001	2.224776E-001
Bi-214	0.692	4.842408E-001	1.180649E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.77	6.5027E-001	17.56
M 3	84.66	5.3444E-001	20.33
5	185.85	9.9138E-002	94.38
7	351.60	1.6575E-001	48.61
11	910.88	1.9516E-001	30.10

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
	Co-60	1173.22	100.00	1.0266E-001	7.84E-002	-2.8075E-002
		1332.49	100.00	7.8425E-002		-3.0271E-002
	Nb-94	702.63	100.00	9.8584E-002	9.86E-002	6.4829E-002
		871.10	100.00	1.0273E-001		1.2072E-001
	Ag-108m	79.20	7.10	5.6296E+000	1.21E-001	-3.0915E+000
		433.93	89.90	1.2109E-001		1.6681E-002
		614.37	90.40	1.3394E-001		-6.4338E-003
		722.95	90.50	1.2202E-001		1.4252E-001
	Sb-125	176.33	6.89	2.4413E+000	3.63E-001	1.3121E+000
		427.89	29.33	3.6318E-001		3.0185E-003
		463.38	10.35	1.0287E+000		1.5725E-001
		600.56	17.80	5.6980E-001		-5.6760E-001
		606.64	5.02	2.6952E+000		4.5016E+000
		635.90	11.32	9.1964E-001		5.8220E-002
	Cs-134	563.23	8.38	1.2048E+000	1.22E-001	6.4585E-001
		569.32	15.43	6.7176E-001		4.4327E-001
		604.70	97.60	1.3640E-001		-1.3411E-001
		795.84	85.40	1.2169E-001		7.4010E-002
		801.93	8.73	1.1070E+000		-8.5264E-001
	Cs-137	661.65	85.12	1.3023E-001	1.30E-001	6.4921E-002
	Eu-152	121.78	28.40	7.9175E-001	3.59E-001	-8.3057E-002
		244.69	7.49	1.8844E+000		-3.5025E-001
		344.27	26.50	4.4507E-001		-1.1620E-001
		778.89	12.74	7.6557E-001		1.0260E-001
		867.32	4.16	2.4181E+000		-3.6096E+000
		964.01	14.40	8.3789E-001		1.5118E+000
		1085.78	10.00	9.3480E-001		-3.8834E-001
		1112.02	13.30	7.4745E-001		-8.7360E-001
		1407.95	20.70	3.5859E-001		-1.2273E-001
	Eu-154	123.07	40.50	5.4935E-001	2.39E-001	8.4620E-002
		247.94	6.60	2.0344E+000		8.6902E-003
		591.81	4.83	2.1930E+000		-9.7880E-001
		723.30	19.70	5.5935E-001		6.0840E-001
		756.87	4.33	2.2593E+000		6.8223E-001
		873.19	11.50	9.0124E-001		5.9138E-001
		996.32	10.30	7.9536E-001		-3.3618E-001
		1004.76	17.90	4.8452E-001		6.7391E-002
		1274.45	35.50	2.3918E-001		1.4192E-001
+	Eu-155	86.54*	30.90	7.4825E-001	7.48E-001	5.9274E-001
		105.31	20.70	1.2754E+000		8.2606E-001
	Am-241	59.54	35.90	1.4499E+000	1.45E+000	4.4599E-001
	Cm-243	228.19	10.56	1.3350E+000	9.67E-001	1.0118E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Cm-243	277.60	14.00	9.6750E-001	9.67E-001	3.7918E-001

+ = 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

Report Generated On 5/24/2006 8:27:38 AM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: RED6264

Spectrum File: RED6264
Sample ID: NOL-05-01-131
Sample Title: NOL-05-01-131-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/24/2006 8:17:36 AM
Live Time: 600.0 seconds
Real Time: 601.2 seconds

Energy Calibration Date: 3/22/2006
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number: NOL-05-01-131
Title: NOL-05-01-131-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	285-	309	291.62	72.81	1.30	4.56E+002	75.85	1.91E+003
m	2	285-	309	300.22	74.96	1.30	9.11E+002	87.07	2.56E+003
	3	331-	346	339.10	84.68	1.57	2.49E+002	154.18	1.97E+003
	4	944-	961	953.04	238.20	1.43	2.23E+002	83.94	4.95E+002
	5	1397-	1412	1406.43	351.58	0.78	1.40E+002	54.60	2.12E+002
	6	2031-	2052	2040.69	510.19	1.02	1.41E+002	52.95	1.57E+002
	7	2318-	2339	2330.43	582.64	1.49	2.12E+002	48.20	1.05E+002
	8	2425-	2445	2434.24	608.60	1.27	1.83E+002	45.15	9.60E+001
	9	2636-	2651	2643.78	661.00	0.54	4.00E+001	33.24	8.20E+001
	10	3544-	3555	3549.62	887.52	0.38	1.80E+001	18.15	2.70E+001
	11	3632-	3653	3642.05	910.64	0.67	1.05E+002	37.11	6.67E+001
	12	3866-	3881	3872.92	968.37	1.23	6.76E+001	31.13	6.14E+001
	13	4680-	4702	4691.12	1172.97	1.83	1.78E+002	38.64	5.45E+001
	14	5318-	5338	5328.47	1332.35	2.35	1.55E+002	31.60	2.87E+001
	15	5828-	5854	5841.93	1460.75	1.85	9.45E+002	62.15	1.36E+001
	16	7051-	7066	7057.32	1764.68	0.77	3.81E+001	17.15	1.29E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	0.979	511.00*		100.00	1.98878E-001	7.91986E-002
K-40	1.000	1460.81*		10.67	1.63560E+001	1.70585E+000
Co-60	0.999	1173.22*		100.00	3.12322E-001	7.22605E-002
		1332.49*		100.00	2.81462E-001	6.13864E-002
Cs-137	0.987	661.65*		85.12	7.20374E-002	6.04265E-002
TL-208	0.744	277.35		6.80		
		510.84*		21.60	9.20732E-001	3.74291E-001
		583.14*		84.20	3.70705E-001	9.69883E-002
		860.37		12.46		
Pb-212	0.518	74.81*	@	10.70	1.35216E+001	2.94852E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	5.58321E-001	2.28039E-001
Bi-214	0.689	609.31*		46.30	5.89256E-001	1.62488E-001
		1120.29		15.10		
		1764.49*		15.80	4.62434E-001	2.13182E-001
Ac-228	0.625	338.32		11.40		
		911.07*		27.70	6.22836E-001	2.30848E-001
		969.11*		16.60	6.78835E-001	3.20491E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN		0.979	1.188057E-001	8.188096E-002
K-40		1.000	1.635600E+001	1.705845E+000
Co-60		0.999	2.943974E-001	4.678390E-002
Cs-137		0.987	7.203738E-002	6.042646E-002
TL-208		0.744	3.707052E-001	9.623294E-002
Pb-212	@	0.518	5.583207E-001	2.280392E-001
Bi-214		0.689	5.426533E-001	1.292294E-001
Ac-228		0.625	6.419647E-001	1.873146E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.81	7.6023E-001	16.63
3	84.68	4.1520E-001	61.89
5	351.58	2.3344E-001	38.98
10	887.52	3.0000E-002	100.86

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
+	Co-60	1173.22*	100.00	8.8869E-002	6.59E-002	3.1232E-001
		1332.49*	100.00	6.5926E-002		2.8146E-001
	Nb-94	702.63	100.00	1.1901E-001	9.61E-002	-2.7179E-003
		871.10	100.00	9.6145E-002		-3.1972E-002
	Ag-108m	79.20	7.10	6.1718E+000	1.24E-001	-1.2567E+000
		433.93	89.90	1.3252E-001		-2.5511E-002
		614.37	90.40	1.3866E-001		-4.4473E-002
		722.95	90.50	1.2393E-001		-1.0556E-002
	Sb-125	176.33	6.89	2.7527E+000	4.02E-001	1.2534E+000
		427.89	29.33	4.0205E-001		4.1507E-001
		463.38	10.35	1.1548E+000		4.3219E-001
		600.56	17.80	6.6117E-001		-5.8300E-003
		606.64	5.02	2.8577E+000		3.8875E+000
		635.90	11.32	9.5186E-001		-1.5386E-001
	Cs-134	563.23	8.38	1.3675E+000	1.31E-001	-1.1816E+000
		569.32	15.43	7.6913E-001		5.2584E-001
		604.70	97.60	1.4770E-001		-1.3622E-002
		795.84	85.40	1.3098E-001		7.3566E-003
		801.93	8.73	1.1667E+000		-1.6567E+000
+	Cs-137	661.65*	85.12	9.8047E-002	9.80E-002	7.2037E-002
	Eu-152	121.78	28.40	8.8135E-001	3.15E-001	4.7631E-001
		244.69	7.49	2.0957E+000		7.9970E-001
		344.27	26.50	4.8704E-001		-6.3362E-001
		778.89	12.74	8.3542E-001		-1.0391E+000
		867.32	4.16	2.3240E+000		-2.5620E+000
		964.01	14.40	9.0169E-001		-2.1032E-001
		1085.78	10.00	1.0275E+000		1.9365E-001
		1112.02	13.30	7.2650E-001		-1.5918E+000
		1407.95	20.70	3.1522E-001		-3.2756E-003
	Eu-154	123.07	40.50	6.1274E-001	2.38E-001	5.7452E-002
		247.94	6.60	2.3308E+000		8.3301E-001
		591.81	4.83	2.3142E+000		-1.0779E+000
		723.30	19.70	5.7306E-001		3.2061E-001
		756.87	4.33	2.4980E+000		7.1043E-001
		873.19	11.50	8.5774E-001		-4.0917E-001
		996.32	10.30	1.0070E+000		-2.7364E-001
		1004.76	17.90	5.7911E-001		1.2534E-001
		1274.45	35.50	2.3795E-001		2.7765E-004
	Eu-155	86.54	30.90	1.2483E+000	1.25E+000	2.1854E-001
		105.31	20.70	1.4283E+000		-4.4999E-001
	Am-241	59.54	35.90	1.5404E+000	1.54E+000	-1.0346E+000
	Cm-243	228.19	10.56	1.5054E+000	1.06E+000	1.2849E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Cm-243	277.60	14.00	1.0632E+000	1.06E+000	3.6443E-001

+ = 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

Report Generated On 5/25/2006 3:57:00 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-131-F-G
Sample ID: NOL-05-01-131
Sample Title: NOL-05-01-131-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/25/2006 8:32:48 AM
Live Time: 600.0 seconds
Real Time: 601.3 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-131-F-G
Log Number: NOL-05-01-131
Title: NOL-05-01-131-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	287-	308	292.01	72.83	0.96	5.47E+002	136.10	1.43E+003
m	2	287-	308	300.45	74.94	0.96	9.90E+002	208.55	1.82E+003
F	3	331-	353	339.29	84.65	0.98	3.66E+002	158.67	2.76E+003
F	4	869-	882	874.84	218.58	1.15	5.61E+001	30.82	3.58E+002
F	5	948-	961	954.51	238.51	1.18	2.36E+002	42.51	4.31E+002
F	6	1170-	1187	1180.62	295.05	1.23	7.95E+001	27.82	2.88E+002
F	7	1343-	1358	1351.93	337.89	1.27	7.18E+001	31.47	2.10E+002
F	8	1401-	1415	1407.48	351.78	1.28	1.45E+002	30.61	1.83E+002
F	9	2035-	2054	2043.51	510.84	2.10	1.21E+002	27.44	1.59E+002
F	10	2324-	2341	2332.12	583.01	1.45	1.65E+002	28.78	9.45E+001
F	11	2430-	2444	2437.24	609.30	1.47	1.60E+002	28.41	8.32E+001
F	12	2639-	2655	2646.55	661.64	1.50	5.98E+001	699.89	8.21E+001
F	13	2903-	2914	2908.93	727.26	1.54	3.56E+001	16.65	4.15E+001
F	14	3639-	3658	3645.47	911.45	1.64	1.05E+002	24.20	7.64E+001
F	15	4473-	4490	4482.53	1120.78	1.75	4.90E+001	18.11	5.40E+001
F	16	4681-	4706	4693.02	1173.41	1.77	2.18E+002	60.65	4.92E+001
F	17	5322-	5340	5331.18	1333.00	1.84	2.20E+002	30.21	2.85E+001
F	18	5830-	5858	5844.80	1461.45	1.90	9.90E+002	94.63	1.45E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-131-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
ANN	0.999	511.00*	100.00	1.72746E-001	4.57446E-002
K-40	0.986	1460.81*	10.67	1.74447E+001	2.18461E+000
Co-60	0.995	1173.22*	100.00	3.90767E-001	1.12885E-001
		1332.49*	100.00	4.06530E-001	6.42386E-002
Cs-137	1.000	661.65*	85.12	1.09658E-001	1.28286E+000
TL-208	0.751	277.35	6.80		
		510.84*	21.60	7.99749E-001	2.21623E-001
		583.14*	84.20	2.93355E-001	6.38271E-002
		860.37	12.46		
Bi-212	1.000	727.17*	11.80	4.79790E-001	2.31268E-001
Pb-212	0.520	74.81* @	10.70	1.48710E+001	4.27816E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	6.03040E-001	1.43919E-001
Bi-214	0.698	609.31*	46.30	5.25519E-001	1.13435E-001
		1120.29*	15.10	5.73063E-001	2.20616E-001
		1764.49	15.80		
PB-214	0.582	74.82* @	6.21	2.56232E+001	7.60245E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	5.01187E-001	1.94549E-001
		351.92*	37.20	4.95823E-001	1.33506E-001
Ac-228	0.537	338.32*	11.40	7.91651E-001	3.68693E-001
		911.07*	27.70	6.34034E-001	1.62709E-001
		969.11	16.60		

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-131-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
ANN		0.999	1.093812E-001	4.773229E-002
K-40		0.986	1.744473E+001	2.184610E+000
Co-60		0.995	4.026744E-001	5.583154E-002
Cs-137		1.000	1.096582E-001	1.282858E+000
TL-208		0.751	2.933549E-001	6.310705E-002
Bi-212		1.000	4.797895E-001	2.312675E-001
Pb-212	@	0.520	6.030399E-001	1.439192E-001
Bi-214		0.698	5.354601E-001	1.008811E-001
PB-214	@	0.582	4.975405E-001	1.100795E-001
Ac-228		0.537	6.597274E-001	1.488579E-001

? = 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 1.960 sigma

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

	Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M	1	72.83	9.1162E-001	24.88
F	3	84.65	6.1037E-001	43.33
F	4	218.58	9.3486E-002	54.95

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-131-F-G
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
+	Co-60	1173.22*	100.00	9.0579E-002	6.46E-002	3.9077E-001
		1332.49*	100.00	6.4590E-002		4.0653E-001
	Nb-94	702.63	100.00	1.0971E-001	1.03E-001	-1.2995E-002
		871.10	100.00	1.0323E-001		1.3814E-002
	Ag-108m	79.20	7.10	5.5952E+000	1.30E-001	-2.0158E+000
		433.93	89.90	1.3732E-001		-4.7274E-002
		614.37	90.40	1.4162E-001		-1.8010E-001
		722.95	90.50	1.2962E-001		7.3364E-003
	Sb-125	176.33	6.89	2.5511E+000	4.18E-001	-1.2712E+000
		427.89	29.33	4.1783E-001		-3.2583E-001
		463.38	10.35	1.1941E+000		1.5283E-001
		600.56	17.80	6.2839E-001		-3.0182E-001
		606.64	5.02	2.8422E+000		3.7987E+000
		635.90	11.32	9.6909E-001		5.2210E-001
	Cs-134	563.23	8.38	1.2520E+000	1.22E-001	-2.7287E-001
		569.32	15.43	7.3518E-001		2.4532E-001
		604.70	97.60	1.3983E-001		-1.4422E-002
		795.84	85.40	1.2210E-001		7.8790E-002
		801.93	8.73	1.1257E+000		-1.2129E+000
+	Cs-137	661.65*	85.12	1.0181E-001	1.02E-001	1.0966E-001
	Eu-152	121.78	28.40	8.4729E-001	3.15E-001	-2.9201E-001
		244.69	7.49	2.0296E+000		-5.8014E-001
		344.27	26.50	4.8636E-001		4.7002E-002
		778.89	12.74	8.3037E-001		-4.5415E-001
		867.32	4.16	2.4936E+000		-7.6602E-001
		964.01	14.40	8.5734E-001		-1.8318E-001
		1085.78	10.00	1.0782E+000		-4.1221E-001
		1112.02	13.30	7.5806E-001		-1.1083E-002
		1407.95	20.70	3.1493E-001		-9.1681E-002
	Eu-154	123.07	40.50	5.9106E-001	2.56E-001	1.8087E-001
		247.94	6.60	2.2335E+000		1.0463E+000
		591.81	4.83	2.3514E+000		3.4119E-001
		723.30	19.70	5.9675E-001		7.9056E-001
		756.87	4.33	2.4672E+000		9.5278E-001
		873.19	11.50	9.0581E-001		5.4803E-001
		996.32	10.30	9.8371E-001		6.5739E-001
		1004.76	17.90	5.5071E-001		-2.5143E-001
		1274.45	35.50	2.5571E-001		-1.6975E-001
	Eu-155	86.54	30.90	1.1804E+000	1.18E+000	1.5372E-001
		105.31	20.70	1.4150E+000		-1.5995E+000
	Am-241	59.54	35.90	1.4680E+000	1.47E+000	-1.1928E-001
	Cm-243	228.19	10.56	1.4702E+000	1.06E+000	2.2866E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.0570E+000	1.06E+000	-3.4677E-001

+ = 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

Report Generated On 5/25/2006 3:57:16 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-132-F-G
Sample ID: NOL-05-01-132
Sample Title: NOL-05-01-132-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/25/2006 8:10:53 AM
Live Time: 600.0 seconds
Real Time: 601.2 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-132-F-G
Log Number: NOL-05-01-132
Title: NOL-05-01-132-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	283-	308	291.44	72.69	0.96	4.85E+002	110.91	1.84E+003
m	2	283-	308	300.35	74.92	0.96	8.47E+002	165.36	2.35E+003
	3	332-	344	339.30	84.66	0.69	1.71E+002	132.19	1.66E+003
F	4	945-	960	954.61	238.53	1.18	3.00E+002	101.61	3.41E+002
F	5	1176-	1189	1181.68	295.32	1.23	9.02E+001	75.00	1.82E+002
F	6	1346-	1362	1352.70	338.08	1.27	4.86E+001	23.08	1.81E+002
F	7	1402-	1416	1407.32	351.74	1.28	1.49E+002	29.84	1.53E+002
F	8	2032-	2054	2043.00	510.71	2.10	1.57E+002	74.57	1.12E+002
F	9	2326-	2342	2332.73	583.16	1.45	1.25E+002	26.98	1.03E+002
F	10	2429-	2445	2437.44	609.35	1.47	1.43E+002	27.61	1.05E+002
F	11	2634-	2653	2645.69	661.43	1.50	9.47E+001	52.10	9.66E+001
F	12	2902-	2915	2908.49	727.15	1.54	3.35E+001	17.78	6.47E+001
F	13	3635-	3655	3645.02	911.34	1.64	1.33E+002	48.68	7.07E+001
F	14	3869-	3884	3876.03	969.11	1.67	6.33E+001	58.18	3.64E+001
F	15	4475-	4491	4482.70	1120.82	1.75	7.30E+001	93.79	2.82E+001
F	16	5833-	5859	5845.05	1461.51	1.90	9.80E+002	60.90	3.74E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-132-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
ANN	0.997	511.00*	100.00	2.24136E-001	1.11029E-001
K-40	0.983	1460.81*	10.67	1.72612E+001	1.76173E+000
Cs-137	0.998	661.65*	85.12	1.73558E-001	9.76394E-002
TL-208	0.752	277.35	6.80		
		510.84*	21.60	1.03767E+000	5.20963E-001
		583.14*	84.20	2.22491E-001	5.60174E-002
		860.37	12.46		
Bi-212	1.000	727.17*	11.80	4.50939E-001	2.45332E-001
Pb-212	0.520	74.81* @	10.70	1.27287E+001	3.52079E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	7.64667E-001	2.85733E-001
Bi-214	0.698	609.31*	46.30	4.67806E-001	1.07309E-001
		1120.29*	15.10	8.54880E-001	1.10170E+000
		1764.49	15.80		
PB-214	0.582	74.82* @	6.21	2.19318E+001	6.27185E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	5.68735E-001	4.82218E-001
		351.92*	37.20	5.10676E-001	1.33034E-001
Ac-228	0.998	338.32*	11.40	5.36181E-001	2.68171E-001
		911.07*	27.70	7.96668E-001	3.06594E-001
		969.11*	16.60	6.45756E-001	5.97806E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-132-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
ANN		0.997	1.760781E-001	1.116756E-001
K-40		0.983	1.726124E+001	1.761726E+000
Cs-137		0.998	1.735579E-001	9.763940E-002
TL-208		0.752	2.224912E-001	5.554615E-002
Bi-212		1.000	4.509387E-001	2.453319E-001
Pb-212	@	0.520	7.646669E-001	2.857332E-001
Bi-214		0.698	4.714443E-001	1.068036E-001
PB-214	@	0.582	5.147822E-001	1.282436E-001
Ac-228		0.998	6.487477E-001	1.912439E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.69	8.0837E-001	22.87
3	84.66	2.8421E-001	77.52

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-132-F-G
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
	Co-60	1173.22	100.00	1.0204E-001	8.51E-002	7.1501E-002
		1332.49	100.00	8.5105E-002		-4.2122E-002
	Nb-94	702.63	100.00	1.0553E-001	9.25E-002	4.7955E-002
		871.10	100.00	9.2536E-002		9.2825E-002
	Ag-108m	79.20	7.10	5.4497E+000	1.24E-001	-2.3499E-001
		433.93	89.90	1.3088E-001		-2.2784E-002
		614.37	90.40	1.3821E-001		-6.6949E-002
		722.95	90.50	1.2361E-001		-4.2755E-002
	Sb-125	176.33	6.89	2.4930E+000	3.83E-001	1.0204E+000
		427.89	29.33	3.8293E-001		-1.5564E-001
		463.38	10.35	1.1373E+000		2.6477E-001
		600.56	17.80	5.6448E-001		-6.7346E-001
		606.64	5.02	2.7365E+000		4.5438E+000
		635.90	11.32	8.3734E-001		-6.9594E-001
	Cs-134	563.23	8.38	1.3332E+000	1.17E-001	8.8817E-001
		569.32	15.43	6.5429E-001		-2.0867E-001
		604.70	97.60	1.3192E-001		-1.2839E-002
		795.84	85.40	1.1735E-001		-3.6801E-002
		801.93	8.73	1.1117E+000		-7.6066E-001
+	Cs-137	661.65*	85.12	1.1596E-001	1.16E-001	1.7356E-001
	Eu-152	121.78	28.40	8.3237E-001	3.55E-001	-4.2961E-001
		244.69	7.49	1.9207E+000		7.9355E-001
		344.27	26.50	4.2815E-001		-2.8146E-001
		778.89	12.74	7.6929E-001		-6.5645E-001
		867.32	4.16	2.2701E+000		-2.1220E+000
		964.01	14.40	8.2031E-001		1.6692E-001
		1085.78	10.00	9.9777E-001		4.8781E-001
		1112.02	13.30	7.8902E-001		-1.1766E-001
		1407.95	20.70	3.5460E-001		7.0943E-002
	Eu-154	123.07	40.50	5.7852E-001	2.41E-001	-5.1492E-001
		247.94	6.60	2.0430E+000		-1.7320E+000
		591.81	4.83	2.1377E+000		-1.2560E+000
		723.30	19.70	5.6660E-001		-1.8943E-001
		756.87	4.33	2.3384E+000		1.0811E-001
		873.19	11.50	7.9039E-001		2.0714E-001
		996.32	10.30	9.4484E-001		1.0322E+000
		1004.76	17.90	5.0944E-001		-3.7000E-001
		1274.45	35.50	2.4104E-001		-1.7889E-001
	Eu-155	86.54	30.90	1.1632E+000	1.16E+000	6.0472E-001
		105.31	20.70	1.3601E+000		1.6960E-001
	Am-241	59.54	35.90	1.4621E+000	1.46E+000	-5.4814E-001
	Cm-243	228.19	10.56	1.3335E+000	9.52E-001	-1.2288E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	9.5205E-001	9.52E-001	2.9387E-001

+ = 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

Report Generated On 5/21/2006 7:18:21 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-01-133
Sample Title: NOL-05-01-133-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/21/2006 7:08:16 PM
Live Time: 600.0 seconds
Real Time: 601.3 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-01-133
Title: NOL-05-01-133-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	284-	316	291.77	72.77	1.06	5.73E+002	74.99	1.88E+003
m	2	284-	316	300.34	74.91	1.06	9.52E+002	83.85	1.83E+003
m	3	284-	316	308.52	76.96	1.07	2.52E+002	64.84	1.79E+003
M	4	332-	354	339.57	84.73	1.18	4.10E+002	73.30	1.84E+003
m	5	332-	354	349.85	87.30	1.18	1.38E+002	64.21	1.84E+003
	6	944-	960	954.20	238.43	1.15	2.61E+002	75.15	3.87E+002
	7	1344-	1358	1353.21	338.21	0.41	6.68E+001	49.03	1.94E+002
	8	1400-	1414	1406.80	351.61	1.29	1.32E+002	45.87	1.44E+002
	9	2033-	2053	2041.99	510.46	1.27	1.41E+002	48.42	1.29E+002
	10	2321-	2339	2331.90	582.96	1.37	1.62E+002	44.89	1.07E+002
	11	2425-	2442	2435.47	608.86	1.49	1.62E+002	41.89	9.13E+001
	12	3635-	3654	3643.79	911.03	1.49	1.25E+002	34.82	5.44E+001
	13	3867-	3883	3874.77	968.79	0.64	8.68E+001	27.72	3.62E+001
	14	5831-	5857	5843.19	1461.04	1.83	9.62E+002	64.97	3.21E+001
	15	7050-	7066	7058.07	1764.86	0.58	4.58E+001	15.06	4.25E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
ANN	0.990	511.00*	100.00	1.92239E-001	7.09809E-002
K-40	0.998	1460.81*	10.67	1.61337E+001	1.70109E+000
Eu-155	0.321	86.54*	30.90	5.54864E-001	2.79806E-001
		105.31	20.70		
TL-208	0.750	277.35	6.80		
		510.84*	21.60	8.89994E-001	3.36557E-001
		583.14*	84.20	2.73916E-001	8.39220E-002
		860.37	12.46		
Pb-212	0.999	74.81* @	10.70	1.36263E+001	2.92786E+000
		77.11* @	18.00	2.06733E+000	6.68281E-001
		87.30* @	8.00	2.14316E+000	1.08075E+000
		238.63*	44.60	6.34878E-001	2.08026E-001
Bi-214	0.693	609.31*	46.30	5.04727E-001	1.44817E-001
		1120.29	15.10		
		1764.49*	15.80	5.37519E-001	1.84938E-001
PB-214	0.476	74.82* @	6.21	2.34785E+001	5.32491E+000
		77.11* @	10.50	3.54400E+000	1.17579E+000
		87.30* @	4.67	3.67137E+000	1.87205E+000
		241.98	7.49		
		295.21	19.20		
		351.92*	37.20	4.29035E-001	1.65685E-001
Ac-228	0.999	338.32*	11.40	7.01436E-001	5.26810E-001
		911.07*	27.70	7.12948E-001	2.15511E-001
		969.11*	16.60	8.44285E-001	2.83610E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
ANN		0.990	1.330728E-001	7.323359E-002
K-40		0.998	1.613368E+001	1.701087E+000
Eu-155		0.321	3.256532E-001	2.860156E-001
TL-208		0.750	2.739160E-001	8.344590E-002
Pb-212	@	0.999	6.348783E-001	2.080259E-001
Bi-214		0.693	5.171912E-001	1.140194E-001
PB-214	@	0.476	4.290353E-001	1.638087E-001
Ac-228		0.999	7.553087E-001	1.631546E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.77	9.5536E-001	13.08
M 4	84.73	6.8344E-001	17.88

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
	Co-60	1173.22	100.00	9.6158E-002	7.97E-002	-4.4558E-002
		1332.49	100.00	7.9726E-002		5.0983E-002
	Nb-94	702.63	100.00	9.3390E-002	8.88E-002	4.2808E-002
		871.10	100.00	8.8763E-002		-5.7247E-002
	Ag-108m	79.20	7.10	5.4277E+000	1.17E-001	-1.6920E-001
		433.93	89.90	1.1739E-001		-4.1617E-002
		614.37	90.40	1.2466E-001		-9.7787E-002
		722.95	90.50	1.2268E-001		4.7622E-002
	Sb-125	176.33	6.89	2.4315E+000	3.55E-001	1.9190E+000
		427.89	29.33	3.5452E-001		-2.4948E-001
		463.38	10.35	1.0118E+000		-3.3425E-001
		600.56	17.80	5.3760E-001		5.2030E-002
		606.64	5.02	2.6062E+000		4.1470E+000
		635.90	11.32	8.6149E-001		-5.0274E-001
	Cs-134	563.23	8.38	1.2547E+000	1.12E-001	9.4131E-001
		569.32	15.43	6.5853E-001		4.7133E-001
		604.70	97.60	1.2852E-001		1.1488E-002
		795.84	85.40	1.1242E-001		1.3336E-001
		801.93	8.73	1.0282E+000		-9.5751E-001
	Cs-137	661.65	85.12	1.2682E-001	1.27E-001	8.9970E-002
	Eu-152	121.78	28.40	8.0488E-001	3.43E-001	3.0695E-001
		244.69	7.49	1.8331E+000		-8.6612E-001
		344.27	26.50	4.2219E-001		-1.1527E-001
		778.89	12.74	7.0520E-001		3.7947E-001
		867.32	4.16	2.1842E+000		-7.7683E-001
		964.01	14.40	8.0785E-001		2.9034E-001
		1085.78	10.00	8.7745E-001		-4.3693E-001
		1112.02	13.30	6.7787E-001		3.8851E-001
		1407.95	20.70	3.4274E-001		-2.8032E-002
	Eu-154	123.07	40.50	5.5343E-001	2.34E-001	-1.9164E-001
		247.94	6.60	2.0106E+000		-2.0012E+000
		591.81	4.83	1.9916E+000		-2.6185E-001
		723.30	19.70	5.6599E-001		7.5233E-001
		756.87	4.33	2.1170E+000		2.4218E-001
		873.19	11.50	7.6671E-001		-4.6618E-002
		996.32	10.30	8.6445E-001		-1.5401E-001
		1004.76	17.90	4.9292E-001		2.1846E-001
		1274.45	35.50	2.3432E-001		-1.1829E-001
+	Eu-155	86.54*	30.90	8.1264E-001	8.13E-001	5.5486E-001
		105.31	20.70	1.3467E+000		4.8718E-001
	Am-241	59.54	35.90	1.3997E+000	1.40E+000	-5.3536E-001
	Cm-243	228.19	10.56	1.3149E+000	9.34E-001	-3.5155E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	9.3350E-001	9.34E-001	-1.9887E-001

+ = 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

Report Generated On 5/21/2006 8:18:30 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-01-134
Sample Title: NOL-05-01-134-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/21/2006 8:08:27 PM
Live Time: 600.0 seconds
Real Time: 601.4 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-01-134
Title: NOL-05-01-134-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	285-	305	291.83	72.79	0.96	4.61E+002	75.82	1.99E+003
m	2	285-	305	300.33	74.91	0.97	9.30E+002	90.03	2.00E+003
M	3	331-	354	339.14	84.62	1.10	3.81E+002	74.58	2.01E+003
m	4	331-	354	349.75	87.27	1.10	1.60E+002	66.27	1.84E+003
	5	947-	960	954.46	238.49	1.23	2.99E+002	72.61	3.89E+002
	6	1175-	1186	1180.88	295.12	1.04	6.95E+001	46.99	2.01E+002
	7	1343-	1359	1352.73	338.09	1.01	1.02E+002	53.30	2.04E+002
	8	1399-	1417	1406.86	351.63	1.19	1.68E+002	58.15	2.11E+002
	9	2323-	2340	2331.16	582.77	1.25	1.94E+002	42.27	8.33E+001
	10	2428-	2448	2436.27	609.06	1.11	2.13E+002	42.81	7.30E+001
	11	2901-	2915	2908.26	727.09	1.15	4.12E+001	27.89	5.58E+001
	12	2986-	2995	2990.77	747.73	0.35	1.35E+001	15.72	2.25E+001
	13	3636-	3652	3643.62	910.99	1.76	1.33E+002	34.39	5.44E+001
	14	3866-	3882	3874.91	968.83	0.62	7.36E+001	28.14	4.24E+001
	15	5829-	5856	5843.07	1461.01	1.85	1.04E+003	68.22	3.83E+001
	16	7054-	7069	7060.68	1765.51	1.48	4.12E+001	15.75	7.81E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.999	1460.81*	10.67	1.74384E+001	1.81736E+000
Eu-155	0.322	86.54*	30.90	6.43850E-001	2.94574E-001
		105.31	20.70		
TL-208	0.468	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.27679E-001	8.32827E-002
		860.37	12.46		
Bi-212	1.000	727.17*	11.80	5.28665E-001	3.63219E-001
Pb-212	0.677	74.81* @	10.70	1.33090E+001	2.90929E+000
		77.11 @	18.00		
		87.30* @	8.00	2.48687E+000	1.13779E+000
		238.63*	44.60	7.26279E-001	2.10050E-001
Bi-214	0.690	609.31*	46.30	6.64937E-001	1.56758E-001
		1120.29	15.10		
		1764.49*	15.80	4.84023E-001	1.91226E-001
PB-214	0.668	74.82* @	6.21	2.29318E+001	5.28197E+000
		77.11 @	10.50		
		87.30* @	4.67	4.26016E+000	1.97550E+000
		241.98	7.49		
		295.21*	19.20	4.16998E-001	2.90595E-001
		351.92*	37.20	5.48365E-001	2.10350E-001
Ac-228	0.999	338.32*	11.40	1.07442E+000	5.84797E-001
		911.07*	27.70	7.58758E-001	2.15298E-001
		969.11*	16.60	7.15406E-001	2.83691E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40		0.999	1.743842E+001	1.817357E+000
Eu-155		0.322	3.796981E-001	3.006370E-001
TL-208		0.468	3.276788E-001	8.328269E-002
Bi-212		1.000	5.286648E-001	3.632187E-001
Pb-212	@	0.677	7.262792E-001	2.100499E-001
Bi-214		0.690	5.922258E-001	1.212308E-001
PB-214	@	0.668	5.036516E-001	1.688800E-001
Ac-228		0.999	7.691678E-001	1.645703E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.79	7.6818E-001	16.45
M 3	84.62	6.3507E-001	19.57
12	747.73	2.2500E-002	116.46

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
	Co-60	1173.22	100.00	9.9537E-002	8.41E-002	6.2395E-003
		1332.49	100.00	8.4063E-002		1.5037E-002
	Nb-94	702.63	100.00	1.0617E-001	9.49E-002	2.4277E-002
		871.10	100.00	9.4851E-002		-1.6110E-002
	Ag-108m	79.20	7.10	5.5595E+000	1.24E-001	-1.3924E+001
		433.93	89.90	1.2409E-001		-1.5322E-001
		614.37	90.40	1.2512E-001		2.8307E-002
		722.95	90.50	1.2596E-001		5.2843E-002
	Sb-125	176.33	6.89	2.5403E+000	3.94E-001	1.6493E+000
		427.89	29.33	3.9414E-001		-3.7901E-002
		463.38	10.35	1.0915E+000		4.3707E-001
		600.56	17.80	5.7467E-001		2.0517E-001
		606.64	5.02	2.7204E+000		-1.5665E+000
		635.90	11.32	8.6149E-001		7.0929E-001
	Cs-134	563.23	8.38	1.2445E+000	1.13E-001	-4.5746E-001
		569.32	15.43	6.6990E-001		-5.8634E-001
		604.70	97.60	1.3661E-001		-4.8152E-002
		795.84	85.40	1.1340E-001		3.3673E-002
		801.93	8.73	1.0037E+000		-1.8286E+000
	Cs-137	661.65	85.12	1.2573E-001	1.26E-001	7.3420E-003
	Eu-152	121.78	28.40	8.3612E-001	3.27E-001	1.3375E-001
		244.69	7.49	1.9702E+000		1.0349E+000
		344.27	26.50	4.5922E-001		-1.5603E-001
		778.89	12.74	7.7829E-001		1.7713E-002
		867.32	4.16	2.2852E+000		-3.4751E+000
		964.01	14.40	8.3358E-001		3.8889E-001
		1085.78	10.00	9.1979E-001		-4.3371E-001
		1112.02	13.30	7.2446E-001		-3.4092E-001
		1407.95	20.70	3.2740E-001		1.7175E-001
	Eu-154	123.07	40.50	5.8767E-001	2.53E-001	6.3366E-001
		247.94	6.60	2.1157E+000		-2.7373E-001
		591.81	4.83	2.1677E+000		8.7308E-001
		723.30	19.70	5.7181E-001		1.3214E-001
		756.87	4.33	2.2081E+000		1.4769E+000
		873.19	11.50	8.0706E-001		3.2692E-001
		996.32	10.30	9.5776E-001		1.1894E+000
		1004.76	17.90	5.0988E-001		7.7449E-002
		1274.45	35.50	2.5348E-001		-7.2668E-002
+	Eu-155	86.54*	30.90	8.1283E-001	8.13E-001	6.4385E-001
		105.31	20.70	1.4000E+000		3.7578E-002
	Am-241	59.54	35.90	1.5041E+000	1.50E+000	-3.8338E-001
	Cm-243	228.19	10.56	1.3847E+000	9.75E-001	-3.2065E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	9.7526E-001	9.75E-001	-1.4141E-001

+ = 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

Report Generated On 5/25/2006 3:25:57 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: GRN7780

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-135-F-G
Sample ID: NOL-05-01-135
Sample Title: NOL-05-01-135-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/24/2006 12:09:33 AM
Live Time: 600.0 seconds
Real Time: 601.0 seconds

Energy Calibration Date: 4/19/2006
Eff Calibration Date: 3/23/2006
Calibration Efficiency: 7780Soil1M180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-135-F-G
Log Number: NOL-05-01-135
Title: NOL-05-01-135-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	282-	307	289.40	72.31	1.08	9.72E+001	64.68	1.06E+003
m	2	282-	307	298.80	74.66	1.09	3.70E+002	150.19	1.81E+003
F	3	944-	958	951.68	237.88	1.28	8.96E+001	103.30	3.66E+002
F	4	1399-	1408	1404.07	350.97	1.38	4.93E+001	24.47	1.24E+002
F	5	3868-	3883	3874.75	968.65	1.73	4.01E+001	58.80	4.51E+001
F	6	5828-	5858	5843.49	1460.84	1.94	6.69E+002	70.73	1.15E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-135-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	1.000	1460.81*	10.67	1.53282E+001	1.87038E+000
Pb-212	0.586	74.81* @	10.70	1.41036E+001	6.13828E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	2.90676E-001	3.37921E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-135-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40	1.000	1.532819E+001	1.870385E+000
Pb-212 @	0.586	2.906763E-001	3.379207E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.31	1.6192E-001	66.58
F 4	350.97	8.2094E-002	49.67
F 5	968.65	6.6857E-002	146.57

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-135-F-G
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	1.2546E-001	9.63E-002	3.4809E-002
	1332.49	100.00	9.6255E-002		1.1984E-002
Nb-94	702.63	100.00	1.2581E-001	1.16E-001	5.9176E-002
	871.10	100.00	1.1559E-001		7.0442E-002
Ag-108m	79.20	7.10	1.0854E+001	1.49E-001	-1.7146E+001
	433.93	89.90	1.5006E-001		-2.2418E-002
	614.37	90.40	1.6503E-001		-8.7015E-002
	722.95	90.50	1.4856E-001		3.2565E-002
Sb-125	176.33	6.89	3.2521E+000	4.91E-001	3.9850E+000
	427.89	29.33	4.9054E-001		2.5695E-001
	463.38	10.35	1.3148E+000		-8.6144E-002
	600.56	17.80	7.2810E-001		-2.9119E-002
	606.64	5.02	3.2985E+000		5.5251E+000
	635.90	11.32	1.0515E+000		1.3687E-002
Cs-134	563.23	8.38	1.5604E+000	1.30E-001	-1.9518E-001
	569.32	15.43	8.7621E-001		6.6690E-001
	604.70	97.60	1.5917E-001		-9.8507E-002
	795.84	85.40	1.3028E-001		6.2078E-002
	801.93	8.73	1.3115E+000		-4.0646E-001
Cs-137	661.65	85.12	1.5692E-001	1.57E-001	8.9937E-002
Eu-152	121.78	28.40	1.1539E+000	3.82E-001	1.1755E-001
	244.69	7.49	2.4246E+000		-2.9205E+000
	344.27	26.50	5.7231E-001		-1.2767E-001
	778.89	12.74	8.7973E-001		3.0423E-001
	867.32	4.16	2.8181E+000		-4.1899E+000
	964.01	14.40	1.0020E+000		-4.2032E-001
	1085.78	10.00	1.1775E+000		5.7431E-001
	1112.02	13.30	8.5015E-001		-1.2089E+000
	1407.95	20.70	3.8214E-001		1.3900E-001
Eu-154	123.07	40.50	7.9236E-001	3.03E-001	-1.2021E-001
	247.94	6.60	2.6039E+000		-1.5122E+000
	591.81	4.83	2.8002E+000		1.0583E+000
	723.30	19.70	6.7714E-001		6.5947E-003
	756.87	4.33	2.6420E+000		3.2350E-001
	873.19	11.50	1.0209E+000		-1.3184E-001
	996.32	10.30	1.0396E+000		-9.7270E-001
	1004.76	17.90	6.2971E-001		-7.4030E-002
	1274.45	35.50	3.0348E-001		-2.2825E-001
Eu-155	86.54	30.90	2.1288E+000	2.02E+000	3.3142E+000
	105.31	20.70	2.0171E+000		5.2605E-002
Am-241	59.54	35.90	5.6301E+000	5.63E+000	-1.7861E+000
Cm-243	228.19	10.56	1.7453E+000	1.22E+000	7.9522E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.2154E+000	1.22E+000	1.0615E+000

+ = 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

Report Generated On 5/24/2006 8:29:46 AM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: RED6264

Spectrum File: RED6264
Sample ID: NOL-05-01-136
Sample Title: NOL-05-01-136-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/24/2006 8:29:40 AM
Live Time: 4.8 seconds
Real Time: 4.8 seconds

Energy Calibration Date: 3/22/2006
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

No peak analysis results available for reporting purposes

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty

? = 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 1.960 sigma

No peak search results available for nuclide analysis.

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Co-60	1173.22	100.00	2.0338E+000	2.03E+000	4.3805E-001
	1332.49	100.00	2.4289E+000		6.7689E-001
Nb-94	702.63	100.00	1.4211E+000	1.42E+000	1.9311E-001
	871.10	100.00	1.4850E+000		2.0179E-001
Ag-108m	79.20	7.10	7.2704E+001	1.99E+000	1.8096E+001
	433.93	89.90	1.9869E+000		5.5371E-001
	614.37	90.40	2.6993E+000		1.0295E+000
	722.95	90.50	2.3105E+000		-8.9429E-002
Sb-125	176.33	6.89	3.2328E+001	2.81E+000	8.4905E+000
	427.89	29.33	7.3825E+000		-6.1943E-001
	463.38	10.35	1.9679E+001		4.0959E-001
	600.56	17.80	2.8085E+000		0.0000E+000
	606.64	5.02	3.9748E+001		1.1077E+001
	635.90	11.32	1.2238E+001		1.6631E+000
Cs-134	563.23	8.38	2.3234E+001	1.76E+000	6.4748E+000
	569.32	15.43	1.5422E+001		5.8816E+000
	604.70	97.60	1.7617E+000		2.1343E-001
	795.84	85.40	2.7862E+000		9.2785E-001
	801.93	8.73	2.4465E+001		6.8181E+000
Cs-137	661.65	85.12	6.0641E-001	6.06E-001	0.0000E+000
Eu-152	121.78	28.40	1.0275E+001	2.98E+000	6.8662E-001
	244.69	7.49	2.9728E+001		1.4990E+001
	344.27	26.50	7.6500E+000		4.9600E-001
	778.89	12.74	1.1392E+001		1.5481E+000
	867.32	4.16	3.5664E+001		-5.2100E+001
	964.01	14.40	1.3360E+001		2.8774E+000
	1085.78	10.00	1.9897E+001		4.2854E+000
	1112.02	13.30	4.3891E+000		0.0000E+000
	1407.95	20.70	2.9821E+000		0.0000E+000
Eu-154	123.07	40.50	6.8270E+000	1.70E+000	-1.6013E-001
	247.94	6.60	3.0101E+001		-5.5137E+000
	591.81	4.83	3.5346E+001		7.6127E+000
	723.30	19.70	1.0615E+001		-6.5739E-001
	756.87	4.33	1.2253E+001		0.0000E+000
	873.19	11.50	1.6302E+001		3.5112E+000
	996.32	10.30	5.4939E+000		0.0000E+000
	1004.76	17.90	8.6174E+000		1.1710E+000
	1274.45	35.50	1.7021E+000		0.0000E+000
Eu-155	86.54	30.90	1.4988E+001	1.50E+001	4.8921E+000
	105.31	20.70	1.6471E+001		-5.3290E+000
Am-241	59.54	35.90	2.1380E+001	2.14E+001	9.8595E-001
Cm-243	228.19	10.56	2.4525E+001	1.12E+001	1.5635E+001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Cm-243	277.60	14.00	1.1185E+001	1.12E+001	-1.1256E+000

+ = 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

Report Generated On 5/24/2006 8:43:07 AM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: RED6264

Spectrum File: RED6264
Sample ID: NOL-05-01-136
Sample Title: NOL-05-01-136-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/24/2006 8:33:03 AM
Live Time: 600.0 seconds
Real Time: 601.2 seconds

Energy Calibration Date: 3/22/2006
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number: NOL-05-01-136
Title: NOL-05-01-136-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	283-	309	291.63	72.81	1.49	4.39E+002	82.65	2.32E+003
m	2	283-	309	300.06	74.92	1.49	9.68E+002	93.30	3.03E+003
	3	332-	345	338.35	84.49	0.40	2.40E+002	139.83	1.76E+003
	4	943-	959	953.90	238.42	1.26	1.90E+002	79.35	4.62E+002
	5	1175-	1188	1180.98	295.21	1.12	8.17E+001	48.99	1.96E+002
	6	1347-	1357	1352.75	338.16	0.54	4.35E+001	38.60	1.44E+002
	7	1399-	1413	1405.62	351.38	1.18	1.06E+002	51.43	2.01E+002
	8	2031-	2051	2040.84	510.23	2.06	1.75E+002	50.72	1.35E+002
	9	2319-	2342	2331.24	582.85	1.38	2.03E+002	44.85	8.04E+001
	10	2423-	2444	2435.33	608.88	1.70	2.14E+002	44.50	8.00E+001
	11	2901-	2914	2907.79	727.02	0.60	3.82E+001	28.01	5.98E+001
	12	3633-	3653	3642.52	910.75	1.69	1.43E+002	33.83	4.24E+001
	13	3865-	3884	3874.76	968.83	0.67	8.70E+001	29.57	4.00E+001
	14	5828-	5856	5842.25	1460.83	2.09	9.71E+002	64.67	2.54E+001
	15	7052-	7067	7059.07	1765.12	1.06	4.36E+001	17.27	1.14E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	0.981	511.00*		100.00	2.46660E-001	7.87815E-002
K-40	1.000	1460.81*		10.67	1.67918E+001	1.76068E+000
TL-208	0.748	277.35		6.80		
		510.84*		21.60	1.14194E+000	3.76463E-001
		583.14*		84.20	3.53635E-001	9.08116E-002
		860.37		12.46		
Bi-212	0.999	727.17*		11.80	5.05576E-001	3.75537E-001
Pb-212	0.520	74.81*	@	10.70	1.43698E+001	3.13889E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	4.75621E-001	2.12610E-001
Bi-214	0.692	609.31*		46.30	6.88930E-001	1.66533E-001
		1120.29		15.10		
		1764.49*		15.80	5.28751E-001	2.16046E-001
PB-214	0.579	74.82*	@	6.21	2.47596E+001	5.69923E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	5.06108E-001	3.15130E-001
		351.92*		37.20	3.54423E-001	1.82616E-001
Ac-228	0.998	338.32*		11.40	4.71851E-001	4.25005E-001
		911.07*		27.70	8.43308E-001	2.22353E-001
		969.11*		16.60	8.73105E-001	3.10635E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN		0.981	1.702746E-001	8.114857E-002
K-40		1.000	1.679183E+001	1.760679E+000
TL-208		0.748	3.536355E-001	9.007731E-002
Bi-212		0.999	5.055763E-001	3.755371E-001
Pb-212	@	0.520	4.756212E-001	2.126103E-001
Bi-214		0.692	6.292296E-001	1.318965E-001
PB-214	@	0.579	3.925559E-001	1.580035E-001
Ac-228		0.998	7.949306E-001	1.663763E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.81	7.3224E-001	18.81
3	84.49	3.9955E-001	58.33

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Co-60	1173.22	100.00	1.0162E-001	8.75E-002	1.7469E-002
	1332.49	100.00	8.7535E-002		-6.7971E-003
Nb-94	702.63	100.00	1.0104E-001	9.49E-002	-6.5802E-002
	871.10	100.00	9.4896E-002		6.4393E-003
Ag-108m	79.20	7.10	6.2511E+000	1.26E-001	-4.7837E+000
	433.93	89.90	1.2606E-001		-5.3102E-002
	614.37	90.40	1.3888E-001		7.6193E-003
	722.95	90.50	1.2712E-001		-2.2884E-002
Sb-125	176.33	6.89	2.6172E+000	3.98E-001	-9.0254E-001
	427.89	29.33	3.9806E-001		2.4710E-001
	463.38	10.35	1.1121E+000		2.7322E-001
	600.56	17.80	6.1343E-001		-4.0531E-002
	606.64	5.02	2.8162E+000		5.6178E+000
	635.90	11.32	8.9974E-001		-5.5006E-001
Cs-134	563.23	8.38	1.2677E+000	1.22E-001	-2.2119E-001
	569.32	15.43	6.9959E-001		1.0209E-001
	604.70	97.60	1.4683E-001		1.4478E-002
	795.84	85.40	1.2201E-001		-1.8337E-002
	801.93	8.73	1.1273E+000		-1.7167E+000
Cs-137	661.65	85.12	1.2995E-001	1.30E-001	4.9662E-002
Eu-152	121.78	28.40	8.7545E-001	3.46E-001	-6.1813E-001
	244.69	7.49	2.1147E+000		-2.6959E+000
	344.27	26.50	4.6232E-001		-4.3942E-001
	778.89	12.74	7.9252E-001		-9.8745E-001
	867.32	4.16	2.3606E+000		-2.4539E+000
	964.01	14.40	8.7298E-001		1.9105E-001
	1085.78	10.00	8.8273E-001		-1.6688E-001
	1112.02	13.30	6.9938E-001		-1.5819E+000
	1407.95	20.70	3.4566E-001		1.4016E-001
Eu-154	123.07	40.50	6.0369E-001	2.37E-001	-3.3402E-001
	247.94	6.60	2.2195E+000		-5.9330E-001
	591.81	4.83	2.1977E+000		2.1494E-001
	723.30	19.70	5.8645E-001		4.8351E-001
	756.87	4.33	2.3565E+000		-9.6888E-001
	873.19	11.50	8.2832E-001		2.4681E-001
	996.32	10.30	9.3881E-001		-2.0387E-002
	1004.76	17.90	5.6686E-001		1.8057E-001
	1274.45	35.50	2.3671E-001		-1.6287E-001
Eu-155	86.54	30.90	1.2637E+000	1.26E+000	1.8796E+000
	105.31	20.70	1.3985E+000		-6.4518E-001
Am-241	59.54	35.90	1.6004E+000	1.60E+000	6.6993E-001
Cm-243	228.19	10.56	1.4868E+000	1.06E+000	7.8961E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Cm-243	277.60	14.00	1.0559E+000	1.06E+000	7.1070E-001

+ = 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

Report Generated On 5/24/2006 4:04:38 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: RED6264

Spectrum File: RED6264
Sample ID: NOL-05-01-137
Sample Title: NOL-05-01-137-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/24/2006 3:54:37 PM
Live Time: 600.0 seconds
Real Time: 601.1 seconds

Energy Calibration Date: 3/22/2006
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number: NOL-05-01-137
Title: NOL-05-01-137-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	296-	309	300.39	75.00	1.27	3.81E+002	149.94	1.96E+003
2	332-	346	337.65	84.32	0.57	1.58E+002	133.65	1.55E+003
3	944-	964	953.93	238.43	1.28	2.38E+002	84.25	4.42E+002
4	1346-	1362	1351.42	337.83	0.91	1.00E+002	46.08	1.44E+002
5	1399-	1412	1406.72	351.66	0.97	1.03E+002	45.80	1.61E+002
6	2030-	2053	2042.63	510.67	0.92	1.38E+002	51.96	1.41E+002
7	2323-	2342	2331.11	582.81	2.09	1.77E+002	41.57	7.82E+001
8	2426-	2445	2435.36	608.88	1.86	1.12E+002	45.98	1.25E+002
9	3633-	3652	3642.88	910.84	1.08	1.26E+002	33.54	4.73E+001
10	3867-	3885	3875.86	969.11	0.63	7.72E+001	30.07	4.68E+001
11	5828-	5856	5842.38	1460.86	1.83	9.59E+002	65.30	3.26E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	0.997	511.00*		100.00	1.94010E-001	7.76795E-002
K-40	1.000	1460.81*		10.67	1.65998E+001	1.75570E+000
TL-208	0.749	277.35		6.80		
		510.84*		21.60	8.98195E-001	3.67032E-001
		583.14*		84.20	3.08487E-001	8.29222E-002
		860.37		12.46		
Pb-212	0.520	74.81*	@	10.70	5.64770E+000	2.48388E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	5.97602E-001	2.31248E-001
Bi-214	0.395	609.31*		46.30	3.60636E-001	1.54569E-001
		1120.29		15.10		
		1764.49		15.80		
Ac-228	0.998	338.32*		11.40	1.08331E+000	5.27521E-001
		911.07*		27.70	7.43096E-001	2.15942E-001
		969.11*		16.60	7.75613E-001	3.12711E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN	0.997	1.273770E-001	7.968812E-002
K-40	1.000	1.659975E+001	1.755700E+000
TL-208	0.749	3.084866E-001	8.231050E-002
Pb-212 @	0.520	5.976018E-001	2.312477E-001
Bi-214	0.395	3.606361E-001	1.545686E-001
Ac-228	0.998	7.871942E-001	1.683956E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
2	84.32	2.6305E-001	84.68
5	351.66	1.7167E-001	44.46

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Co-60	1173.22	100.00	1.0766E-001	7.70E-002	1.1016E-001
	1332.49	100.00	7.6960E-002		4.2912E-002
Nb-94	702.63	100.00	9.7752E-002	8.74E-002	-3.1026E-002
	871.10	100.00	8.7354E-002		-3.1316E-003
Ag-108m	79.20	7.10	5.7842E+000	1.14E-001	-4.3203E+000
	433.93	89.90	1.1674E-001		3.1069E-002
	614.37	90.40	1.3417E-001		1.1486E-003
	722.95	90.50	1.1437E-001		-3.6411E-002
Sb-125	176.33	6.89	2.2774E+000	3.53E-001	1.4475E+000
	427.89	29.33	3.5293E-001		2.3511E-001
	463.38	10.35	9.9608E-001		2.1367E-001
	600.56	17.80	5.5446E-001		-3.5965E-001
	606.64	5.02	2.6548E+000		4.6495E+000
	635.90	11.32	8.0001E-001		-3.8535E-001
Cs-134	563.23	8.38	1.2270E+000	1.16E-001	-3.7532E-001
	569.32	15.43	6.4425E-001		-1.6548E-001
	604.70	97.60	1.3526E-001		3.3334E-002
	795.84	85.40	1.1641E-001		7.3309E-002
	801.93	8.73	1.0723E+000		-1.0725E+000
Cs-137	661.65	85.12	1.2362E-001	1.24E-001	5.9392E-002
Eu-152	121.78	28.40	7.8988E-001	3.59E-001	5.2303E-002
	244.69	7.49	1.8290E+000		-5.9659E-001
	344.27	26.50	4.2479E-001		-2.6896E-001
	778.89	12.74	7.0096E-001		-6.4051E-001
	867.32	4.16	2.2023E+000		-3.2631E+000
	964.01	14.40	8.2342E-001		4.3098E-002
	1085.78	10.00	9.2024E-001		-7.9686E-001
	1112.02	13.30	6.5649E-001		-1.8827E+000
	1407.95	20.70	3.5859E-001		3.6042E-001
Eu-154	123.07	40.50	5.4563E-001	2.20E-001	-4.8351E-002
	247.94	6.60	1.9527E+000		-5.8748E-001
	591.81	4.83	2.0438E+000		1.0549E+000
	723.30	19.70	5.2814E-001		-1.6116E-002
	756.87	4.33	2.0356E+000		-1.0352E+000
	873.19	11.50	7.2324E-001		-4.4072E-001
	996.32	10.30	8.6846E-001		7.9683E-002
	1004.76	17.90	4.9688E-001		4.3173E-001
	1274.45	35.50	2.1998E-001		-3.3430E-001
Eu-155	86.54	30.90	1.1425E+000	1.14E+000	9.2892E-001
	105.31	20.70	1.2659E+000		-8.4962E-001
Am-241	59.54	35.90	1.4455E+000	1.45E+000	-3.5448E-002
Cm-243	228.19	10.56	1.2661E+000	9.06E-001	3.0257E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Cm-243	277.60	14.00	9.0562E-001	9.06E-001	3.2630E-001

+ = 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

Report Generated On 5/24/2006 4:31:41 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: RED6264

Spectrum File: RED6264
Sample ID: NOL-05-01-138
Sample Title: NOL-05-01-138-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/24/2006 4:21:40 PM
Live Time: 600.0 seconds
Real Time: 601.0 seconds

Energy Calibration Date: 3/22/2006
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number: NOL-05-01-138
Title: NOL-05-01-138-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	294-	309	300.42	75.01	1.17	4.18E+002	162.54	2.14E+003
2	332-	344	338.40	84.51	0.66	1.67E+002	119.96	1.36E+003
3	943-	962	954.20	238.50	1.46	2.66E+002	79.74	3.95E+002
4	1396-	1413	1406.89	351.70	1.07	1.24E+002	51.08	1.71E+002
5	2321-	2342	2331.25	582.85	1.91	1.80E+002	44.31	8.73E+001
6	2427-	2446	2436.61	609.20	1.92	1.35E+002	41.17	8.73E+001
7	2901-	2912	2906.74	726.76	0.54	2.15E+001	21.73	4.05E+001
8	3634-	3653	3642.45	910.74	0.35	1.10E+002	34.22	5.50E+001
9	3865-	3882	3873.87	968.61	0.61	7.00E+001	30.71	5.40E+001
10	5829-	5858	5843.61	1461.17	2.15	9.25E+002	61.27	1.11E+001
11	7054-	7067	7060.35	1765.44	0.33	3.14E+001	14.53	8.59E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
K-40	0.996	1460.81*	10.67	1.60026E+001	1.67403E+000
TL-208	0.469	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.13680E-001	8.74582E-002
		860.37	12.46		
Bi-212	0.995	727.17*	11.80	2.84188E-001	2.89598E-001
Pb-212	0.521	74.81* @	10.70	6.19184E+000	2.69834E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	6.67640E-001	2.25840E-001
Bi-214	0.692	609.31*	46.30	4.33830E-001	1.42956E-001
		1120.29	15.10		
		1764.49*	15.80	3.81046E-001	1.80411E-001
Ac-228	0.629	338.32	11.40		
		911.07*	27.70	6.50354E-001	2.15704E-001
		969.11*	16.60	7.02755E-001	3.17027E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
K-40		0.996	1.600260E+001	1.674032E+000
TL-208		0.469	3.136796E-001	8.745823E-002
Bi-212		0.995	2.841878E-001	2.895982E-001
Pb-212	@	0.521	6.676401E-001	2.258400E-001
Bi-214		0.692	4.134709E-001	1.120446E-001
Ac-228		0.629	6.669359E-001	1.783385E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
2	84.51	2.7797E-001	71.92
4	351.70	2.0701E-001	41.13

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Co-60	1173.22	100.00	1.0569E-001	8.84E-002	3.7947E-002
	1332.49	100.00	8.8391E-002		-2.5061E-003
Nb-94	702.63	100.00	9.6350E-002	8.74E-002	-4.7503E-002
	871.10	100.00	8.7354E-002		-4.0463E-002
Ag-108m	79.20	7.10	5.6728E+000	1.16E-001	-4.7811E+000
	433.93	89.90	1.2703E-001		8.4092E-002
	614.37	90.40	1.3117E-001		-8.8414E-003
	722.95	90.50	1.1583E-001		1.6095E-001
Sb-125	176.33	6.89	2.3179E+000	3.71E-001	2.1081E-001
	427.89	29.33	3.7129E-001		8.4622E-002
	463.38	10.35	1.0287E+000		2.9389E-001
	600.56	17.80	5.8739E-001		-1.1352E-001
	606.64	5.02	2.6325E+000		4.4784E+000
	635.90	11.32	8.4903E-001		-2.6332E-001
Cs-134	563.23	8.38	1.2353E+000	1.21E-001	2.4631E-001
	569.32	15.43	6.9382E-001		-3.7544E-001
	604.70	97.60	1.3602E-001		2.2946E-002
	795.84	85.40	1.2072E-001		5.5317E-002
	801.93	8.73	1.1763E+000		-1.0851E-001
Cs-137	661.65	85.12	1.1911E-001	1.19E-001	3.9770E-002
Eu-152	121.78	28.40	7.7606E-001	3.29E-001	4.0909E-001
	244.69	7.49	1.8576E+000		2.2099E-001
	344.27	26.50	4.2651E-001		-4.7264E-001
	778.89	12.74	7.5867E-001		-1.0944E+000
	867.32	4.16	2.2942E+000		1.4600E-001
	964.01	14.40	8.2160E-001		-3.0496E-001
	1085.78	10.00	9.4913E-001		5.9707E-001
	1112.02	13.30	7.1036E-001		-9.8282E-001
	1407.95	20.70	3.2943E-001		1.0865E-001
Eu-154	123.07	40.50	5.3584E-001	2.52E-001	4.4489E-002
	247.94	6.60	2.0216E+000		-7.6932E-001
	591.81	4.83	2.0592E+000		1.7625E+000
	723.30	19.70	5.3347E-001		7.9398E-001
	756.87	4.33	2.3755E+000		1.9266E+000
	873.19	11.50	7.8921E-001		-4.0183E-002
	996.32	10.30	7.7987E-001		-6.5469E-001
	1004.76	17.90	5.0693E-001		1.7874E-001
	1274.45	35.50	2.5228E-001		-7.2925E-002
Eu-155	86.54	30.90	1.1549E+000	1.15E+000	2.1091E+000
	105.31	20.70	1.2575E+000		1.4539E-001
Am-241	59.54	35.90	1.4675E+000	1.47E+000	5.9608E-001
Cm-243	228.19	10.56	1.3149E+000	9.19E-001	-9.3155E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Cm-243	277.60	14.00	9.1918E-001	9.19E-001	2.2238E-001

+ = 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

Report Generated On 5/24/2006 3:14:04 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: RED6264

Spectrum File: RED6264
Sample ID: NOL-05-01-139
Sample Title: NOL-05-01-139-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/24/2006 3:04:12 PM
Live Time: 600.0 seconds
Real Time: 601.1 seconds

Energy Calibration Date: 3/22/2006
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number: NOL-05-01-139
Title: NOL-05-01-139-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	295-	309	300.28	74.97	0.94	4.54E+002	158.66	2.08E+003
2	334-	344	338.61	84.56	0.93	1.44E+002	111.17	1.29E+003
3	946-	959	954.14	238.48	1.40	2.86E+002	68.05	3.34E+002
4	1173-	1187	1180.62	295.12	1.08	9.56E+001	52.98	2.20E+002
5	1341-	1363	1352.68	338.14	1.16	1.39E+002	64.72	2.45E+002
6	1399-	1413	1406.67	351.64	0.99	1.70E+002	50.19	1.69E+002
7	1645-	1654	1649.34	412.33	0.36	2.53E+001	26.39	6.87E+001
8	2031-	2052	2043.17	510.81	1.08	1.62E+002	55.82	1.73E+002
9	2324-	2342	2331.70	582.96	2.26	2.16E+002	45.84	9.79E+001
10	2426-	2447	2435.40	608.89	2.27	2.29E+002	45.61	8.36E+001
11	3633-	3654	3642.63	910.78	1.64	1.98E+002	39.91	5.76E+001
12	3867-	3883	3874.34	968.72	1.12	1.03E+002	31.87	5.00E+001
13	4468-	4490	4480.83	1120.39	0.99	9.48E+001	31.64	4.22E+001
14	5828-	5858	5842.97	1461.01	1.89	1.07E+003	65.21	7.75E+000
15	7052-	7067	7059.25	1765.16	1.21	5.28E+001	16.62	6.18E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	0.999	511.00*		100.00	2.27684E-001	8.43783E-002
K-40	0.999	1460.81*		10.67	1.84999E+001	1.87522E+000
TL-208	0.751	277.35		6.80		
		510.84*		21.60	1.05409E+000	4.00013E-001
		583.14*		84.20	3.77205E-001	9.38795E-002
		860.37		12.46		
Pb-212	0.521	74.81*	@	10.70	6.73341E+000	2.69880E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	7.18655E-001	2.04600E-001
Bi-214	0.994	609.31*		46.30	7.38824E-001	1.72771E-001
		1120.29*		15.10	1.09072E+000	3.81877E-001
		1764.49*		15.80	6.40860E-001	2.11565E-001
PB-214	0.582	74.82*	@	6.21	1.16019E+001	4.72576E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	5.92217E-001	3.42901E-001
		351.92*		37.20	5.72702E-001	1.93898E-001
Ac-228	0.997	338.32*		11.40	1.50959E+000	7.40508E-001
		911.07*		27.70	1.17314E+000	2.71848E-001
		969.11*		16.60	1.03361E+000	3.37791E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN		0.999	1.462073E-001	8.674006E-002
K-40		0.999	1.849986E+001	1.875220E+000
TL-208		0.751	3.772048E-001	9.307122E-002
Pb-212	@	0.521	7.186549E-001	2.046000E-001
Bi-214		0.994	7.424024E-001	1.262893E-001
PB-214	@	0.582	5.774298E-001	1.687829E-001
Ac-228		0.997	1.147882E+000	2.036189E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
2	84.56	2.4074E-001	76.97
7	412.33	4.2199E-002	104.24

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Co-60	1173.22	100.00	1.0992E-001	8.36E-002	4.8386E-002
	1332.49	100.00	8.3566E-002		2.6199E-003
Nb-94	702.63	100.00	1.0754E-001	9.10E-002	3.9918E-002
	871.10	100.00	9.1043E-002		-4.4853E-002
Ag-108m	79.20	7.10	5.8020E+000	1.24E-001	-7.1654E+000
	433.93	89.90	1.2370E-001		-6.3309E-002
	614.37	90.40	1.5070E-001		-6.1810E-002
	722.95	90.50	1.2580E-001		3.1535E-002
Sb-125	176.33	6.89	2.4312E+000	3.88E-001	-2.8274E+000
	427.89	29.33	3.8758E-001		-2.3693E-001
	463.38	10.35	1.1173E+000		6.8396E-001
	600.56	17.80	6.3100E-001		-7.3699E-002
	606.64	5.02	2.9321E+000		7.4636E+000
	635.90	11.32	8.8621E-001		-6.7248E-002
Cs-134	563.23	8.38	1.3427E+000	1.38E-001	2.8005E-001
	569.32	15.43	7.1937E-001		-7.2022E-002
	604.70	97.60	1.4805E-001		-9.7642E-002
	795.84	85.40	1.3767E-001		1.6599E-001
	801.93	8.73	1.1472E+000		-3.1523E+000
Cs-137	661.65	85.12	1.3079E-001	1.31E-001	3.9426E-002
Eu-152	121.78	28.40	8.2529E-001	3.53E-001	-4.3766E-001
	244.69	7.49	2.0179E+000		-5.2798E+000
	344.27	26.50	4.7226E-001		-1.5469E-001
	778.89	12.74	8.5400E-001		-3.3118E-001
	867.32	4.16	2.2791E+000		-1.8358E+000
	964.01	14.40	9.3909E-001		-1.1354E-001
	1085.78	10.00	1.0307E+000		-5.8966E-001
	1112.02	13.30	7.0214E-001		-1.3061E-002
	1407.95	20.70	3.5348E-001		1.9947E-001
Eu-154	123.07	40.50	5.7452E-001	2.58E-001	4.1612E-001
	247.94	6.60	2.1781E+000		-5.3430E-001
	591.81	4.83	2.2310E+000		-1.2350E+000
	723.30	19.70	5.8162E-001		8.6237E-002
	756.87	4.33	2.4619E+000		2.2257E+000
	873.19	11.50	7.8633E-001		-1.0675E+000
	996.32	10.30	1.0306E+000		6.5316E-001
	1004.76	17.90	5.4150E-001		-8.3431E-002
	1274.45	35.50	2.5800E-001		1.6786E-001
Eu-155	86.54	30.90	1.1852E+000	1.19E+000	2.1112E+000
	105.31	20.70	1.3090E+000		-1.5421E-002
Am-241	59.54	35.90	1.4541E+000	1.45E+000	2.3951E-001
Cm-243	228.19	10.56	1.4355E+000	9.42E-001	1.1062E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Cm-243	277.60	14.00	9.4161E-001	9.42E-001	-9.4658E-001

+ = 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

Report Generated On 5/25/2006 3:16:29 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: GRN7780

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-140-F-G
Sample ID: NOL-05-01-140
Sample Title: NOL-05-01-140-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/23/2006 8:35:36 AM
Live Time: 600.0 seconds
Real Time: 601.0 seconds

Energy Calibration Date: 4/19/2006
Eff Calibration Date: 3/23/2006
Calibration Efficiency: 7780Soil1M180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-140-F-G
Log Number: NOL-05-01-140
Title: NOL-05-01-140-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
F	1	293-	305	297.85	74.42	1.09	2.27E+002	50.90	9.10E+002
F	2	941-	962	952.40	238.06	1.28	1.73E+002	95.85	4.64E+002
F	3	1173-	1187	1178.06	294.47	1.33	5.79E+001	24.08	1.73E+002
F	4	2322-	2344	2332.25	583.02	1.53	1.03E+002	69.69	1.81E+002
F	5	2423-	2445	2432.86	608.18	1.55	1.04E+002	23.05	9.78E+001
F	6	3630-	3653	3644.16	911.00	1.71	1.19E+002	43.64	5.11E+001
F	7	5826-	5855	5840.53	1460.10	1.94	8.32E+002	79.29	1.14E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-140-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.984	1460.81*	10.67	1.90484E+001	2.15574E+000
TL-208	0.471	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	2.37676E-001	1.61875E-001
		860.37	12.46		
Pb-212	0.590	74.81* @	10.70	8.75379E+000	2.39491E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	5.61394E-001	3.22191E-001
Bi-214	0.377	609.31*	46.30	4.39677E-001	1.05357E-001
		1120.29	15.10		
		1764.49	15.80		

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-140-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40		0.984	1.904841E+001	2.155740E+000
TL-208		0.471	2.376765E-001	1.618750E-001
Pb-212	@	0.590	5.613941E-001	3.221913E-001
Bi-214		0.377	4.396773E-001	1.053569E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
F 3	294.47	9.6541E-002	41.57
F 6	911.00	1.9825E-001	36.69

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-140-F-G
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	1.1370E-001	9.49E-002	-8.0769E-002
	1332.49	100.00	9.4903E-002		3.3844E-002
Nb-94	702.63	100.00	1.2691E-001	1.19E-001	-6.5762E-003
	871.10	100.00	1.1863E-001		8.1688E-003
Ag-108m	79.20	7.10	9.9250E+000	1.61E-001	-1.4372E+001
	433.93	89.90	1.6133E-001		4.0853E-004
	614.37	90.40	1.6310E-001		-1.7248E-001
	722.95	90.50	1.6104E-001		9.1240E-002
Sb-125	176.33	6.89	3.0404E+000	4.86E-001	-1.7117E+000
	427.89	29.33	4.8636E-001		-2.9088E-001
	463.38	10.35	1.3864E+000		6.6008E-002
	600.56	17.80	7.3915E-001		-7.4168E-002
	606.64	5.02	3.4588E+000		7.7893E+000
	635.90	11.32	1.0350E+000		-8.9747E-001
Cs-134	563.23	8.38	1.6088E+000	1.45E-001	-1.0249E+000
	569.32	15.43	8.4156E-001		1.6391E-001
	604.70	97.60	1.7317E-001		-1.7913E-002
	795.84	85.40	1.4489E-001		6.1491E-003
	801.93	8.73	1.3017E+000		-1.1377E+000
Cs-137	661.65	85.12	1.5771E-001	1.58E-001	-9.7088E-005
Eu-152	121.78	28.40	1.0652E+000	3.94E-001	5.4966E-001
	244.69	7.49	2.4055E+000		-1.9627E+000
	344.27	26.50	5.9072E-001		-7.4852E-001
	778.89	12.74	9.2602E-001		-1.0275E-001
	867.32	4.16	2.8491E+000		-4.8158E+000
	964.01	14.40	1.0821E+000		1.3546E+000
	1085.78	10.00	1.1287E+000		2.1825E-001
	1112.02	13.30	8.6519E-001		-2.0841E+000
	1407.95	20.70	3.9445E-001		-1.3955E-001
Eu-154	123.07	40.50	7.3287E-001	3.24E-001	2.6984E-001
	247.94	6.60	2.5057E+000		-1.7347E+000
	591.81	4.83	2.7278E+000		-2.3218E+000
	723.30	19.70	7.3814E-001		4.3443E-001
	756.87	4.33	2.8642E+000		-1.9001E+000
	873.19	11.50	9.9026E-001		-1.6115E+000
	996.32	10.30	1.1600E+000		-1.5147E+000
	1004.76	17.90	6.6114E-001		-3.4753E-001
	1274.45	35.50	3.2386E-001		-6.2716E-002
Eu-155	86.54	30.90	1.9187E+000	1.78E+000	9.1856E-001
	105.31	20.70	1.7823E+000		-1.4312E+000
Am-241	59.54	35.90	5.1146E+000	5.11E+000	-1.2635E+000
Cm-243	228.19	10.56	1.7242E+000	1.20E+000	8.1260E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.2035E+000	1.20E+000	1.0387E+000

+ = 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

Report Generated On 5/22/2006 8:34:57 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: GRN7780

Spectrum File: GRN7780
Sample ID: NOL-05-01-141-
Sample Title: NOL-05-01-141-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/22/2006 8:24:55 PM
Live Time: 600.0 seconds
Real Time: 601.0 seconds

Energy Calibration Date: 4/19/2006
Eff Calibration Date: 3/23/2006
Calibration Efficiency: 7780Soil1M180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: GRN7780
Log Number: NOL-05-01-141-
Title: NOL-05-01-141-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	291-	303	297.44	74.32	0.78	1.39E+002	107.49	1.09E+003
2	942-	962	952.41	238.06	1.06	2.14E+002	86.14	4.73E+002
3	2323-	2341	2328.94	582.20	1.17	1.58E+002	41.61	8.46E+001
4	2426-	2444	2434.57	608.60	1.01	7.90E+001	40.40	1.02E+002
5	3024-	3035	3029.07	757.23	0.39	1.89E+001	17.75	2.51E+001
6	5827-	5857	5842.29	1460.54	2.64	8.62E+002	60.00	1.55E+001
7	7051-	7065	7057.19	1764.27	0.50	2.40E+001	16.08	1.50E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: GRN7780

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.998	1460.81*	10.67	1.89101E+001	2.01955E+000
TL-208	0.452	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.45067E-001	1.01217E-001
		860.37	12.46		
Pb-212	0.592	74.81* @	10.70	5.80952E+000	4.63900E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	6.91588E-001	2.98886E-001
Bi-214	0.684	609.31*	46.30	3.17504E-001	1.67075E-001
		1120.29	15.10		
		1764.49*	15.80	3.89657E-001	2.63903E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:GRN7780

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40	0.998	1.891014E+001	2.019548E+000
TL-208	0.452	3.450671E-001	1.012171E-001
Pb-212 @	0.592	6.915875E-001	2.988861E-001
Bi-214	0.684	3.381487E-001	1.411633E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
5	757.23	3.1430E-002	94.14

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:GRN7780
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	1.0279E-001	9.39E-002	-1.4648E-002
	1332.49	100.00	9.3915E-002		9.7476E-002
Nb-94	702.63	100.00	1.1695E-001	1.10E-001	-4.9902E-002
	871.10	100.00	1.0981E-001		-1.5708E-002
Ag-108m	79.20	7.10	1.0399E+001	1.39E-001	-1.1555E+001
	433.93	89.90	1.4756E-001		-2.1742E-001
	614.37	90.40	1.5876E-001		-4.2667E-002
	722.95	90.50	1.3886E-001		-6.9209E-002
Sb-125	176.33	6.89	2.9883E+000	4.60E-001	-9.6967E-001
	427.89	29.33	4.5966E-001		-1.2882E-001
	463.38	10.35	1.3002E+000		4.6197E-001
	600.56	17.80	6.8000E-001		-7.7977E-001
	606.64	5.02	3.0202E+000		3.6582E+000
	635.90	11.32	1.1263E+000		-1.9649E-002
Cs-134	563.23	8.38	1.5015E+000	1.40E-001	1.7598E+000
	569.32	15.43	8.2025E-001		5.7253E-001
	604.70	97.60	1.5094E-001		-1.3827E-004
	795.84	85.40	1.3974E-001		1.0678E-001
	801.93	8.73	1.2338E+000		-6.6621E-001
Cs-137	661.65	85.12	1.4638E-001	1.46E-001	5.1706E-002
Eu-152	121.78	28.40	9.7846E-001	4.37E-001	-1.4174E-001
	244.69	7.49	2.3716E+000		-1.4943E+000
	344.27	26.50	5.7075E-001		-2.1457E-001
	778.89	12.74	8.6639E-001		3.0197E-001
	867.32	4.16	2.8039E+000		-1.9872E+000
	964.01	14.40	1.0127E+000		3.4867E-001
	1085.78	10.00	1.0588E+000		-5.9594E-001
	1112.02	13.30	7.8580E-001		-1.1831E+000
	1407.95	20.70	4.3734E-001		-3.3076E-001
Eu-154	123.07	40.50	6.8302E-001	2.79E-001	2.5163E-002
	247.94	6.60	2.4238E+000		-1.4621E+000
	591.81	4.83	2.6414E+000		1.5374E+000
	723.30	19.70	6.5835E-001		4.4735E-001
	756.87	4.33	2.6786E+000		-2.6053E-001
	873.19	11.50	9.5531E-001		4.6776E-001
	996.32	10.30	1.0910E+000		7.9116E-001
	1004.76	17.90	5.7786E-001		-6.5805E-002
	1274.45	35.50	2.7944E-001		-1.2715E-001
Eu-155	86.54	30.90	1.8635E+000	1.77E+000	3.5900E+000
	105.31	20.70	1.7750E+000		3.9364E-001
Am-241	59.54	35.90	4.9688E+000	4.97E+000	2.0711E+000
Cm-243	228.19	10.56	1.7361E+000	1.18E+000	1.7102E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.1815E+000	1.18E+000	5.7697E-001

+ = 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

Report Generated On 5/22/2006 8:18:33 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: GRN7780

Spectrum File: GRN7780
Sample ID: NOL-05-01-142-
Sample Title: NOL-05-01-142-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/22/2006 8:08:31 PM
Live Time: 600.0 seconds
Real Time: 601.0 seconds

Energy Calibration Date: 4/19/2006
Eff Calibration Date: 3/23/2006
Calibration Efficiency: 7780Soil1M180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: GRN7780
Log Number: NOL-05-01-142-
Title: NOL-05-01-142-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	281-	303	289.81	72.41	0.85	9.58E+001	43.34	7.51E+002
m	2	281-	303	297.28	74.28	0.85	1.30E+002	47.63	8.51E+002
	3	943-	955	950.41	237.56	0.43	6.12E+001	60.70	3.33E+002
	4	1397-	1415	1404.55	351.10	1.46	1.36E+002	55.71	1.99E+002
	5	2321-	2343	2330.93	582.69	0.92	1.73E+002	43.55	8.28E+001
	6	2426-	2443	2432.84	608.17	0.49	1.04E+002	38.76	8.66E+001
	7	3631-	3656	3643.15	910.75	1.78	1.64E+002	39.79	5.85E+001
	8	5829-	5858	5843.05	1460.73	3.51	8.09E+002	60.29	2.93E+001
	9	7052-	7065	7058.94	1764.71	0.61	2.38E+001	17.38	1.92E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: GRN7780

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	1.000	1460.81*	10.67	1.77522E+001	1.95372E+000
TL-208	0.467	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.77520E-001	1.06908E-001
		860.37	12.46		
Pb-212	0.578	74.81* @	10.70	5.45588E+000	2.26488E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.97911E-001	1.98631E-001
Bi-214	0.669	609.31*	46.30	4.19479E-001	1.64181E-001
		1120.29	15.10		
		1764.49*	15.80	3.86117E-001	2.84800E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:GRN7780

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40	1.000	1.775221E+001	1.953724E+000
TL-208	0.467	3.775202E-001	1.069078E-001
Pb-212 @	0.578	1.979109E-001	1.986307E-001
Bi-214	0.669	4.111570E-001	1.422384E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.41	1.5965E-001	45.25
4	351.10	2.2653E-001	40.99
7	910.75	2.7258E-001	24.33

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:GRN7780
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	1.2564E-001	9.81E-002	6.2730E-002
	1332.49	100.00	9.8144E-002		1.7236E-004
Nb-94	702.63	100.00	1.2122E-001	1.06E-001	1.1295E-001
	871.10	100.00	1.0639E-001		-4.8828E-002
Ag-108m	79.20	7.10	1.0219E+001	1.41E-001	-6.1030E+000
	433.93	89.90	1.4756E-001		-1.1242E-001
	614.37	90.40	1.5103E-001		-1.1727E-001
	722.95	90.50	1.4110E-001		-2.5231E-002
Sb-125	176.33	6.89	2.8642E+000	4.46E-001	-1.6601E+000
	427.89	29.33	4.4621E-001		-3.1191E-001
	463.38	10.35	1.3639E+000		1.1584E+000
	600.56	17.80	6.8538E-001		-6.5478E-001
	606.64	5.02	3.2027E+000		5.7982E+000
	635.90	11.32	1.0422E+000		1.1640E-001
Cs-134	563.23	8.38	1.5669E+000	1.42E-001	1.9523E-001
	569.32	15.43	8.1063E-001		-3.2407E-001
	604.70	97.60	1.5905E-001		-8.6241E-002
	795.84	85.40	1.4233E-001		1.6724E-001
	801.93	8.73	1.2987E+000		-7.8419E-001
Cs-137	661.65	85.12	1.3918E-001	1.39E-001	4.7778E-002
Eu-152	121.78	28.40	9.6943E-001	3.61E-001	-5.4819E-001
	244.69	7.49	2.3452E+000		-4.5882E+000
	344.27	26.50	5.6043E-001		-2.1867E-001
	778.89	12.74	9.5310E-001		-8.5396E-002
	867.32	4.16	2.6173E+000		-6.1685E-001
	964.01	14.40	1.0173E+000		1.4659E+000
	1085.78	10.00	1.0441E+000		9.4156E-002
	1112.02	13.30	8.8095E-001		-1.8843E-001
	1407.95	20.70	3.6126E-001		-1.8972E-001
Eu-154	123.07	40.50	6.7606E-001	2.99E-001	2.9995E-001
	247.94	6.60	2.4723E+000		-1.5866E+000
	591.81	4.83	2.4134E+000		-3.0240E+000
	723.30	19.70	6.5500E-001		2.0663E-001
	756.87	4.33	2.7217E+000		2.9056E-001
	873.19	11.50	9.6623E-001		-3.1942E-002
	996.32	10.30	1.0206E+000		8.5203E-001
	1004.76	17.90	6.3148E-001		3.2068E-001
	1274.45	35.50	2.9949E-001		2.4929E-001
Eu-155	86.54	30.90	1.7993E+000	1.80E+000	1.0455E+000
	105.31	20.70	1.8351E+000		2.5687E-001
Am-241	59.54	35.90	4.6815E+000	4.68E+000	1.0595E+000
Cm-243	228.19	10.56	1.7302E+000	1.20E+000	-1.2931E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.1964E+000	1.20E+000	-6.3343E-001

+ = 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

Report Generated On 5/24/2006 1:08:02 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: ORG7829

Spectrum File: ORG7829
Sample ID: NOL-05-01-143
Sample Title: NOL-05-01-143-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/24/2006 12:57:58 PM
Live Time: 600.0 seconds
Real Time: 600.8 seconds

Energy Calibration Date: 5/10/2006
Eff Calibration Date: 5/1/2006
Calibration Efficiency: 7829Soil1m180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: ORG7829
Log Number: NOL-05-01-143
Title: NOL-05-01-143-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	946-	964	954.78	238.71	1.95	2.52E+002	77.21	3.84E+002
2	2032-	2052	2040.75	510.22	0.36	1.56E+002	44.94	1.02E+002
3	2322-	2340	2330.53	582.67	0.84	1.26E+002	39.86	8.51E+001
4	2426-	2445	2434.77	608.74	1.65	1.46E+002	41.76	8.76E+001
5	3635-	3653	3644.60	911.21	1.10	9.03E+001	31.63	4.97E+001
6	5827-	5854	5842.37	1460.70	2.24	8.92E+002	61.26	1.83E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: ORG7829

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/Gram)	Activity Uncertainty
ANN	0.980	511.00*		100.00	2.80080E-001	8.91790E-002
K-40	1.000	1460.81*		10.67	2.02665E+001	2.15194E+000
TL-208	0.746	277.35		6.80		
		510.84*		21.60	1.29667E+000	4.26230E-001
		583.14*		84.20	2.80851E-001	9.61808E-002
		860.37		12.46		
Pb-212	0.446	74.81	@	10.70		
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	8.21093E-001	2.83015E-001
Bi-214	0.396	609.31*		46.30	6.02968E-001	1.87377E-001
		1120.29		15.10		
		1764.49		15.80		

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:ORG7829

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Gram)	Wt mean Activity Uncertainty
ANN	0.980	2.194166E-001	9.154557E-002
K-40	1.000	2.026652E+001	2.151936E+000
TL-208	0.746	2.808510E-001	9.574435E-002
Pb-212 @	0.446	8.210929E-001	2.830147E-001
Bi-214	0.396	6.029685E-001	1.873769E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
5	911.21	1.5057E-001	35.01

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:ORG7829
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Co-60	1173.22	100.00	1.1207E-001	8.55E-002	-9.9521E-002
	1332.49	100.00	8.5487E-002		5.7765E-002
Nb-94	702.63	100.00	1.1795E-001	1.12E-001	-7.2833E-003
	871.10	100.00	1.1153E-001		4.1815E-002
Ag-108m	79.20	7.10	9.9481E+000	1.42E-001	-1.5572E+001
	433.93	89.90	1.4328E-001		-1.1486E-001
	614.37	90.40	1.6633E-001		3.0503E-002
	722.95	90.50	1.4249E-001		2.1324E-002
Sb-125	176.33	6.89	2.8941E+000	4.66E-001	-1.8168E+000
	427.89	29.33	4.6595E-001		3.6647E-001
	463.38	10.35	1.2452E+000		8.7070E-001
	600.56	17.80	7.1107E-001		4.5366E-001
	606.64	5.02	3.3488E+000		4.4687E+000
	635.90	11.32	1.0559E+000		4.1055E-002
Cs-134	563.23	8.38	1.5109E+000	1.39E-001	1.2592E-001
	569.32	15.43	7.9099E-001		-5.8070E-001
	604.70	97.60	1.7007E-001		-2.6549E-002
	795.84	85.40	1.3876E-001		9.0955E-002
	801.93	8.73	1.3129E+000		-6.7960E-001
Cs-137	661.65	85.12	1.4569E-001	1.46E-001	-7.1313E-003
Eu-152	121.78	28.40	9.8732E-001	3.64E-001	-4.9818E-001
	244.69	7.49	2.3347E+000		8.2781E-003
	344.27	26.50	5.5178E-001		-3.4644E-001
	778.89	12.74	8.4363E-001		-1.0605E+000
	867.32	4.16	2.8137E+000		-1.7378E+000
	964.01	14.40	1.0542E+000		5.4251E-001
	1085.78	10.00	1.0668E+000		7.2831E-001
	1112.02	13.30	8.6093E-001		-6.6167E-001
	1407.95	20.70	3.6358E-001		-3.7647E-002
Eu-154	123.07	40.50	6.8977E-001	2.83E-001	2.7974E-001
	247.94	6.60	2.5910E+000		-1.3090E+000
	591.81	4.83	2.5130E+000		-8.6424E-001
	723.30	19.70	6.5468E-001		8.3422E-002
	756.87	4.33	2.4765E+000		-1.3130E+000
	873.19	11.50	9.7420E-001		5.7513E-002
	996.32	10.30	1.1117E+000		1.7988E-001
	1004.76	17.90	6.0358E-001		-9.6891E-002
	1274.45	35.50	2.8292E-001		-1.3241E-001
Eu-155	86.54	30.90	1.7141E+000	1.71E+000	1.7130E+000
	105.31	20.70	1.7550E+000		1.4291E+000
Am-241	59.54	35.90	3.9510E+000	3.95E+000	-1.4776E+000
Cm-243	228.19	10.56	1.7206E+000	1.13E+000	1.1281E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.1273E+000	1.13E+000	-1.3752E+000

+ = 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

Report Generated On 5/24/2006 11:55:46 AM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: ORG7829

Spectrum File: ORG7829
Sample ID: NOL-05-01-144
Sample Title: NOL-05-01-144-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/24/2006 11:45:43 AM
Live Time: 600.0 seconds
Real Time: 600.9 seconds

Energy Calibration Date: 5/10/2006
Eff Calibration Date: 5/1/2006
Calibration Efficiency: 7829Soil1m180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: ORG7829
Log Number: NOL-05-01-144
Title: NOL-05-01-144-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	946-	964	954.51	238.64	1.84	2.39E+002	76.19	3.77E+002
2	2034-	2055	2043.24	510.84	0.96	9.89E+001	49.92	1.46E+002
3	2321-	2342	2330.66	582.70	0.71	1.52E+002	41.63	7.96E+001
4	2426-	2447	2436.02	609.05	0.86	1.47E+002	41.40	7.96E+001
5	2902-	2938	2908.77	727.24	0.44	4.71E+001	51.94	1.15E+002
6	3433-	3444	3438.82	859.77	0.34	1.68E+001	19.71	3.32E+001
7	3634-	3656	3642.51	910.69	1.57	1.33E+002	35.13	4.94E+001
8	3866-	3883	3873.16	968.36	2.05	8.74E+001	25.87	2.56E+001
9	5830-	5856	5842.29	1460.68	2.43	7.59E+002	58.26	2.92E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: ORG7829

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Gram)	Activity Uncertainty
ANN	0.999	511.00*	100.00	1.77632E-001	9.28372E-002
K-40	0.999	1460.81*	10.67	1.72453E+001	1.92416E+000
TL-208	0.898	277.35	6.80		
		510.84*	21.60	8.22369E-001	4.35017E-001
		583.14*	84.20	3.40094E-001	1.02923E-001
		860.37*	12.46	2.80128E-001	3.30815E-001
Bi-212	1.000	727.17*	11.80	7.99158E-001	8.87097E-001
Pb-212	0.446	74.81 @	10.70		
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	7.80999E-001	2.77211E-001
Bi-214	0.401	609.31*	46.30	6.07223E-001	1.86243E-001
		1120.29	15.10		
		1764.49	15.80		
Ac-228	0.625	338.32	11.40		
		911.07*	27.70	1.00932E+000	2.91519E-001
		969.11*	16.60	1.12772E+000	3.54291E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:ORG7829

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Gram)	Wt mean Activity Uncertainty
ANN	0.999	1.053032E-001	9.520797E-002
K-40	0.999	1.724533E+001	1.924157E+000
TL-208	0.898	3.348543E-001	9.775161E-002
Bi-212	1.000	7.991582E-001	8.870975E-001
Pb-212 @	0.446	7.809994E-001	2.772112E-001
Bi-214	0.401	6.072234E-001	1.862431E-001
Ac-228	0.625	1.057119E+000	2.251105E-001

? = 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 1.960 sigma

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

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

All peaks were identified.

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:ORG7829
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Co-60	1173.22	100.00	1.1207E-001	1.08E-001	-1.4299E-001
	1332.49	100.00	1.0811E-001		1.2154E-001
Nb-94	702.63	100.00	1.1681E-001	1.04E-001	1.1153E-001
	871.10	100.00	1.0415E-001		-2.3434E-002
Ag-108m	79.20	7.10	1.0024E+001	1.45E-001	-2.1038E+001
	433.93	89.90	1.4523E-001		2.5311E-002
	614.37	90.40	1.6328E-001		-5.2693E-002
	722.95	90.50	1.4819E-001		1.0943E-002
Sb-125	176.33	6.89	2.9321E+000	4.21E-001	-5.3866E-001
	427.89	29.33	4.2143E-001		-1.0303E-001
	463.38	10.35	1.2578E+000		-1.5331E-001
	600.56	17.80	6.9463E-001		1.1453E-001
	606.64	5.02	3.2413E+000		5.8408E+000
	635.90	11.32	1.0011E+000		-8.0640E-001
Cs-134	563.23	8.38	1.5328E+000	1.36E-001	-1.7183E+000
	569.32	15.43	8.4139E-001		-2.7241E-001
	604.70	97.60	1.6161E-001		6.1907E-002
	795.84	85.40	1.3639E-001		1.4841E-002
	801.93	8.73	1.2392E+000		-1.0282E+000
Cs-137	661.65	85.12	1.4107E-001	1.41E-001	-1.0776E-002
Eu-152	121.78	28.40	9.9711E-001	3.68E-001	1.8539E-001
	244.69	7.49	2.2944E+000		-1.9746E+000
	344.27	26.50	5.5323E-001		-8.3478E-001
	778.89	12.74	9.7143E-001		-6.5805E-001
	867.32	4.16	2.5914E+000		-1.7220E+000
	964.01	14.40	1.0084E+000		1.2600E-001
	1085.78	10.00	1.1080E+000		4.6136E-001
	1112.02	13.30	7.7065E-001		-7.4903E-001
	1407.95	20.70	3.6793E-001		-1.5348E-001
Eu-154	123.07	40.50	6.9351E-001	3.00E-001	1.8151E-002
	247.94	6.60	2.5461E+000		-3.2070E+000
	591.81	4.83	2.4147E+000		-6.5889E-001
	723.30	19.70	6.8086E-001		1.3936E-001
	756.87	4.33	2.7606E+000		2.8669E-001
	873.19	11.50	9.0200E-001		4.0286E-001
	996.32	10.30	1.0074E+000		-1.4674E-001
	1004.76	17.90	6.0080E-001		-4.5851E-001
	1274.45	35.50	2.9983E-001		1.1660E-001
Eu-155	86.54	30.90	1.7593E+000	1.74E+000	2.4012E+000
	105.31	20.70	1.7444E+000		1.5399E-001
Am-241	59.54	35.90	3.9920E+000	3.99E+000	-1.8664E-001
Cm-243	228.19	10.56	1.6928E+000	1.13E+000	1.2922E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.1273E+000	1.13E+000	-1.0624E-001

+ = 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

Report Generated On 5/31/2006 3:58:34 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: GRN7780

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-145-F-G
Sample ID: NOL-05-01-145
Sample Title: NOL-05-01-145-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/25/2006 10:02:13 AM
Live Time: 600.0 seconds
Real Time: 600.5 seconds

Energy Calibration Date: 4/19/2006
Eff Calibration Date: 9/29/2005
Calibration Efficiency: GREEN_SOIL_2M90D
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-145-F-G
Log Number: NOL-05-01-145
Title: NOL-05-01-145-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	295-	306	299.83	74.91	0.55	6.89E+001	60.99	3.53E+002
2	946-	962	953.14	238.24	0.90	1.17E+002	44.88	1.30E+002
3	3866-	3877	3871.20	967.76	1.09	2.66E+001	15.94	1.44E+001
4	5828-	5853	5840.44	1460.08	1.66	3.48E+002	38.75	9.91E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-145-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.983	1460.81*	10.67	2.23132E+001	2.82853E+000
Pb-212	0.568	74.81* @	10.70	5.87845E+000	5.28409E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.10286E+000	4.49524E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-145-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40	0.983	2.231319E+001	2.828534E+000
Pb-212 @	0.568	1.102861E+000	4.495239E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
3	967.76	4.4360E-002	59.90

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-145-F-G
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	2.3786E-001	2.30E-001	1.6329E-002
	1332.49	100.00	2.2960E-001		-9.1763E-003
Nb-94	702.63	100.00	2.2274E-001	2.23E-001	-2.0122E-001
	871.10	100.00	2.3199E-001		-1.4596E-001
Ag-108m	79.20	7.10	1.3999E+001	2.82E-001	-7.3869E+000
	433.93	89.90	3.0952E-001		1.9925E-001
	614.37	90.40	3.0032E-001		-4.6331E-001
	722.95	90.50	2.8233E-001		3.4362E-002
Sb-125	176.33	6.89	5.5955E+000	9.02E-001	4.3337E+000
	427.89	29.33	9.0216E-001		2.5691E-001
	463.38	10.35	2.6256E+000		2.1875E-001
	600.56	17.80	1.3906E+000		6.3846E-001
	606.64	5.02	5.6377E+000		2.3860E-001
	635.90	11.32	2.1018E+000		-1.8640E-001
Cs-134	563.23	8.38	3.0658E+000	2.68E-001	-2.9575E+000
	569.32	15.43	1.7511E+000		8.6413E-001
	604.70	97.60	2.9586E-001		2.9644E-001
	795.84	85.40	2.6822E-001		-1.7347E-002
	801.93	8.73	2.5277E+000		-1.2861E+000
Cs-137	661.65	85.12	2.9079E-001	2.91E-001	4.1150E-002
Eu-152	121.78	28.40	1.7315E+000	8.63E-001	-3.3947E-001
	244.69	7.49	4.1933E+000		-4.7988E+000
	344.27	26.50	1.0853E+000		2.7958E-001
	778.89	12.74	1.8162E+000		5.1404E-001
	867.32	4.16	5.4420E+000		-3.6606E+000
	964.01	14.40	1.9683E+000		1.3955E+000
	1085.78	10.00	2.2301E+000		7.3592E-001
	1112.02	13.30	1.7177E+000		-3.2801E+000
	1407.95	20.70	8.6254E-001		-8.5351E-002
Eu-154	123.07	40.50	1.1994E+000	5.04E-001	-5.1610E-001
	247.94	6.60	4.4739E+000		-1.5987E+000
	591.81	4.83	5.4651E+000		4.5889E+000
	723.30	19.70	1.3045E+000		6.9217E-001
	756.87	4.33	5.7180E+000		5.0753E-001
	873.19	11.50	1.9399E+000		3.6189E-001
	996.32	10.30	1.9980E+000		2.2793E-001
	1004.76	17.90	1.1520E+000		2.1253E-001
	1274.45	35.50	5.0390E-001		-1.1262E-001
Eu-155	86.54	30.90	2.9278E+000	2.92E+000	2.8388E+000
	105.31	20.70	2.9226E+000		2.5450E+000
Am-241	59.54	35.90	5.4433E+000	5.44E+000	-4.0125E+000
Cm-243	228.19	10.56	3.1090E+000	2.19E+000	-1.3026E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	2.1917E+000	2.19E+000	-1.3494E+000

+ = 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

Report Generated On 5/31/2006 4:11:41 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-145-F-G
Sample ID: NOL-05-01-145
Sample Title: NOL-05-01-145-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/30/2006 2:55:36 PM
Live Time: 600.0 seconds
Real Time: 600.5 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-145-F-G
Log Number: NOL-05-01-145
Title: NOL-05-01-145-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	288-	306	291.60	72.73	0.92	9.36E+001	36.96	4.02E+002
m	2	288-	306	300.03	74.84	0.93	2.63E+002	48.77	5.79E+002
	3	946-	961	954.42	238.48	0.89	1.27E+002	44.74	1.29E+002
	4	1344-	1357	1352.25	337.97	1.12	3.57E+001	30.54	7.53E+001
	5	1400-	1413	1405.98	351.41	0.46	7.16E+001	31.77	6.94E+001
	6	2033-	2047	2041.81	510.41	1.19	8.54E+001	29.79	5.06E+001
	7	2323-	2338	2330.42	582.59	0.68	7.71E+001	25.77	3.19E+001
	8	2427-	2442	2434.07	608.51	1.13	6.39E+001	26.17	3.81E+001
	9	3634-	3648	3642.36	910.67	1.30	6.28E+001	22.57	2.42E+001
	10	3865-	3881	3873.47	968.47	0.50	5.58E+001	21.67	2.13E+001
	11	5827-	5852	5840.79	1460.44	1.83	4.92E+002	45.85	1.30E+001
	12	7049-	7062	7055.01	1764.09	0.26	1.10E+001	10.80	7.00E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-145-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
ANN	0.988	511.00*	100.00	3.72015E-001	1.33647E-001
K-40	0.995	1460.81*	10.67	2.63566E+001	3.08711E+000
TL-208	0.745	277.35	6.80		
		510.84*	21.60	1.72229E+000	6.34524E-001
		583.14*	84.20	4.11920E-001	1.42614E-001
		860.37	12.46		
Pb-212	0.524	74.81* @	10.70	1.25475E+001	3.26607E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.01792E+000	3.94435E-001
Bi-214	0.684	609.31*	46.30	6.28013E-001	2.62583E-001
		1120.29	15.10		
		1764.49*	15.80	4.13615E-001	4.07968E-001
Ac-228	0.992	338.32*	11.40	1.23067E+000	1.06556E+000
		911.07*	27.70	1.14075E+000	4.19154E-001
		969.11*	16.60	1.71957E+000	6.78561E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-145-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
ANN	0.988	2.830398E-001	1.371210E-001
K-40	0.995	2.635659E+001	3.087106E+000
TL-208	0.745	4.119199E-001	1.419804E-001
Pb-212 @	0.524	1.017921E+000	3.944349E-001
Bi-214	0.684	5.652111E-001	2.208011E-001
Ac-228	0.992	1.293564E+000	3.381703E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.73	1.5599E-001	39.49
5	351.41	1.1929E-001	44.39

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-145-F-G
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	2.2015E-001	1.53E-001	-1.2951E-001
	1332.49	100.00	1.5262E-001		-2.0804E-001
Nb-94	702.63	100.00	2.2060E-001	2.15E-001	1.3002E-001
	871.10	100.00	2.1532E-001		1.2574E-001
Ag-108m	79.20	7.10	9.9205E+000	2.52E-001	2.6573E-002
	433.93	89.90	2.5299E-001		-1.0972E-001
	614.37	90.40	2.5170E-001		-2.2366E-001
	722.95	90.50	2.5187E-001		-1.1032E-004
Sb-125	176.33	6.89	4.7507E+000	7.70E-001	2.3509E+000
	427.89	29.33	7.6976E-001		3.6552E-001
	463.38	10.35	2.4153E+000		3.4956E-001
	600.56	17.80	1.1739E+000		-4.5854E-001
	606.64	5.02	5.3153E+000		4.0592E+000
	635.90	11.32	1.7348E+000		-1.5765E+000
Cs-134	563.23	8.38	2.7427E+000	2.57E-001	1.5165E-001
	569.32	15.43	1.4738E+000		1.1340E-001
	604.70	97.60	2.6495E-001		-1.4401E-001
	795.84	85.40	2.5666E-001		1.5225E-001
	801.93	8.73	2.2757E+000		-1.1208E+000
Cs-137	661.65	85.12	2.6323E-001	2.63E-001	1.5406E-001
Eu-152	121.78	28.40	1.5306E+000	9.09E-001	2.7094E-001
	244.69	7.49	3.8399E+000		1.9285E+000
	344.27	26.50	9.2772E-001		2.2712E-001
	778.89	12.74	1.7208E+000		-9.0898E-001
	867.32	4.16	5.4486E+000		1.7483E+000
	964.01	14.40	2.0509E+000		8.4222E-001
	1085.78	10.00	1.8280E+000		-2.1131E-001
	1112.02	13.30	1.6079E+000		-6.4431E-002
	1407.95	20.70	9.0903E-001		6.1417E-001
Eu-154	123.07	40.50	1.0564E+000	4.88E-001	-3.5840E-001
	247.94	6.60	4.1099E+000		-2.3323E+000
	591.81	4.83	4.6040E+000		-1.7347E+000
	723.30	19.70	1.1686E+000		4.9377E-001
	756.87	4.33	5.0257E+000		1.3457E+000
	873.19	11.50	1.7783E+000		5.9690E-002
	996.32	10.30	1.9408E+000		3.1744E-001
	1004.76	17.90	1.0191E+000		-1.0617E+000
	1274.45	35.50	4.8804E-001		-9.3906E-002
Eu-155	86.54	30.90	2.1595E+000	2.16E+000	2.2591E+000
	105.31	20.70	2.4750E+000		7.3367E-001
Am-241	59.54	35.90	2.5975E+000	2.60E+000	-1.5943E+000
Cm-243	228.19	10.56	2.7062E+000	1.99E+000	1.4624E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.9872E+000	1.99E+000	4.4244E-001

+ = 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

Report Generated On 5/30/2006 10:12:27 AM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BRN7722

Spectrum File: BRN7722
Sample ID: NOL-05-01-146
Sample Title: NOL-05-01-146-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/30/2006 10:02:22 AM
Live Time: 600.0 seconds
Real Time: 600.5 seconds

Energy Calibration Date: 4/7/2006
Eff Calibration Date: 3/23/2006
Calibration Efficiency: 7722Soil2m90170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: BRN7722
Log Number: NOL-05-01-146
Title: NOL-05-01-146-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	287-	315	291.61	73.10	0.84	5.93E+001	28.60	2.47E+002
m	2	287-	315	299.09	74.97	0.85	1.12E+002	32.73	2.89E+002
m	3	287-	315	308.98	77.44	0.85	5.84E+001	28.29	2.81E+002
	4	945-	958	951.97	238.17	0.99	8.47E+001	39.63	1.16E+002
	5	1172-	1182	1177.51	294.55	0.76	2.57E+001	22.65	4.53E+001
	6	1398-	1412	1403.63	351.07	0.41	5.13E+001	27.18	4.88E+001
	7	2319-	2334	2327.20	581.94	0.75	5.38E+001	25.97	4.02E+001
	8	2424-	2437	2431.73	608.07	1.01	5.35E+001	22.10	2.65E+001
	9	3628-	3645	3636.60	909.25	1.23	6.88E+001	20.69	1.32E+001
	10	5822-	5843	5832.66	1458.21	1.23	3.70E+002	39.26	8.33E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: BRN7722

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
TL-208	0.442	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.49036E-001	1.74653E-001
		860.37	12.46		
Pb-212	0.846	74.81* @	10.70	9.97275E+000	3.49914E+000
		77.11* @	18.00	2.82527E+000	1.47697E+000
		87.30 @	8.00		
		238.63*	44.60	8.28725E-001	4.08831E-001
Bi-214	0.376	609.31*	46.30	6.39807E-001	2.75822E-001
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.752	74.82* @	6.21	1.71833E+001	6.15680E+000
		77.11* @	10.50	4.84332E+000	2.55764E+000
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	6.12102E-001	5.48482E-001
		351.92*	37.20	6.53495E-001	3.63338E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:BRN7722

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
TL-208		0.442	3.490363E-001	1.746532E-001
Pb-212	@	0.846	8.287255E-001	4.088306E-001
Bi-214		0.376	6.398068E-001	2.758217E-001
PB-214	@	0.752	6.408705E-001	3.029047E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	73.10	9.8796E-002	48.25
9	909.25	1.1468E-001	30.07
10	1458.21	6.1611E-001	10.62

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:BRN7722
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	2.3907E-001	1.94E-001	2.6501E-001
	1332.49	100.00	1.9352E-001		9.1935E-002
Nb-94	702.63	100.00	2.5356E-001	2.47E-001	-4.8170E-002
	871.10	100.00	2.4705E-001		-5.0080E-002
Ag-108m	79.20	7.10	1.5317E+001	2.88E-001	-7.5593E+000
	433.93	89.90	2.9877E-001		9.0452E-003
	614.37	90.40	2.8758E-001		-2.7250E-001
	722.95	90.50	3.1371E-001		2.5016E-001
Sb-125	176.33	6.89	5.5357E+000	8.79E-001	1.7101E+000
	427.89	29.33	8.7891E-001		-2.4645E-002
	463.38	10.35	2.5173E+000		-7.3954E-001
	600.56	17.80	1.3316E+000		-4.6182E-001
	606.64	5.02	6.3176E+000		8.3040E+000
	635.90	11.32	2.2835E+000		-1.2567E-001
Cs-134	563.23	8.38	2.9428E+000	2.79E-001	-8.9093E-001
	569.32	15.43	1.5213E+000		-2.3663E-001
	604.70	97.60	3.1668E-001		2.1077E-001
	795.84	85.40	2.7916E-001		-1.8974E-001
	801.93	8.73	2.8883E+000		7.2685E-001
Cs-137	661.65	85.12	2.9885E-001	2.99E-001	3.8547E-002
Eu-152	121.78	28.40	1.8912E+000	8.47E-001	5.2996E-001
	244.69	7.49	4.6209E+000		2.9092E+000
	344.27	26.50	1.0940E+000		-9.2745E-001
	778.89	12.74	1.8618E+000		2.0475E-001
	867.32	4.16	5.9326E+000		3.2371E+000
	964.01	14.40	2.1146E+000		3.9536E-001
	1085.78	10.00	2.3150E+000		-1.5297E+000
	1112.02	13.30	1.8666E+000		-1.3964E+000
	1407.95	20.70	8.4687E-001		-3.8158E-001
Eu-154	123.07	40.50	1.3101E+000	6.02E-001	4.6521E-001
	247.94	6.60	4.9663E+000		-9.8219E-001
	591.81	4.83	4.9465E+000		1.8032E+000
	723.30	19.70	1.4275E+000		5.2151E-001
	756.87	4.33	5.7438E+000		1.9064E+000
	873.19	11.50	2.0259E+000		-1.3087E+000
	996.32	10.30	2.0912E+000		-1.4819E-001
	1004.76	17.90	1.1569E+000		-6.9499E-001
	1274.45	35.50	6.0248E-001		1.2423E-001
Eu-155	86.54	30.90	2.8092E+000	2.81E+000	9.3159E-001
	105.31	20.70	3.0245E+000		-1.9419E+000
Am-241	59.54	35.90	5.4276E+000	5.43E+000	-1.1901E+000
Cm-243	228.19	10.56	3.2459E+000	2.32E+000	-1.1041E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	2.3250E+000	2.32E+000	-5.4848E-002

+ = 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

Report Generated On 5/30/2006 10:33:04 AM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BRN7722

Spectrum File: BRN7722
Sample ID: NOL-05-01-146
Sample Title: NOL-05-01-146-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/30/2006 10:23:05 AM
Live Time: 600.0 seconds
Real Time: 600.5 seconds

Energy Calibration Date: 4/7/2006
Eff Calibration Date: 3/23/2006
Calibration Efficiency: 7722Soil2m90170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: BRN7722
Log Number: NOL-05-01-146
Title: NOL-05-01-146-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	295-	304	300.37	75.29	0.47	4.49E+001	53.83	3.14E+002
2	948-	960	953.24	238.49	1.21	1.02E+002	38.79	1.10E+002
3	1400-	1412	1406.10	351.69	1.35	4.74E+001	25.93	4.86E+001
4	2031-	2045	2040.35	510.24	0.87	4.82E+001	25.04	3.98E+001
5	2323-	2337	2329.37	582.48	1.30	6.14E+001	23.25	2.76E+001
6	3635-	3649	3641.46	910.47	1.01	3.40E+001	19.90	2.40E+001
7	3864-	3876	3870.56	967.74	0.83	2.60E+001	17.70	2.10E+001
8	5828-	5851	5839.16	1459.83	0.86	3.40E+002	38.83	1.37E+001
9	7049-	7062	7055.72	1763.94	1.07	1.84E+001	11.06	4.63E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: BRN7722

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
ANN	0.981	511.00*	100.00	2.52891E-001	1.36174E-001
K-40	0.970	1460.81*	10.67	2.23683E+001	3.13006E+000
TL-208	0.742	277.35	6.80		
		510.84*	21.60	1.17079E+000	6.37646E-001
		583.14*	84.20	3.98213E-001	1.59779E-001
		860.37	12.46		
Pb-212	0.565	74.81* @	10.70	3.93996E+000	4.78317E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	9.99984E-001	4.10638E-001
Ac-228	0.613	338.32	11.40		
		911.07*	27.70	7.51664E-001	4.47932E-001
		969.11*	16.60	9.68649E-001	6.67817E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:BRN7722

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
ANN	0.981	1.668769E-001	1.404518E-001
K-40	0.970	2.236829E+001	3.130060E+000
TL-208	0.742	3.982127E-001	1.592511E-001
Pb-212 @	0.565	9.999844E-001	4.106383E-001
Ac-228	0.613	8.189929E-001	3.720011E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
3	351.69	7.9062E-002	54.66
9	1763.94	3.0616E-002	60.20

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:BRN7722
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	2.0406E-001	1.82E-001	-5.3950E-002
	1332.49	100.00	1.8219E-001		-4.0837E-002
Nb-94	702.63	100.00	2.5205E-001	2.44E-001	-9.2078E-002
	871.10	100.00	2.4358E-001		8.8729E-002
Ag-108m	79.20	7.10	1.5566E+001	2.94E-001	-1.3226E+001
	433.93	89.90	2.9400E-001		-3.8964E-002
	614.37	90.40	3.0789E-001		-2.5193E-001
	722.95	90.50	3.0459E-001		2.5237E-001
Sb-125	176.33	6.89	5.6341E+000	9.44E-001	2.3097E+000
	427.89	29.33	9.4391E-001		-8.0546E-002
	463.38	10.35	2.6567E+000		2.6792E+000
	600.56	17.80	1.5101E+000		4.1086E-001
	606.64	5.02	6.1405E+000		4.9727E+000
	635.90	11.32	2.3080E+000		7.9844E-001
Cs-134	563.23	8.38	2.8935E+000	2.75E-001	-2.2856E+000
	569.32	15.43	1.5583E+000		2.7370E-001
	604.70	97.60	3.2125E-001		2.4426E-001
	795.84	85.40	2.7513E-001		-9.3515E-002
	801.93	8.73	2.5314E+000		1.2554E+000
Cs-137	661.65	85.12	2.7376E-001	2.74E-001	1.0211E-001
Eu-152	121.78	28.40	1.7512E+000	9.91E-001	-9.6579E-001
	244.69	7.49	4.6126E+000		-7.3490E-001
	344.27	26.50	1.1453E+000		-6.5441E-001
	778.89	12.74	1.7936E+000		-2.1688E+000
	867.32	4.16	5.5472E+000		-4.5450E+000
	964.01	14.40	2.2026E+000		2.3652E+000
	1085.78	10.00	2.1685E+000		-2.7166E+000
	1112.02	13.30	1.8087E+000		-1.1704E+000
	1407.95	20.70	9.9088E-001		1.1292E+000
Eu-154	123.07	40.50	1.2275E+000	5.60E-001	3.2269E-001
	247.94	6.60	5.0855E+000		-3.0989E+000
	591.81	4.83	4.8552E+000		-5.6528E+000
	723.30	19.70	1.3852E+000		9.1743E-001
	756.87	4.33	5.6321E+000		-6.0247E+000
	873.19	11.50	2.1041E+000		-6.3400E-001
	996.32	10.30	2.6148E+000		8.3173E-001
	1004.76	17.90	1.3495E+000		8.1184E-001
	1274.45	35.50	5.6047E-001		-2.4167E-001
Eu-155	86.54	30.90	2.8387E+000	2.84E+000	4.5258E-001
	105.31	20.70	3.0603E+000		-1.7526E-001
Am-241	59.54	35.90	5.2324E+000	5.23E+000	-2.4268E-001
Cm-243	228.19	10.56	3.4368E+000	2.15E+000	1.9007E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	2.1473E+000	2.15E+000	2.6388E-001

+ = 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

Report Generated On 5/24/2006 1:25:43 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: ORG7829

Spectrum File: ORG7829
Sample ID: NOL-05-01-147
Sample Title: NOL-05-01-147-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/24/2006 1:15:40 PM
Live Time: 600.0 seconds
Real Time: 600.9 seconds

Energy Calibration Date: 5/10/2006
Eff Calibration Date: 5/1/2006
Calibration Efficiency: 7829Soil1m180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: ORG7829
Log Number: NOL-05-01-147
Title: NOL-05-01-147-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	290-	308	299.68	74.92	0.84	4.74E+002	132.47	1.21E+003
2	557-	565	560.88	140.22	0.97	5.19E+001	54.40	3.36E+002
3	947-	965	954.69	238.69	2.04	3.54E+002	75.91	3.39E+002
4	1346-	1358	1352.40	338.12	0.40	5.67E+001	38.39	1.24E+002
5	1396-	1417	1406.20	351.57	1.37	1.52E+002	54.49	1.65E+002
6	2039-	2051	2043.65	510.95	0.87	5.34E+001	36.66	1.08E+002
7	2320-	2340	2330.79	582.74	0.80	1.39E+002	43.08	9.46E+001
8	2425-	2446	2435.28	608.86	1.48	1.46E+002	41.48	8.01E+001
9	3633-	3654	3643.03	910.82	1.64	1.10E+002	38.04	7.12E+001
10	3866-	3884	3874.09	968.59	0.50	6.18E+001	27.56	4.02E+001
11	4472-	4489	4477.30	1119.40	1.12	4.77E+001	24.61	3.33E+001
12	5827-	5856	5841.94	1460.59	2.34	8.22E+002	60.87	3.00E+001
13	7049-	7063	7056.47	1764.25	1.28	2.57E+001	17.15	1.53E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: ORG7829

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Gram)	Activity Uncertainty
K-40	0.998	1460.81*	10.67	1.86811E+001	2.04971E+000
TL-208	0.749	277.35	6.80		
		510.84*	21.60	4.43839E-001	3.12851E-001
		583.14*	84.20	3.11054E-001	1.04331E-001
		860.37	12.46		
Pb-212	0.594	74.81* @	10.70	1.85477E+001	6.33428E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.15623E+000	3.07026E-001
Bi-214	0.991	609.31*	46.30	6.01111E-001	1.86235E-001
		1120.29*	15.10	7.02938E-001	3.70645E-001
		1764.49*	15.80	4.18406E-001	2.81999E-001
Ac-228	0.996	338.32*	11.40	7.87431E-001	5.47253E-001
		911.07*	27.70	8.35884E-001	3.05108E-001
		969.11*	16.60	7.97551E-001	3.65536E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:ORG7829

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Gram)	Wt mean Activity Uncertainty
X	ANN		1.000		
	K-40		0.998	1.868105E+001	2.049710E+000
	TL-208		0.749	3.243436E-001	9.897231E-002
	Pb-212	@	0.594	1.156229E+000	3.070256E-001
	Bi-214		0.991	5.691458E-001	1.433169E-001
	Ac-228		0.996	8.150787E-001	2.153384E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
2	140.22	8.6454E-002	104.87
5	351.57	2.5299E-001	35.90

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:ORG7829
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Co-60	1173.22	100.00	1.2573E-001	9.75E-002	1.4376E-001
	1332.49	100.00	9.7505E-002		1.1542E-001
Nb-94	702.63	100.00	1.2884E-001	1.21E-001	9.4695E-002
	871.10	100.00	1.2090E-001		1.0226E-001
Ag-108m	79.20	7.10	1.0282E+001	1.46E-001	-1.2453E+001
	433.93	89.90	1.4578E-001		4.0226E-004
	614.37	90.40	1.5796E-001		-4.7587E-002
	722.95	90.50	1.5474E-001		-8.7298E-003
Sb-125	176.33	6.89	2.9667E+000	4.44E-001	6.0545E-001
	427.89	29.33	4.4385E-001		-5.5288E-002
	463.38	10.35	1.2653E+000		-1.1538E-001
	600.56	17.80	7.7651E-001		-1.6190E-001
	606.64	5.02	3.3536E+000		4.5932E+000
	635.90	11.32	1.1517E+000		6.0712E-001
Cs-134	563.23	8.38	1.5364E+000	1.42E-001	3.1687E-001
	569.32	15.43	8.4917E-001		-2.0311E-002
	604.70	97.60	1.6932E-001		2.4608E-003
	795.84	85.40	1.4200E-001		8.9941E-002
	801.93	8.73	1.2290E+000		-2.5886E+000
Cs-137	661.65	85.12	1.4527E-001	1.45E-001	3.3525E-002
Eu-152	121.78	28.40	1.0195E+000	3.85E-001	1.4133E+000
	244.69	7.49	2.2459E+000		-2.8871E+000
	344.27	26.50	5.2873E-001		-7.7017E-002
	778.89	12.74	9.0670E-001		-7.3846E-001
	867.32	4.16	2.8640E+000		-2.1702E+000
	964.01	14.40	1.0207E+000		5.8553E-001
	1085.78	10.00	1.1810E+000		-3.4315E-001
	1112.02	13.30	8.9720E-001		-4.5581E-001
	1407.95	20.70	3.8477E-001		2.3814E-001
Eu-154	123.07	40.50	6.9962E-001	2.83E-001	1.5301E-001
	247.94	6.60	2.4582E+000		-1.0292E+000
	591.81	4.83	2.7048E+000		-1.2571E+000
	723.30	19.70	7.1584E-001		2.2629E-001
	756.87	4.33	2.9341E+000		2.8602E+000
	873.19	11.50	1.0303E+000		6.6547E-001
	996.32	10.30	1.0173E+000		-4.7728E-001
	1004.76	17.90	5.9801E-001		3.4332E-001
	1274.45	35.50	2.8292E-001		-1.0867E-001
Eu-155	86.54	30.90	1.7601E+000	1.74E+000	2.1534E+000
	105.31	20.70	1.7377E+000		4.4238E-001
Am-241	59.54	35.90	4.1641E+000	4.16E+000	2.1298E+000
Cm-243	228.19	10.56	1.6892E+000	1.19E+000	-1.5273E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.1887E+000	1.19E+000	1.1077E+000

+ = 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

Report Generated On 5/24/2006 11:25:30 AM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: RED6264

Spectrum File: RED6264
Sample ID: NOL-05-01-148
Sample Title: NOL-05-01-148-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/24/2006 11:15:30 AM
Live Time: 600.0 seconds
Real Time: 601.1 seconds

Energy Calibration Date: 3/22/2006
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number: NOL-05-01-148
Title: NOL-05-01-148-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	282-	308	291.00	72.65	1.56	3.82E+002	73.13	1.78E+003
m	2	282-	308	299.97	74.89	1.57	8.46E+002	84.36	2.37E+003
	3	945-	963	953.44	238.31	1.56	3.08E+002	84.43	4.53E+002
	4	1400-	1418	1407.65	351.89	1.34	1.57E+002	57.59	2.08E+002
	5	1846-	1857	1850.49	462.63	0.62	4.03E+001	29.67	7.47E+001
	6	2028-	2052	2040.74	510.20	1.02	1.60E+002	59.06	1.81E+002
	7	2319-	2341	2331.04	582.80	1.63	1.87E+002	47.17	1.01E+002
	8	2425-	2445	2435.14	608.83	1.60	1.74E+002	47.36	1.13E+002
	9	3632-	3654	3643.50	911.00	1.69	1.54E+002	38.69	6.05E+001
	10	3864-	3882	3872.46	968.25	1.44	8.03E+001	36.64	7.97E+001
	11	4947-	4960	4953.74	1238.64	0.40	1.86E+001	19.57	2.94E+001
	12	5827-	5857	5842.95	1461.01	2.05	1.24E+003	70.47	1.16E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	0.980	511.00*		100.00	2.24652E-001	8.84606E-002
K-40	0.999	1460.81*		10.67	2.13920E+001	2.11809E+000
TL-208	0.747	277.35		6.80		
		510.84*		21.60	1.04006E+000	4.18255E-001
		583.14*		84.20	3.26873E-001	9.26782E-002
		860.37		12.46		
Pb-212	0.519	74.81*	@	10.70	1.25639E+001	2.76319E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	7.73878E-001	2.44131E-001
Bi-214	0.394	609.31*		46.30	5.61230E-001	1.67422E-001
		1120.29		15.10		
		1764.49		15.80		
Ac-228	0.626	338.32		11.40		
		911.07*		27.70	9.13506E-001	2.51773E-001
		969.11*		16.60	8.06077E-001	3.77390E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN		0.980	1.540476E-001	9.066817E-002
K-40		0.999	2.139196E+001	2.118090E+000
TL-208		0.747	3.268730E-001	9.206400E-002
Pb-212	@	0.519	7.738775E-001	2.441308E-001
Bi-214		0.394	5.612305E-001	1.674222E-001
Ac-228		0.626	8.804182E-001	2.094419E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.65	6.3661E-001	19.15
4	351.89	2.6119E-001	36.75
5	462.63	6.7159E-002	73.64
11	1238.64	3.1068E-002	105.01

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Co-60	1173.22	100.00	1.0128E-001	7.50E-002	-1.1522E-002
	1332.49	100.00	7.4958E-002		-1.6655E-002
Nb-94	702.63	100.00	1.0805E-001	9.39E-002	5.7481E-003
	871.10	100.00	9.3948E-002		3.5008E-002
Ag-108m	79.20	7.10	5.6096E+000	1.24E-001	-8.3019E+000
	433.93	89.90	1.3653E-001		5.5744E-002
	614.37	90.40	1.4171E-001		-2.6586E-002
	722.95	90.50	1.2365E-001		1.2759E-002
Sb-125	176.33	6.89	2.4110E+000	4.31E-001	1.0504E+000
	427.89	29.33	4.3109E-001		1.6591E-001
	463.38	10.35	1.1155E+000		2.3395E-001
	600.56	17.80	6.1343E-001		-6.4355E-001
	606.64	5.02	2.8816E+000		4.0578E+000
	635.90	11.32	8.9750E-001		-3.4545E-001
Cs-134	563.23	8.38	1.3250E+000	1.28E-001	-1.6994E+000
	569.32	15.43	7.2906E-001		-5.0187E-001
	604.70	97.60	1.4718E-001		-2.4223E-003
	795.84	85.40	1.2766E-001		9.6992E-002
	801.93	8.73	1.1472E+000		-6.8145E-001
Cs-137	661.65	85.12	1.2184E-001	1.22E-001	-1.0349E-001
Eu-152	121.78	28.40	7.9567E-001	3.24E-001	-1.5115E-001
	244.69	7.49	1.9484E+000		-1.1181E+000
	344.27	26.50	4.5967E-001		-9.0436E-001
	778.89	12.74	7.6557E-001		-2.6917E-001
	867.32	4.16	2.2256E+000		-4.6675E+000
	964.01	14.40	9.1488E-001		-7.4085E-002
	1085.78	10.00	1.0043E+000		-5.2584E-001
	1112.02	13.30	7.4227E-001		-1.9988E+000
	1407.95	20.70	3.2383E-001		-9.5628E-002
Eu-154	123.07	40.50	5.5066E-001	2.74E-001	-3.8397E-001
	247.94	6.60	2.0897E+000		-5.7152E-001
	591.81	4.83	2.3051E+000		7.4899E-001
	723.30	19.70	5.7183E-001		1.4572E-001
	756.87	4.33	2.3052E+000		4.3449E-001
	873.19	11.50	8.1458E-001		-8.8749E-001
	996.32	10.30	9.2584E-001		1.2232E-001
	1004.76	17.90	5.1482E-001		-2.5550E-002
	1274.45	35.50	2.7442E-001		6.2967E-002
Eu-155	86.54	30.90	1.1298E+000	1.13E+000	1.9057E+000
	105.31	20.70	1.2678E+000		1.2638E+000
Am-241	59.54	35.90	1.3863E+000	1.39E+000	1.5114E-001
Cm-243	228.19	10.56	1.3805E+000	9.64E-001	-1.9773E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Cm-243	277.60	14.00	9.6430E-001	9.64E-001	2.8736E-001

+ = 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

Report Generated On 5/25/2006 3:21:43 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: GRN7780

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-149-F-G
Sample ID: NOL-05-01-149
Sample Title: NOL-05-01-149-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/23/2006 9:45:52 AM
Live Time: 600.0 seconds
Real Time: 601.0 seconds

Energy Calibration Date: 4/19/2006
Eff Calibration Date: 3/23/2006
Calibration Efficiency: 7780Soil1M180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-149-F-G
Log Number: NOL-05-01-149
Title: NOL-05-01-149-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
F	1	948-	962	952.96	238.20	1.28	1.85E+002	36.38	3.40E+002
F	2	2320-	2341	2330.46	582.58	1.53	1.52E+002	59.02	9.82E+001
F	3	2425-	2443	2432.84	608.17	1.55	9.52E+001	22.00	6.64E+001
F	4	3864-	3881	3873.04	968.22	1.73	5.67E+001	35.26	6.26E+001
F	5	5827-	5855	5840.70	1460.14	1.94	8.05E+002	91.90	4.76E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-149-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.986	1460.81*		10.67	1.84202E+001	2.38552E+000
TL-208	0.464	277.35		6.80		
		510.84		21.60		
		583.14*		84.20	3.49573E-001	1.39930E-001
		860.37		12.46		
Pb-212	0.443	74.81	@	10.70		
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	6.00795E-001	1.48617E-001
Bi-214	0.377	609.31*		46.30	4.01762E-001	9.99477E-002
		1120.29		15.10		
		1764.49		15.80		

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-149-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40		0.986	1.842021E+001	2.385515E+000
TL-208		0.464	3.495726E-001	1.399298E-001
Pb-212	@	0.443	6.007952E-001	1.486172E-001
Bi-214		0.377	4.017620E-001	9.994770E-002

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
F 4	968.22	9.4533E-002	62.17

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-149-F-G
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	1.2959E-001	9.49E-002	3.9125E-002
	1332.49	100.00	9.4903E-002		2.6701E-002
Nb-94	702.63	100.00	1.3154E-001	1.18E-001	-3.3536E-002
	871.10	100.00	1.1820E-001		-6.5402E-002
Ag-108m	79.20	7.10	1.0237E+001	1.53E-001	-8.0463E+000
	433.93	89.90	1.5942E-001		1.1055E-001
	614.37	90.40	1.6016E-001		-2.5453E-001
	722.95	90.50	1.5308E-001		9.9626E-002
Sb-125	176.33	6.89	3.0549E+000	4.86E-001	1.0779E+000
	427.89	29.33	4.8636E-001		-1.0107E-001
	463.38	10.35	1.3511E+000		-1.1169E-001
	600.56	17.80	7.3549E-001		-6.7513E-001
	606.64	5.02	3.3595E+000		3.8138E+000
	635.90	11.32	1.0581E+000		-9.0448E-001
Cs-134	563.23	8.38	1.6051E+000	1.56E-001	-9.8163E-001
	569.32	15.43	9.0949E-001		9.3761E-001
	604.70	97.60	1.7317E-001		2.6455E-002
	795.84	85.40	1.5554E-001		7.8552E-002
	801.93	8.73	1.4510E+000		-1.4298E+000
Cs-137	661.65	85.12	1.4798E-001	1.48E-001	-7.8101E-002
Eu-152	121.78	28.40	1.0506E+000	4.18E-001	3.2075E-002
	244.69	7.49	2.3238E+000		-3.2349E+000
	344.27	26.50	5.6629E-001		-6.2204E-001
	778.89	12.74	9.5765E-001		1.1348E-001
	867.32	4.16	2.9795E+000		-1.8421E+000
	964.01	14.40	1.0441E+000		-3.6000E-001
	1085.78	10.00	1.1136E+000		-3.7667E-001
	1112.02	13.30	9.4343E-001		-7.8004E-001
	1407.95	20.70	4.1789E-001		-1.8334E-001
Eu-154	123.07	40.50	7.3060E-001	3.34E-001	5.8700E-001
	247.94	6.60	2.5446E+000		9.0947E-001
	591.81	4.83	2.6463E+000		1.9478E+000
	723.30	19.70	7.0323E-001		1.8556E-001
	756.87	4.33	2.8553E+000		-9.2000E-001
	873.19	11.50	1.0171E+000		-1.0222E-001
	996.32	10.30	1.0782E+000		3.8488E-001
	1004.76	17.90	6.9107E-001		4.8463E-001
	1274.45	35.50	3.3429E-001		-5.8984E-002
Eu-155	86.54	30.90	1.9655E+000	1.81E+000	2.6677E+000
	105.31	20.70	1.8078E+000		1.7915E+000
Am-241	59.54	35.90	5.3879E+000	5.39E+000	2.5373E+000
Cm-243	228.19	10.56	1.7160E+000	1.20E+000	3.4026E-002

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.2003E+000	1.20E+000	-7.0984E-001

+ = 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

Report Generated On 5/24/2006 3:26:44 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: RED6264

Spectrum File: RED6264
Sample ID: NOL-05-01-150
Sample Title: NOL-05-01-150-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/24/2006 3:16:46 PM
Live Time: 600.0 seconds
Real Time: 601.3 seconds

Energy Calibration Date: 3/22/2006
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number: NOL-05-01-150
Title: NOL-05-01-150-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	297-	309	300.60	75.05	1.16	4.52E+002	144.12	1.85E+003
2	332-	346	338.27	84.47	0.42	2.64E+002	137.36	1.60E+003
3	943-	963	953.47	238.31	1.54	2.87E+002	92.56	5.36E+002
4	1173-	1185	1180.81	295.16	1.12	6.97E+001	47.62	1.98E+002
5	1397-	1418	1406.97	351.72	1.08	1.39E+002	61.17	2.19E+002
6	2032-	2053	2042.02	510.52	1.90	1.96E+002	50.62	1.24E+002
7	2323-	2342	2332.70	583.21	1.25	1.53E+002	45.36	1.09E+002
8	2428-	2447	2435.98	609.04	1.64	1.59E+002	39.69	7.14E+001
9	2903-	2914	2908.53	727.21	0.37	3.34E+001	24.09	4.66E+001
10	3635-	3654	3643.34	910.96	1.60	1.35E+002	37.10	6.35E+001
11	3869-	3882	3874.60	968.79	0.41	6.16E+001	25.76	3.94E+001
12	4472-	4487	4479.94	1120.16	0.26	3.71E+001	24.14	3.69E+001
13	5829-	5856	5843.33	1461.10	2.26	1.05E+003	65.06	1.05E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	0.993	511.00*		100.00	2.75045E-001	8.03676E-002
K-40	0.997	1460.81*		10.67	1.82446E+001	1.85716E+000
TL-208	0.751	277.35		6.80		
		510.84*		21.60	1.27336E+000	3.86331E-001
		583.14*		84.20	2.66273E-001	8.64321E-002
		860.37		12.46		
Bi-212	1.000	727.17*		11.80	4.42284E-001	3.23179E-001
Pb-212	0.519	74.81*	@	10.70	6.69486E+000	2.50612E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	7.21029E-001	2.58272E-001
Bi-214	0.698	609.31*		46.30	5.10758E-001	1.42450E-001
		1120.29*		15.10	4.26762E-001	2.81262E-001
		1764.49		15.80		
PB-214	0.582	74.82*	@	6.21	1.15354E+001	4.39857E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	4.31756E-001	3.03759E-001
		351.92*		37.20	4.65395E-001	2.19757E-001
Ac-228	0.632	338.32		11.40		
		911.07*		27.70	8.00921E-001	2.37963E-001
		969.11*		16.60	6.18597E-001	2.66616E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN		0.993	2.175301E-001	8.248629E-002
K-40		0.997	1.824460E+001	1.857162E+000
TL-208		0.751	2.662734E-001	8.599538E-002
Bi-212		1.000	4.422842E-001	3.231790E-001
Pb-212	@	0.519	7.210286E-001	2.582723E-001
Bi-214		0.698	4.936106E-001	1.270805E-001
PB-214	@	0.582	4.538375E-001	1.780482E-001
Ac-228		0.632	7.200786E-001	1.775344E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
2	84.47	4.4068E-001	51.95

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Co-60	1173.22	100.00	1.0469E-001	9.46E-002	-3.1411E-003
	1332.49	100.00	9.4553E-002		1.0150E-001
Nb-94	702.63	100.00	1.0237E-001	9.04E-002	-5.1376E-002
	871.10	100.00	9.0384E-002		-5.7953E-002
Ag-108m	79.20	7.10	5.9284E+000	1.23E-001	-3.9459E+000
	433.93	89.90	1.2665E-001		-5.5664E-002
	614.37	90.40	1.3733E-001		1.0069E-002
	722.95	90.50	1.2311E-001		-6.3120E-002
Sb-125	176.33	6.89	2.4262E+000	3.99E-001	1.2626E+000
	427.89	29.33	3.9863E-001		1.6770E-001
	463.38	10.35	1.1033E+000		5.2317E-001
	600.56	17.80	6.1724E-001		2.7259E-001
	606.64	5.02	2.6915E+000		4.4255E+000
	635.90	11.32	9.2835E-001		-2.7940E-001
Cs-134	563.23	8.38	1.3199E+000	1.18E-001	-3.6602E-001
	569.32	15.43	7.0814E-001		1.4856E-001
	604.70	97.60	1.3848E-001		-5.3341E-002
	795.84	85.40	1.1775E-001		-2.7486E-002
	801.93	8.73	1.1406E+000		-1.5018E+000
Cs-137	661.65	85.12	1.2421E-001	1.24E-001	-7.3843E-002
Eu-152	121.78	28.40	8.3119E-001	3.64E-001	2.0321E-002
	244.69	7.49	2.0154E+000		-1.1943E+000
	344.27	26.50	4.6811E-001		-1.4634E-001
	778.89	12.74	7.8140E-001		2.4195E-004
	867.32	4.16	2.1708E+000		-3.7386E+000
	964.01	14.40	8.3968E-001		-5.5687E-001
	1085.78	10.00	9.7367E-001		1.8494E-001
	1112.02	13.30	7.3179E-001		-2.9807E-001
	1407.95	20.70	3.6362E-001		2.6142E-001
Eu-154	123.07	40.50	5.7905E-001	2.58E-001	1.7670E-001
	247.94	6.60	2.1571E+000		-1.9302E+000
	591.81	4.83	2.1493E+000		-9.5106E-001
	723.30	19.70	5.6562E-001		4.5920E-001
	756.87	4.33	2.3692E+000		8.8152E-001
	873.19	11.50	8.1180E-001		9.9635E-002
	996.32	10.30	9.4522E-001		-3.3010E-001
	1004.76	17.90	5.3213E-001		-2.3109E-001
	1274.45	35.50	2.5800E-001		-1.5339E-001
Eu-155	86.54	30.90	1.1837E+000	1.18E+000	2.5054E+000
	105.31	20.70	1.3156E+000		-2.9131E-001
Am-241	59.54	35.90	1.5114E+000	1.51E+000	-1.0447E+000
Cm-243	228.19	10.56	1.4169E+000	1.02E+000	9.1723E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Cm-243	277.60	14.00	1.0210E+000	1.02E+000	6.6366E-001

+ = 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

Report Generated On 5/24/2006 3:40:18 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: RED6264

Spectrum File: RED6264
Sample ID: NOL-05-01-151
Sample Title: NOL-05-01-151-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/24/2006 3:30:17 PM
Live Time: 600.0 seconds
Real Time: 601.2 seconds

Energy Calibration Date: 3/22/2006
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number: NOL-05-01-151
Title: NOL-05-01-151-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	295-	309	300.47	75.02	1.23	4.64E+002	159.43	2.11E+003
2	332-	347	338.89	84.63	0.57	2.90E+002	145.73	1.74E+003
3	945-	960	953.87	238.41	0.98	2.04E+002	69.76	3.53E+002
4	1399-	1414	1406.33	351.56	1.52	1.19E+002	48.65	1.65E+002
5	2320-	2339	2331.20	582.84	1.74	1.75E+002	43.43	9.00E+001
6	2427-	2446	2436.04	609.05	1.05	1.20E+002	41.80	9.55E+001
7	3632-	3654	3644.66	911.29	1.17	1.20E+002	34.51	4.89E+001
8	3865-	3881	3872.89	968.36	0.78	6.93E+001	28.34	4.47E+001
9	5828-	5858	5842.80	1460.97	2.51	9.46E+002	62.12	1.18E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
K-40	0.999	1460.81*	10.67	1.63710E+001	1.70640E+000
TL-208	0.469	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.05411E-001	8.55900E-002
		860.37	12.46		
Pb-212	0.520	74.81* @	10.70	6.87347E+000	2.72036E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	5.11398E-001	1.92540E-001
Bi-214	0.397	609.31*	46.30	3.87993E-001	1.42847E-001
		1120.29	15.10		
		1764.49	15.80		
Ac-228	0.627	338.32	11.40		
		911.07*	27.70	7.09975E-001	2.19792E-001
		969.11*	16.60	6.95990E-001	2.93733E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
K-40		0.999	1.637100E+001	1.706399E+000
TL-208		0.469	3.054107E-001	8.559000E-002
Pb-212	@	0.520	5.113980E-001	1.925401E-001
Bi-214		0.397	3.879932E-001	1.428467E-001
Ac-228		0.627	7.049555E-001	1.759798E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
2	84.63	4.8372E-001	50.21
4	351.56	1.9796E-001	40.96

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Co-60	1173.22	100.00	9.6288E-002	8.75E-002	-2.5023E-002
	1332.49	100.00	8.7535E-002		3.3306E-002
Nb-94	702.63	100.00	9.7194E-002	9.33E-002	1.0670E-002
	871.10	100.00	9.3311E-002		-2.6202E-002
Ag-108m	79.20	7.10	5.8584E+000	1.13E-001	-4.5688E+000
	433.93	89.90	1.1265E-001		-1.3332E-001
	614.37	90.40	1.3256E-001		-1.8698E-002
	722.95	90.50	1.1407E-001		1.6811E-002
Sb-125	176.33	6.89	2.4622E+000	3.66E-001	-3.5035E-001
	427.89	29.33	3.6632E-001		9.4007E-002
	463.38	10.35	1.0268E+000		-5.0034E-002
	600.56	17.80	5.7798E-001		-3.9909E-001
	606.64	5.02	2.6025E+000		4.1843E+000
	635.90	11.32	9.2835E-001		-1.7887E-001
Cs-134	563.23	8.38	1.2730E+000	1.15E-001	-1.6209E-001
	569.32	15.43	7.1237E-001		1.3310E-001
	604.70	97.60	1.3156E-001		-4.1824E-002
	795.84	85.40	1.1540E-001		-6.7061E-003
	801.93	8.73	1.0652E+000		-9.3498E-001
Cs-137	661.65	85.12	1.1599E-001	1.16E-001	-1.1011E-002
Eu-152	121.78	28.40	8.1153E-001	3.21E-001	5.9029E-001
	244.69	7.49	1.9329E+000		-1.9439E+000
	344.27	26.50	4.7226E-001		-7.0651E-001
	778.89	12.74	6.8316E-001		-4.9047E-001
	867.32	4.16	2.1866E+000		-1.0536E+000
	964.01	14.40	8.2525E-001		7.4964E-002
	1085.78	10.00	9.7712E-001		-8.2177E-002
	1112.02	13.30	7.0214E-001		-1.1300E+000
	1407.95	20.70	3.2098E-001		-2.5793E-002
Eu-154	123.07	40.50	5.6227E-001	2.45E-001	-3.7043E-001
	247.94	6.60	2.0881E+000		-8.7890E-001
	591.81	4.83	2.2404E+000		1.0313E+000
	723.30	19.70	5.1730E-001		-1.4853E-001
	756.87	4.33	2.3052E+000		4.3529E-001
	873.19	11.50	8.3645E-001		-5.5805E-001
	996.32	10.30	8.5791E-001		6.3654E-001
	1004.76	17.90	4.8660E-001		-1.1808E-001
	1274.45	35.50	2.4522E-001		7.3021E-002
Eu-155	86.54	30.90	1.1873E+000	1.19E+000	1.6710E+000
	105.31	20.70	1.3161E+000		-1.4675E-001
Am-241	59.54	35.90	1.5006E+000	1.50E+000	-2.6077E-001
Cm-243	228.19	10.56	1.3522E+000	9.70E-001	1.5565E-002

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Cm-243	277.60	14.00	9.6989E-001	9.70E-001	-1.9451E-001

+ = 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

Report Generated On 5/24/2006 3:52:51 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: RED6264

Spectrum File: RED6264
Sample ID: NOL-05-01-152
Sample Title: NOL-05-01-152-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/24/2006 3:42:50 PM
Live Time: 600.0 seconds
Real Time: 601.2 seconds

Energy Calibration Date: 3/22/2006
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number: NOL-05-01-152
Title: NOL-05-01-152-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
	1	291-	309	300.74	75.09	1.52	9.32E+002	194.56	2.64E+003
	2	943-	964	954.22	238.50	1.48	3.47E+002	88.96	4.53E+002
	3	1396-	1414	1406.74	351.66	1.29	1.37E+002	55.30	1.95E+002
	4	1845-	1855	1849.92	462.49	1.19	2.72E+001	28.11	7.48E+001
	5	2031-	2051	2039.73	509.95	1.54	1.33E+002	46.08	1.16E+002
	6	2322-	2340	2330.41	582.64	1.76	1.30E+002	43.11	1.05E+002
	7	2427-	2442	2434.59	608.69	1.20	1.35E+002	39.14	8.78E+001
	8	3633-	3654	3641.93	910.61	1.95	1.66E+002	35.87	4.45E+001
M	9	3852-	3883	3856.90	964.36	1.63	2.38E+001	14.65	3.79E+001
m	10	3852-	3883	3874.11	968.67	1.63	6.09E+001	18.88	4.44E+001
	11	5829-	5858	5842.49	1460.89	2.19	9.22E+002	63.57	2.84E+001
	12	7053-	7066	7059.89	1765.32	0.38	3.37E+001	17.67	1.73E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	0.966	511.00*		100.00	1.86296E-001	6.95388E-002
K-40	1.000	1460.81*		10.67	1.59450E+001	1.69599E+000
TL-208	0.742	277.35		6.80		
		510.84*		21.60	8.62481E-001	3.29554E-001
		583.14*		84.20	2.27363E-001	8.08421E-002
		860.37		12.46		
Pb-212	0.521	74.81*	@	10.70	1.37982E+001	3.95120E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	8.71892E-001	2.61782E-001
Bi-214	0.687	609.31*		46.30	4.35191E-001	1.36943E-001
		1120.29		15.10		
		1764.49*		15.80	4.09179E-001	2.18246E-001
Ac-228	0.628	338.32		11.40		
		911.07*		27.70	9.78504E-001	2.40115E-001
		969.11*		16.60	6.11226E-001	2.00040E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN	0.966	1.371853E-001	7.167983E-002
K-40	1.000	1.594498E+001	1.695986E+000
TL-208	0.742	2.273635E-001	8.050181E-002
Pb-212 @	0.521	8.718918E-001	2.617823E-001
Bi-214	0.687	4.278431E-001	1.159983E-001
Ac-228	0.628	7.617006E-001	1.536926E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
3	351.66	2.2914E-001	40.22
4	462.49	4.5331E-002	103.36
M 9	964.36	3.9649E-002	61.59

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Co-60	1173.22	100.00	1.0162E-001	8.13E-002	-1.9920E-002
	1332.49	100.00	8.1272E-002		5.8416E-002
Nb-94	702.63	100.00	1.0104E-001	9.36E-002	-7.5394E-002
	871.10	100.00	9.3630E-002		-6.5225E-002
Ag-108m	79.20	7.10	6.0861E+000	1.21E-001	-6.7904E+000
	433.93	89.90	1.2149E-001		1.7468E-002
	614.37	90.40	1.3279E-001		-1.6376E-001
	722.95	90.50	1.2147E-001		9.3395E-002
Sb-125	176.33	6.89	2.5298E+000	3.79E-001	4.3477E-001
	427.89	29.33	3.7862E-001		-4.3927E-002
	463.38	10.35	1.1068E+000		-2.1947E-001
	600.56	17.80	5.9664E-001		-4.2766E-001
	606.64	5.02	2.7205E+000		4.0344E+000
	635.90	11.32	8.5140E-001		4.2025E-001
Cs-134	563.23	8.38	1.1935E+000	1.19E-001	-7.9558E-001
	569.32	15.43	6.8215E-001		6.1694E-001
	604.70	97.60	1.4052E-001		2.9664E-003
	795.84	85.40	1.1875E-001		2.7518E-003
	801.93	8.73	1.0688E+000		-1.0836E+000
Cs-137	661.65	85.12	1.3051E-001	1.31E-001	1.1811E-001
Eu-152	121.78	28.40	8.4533E-001	3.12E-001	1.8776E-001
	244.69	7.49	1.9651E+000		-2.2269E+000
	344.27	26.50	4.5754E-001		-1.7186E-001
	778.89	12.74	7.3758E-001		-5.9812E-001
	867.32	4.16	2.3533E+000		1.1061E+000
	964.01	14.40	8.2707E-001		-2.1571E-001
	1085.78	10.00	9.6323E-001		3.4584E-001
	1112.02	13.30	7.2116E-001		-4.7333E-001
	1407.95	20.70	3.1229E-001		5.5331E-002
Eu-154	123.07	40.50	5.8959E-001	2.29E-001	1.4237E-001
	247.94	6.60	2.1328E+000		-1.3352E+000
	591.81	4.83	2.0438E+000		-5.3945E-001
	723.30	19.70	5.5682E-001		1.9482E-001
	756.87	4.33	2.2987E+000		7.9679E-001
	873.19	11.50	8.3645E-001		8.2856E-001
	996.32	10.30	8.6144E-001		3.2676E-001
	1004.76	17.90	5.0494E-001		-1.4199E-001
	1274.45	35.50	2.2915E-001		8.4878E-002
Eu-155	86.54	30.90	1.2103E+000	1.21E+000	1.8241E+000
	105.31	20.70	1.3421E+000		1.1588E+000
Am-241	59.54	35.90	1.5103E+000	1.51E+000	-2.8608E-001
Cm-243	228.19	10.56	1.4177E+000	9.86E-001	-2.7854E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Cm-243	277.60	14.00	9.8646E-001	9.86E-001	-1.3476E-001

+ = 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

Report Generated On 5/23/2006 2:48:04 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: ORG7829

Spectrum File: ORG7829
Sample ID: NOL-05-01-153-F-
Sample Title: NOL-05-01-153-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/23/2006 2:38:03 PM
Live Time: 600.0 seconds
Real Time: 600.9 seconds

Energy Calibration Date: 5/10/2006
Eff Calibration Date: 5/1/2006
Calibration Efficiency: 7829Soil1m180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: ORG7829
Log Number: NOL-05-01-153-F-
Title: NOL-05-01-153-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	292-	308	301.26	75.32	1.83	4.25E+002	131.78	1.31E+003
2	949-	961	955.17	238.81	1.44	1.63E+002	59.75	2.91E+002
3	1401-	1418	1407.70	351.95	0.83	1.13E+002	47.27	1.43E+002
4	2323-	2343	2331.87	583.01	0.97	1.37E+002	41.34	8.40E+001
5	2428-	2445	2436.16	609.08	1.60	9.46E+001	38.21	8.64E+001
6	3635-	3654	3642.73	910.75	1.03	1.18E+002	29.09	2.97E+001
7	5828-	5856	5842.86	1460.82	1.87	7.15E+002	55.96	2.16E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: ORG7829

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Gram)	Activity Uncertainty
K-40	1.000	1460.81*	10.67	1.62586E+001	1.83031E+000
TL-208	0.471	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.05772E-001	1.00492E-001
		860.37	12.46		
Pb-212	0.592	74.81* @	10.70	1.63345E+001	5.99375E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	5.32967E-001	2.12198E-001
Bi-214	0.402	609.31*	46.30	3.89669E-001	1.64602E-001
		1120.29	15.10		
		1764.49	15.80		

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:ORG7829

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Gram)	Wt mean Activity Uncertainty
K-40		1.000	1.625862E+001	1.830311E+000
TL-208		0.471	3.057717E-001	1.004916E-001
Pb-212	@	0.592	5.329667E-001	2.121975E-001
Bi-214		0.402	3.896693E-001	1.646023E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
3	351.95	1.8891E-001	41.70
6	910.75	1.9719E-001	24.59

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:ORG7829
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Co-60	1173.22	100.00	1.2619E-001	9.95E-002	-5.1599E-003
	1332.49	100.00	9.9464E-002		5.5653E-002
Nb-94	702.63	100.00	1.1409E-001	1.05E-001	5.7286E-003
	871.10	100.00	1.0463E-001		-1.2968E-002
Ag-108m	79.20	7.10	1.1159E+001	1.47E-001	-7.7011E+000
	433.93	89.90	1.5457E-001		1.4817E-001
	614.37	90.40	1.5860E-001		3.6040E-002
	722.95	90.50	1.4745E-001		2.3991E-002
Sb-125	176.33	6.89	3.1149E+000	4.46E-001	6.5832E-001
	427.89	29.33	4.4636E-001		-8.4112E-002
	463.38	10.35	1.2628E+000		-4.8517E-001
	600.56	17.80	6.9648E-001		6.3977E-002
	606.64	5.02	3.0782E+000		4.6659E+000
	635.90	11.32	1.0433E+000		3.7624E-001
Cs-134	563.23	8.38	1.5036E+000	1.40E-001	2.2307E-001
	569.32	15.43	7.8471E-001		2.5574E-001
	604.70	97.60	1.5707E-001		-5.9380E-002
	795.84	85.40	1.4016E-001		9.4563E-002
	801.93	8.73	1.3914E+000		-1.4021E-001
Cs-137	661.65	85.12	1.4814E-001	1.48E-001	1.1872E-001
Eu-152	121.78	28.40	1.0733E+000	4.16E-001	-5.3555E-001
	244.69	7.49	2.2666E+000		-3.8709E+000
	344.27	26.50	5.3477E-001		-1.0622E+000
	778.89	12.74	8.5392E-001		-3.2173E-001
	867.32	4.16	2.4195E+000		-3.7956E+000
	964.01	14.40	9.4454E-001		1.0336E+000
	1085.78	10.00	1.0773E+000		-2.0468E-001
	1112.02	13.30	8.2684E-001		-6.1264E-001
	1407.95	20.70	4.1624E-001		8.1994E-002
Eu-154	123.07	40.50	7.4830E-001	2.97E-001	-7.8148E-002
	247.94	6.60	2.5676E+000		-1.5055E-001
	591.81	4.83	2.5875E+000		4.6851E-001
	723.30	19.70	6.8086E-001		4.6511E-001
	756.87	4.33	2.5652E+000		4.0897E-001
	873.19	11.50	9.1032E-001		-2.2461E-001
	996.32	10.30	9.7686E-001		-5.1093E-001
	1004.76	17.90	5.8384E-001		4.7224E-004
	1274.45	35.50	2.9653E-001		9.8084E-003
Eu-155	86.54	30.90	1.9349E+000	1.93E+000	4.3959E+000
	105.31	20.70	1.9420E+000		-9.2851E-001
Am-241	59.54	35.90	4.5129E+000	4.51E+000	2.8387E+000
Cm-243	228.19	10.56	1.7384E+000	1.18E+000	-3.0112E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.1799E+000	1.18E+000	8.5241E-001

+ = 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

Report Generated On 5/23/2006 2:05:31 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: ORG7829

Spectrum File: ORG7829
Sample ID: NOL-05-01-154-F-
Sample Title: NOL-05-01-154-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/23/2006 1:55:29 PM
Live Time: 600.0 seconds
Real Time: 601.0 seconds

Energy Calibration Date: 5/10/2006
Eff Calibration Date: 5/1/2006
Calibration Efficiency: 7829Soil1m180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: ORG7829
Log Number: NOL-05-01-154-F-
Title: NOL-05-01-154-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	1346-	1360	1352.42	338.13	1.66	8.28E+001	39.76	1.13E+002
2	1396-	1416	1407.19	351.82	1.54	1.43E+002	53.68	1.66E+002
3	2321-	2340	2331.16	582.83	0.72	1.16E+002	42.30	9.96E+001
4	2425-	2447	2435.39	608.89	1.83	1.35E+002	41.19	7.94E+001
5	3634-	3652	3643.18	910.86	1.40	1.05E+002	33.54	5.54E+001
6	3867-	3885	3874.18	968.61	0.80	6.89E+001	27.40	3.71E+001
7	5828-	5856	5842.40	1460.71	2.38	7.85E+002	58.86	2.53E+001
8	7053-	7066	7059.75	1765.07	0.57	3.07E+001	15.18	1.03E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: ORG7829

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Gram)	Activity Uncertainty
K-40	1.000	1460.81*	10.67	1.78327E+001	1.96822E+000
TL-208	0.469	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	2.59712E-001	1.00267E-001
		860.37	12.46		
Bi-214	0.692	609.31*	46.30	5.54711E-001	1.82918E-001
		1120.29	15.10		
		1764.49*	15.80	4.99977E-001	2.51910E-001
Ac-228	0.997	338.32*	11.40	1.15031E+000	5.80867E-001
		911.07*	27.70	7.95951E-001	2.71237E-001
		969.11*	16.60	8.89250E-001	3.65869E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:ORG7829

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Gram)	Wt mean Activity Uncertainty
K-40	1.000	1.783266E+001	1.968220E+000
TL-208	0.469	2.597116E-001	1.002668E-001
Bi-214	0.692	5.358152E-001	1.480133E-001
Ac-228	0.997	8.686710E-001	2.040101E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
2	351.82	2.3797E-001	37.59

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:ORG7829
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Co-60	1173.22	100.00	1.3288E-001	1.12E-001	6.0871E-002
	1332.49	100.00	1.1160E-001		2.8626E-002
Nb-94	702.63	100.00	1.2133E-001	1.19E-001	-1.2463E-001
	871.10	100.00	1.1884E-001		9.3010E-002
Ag-108m	79.20	7.10	1.1366E+001	1.47E-001	-2.9606E+001
	433.93	89.90	1.4769E-001		-4.5048E-002
	614.37	90.40	1.6542E-001		4.9962E-002
	722.95	90.50	1.4745E-001		4.1853E-002
Sb-125	176.33	6.89	3.1326E+000	4.55E-001	3.6662E-001
	427.89	29.33	4.5544E-001		2.2546E-001
	463.38	10.35	1.3639E+000		1.6051E+000
	600.56	17.80	7.2359E-001		2.3309E-001
	606.64	5.02	3.1862E+000		3.8384E+000
	635.90	11.32	1.0401E+000		-3.2469E-001
Cs-134	563.23	8.38	1.4549E+000	1.33E-001	5.3844E-001
	569.32	15.43	8.1154E-001		2.0665E-001
	604.70	97.60	1.6422E-001		4.8992E-002
	795.84	85.40	1.3251E-001		-1.9624E-001
	801.93	8.73	1.3081E+000		-9.4507E-001
Cs-137	661.65	85.12	1.5794E-001	1.58E-001	7.8443E-003
Eu-152	121.78	28.40	1.1201E+000	3.76E-001	1.6014E-001
	244.69	7.49	2.3618E+000		-5.9410E+000
	344.27	26.50	5.1641E-001		-3.1076E-001
	778.89	12.74	9.6246E-001		-2.2179E-001
	867.32	4.16	2.8640E+000		-4.2039E+000
	964.01	14.40	1.0566E+000		-2.1227E-001
	1085.78	10.00	1.0403E+000		-2.9016E-001
	1112.02	13.30	8.3070E-001		-8.8383E-001
	1407.95	20.70	3.7645E-001		-3.4546E-001
Eu-154	123.07	40.50	7.7442E-001	3.05E-001	-6.6365E-001
	247.94	6.60	2.7131E+000		2.2358E-001
	591.81	4.83	2.6920E+000		1.0875E+000
	723.30	19.70	6.8257E-001		5.8393E-001
	756.87	4.33	2.8574E+000		5.9110E-002
	873.19	11.50	1.0045E+000		-5.9626E-001
	996.32	10.30	1.1515E+000		5.2806E-001
	1004.76	17.90	6.1997E-001		1.7460E-001
	1274.45	35.50	3.0471E-001		-4.8234E-002
Eu-155	86.54	30.90	1.9425E+000	1.92E+000	1.9014E+000
	105.31	20.70	1.9223E+000		-1.3431E+000
Am-241	59.54	35.90	4.4801E+000	4.48E+000	-5.9055E+000
Cm-243	228.19	10.56	1.8046E+000	1.14E+000	-2.7997E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.1387E+000	1.14E+000	-4.9827E-001

+ = 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

Report Generated On 5/25/2006 3:26:49 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: GRN7780

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-155-F-G
Sample ID: NOL-05-01-155
Sample Title: NOL-05-01-155-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/23/2006 10:23:46 PM
Live Time: 600.0 seconds
Real Time: 601.0 seconds

Energy Calibration Date: 4/19/2006
Eff Calibration Date: 3/23/2006
Calibration Efficiency: 7780Soil1M180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-155-F-G
Log Number: NOL-05-01-155
Title: NOL-05-01-155-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
F	1	288-	305	297.61	74.36	1.09	2.95E+002	206.58	1.57E+003
F	2	2031-	2048	2041.18	510.25	2.23	6.51E+001	23.94	1.38E+002
F	3	2319-	2342	2331.23	582.77	1.53	1.30E+002	47.46	7.80E+001
F	4	2424-	2448	2437.23	609.27	1.55	1.33E+002	49.77	8.96E+001
F	5	2830-	2843	2836.09	708.99	1.60	1.99E+001	14.54	4.07E+001
F	6	5828-	5857	5843.29	1460.79	1.94	7.11E+002	73.46	1.87E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-155-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
ANN	0.982	511.00*	100.00	1.21667E-001	4.63015E-002
K-40	1.000	1460.81*	10.67	1.62724E+001	1.95361E+000
TL-208	0.746	277.35	6.80		
		510.84*	21.60	5.63273E-001	2.19239E-001
		583.14*	84.20	2.99293E-001	1.12999E-001
		860.37	12.46		
Bi-214	0.402	609.31*	46.30	5.61239E-001	2.16429E-001
		1120.29	15.10		
		1764.49	15.80		

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-155-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
ANN	0.982	5.701970E-002	5.229843E-002
K-40	1.000	1.627242E+001	1.953614E+000
TL-208	0.746	2.992926E-001	1.125769E-001
Bi-214	0.402	5.612385E-001	2.164291E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
F 1	74.36	4.9114E-001	70.10
F 5	708.99	3.3210E-002	72.98

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-155-F-G
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	1.2914E-001	1.01E-001	-1.4144E-001
	1332.49	100.00	1.0147E-001		4.3930E-002
Nb-94	702.63	100.00	1.1343E-001	1.11E-001	4.7659E-002
	871.10	100.00	1.1065E-001		-6.6997E-002
Ag-108m	79.20	7.10	1.0886E+001	1.50E-001	-1.5134E+001
	433.93	89.90	1.5438E-001		-1.0091E-001
	614.37	90.40	1.6913E-001		-4.0483E-002
	722.95	90.50	1.5046E-001		2.6201E-002
Sb-125	176.33	6.89	3.1599E+000	4.87E-001	2.8362E+000
	427.89	29.33	4.8720E-001		-1.4793E-001
	463.38	10.35	1.3174E+000		2.8366E-002
	600.56	17.80	7.2062E-001		-4.1290E-001
	606.64	5.02	3.3139E+000		-1.0276E+000
	635.90	11.32	1.0678E+000		2.4133E-001
Cs-134	563.23	8.38	1.5866E+000	1.44E-001	-7.3826E-002
	569.32	15.43	8.5190E-001		-1.7592E-001
	604.70	97.60	1.6713E-001		4.7253E-002
	795.84	85.40	1.4396E-001		1.7636E-001
	801.93	8.73	1.4729E+000		-3.1339E-001
Cs-137	661.65	85.12	1.5171E-001	1.52E-001	-1.1301E-001
Eu-152	121.78	28.40	1.1383E+000	4.36E-001	-5.5203E-001
	244.69	7.49	2.3950E+000		-3.4257E+000
	344.27	26.50	5.6325E-001		-1.5645E-001
	778.89	12.74	9.2280E-001		-3.4313E-001
	867.32	4.16	2.7656E+000		-1.9493E+000
	964.01	14.40	1.0195E+000		3.5980E-001
	1085.78	10.00	1.1237E+000		2.4042E-001
	1112.02	13.30	8.4252E-001		-1.5866E+000
	1407.95	20.70	4.3639E-001		3.3238E-001
Eu-154	123.07	40.50	7.9298E-001	2.76E-001	-3.9360E-001
	247.94	6.60	2.5100E+000		-1.5779E+000
	591.81	4.83	2.7009E+000		-3.1003E-001
	723.30	19.70	6.9292E-001		9.6057E-002
	756.87	4.33	2.6994E+000		-1.6179E+000
	873.19	11.50	1.0057E+000		4.8291E-001
	996.32	10.30	1.1061E+000		-1.1919E-001
	1004.76	17.90	6.3239E-001		-3.0924E-002
	1274.45	35.50	2.7620E-001		-1.9423E-001
Eu-155	86.54	30.90	2.1339E+000	1.93E+000	2.9330E+000
	105.31	20.70	1.9251E+000		-7.4975E-001
Am-241	59.54	35.90	5.3879E+000	5.39E+000	8.0939E-001
Cm-243	228.19	10.56	1.6981E+000	1.23E+000	-9.6025E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.2283E+000	1.23E+000	6.4628E-001

+ = 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

Report Generated On 5/21/2006 8:37:47 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-01-156
Sample Title: NOL-05-01-156-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/21/2006 8:27:44 PM
Live Time: 600.0 seconds
Real Time: 601.4 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-01-156
Title: NOL-05-01-156-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	285-	306	291.98	72.82	1.00	4.47E+002	73.87	1.86E+003
m	2	285-	306	300.19	74.88	1.00	9.42E+002	89.61	2.25E+003
M	3	335-	355	339.51	84.71	1.06	3.19E+002	72.95	1.46E+003
m	4	335-	355	349.88	87.30	1.06	1.42E+002	65.12	1.99E+003
	5	948-	961	953.98	238.37	0.98	2.28E+002	72.62	4.13E+002
	6	1172-	1189	1180.61	295.05	0.33	9.32E+001	62.21	2.81E+002
	7	1400-	1416	1406.81	351.62	1.47	1.47E+002	54.53	1.96E+002
	8	2036-	2052	2042.32	510.54	0.57	1.39E+002	49.04	1.55E+002
	9	2326-	2340	2331.68	582.90	1.56	1.71E+002	42.97	1.06E+002
	10	2428-	2443	2436.11	609.02	1.55	1.58E+002	43.15	1.08E+002
	11	2902-	2916	2908.60	727.18	0.58	4.95E+001	27.79	5.25E+001
	12	3634-	3653	3643.48	910.95	1.59	1.39E+002	38.89	7.26E+001
	13	3867-	3885	3873.65	968.51	1.05	8.07E+001	33.85	6.43E+001
	14	5322-	5333	5327.35	1332.05	0.31	3.09E+001	18.80	2.41E+001
	15	5829-	5856	5843.03	1461.00	2.00	1.12E+003	71.21	4.53E+001
	16	7051-	7064	7057.50	1764.71	0.47	2.88E+001	15.47	1.22E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
ANN	0.993	511.00*	100.00	1.89691E-001	7.16461E-002
K-40	0.999	1460.81*	10.67	1.87301E+001	1.93033E+000
Eu-155	0.321	86.54*	30.90	5.70489E-001	2.84317E-001
		105.31	20.70		
TL-208	0.750	277.35	6.80		
		510.84*	21.60	8.78198E-001	3.39360E-001
		583.14*	84.20	2.90087E-001	8.19402E-002
		860.37	12.46		
Bi-212	1.000	727.17*	11.80	6.35087E-001	3.64313E-001
Pb-212	0.676	74.81* @	10.70	1.34914E+001	2.93913E+000
		77.11 @	18.00		
		87.30* @	8.00	2.20351E+000	1.09817E+000
		238.63*	44.60	5.53962E-001	1.96710E-001
Bi-214	0.696	609.31*	46.30	4.92562E-001	1.47767E-001
		1120.29	15.10		
		1764.49*	15.80	3.38639E-001	1.84901E-001
PB-214	0.668	74.82* @	6.21	2.32461E+001	5.33795E+000
		77.11 @	10.50		
		87.30* @	4.67	3.77475E+000	1.90273E+000
		241.98	7.49		
		295.21*	19.20	5.59018E-001	3.84971E-001
		351.92*	37.20	4.77603E-001	1.94683E-001
Ac-228	0.630	338.32	11.40		
		911.07*	27.70	7.98009E-001	2.40769E-001
		969.11*	16.60	7.84576E-001	3.39195E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
ANN		0.993	1.270319E-001	7.377160E-002
K-40		0.999	1.873013E+001	1.930333E+000
Eu-155		0.321	3.524054E-001	2.900117E-001
TL-208		0.750	2.900874E-001	8.139304E-002
Bi-212		1.000	6.350872E-001	3.643126E-001
Pb-212	@	0.676	5.539621E-001	1.967097E-001
Bi-214		0.696	4.325703E-001	1.154335E-001
PB-214	@	0.668	4.940195E-001	1.721838E-001
Ac-228		0.630	7.935083E-001	1.963352E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.82	7.4464E-001	16.53
M 3	84.71	5.3088E-001	22.90
14	1332.05	5.1545E-002	60.79

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
	Co-60	1173.22	100.00	1.0689E-001	8.90E-002	6.4592E-002
		1332.49	100.00	8.8973E-002		1.7141E-002
	Nb-94	702.63	100.00	1.0737E-001	1.01E-001	1.3133E-002
		871.10	100.00	1.0055E-001		-3.5145E-002
	Ag-108m	79.20	7.10	5.5264E+000	1.24E-001	-5.0878E+000
		433.93	89.90	1.2427E-001		-1.0936E-001
		614.37	90.40	1.3593E-001		-7.5735E-002
		722.95	90.50	1.3036E-001		3.4204E-002
	Sb-125	176.33	6.89	2.4116E+000	3.68E-001	4.0396E-001
		427.89	29.33	3.6821E-001		-2.4594E-001
		463.38	10.35	1.1031E+000		6.5803E-001
		600.56	17.80	5.9354E-001		8.4340E-002
		606.64	5.02	2.7907E+000		5.9302E+000
		635.90	11.32	9.0642E-001		-1.0095E+000
	Cs-134	563.23	8.38	1.2622E+000	1.21E-001	4.4311E-001
		569.32	15.43	7.2006E-001		-4.2657E-001
		604.70	97.60	1.3643E-001		-1.7033E-002
		795.84	85.40	1.2063E-001		2.5130E-002
		801.93	8.73	1.1078E+000		-5.3475E-001
	Cs-137	661.65	85.12	1.3081E-001	1.31E-001	1.2071E-001
	Eu-152	121.78	28.40	8.1582E-001	3.08E-001	3.5809E-001
		244.69	7.49	1.9035E+000		-7.5569E-001
		344.27	26.50	4.5772E-001		3.3980E-001
		778.89	12.74	7.5475E-001		-9.7251E-001
		867.32	4.16	2.4018E+000		-2.3833E+000
		964.01	14.40	8.8270E-001		-1.8396E-001
		1085.78	10.00	1.0052E+000		2.2487E-002
		1112.02	13.30	7.2945E-001		-9.6714E-001
		1407.95	20.70	3.0845E-001		-1.5346E-001
	Eu-154	123.07	40.50	5.6747E-001	2.50E-001	-3.0291E-001
		247.94	6.60	2.0378E+000		-3.4780E-002
		591.81	4.83	2.2217E+000		-3.1348E-001
		723.30	19.70	6.0223E-001		9.6312E-002
		756.87	4.33	2.3015E+000		-1.6894E+000
		873.19	11.50	8.6755E-001		-7.5809E-001
		996.32	10.30	9.1236E-001		-1.8137E-002
		1004.76	17.90	5.3162E-001		7.5841E-002
		1274.45	35.50	2.5021E-001		-2.6692E-002
+	Eu-155	86.54*	30.90	8.4328E-001	8.43E-001	5.7049E-001
		105.31	20.70	1.3490E+000		-6.6804E-001
	Am-241	59.54	35.90	1.4826E+000	1.48E+000	1.0573E-002
	Cm-243	228.19	10.56	1.3226E+000	9.69E-001	-1.2681E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	9.6930E-001	9.69E-001	-3.1793E-001

+ = 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

Report Generated On 5/21/2006 10:29:24 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-01-157
Sample Title: NOL-05-01-157-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/21/2006 10:19:21 PM
Live Time: 600.0 seconds
Real Time: 601.4 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-01-157
Title: NOL-05-01-157-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	283-	314	291.75	72.77	1.09	5.41E+002	76.38	2.24E+003
m	2	283-	314	300.28	74.90	1.09	1.03E+003	88.97	2.24E+003
m	3	283-	314	308.90	77.06	1.10	1.19E+002	66.43	2.10E+003
	4	334-	345	340.03	84.84	0.94	2.06E+002	130.91	1.69E+003
	5	944-	961	954.24	238.44	1.29	2.83E+002	86.72	5.14E+002
	6	1172-	1185	1180.46	295.01	1.11	1.08E+002	51.50	2.12E+002
	7	1401-	1416	1406.73	351.60	0.78	1.78E+002	52.33	1.77E+002
	8	2032-	2052	2041.73	510.39	1.82	1.55E+002	51.37	1.47E+002
	9	2322-	2338	2331.06	582.75	1.18	1.49E+002	43.75	1.12E+002
	10	2426-	2441	2435.08	608.76	1.06	1.80E+002	40.80	8.42E+001
	11	2901-	2912	2907.32	726.86	0.47	3.05E+001	24.55	4.95E+001
	12	3633-	3654	3643.19	910.88	2.02	1.49E+002	39.41	6.82E+001
	13	3868-	3883	3874.13	968.63	0.66	6.96E+001	30.25	5.44E+001
	14	4474-	4489	4480.62	1120.30	0.38	5.73E+001	28.61	5.07E+001
	15	5826-	5855	5841.83	1460.71	1.94	1.25E+003	71.78	1.91E+001
	16	7051-	7067	7058.42	1764.94	1.85	4.38E+001	15.57	6.22E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
ANN	0.987	511.00*	100.00	2.11831E-001	7.57038E-002
K-40	1.000	1460.81*	10.67	2.09464E+001	2.07976E+000
TL-208	0.747	277.35	6.80		
		510.84*	21.60	9.80698E-001	3.59515E-001
		583.14*	84.20	2.52490E-001	8.10075E-002
		860.37	12.46		
Bi-212	0.997	727.17*	11.80	3.91282E-001	3.18313E-001
Pb-212	0.843	74.81* @	10.70	1.48108E+001	3.16992E+000
		77.11* @	18.00	9.70050E-001	5.75839E-001
		87.30 @	8.00		
		238.63*	44.60	6.88574E-001	2.36829E-001
Bi-214	0.992	609.31*	46.30	5.61321E-001	1.44928E-001
		1120.29*	15.10	6.38521E-001	3.26059E-001
		1764.49*	15.80	5.14378E-001	1.89983E-001
PB-214	0.761	74.82* @	6.21	2.55194E+001	5.76747E+000
		77.11* @	10.50	1.66294E+000	9.94930E-001
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	6.50304E-001	3.27835E-001
		351.92*	37.20	5.79909E-001	1.96043E-001
Ac-228	0.631	338.32	11.40		
		911.07*	27.70	8.51403E-001	2.45915E-001
		969.11*	16.60	6.76523E-001	3.02515E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
ANN		0.987	1.572930E-001	7.767928E-002
K-40		1.000	2.094638E+001	2.079762E+000
TL-208		0.747	2.524896E-001	8.058852E-002
Bi-212		0.997	3.912822E-001	3.183130E-001
Pb-212	@	0.843	6.885736E-001	2.368287E-001
Bi-214		0.992	5.545408E-001	1.086434E-001
PB-214	@	0.761	5.984515E-001	1.682541E-001
Ac-228		0.631	7.818209E-001	1.908203E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.77	9.0177E-001	14.12
4	84.84	3.4337E-001	63.54

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	1.0689E-001	8.49E-002	2.4480E-002
	1332.49	100.00	8.4902E-002		2.0794E-002
Nb-94	702.63	100.00	1.0076E-001	9.54E-002	-2.5806E-002
	871.10	100.00	9.5437E-002		5.0999E-003
Ag-108m	79.20	7.10	5.5587E+000	1.21E-001	8.2208E-001
	433.93	89.90	1.2501E-001		-3.4358E-002
	614.37	90.40	1.2090E-001		-2.8973E-001
	722.95	90.50	1.2114E-001		9.0281E-002
Sb-125	176.33	6.89	2.4938E+000	3.79E-001	2.1529E-001
	427.89	29.33	3.7915E-001		-5.1336E-002
	463.38	10.35	1.1048E+000		5.4665E-001
	600.56	17.80	5.9230E-001		6.9680E-003
	606.64	5.02	2.7574E+000		6.5988E+000
	635.90	11.32	8.3012E-001		-1.4231E-001
Cs-134	563.23	8.38	1.2161E+000	1.19E-001	-2.0488E-001
	569.32	15.43	6.8107E-001		2.4814E-001
	604.70	97.60	1.3838E-001		-1.1519E-002
	795.84	85.40	1.1910E-001		1.0079E-001
	801.93	8.73	1.0917E+000		3.6682E-001
Cs-137	661.65	85.12	1.2655E-001	1.27E-001	3.9330E-002
Eu-152	121.78	28.40	8.4223E-001	3.40E-001	3.7640E-001
	244.69	7.49	2.0173E+000		1.4545E+000
	344.27	26.50	4.3295E-001		7.9622E-003
	778.89	12.74	6.9815E-001		-5.4733E-001
	867.32	4.16	2.3062E+000		-2.0092E+000
	964.01	14.40	8.8429E-001		2.1048E-001
	1085.78	10.00	1.0083E+000		5.2759E-001
	1112.02	13.30	7.6575E-001		-9.9802E-001
	1407.95	20.70	3.4024E-001		-1.0246E-001
Eu-154	123.07	40.50	5.8478E-001	2.57E-001	1.4956E-001
	247.94	6.60	2.1257E+000		-7.0174E-001
	591.81	4.83	2.2172E+000		1.0485E+000
	723.30	19.70	5.4207E-001		-1.3875E-001
	756.87	4.33	2.1825E+000		-2.9975E+000
	873.19	11.50	8.0706E-001		9.2010E-002
	996.32	10.30	9.7240E-001		5.8406E-001
	1004.76	17.90	5.2985E-001		3.0784E-002
	1274.45	35.50	2.5670E-001		-2.7920E-002
Eu-155	86.54	30.90	1.1589E+000	1.16E+000	4.5825E-002
	105.31	20.70	1.3920E+000		1.6502E+000
Am-241	59.54	35.90	1.4951E+000	1.50E+000	3.6518E-001
Cm-243	228.19	10.56	1.3765E+000	9.53E-001	-4.2029E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	9.5348E-001	9.53E-001	5.5923E-002

+ = 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

Report Generated On 5/23/2006 1:37:40 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: ORG7829

Spectrum File: ORG7829
Sample ID: NOL-05-01-157-F-
Sample Title: NOL-05-01-157-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/23/2006 1:27:36 PM
Live Time: 600.0 seconds
Real Time: 601.0 seconds

Energy Calibration Date: 5/10/2006
Eff Calibration Date: 5/1/2006
Calibration Efficiency: 7829Soil1m180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: ORG7829
Log Number: NOL-05-01-157-F-
Title: NOL-05-01-157-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	944-	964	953.88	238.48	1.23	1.61E+002	85.84	4.82E+002
2	2031-	2046	2041.43	510.39	0.88	7.96E+001	39.58	1.09E+002
3	2320-	2341	2329.73	582.47	1.77	9.54E+001	45.90	1.21E+002
4	2425-	2443	2433.01	608.29	1.81	1.45E+002	39.81	7.86E+001
5	3633-	3651	3640.16	910.10	0.65	9.68E+001	32.93	5.43E+001
6	5824-	5851	5837.40	1459.46	2.22	8.39E+002	61.12	3.04E+001
7	7042-	7057	7050.25	1762.69	0.30	3.91E+001	16.68	1.09E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: ORG7829

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/Gram)	Activity Uncertainty
ANN	0.988	511.00*		100.00	1.43021E-001	7.36761E-002
K-40	0.941	1460.81*		10.67	1.90543E+001	2.07566E+000
TL-208	0.742	277.35		6.80		
		510.84*		21.60	6.62134E-001	3.45353E-001
		583.14*		84.20	2.12797E-001	1.06096E-001
		860.37		12.46		
Pb-212	0.446	74.81	@	10.70		
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	5.25884E-001	2.92039E-001
Bi-214	0.656	609.31*		46.30	5.98867E-001	1.79810E-001
		1120.29		15.10		
		1764.49*		15.80	6.35771E-001	2.78572E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:ORG7829

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Gram)	Wt mean Activity Uncertainty
ANN	0.988	9.705693E-002	7.714336E-002
K-40	0.941	1.905431E+001	2.075656E+000
TL-208	0.742	2.127966E-001	1.058690E-001
Pb-212 @	0.446	5.258837E-001	2.920393E-001
Bi-214	0.656	6.097201E-001	1.510724E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
5	910.10	1.6125E-001	34.03

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:ORG7829
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Co-60	1173.22	100.00	1.2846E-001	1.14E-001	2.4636E-002
	1332.49	100.00	1.1386E-001		7.8015E-002
Nb-94	702.63	100.00	1.2568E-001	1.18E-001	2.2871E-002
	871.10	100.00	1.1758E-001		-4.6033E-002
Ag-108m	79.20	7.10	1.1207E+001	1.46E-001	-3.2656E+001
	433.93	89.90	1.5379E-001		-1.1243E-002
	614.37	90.40	1.6049E-001		-1.5557E-002
	722.95	90.50	1.4594E-001		-1.5869E-001
Sb-125	176.33	6.89	3.1596E+000	4.50E-001	1.2103E+000
	427.89	29.33	4.4968E-001		-2.0483E-001
	463.38	10.35	1.3192E+000		4.9071E-001
	600.56	17.80	7.5309E-001		1.0309E-001
	606.64	5.02	3.4059E+000		4.7020E+000
	635.90	11.32	1.1256E+000		-3.1639E-001
Cs-134	563.23	8.38	1.5614E+000	1.50E-001	1.3464E+000
	569.32	15.43	8.4917E-001		-4.2111E-002
	604.70	97.60	1.7547E-001		3.8346E-002
	795.84	85.40	1.4957E-001		8.8782E-002
	801.93	8.73	1.4004E+000		2.0528E-001
Cs-137	661.65	85.12	1.5641E-001	1.56E-001	6.2553E-002
Eu-152	121.78	28.40	1.1092E+000	3.72E-001	-6.5768E-001
	244.69	7.49	2.4219E+000		-1.0249E+000
	344.27	26.50	5.8152E-001		-6.7023E-001
	778.89	12.74	9.4732E-001		-7.5338E-001
	867.32	4.16	2.8640E+000		-2.7906E+000
	964.01	14.40	1.0636E+000		9.3674E-001
	1085.78	10.00	1.1230E+000		-6.0740E-001
	1112.02	13.30	9.0074E-001		-2.3128E+000
	1407.95	20.70	3.7222E-001		-2.6693E-001
Eu-154	123.07	40.50	7.6950E-001	3.32E-001	5.2758E-002
	247.94	6.60	2.7010E+000		-1.6034E+000
	591.81	4.83	2.7427E+000		7.9069E-001
	723.30	19.70	6.7743E-001		-9.1218E-002
	756.87	4.33	3.0413E+000		3.7441E+000
	873.19	11.50	1.0376E+000		-4.9936E-001
	996.32	10.30	1.1858E+000		1.2054E+000
	1004.76	17.90	6.7651E-001		5.1218E-002
	1274.45	35.50	3.3240E-001		-1.5318E-001
Eu-155	86.54	30.90	1.9780E+000	1.94E+000	3.6653E+000
	105.31	20.70	1.9443E+000		-1.0803E+000
Am-241	59.54	35.90	4.5874E+000	4.59E+000	6.3217E-001
Cm-243	228.19	10.56	1.7724E+000	1.19E+000	1.1365E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.1865E+000	1.19E+000	4.0146E-002

+ = 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

Report Generated On 5/23/2006 2:24:09 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: ORG7829

Spectrum File: ORG7829
Sample ID: NOL-05-01-158-F-
Sample Title: NOL-05-01-158-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/23/2006 2:14:06 PM
Live Time: 600.0 seconds
Real Time: 600.9 seconds

Energy Calibration Date: 5/10/2006
Eff Calibration Date: 5/1/2006
Calibration Efficiency: 7829Soil1m180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: ORG7829
Log Number: NOL-05-01-158-F-
Title: NOL-05-01-158-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	294-	310	301.30	75.33	0.44	3.50E+002	133.59	1.36E+003
2	946-	961	953.91	238.49	0.87	1.24E+002	66.42	3.41E+002
3	1402-	1415	1408.62	352.18	1.29	9.91E+001	42.15	1.32E+002
4	2321-	2342	2331.53	582.92	1.25	1.54E+002	37.75	5.78E+001
5	2360-	2369	2364.90	591.26	0.99	1.45E+001	18.61	3.35E+001
6	2424-	2446	2435.46	608.91	0.85	1.44E+002	39.82	6.91E+001
7	3867-	3884	3874.21	968.62	1.29	5.94E+001	27.35	4.16E+001
8	4475-	4486	4480.82	1120.29	0.39	2.37E+001	20.15	3.23E+001
9	5828-	5857	5843.10	1460.88	2.45	7.61E+002	56.56	1.50E+001
10	7051-	7064	7057.93	1764.61	0.72	3.08E+001	13.19	5.24E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: ORG7829

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Gram)	Activity Uncertainty
K-40	1.000	1460.81*	10.67	1.72954E+001	1.90083E+000
TL-208	0.470	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.44190E-001	9.54368E-002
		860.37	12.46		
Pb-212	0.593	74.81* @	10.70	1.34596E+001	5.77242E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	4.03071E-001	2.25787E-001
Bi-214	0.997	609.31*	46.30	5.92725E-001	1.79572E-001
		1120.29*	15.10	3.49173E-001	2.99561E-001
		1764.49*	15.80	5.00150E-001	2.20174E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:ORG7829

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Gram)	Wt mean Activity Uncertainty
K-40		1.000	1.729535E+001	1.900827E+000
TL-208		0.470	3.441895E-001	9.543677E-002
Pb-212	@	0.593	4.030713E-001	2.257867E-001
Bi-214		0.997	5.190793E-001	1.262051E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
3	352.18	1.6509E-001	42.55
5	591.26	2.4089E-002	128.79
7	968.62	9.8981E-002	46.05

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:ORG7829
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Co-60	1173.22	100.00	1.1764E-001	9.88E-002	-4.2801E-002
	1332.49	100.00	9.8816E-002		4.0962E-002
Nb-94	702.63	100.00	1.1448E-001	1.12E-001	6.3577E-002
	871.10	100.00	1.1197E-001		-8.1882E-002
Ag-108m	79.20	7.10	1.1133E+001	1.46E-001	-6.9836E+000
	433.93	89.90	1.4578E-001		-8.8128E-003
	614.37	90.40	1.6018E-001		4.8975E-003
	722.95	90.50	1.4745E-001		1.6067E-001
Sb-125	176.33	6.89	2.9190E+000	4.56E-001	-1.4799E+000
	427.89	29.33	4.5626E-001		-3.5270E-001
	463.38	10.35	1.2503E+000		3.1980E-001
	600.56	17.80	6.8344E-001		1.6903E-001
	606.64	5.02	3.1301E+000		5.6068E+000
	635.90	11.32	1.1198E+000		9.4826E-001
Cs-134	563.23	8.38	1.4434E+000	1.47E-001	-6.0725E-001
	569.32	15.43	7.8050E-001		2.3888E-001
	604.70	97.60	1.5653E-001		-2.5505E-002
	795.84	85.40	1.4650E-001		1.0313E-001
	801.93	8.73	1.2839E+000		-6.6085E-001
Cs-137	661.65	85.12	1.4651E-001	1.47E-001	-7.2653E-002
Eu-152	121.78	28.40	1.0777E+000	4.31E-001	-1.2847E-001
	244.69	7.49	2.3653E+000		-1.4264E+000
	344.27	26.50	5.3628E-001		-5.2147E-001
	778.89	12.74	9.4426E-001		-8.2598E-001
	867.32	4.16	2.8035E+000		-1.2402E+000
	964.01	14.40	9.9846E-001		9.9159E-002
	1085.78	10.00	1.0773E+000		-2.7597E-001
	1112.02	13.30	8.7197E-001		-4.6448E-001
	1407.95	20.70	4.3105E-001		9.9620E-002
Eu-154	123.07	40.50	7.4972E-001	2.97E-001	2.1519E-001
	247.94	6.60	2.6100E+000		-7.9069E-001
	591.81	4.83	2.6008E+000		1.2406E+000
	723.30	19.70	6.6877E-001		7.0684E-002
	756.87	4.33	2.6131E+000		-6.8405E-001
	873.19	11.50	9.9705E-001		7.2277E-001
	996.32	10.30	1.0466E+000		-9.5502E-001
	1004.76	17.90	6.1727E-001		4.5495E-001
	1274.45	35.50	2.9653E-001		-2.1397E-001
Eu-155	86.54	30.90	1.9025E+000	1.90E+000	3.5217E+000
	105.31	20.70	1.9098E+000		-7.3475E-001
Am-241	59.54	35.90	4.4702E+000	4.47E+000	-9.8372E-001
Cm-243	228.19	10.56	1.6965E+000	1.16E+000	-2.2545E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.1645E+000	1.16E+000	9.3282E-001

+ = 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

Report Generated On 5/25/2006 3:27:32 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: GRN7780

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-159-F-G
Sample ID: NOL-05-01-159
Sample Title: NOL-05-01-159-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/23/2006 8:59:28 PM
Live Time: 600.0 seconds
Real Time: 601.0 seconds

Energy Calibration Date: 4/19/2006
Eff Calibration Date: 3/23/2006
Calibration Efficiency: 7780Soil1M180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-159-F-G
Log Number: NOL-05-01-159
Title: NOL-05-01-159-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
F	1	288-	302	297.15	74.24	1.09	2.45E+002	132.94	1.20E+003
F	2	947-	964	954.80	238.66	1.28	1.41E+002	33.49	3.90E+002
F	3	2425-	2442	2434.22	608.52	1.55	6.49E+001	21.32	9.31E+001
F	4	3866-	3879	3873.94	968.45	1.73	2.54E+001	16.92	5.37E+001
F	5	5830-	5858	5843.27	1460.79	1.94	6.18E+002	78.18	2.84E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-159-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	1.000	1460.81*	10.67	1.41496E+001	1.98743E+000
Pb-212	0.595	74.81* @	10.70	9.49346E+000	5.36966E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	4.57817E-001	1.28678E-001
Bi-214	0.390	609.31*	46.30	2.74165E-001	9.34786E-002
		1120.29	15.10		
		1764.49	15.80		

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-159-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40		1.000	1.414956E+001	1.987427E+000
Pb-212	@	0.595	4.578173E-001	1.286784E-001
Bi-214		0.390	2.741654E-001	9.347858E-002

? = 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 1.960 sigma

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

	Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
F	4	968.45	4.2340E-002	66.59

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-159-F-G
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	1.1825E-001	8.93E-002	-1.3130E-002
	1332.49	100.00	8.9277E-002		5.8559E-002
Nb-94	702.63	100.00	1.1745E-001	1.15E-001	4.3773E-002
	871.10	100.00	1.1471E-001		7.9860E-002
Ag-108m	79.20	7.10	1.0339E+001	1.41E-001	-1.2985E+001
	433.93	89.90	1.4130E-001		-4.6997E-003
	614.37	90.40	1.5850E-001		-1.6330E-001
	722.95	90.50	1.4189E-001		1.5670E-001
Sb-125	176.33	6.89	3.0722E+000	4.55E-001	-8.5536E-001
	427.89	29.33	4.5511E-001		-1.4678E-002
	463.38	10.35	1.2747E+000		-3.9155E-001
	600.56	17.80	6.6384E-001		-5.7441E-001
	606.64	5.02	3.0473E+000		5.4557E+000
	635.90	11.32	1.0450E+000		2.7938E-001
Cs-134	563.23	8.38	1.4906E+000	1.32E-001	2.5748E-001
	569.32	15.43	8.5804E-001		7.6545E-001
	604.70	97.60	1.4623E-001		-1.0028E-001
	795.84	85.40	1.3182E-001		9.7170E-002
	801.93	8.73	1.2511E+000		6.3636E-001
Cs-137	661.65	85.12	1.4155E-001	1.42E-001	2.0658E-002
Eu-152	121.78	28.40	1.1148E+000	4.06E-001	3.2900E-001
	244.69	7.49	2.3791E+000		-4.5833E-001
	344.27	26.50	5.4781E-001		-4.7157E-001
	778.89	12.74	8.4503E-001		-8.4113E-002
	867.32	4.16	2.6903E+000		-2.6115E+000
	964.01	14.40	1.0270E+000		5.9419E-001
	1085.78	10.00	9.8411E-001		-9.2944E-001
	1112.02	13.30	8.2313E-001		-8.3695E-002
	1407.95	20.70	4.0635E-001		-1.3325E-001
Eu-154	123.07	40.50	7.7304E-001	2.95E-001	1.6082E-001
	247.94	6.60	2.5595E+000		-2.7281E+000
	591.81	4.83	2.5190E+000		-1.6956E+000
	723.30	19.70	6.4811E-001		6.2102E-001
	756.87	4.33	2.6709E+000		-3.7677E-001
	873.19	11.50	9.7458E-001		-4.4081E-001
	996.32	10.30	9.8919E-001		-7.8129E-001
	1004.76	17.90	5.7918E-001		2.5958E-001
	1274.45	35.50	2.9524E-001		4.8117E-002
Eu-155	86.54	30.90	2.0368E+000	1.93E+000	2.8231E+000
	105.31	20.70	1.9317E+000		1.5236E+000
Am-241	59.54	35.90	5.2190E+000	5.22E+000	2.6687E-001
Cm-243	228.19	10.56	1.6813E+000	1.15E+000	-4.3302E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.1467E+000	1.15E+000	-7.1288E-001

+ = 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

Report Generated On 5/25/2006 3:28:18 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: GRN7780

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-160-F-G
Sample ID: NOL-05-01-160
Sample Title: NOL-05-01-160-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/23/2006 8:35:33 PM
Live Time: 600.0 seconds
Real Time: 601.1 seconds

Energy Calibration Date: 4/19/2006
Eff Calibration Date: 3/23/2006
Calibration Efficiency: 7780Soil1M180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-160-F-G
Log Number: NOL-05-01-160
Title: NOL-05-01-160-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
F	1	942-	973	952.78	238.15	1.28	1.50E+002	78.42	6.06E+002
F	2	2318-	2343	2331.56	582.85	1.53	1.60E+002	49.93	1.13E+002
F	3	3635-	3652	3642.64	910.62	1.71	6.86E+001	19.61	4.74E+001
F	4	3867-	3882	3874.53	968.60	1.73	5.02E+001	18.95	5.82E+001
F	5	5831-	5858	5843.86	1460.93	1.94	7.02E+002	86.35	2.63E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-160-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	1.000	1460.81*	10.67	1.60800E+001	2.20769E+000
TL-208	0.469	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.68060E-001	1.20377E-001
		860.37	12.46		
Pb-212	0.442	74.81 @	10.70		
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	4.85267E-001	2.64708E-001
Ac-228	0.630	338.32	11.40		
		911.07*	27.70	5.27859E-001	1.54464E-001
		969.11*	16.60	6.53176E-001	2.49602E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-160-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40		1.000	1.607996E+001	2.207690E+000
TL-208		0.469	3.680601E-001	1.203769E-001
Pb-212	@	0.442	4.852669E-001	2.647077E-001
Ac-228		0.630	5.625609E-001	1.313475E-001

? = 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 1.960 sigma

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

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

All peaks were identified.

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-160-F-G
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	1.2731E-001	1.08E-001	1.3404E-001
	1332.49	100.00	1.0820E-001		2.6616E-003
Nb-94	702.63	100.00	1.3870E-001	1.14E-001	1.3366E-001
	871.10	100.00	1.1426E-001		1.1743E-002
Ag-108m	79.20	7.10	1.0625E+001	1.45E-001	-2.1042E+001
	433.93	89.90	1.5942E-001		-7.8623E-003
	614.37	90.40	1.7252E-001		-8.0884E-002
	722.95	90.50	1.4468E-001		9.5637E-002
Sb-125	176.33	6.89	3.1794E+000	4.90E-001	4.4323E-001
	427.89	29.33	4.8971E-001		-7.9769E-002
	463.38	10.35	1.3331E+000		-6.5495E-002
	600.56	17.80	7.2624E-001		-3.5530E-001
	606.64	5.02	3.2624E+000		4.2041E+000
	635.90	11.32	1.1605E+000		-2.6561E-001
Cs-134	563.23	8.38	1.6088E+000	1.51E-001	1.9454E-001
	569.32	15.43	8.4778E-001		-6.0890E-001
	604.70	97.60	1.6001E-001		1.0415E-001
	795.84	85.40	1.5075E-001		2.4880E-002
	801.93	8.73	1.3831E+000		-5.2303E-001
Cs-137	661.65	85.12	1.5089E-001	1.51E-001	3.7656E-003
Eu-152	121.78	28.40	1.1289E+000	4.10E-001	1.1665E+000
	244.69	7.49	2.3685E+000		1.3583E+000
	344.27	26.50	5.9721E-001		-2.4986E-001
	778.89	12.74	9.2924E-001		-2.3894E-001
	867.32	4.16	2.7656E+000		-1.1668E+000
	964.01	14.40	1.0489E+000		4.0836E-001
	1085.78	10.00	1.1387E+000		-6.9387E-001
	1112.02	13.30	8.1919E-001		-2.8137E-001
	1407.95	20.70	4.1024E-001		-2.6463E-002
Eu-154	123.07	40.50	7.7067E-001	2.97E-001	-5.2912E-001
	247.94	6.60	2.5997E+000		9.0519E-001
	591.81	4.83	2.7076E+000		-1.8491E+000
	723.30	19.70	6.7001E-001		6.3436E-001
	756.87	4.33	2.6899E+000		-2.8289E+000
	873.19	11.50	9.7062E-001		-3.4457E-001
	996.32	10.30	1.1859E+000		2.4187E-001
	1004.76	17.90	6.4562E-001		1.8682E-001
	1274.45	35.50	2.9691E-001		-3.5424E-002
Eu-155	86.54	30.90	2.1068E+000	2.04E+000	3.0632E+000
	105.31	20.70	2.0374E+000		1.5743E+000
Am-241	59.54	35.90	5.3947E+000	5.39E+000	-5.4358E+000
Cm-243	228.19	10.56	1.7615E+000	1.14E+000	2.3567E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.1444E+000	1.14E+000	-8.4757E-001

+ = 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

Report Generated On 5/25/2006 3:29:35 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: GRN7780

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-161-F-G
Sample ID: NOL-05-01-161
Sample Title: NOL-05-01-161-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/23/2006 7:16:59 PM
Live Time: 600.0 seconds
Real Time: 601.1 seconds

Energy Calibration Date: 4/19/2006
Eff Calibration Date: 3/23/2006
Calibration Efficiency: 7780Soil1M180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-161-F-G
Log Number: NOL-05-01-161
Title: NOL-05-01-161-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
F	1	289-	303	298.09	74.48	1.09	2.12E+002	174.26	1.22E+003
F	2	947-	964	954.12	238.49	1.28	1.69E+002	35.62	4.08E+002
F	3	3634-	3655	3643.26	910.78	1.71	1.17E+002	48.96	3.59E+001
F	4	3867-	3885	3874.90	968.69	1.73	4.86E+001	18.43	6.28E+001
F	5	4474-	4491	4481.31	1120.29	1.80	5.71E+001	17.83	3.60E+001
F	6	5830-	5859	5844.57	1461.11	1.94	7.18E+002	75.23	1.50E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-161-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.997	1460.81*	10.67	1.64414E+001	1.99366E+000
Pb-212	0.595	74.81* @	10.70	8.15501E+000	6.81410E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	5.49708E-001	1.42093E-001
Ac-228	0.633	338.32	11.40		
		911.07*	27.70	8.97893E-001	3.81051E-001
		969.11*	16.60	6.32973E-001	2.42630E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-161-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40		0.997	1.644136E+001	1.993662E+000
Pb-212	@	0.595	5.497082E-001	1.420932E-001
Ac-228		0.633	7.093962E-001	2.046626E-001

? = 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 1.960 sigma

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

	Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
F	5	1120.29	9.5152E-002	31.24

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-161-F-G
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	1.2311E-001	1.00E-001	2.2475E-002
	1332.49	100.00	1.0019E-001		4.2475E-002
Nb-94	702.63	100.00	1.2094E-001	1.17E-001	-8.3298E-003
	871.10	100.00	1.1734E-001		-1.2207E-002
Ag-108m	79.20	7.10	1.0594E+001	1.59E-001	-1.1872E+001
	433.93	89.90	1.7006E-001		7.5097E-002
	614.37	90.40	1.8798E-001		-1.3565E-003
	722.95	90.50	1.5891E-001		9.9937E-002
Sb-125	176.33	6.89	3.2015E+000	5.09E-001	1.4369E+000
	427.89	29.33	5.0930E-001		9.3782E-002
	463.38	10.35	1.4256E+000		1.2220E+000
	600.56	17.80	7.6431E-001		2.6171E-001
	606.64	5.02	3.5456E+000		6.8010E+000
	635.90	11.32	1.1516E+000		1.0522E+000
Cs-134	563.23	8.38	1.7082E+000	1.54E-001	9.6537E-001
	569.32	15.43	8.5395E-001		-3.9009E-001
	604.70	97.60	1.7109E-001		-6.8646E-002
	795.84	85.40	1.5425E-001		7.2818E-002
	801.93	8.73	1.3262E+000		-1.4569E+000
Cs-137	661.65	85.12	1.4286E-001	1.43E-001	-5.3575E-002
Eu-152	121.78	28.40	1.1092E+000	3.74E-001	1.1835E+000
	244.69	7.49	2.4573E+000		8.4730E-001
	344.27	26.50	6.0575E-001		-4.1513E-001
	778.89	12.74	9.7611E-001		-1.0159E-001
	867.32	4.16	2.8388E+000		-7.1582E-001
	964.01	14.40	1.0657E+000		-1.2679E-001
	1085.78	10.00	1.1387E+000		-1.1383E+000
	1112.02	13.30	8.6519E-001		-8.3687E-001
	1407.95	20.70	3.7369E-001		-6.2988E-001
Eu-154	123.07	40.50	7.6396E-001	3.24E-001	6.2766E-001
	247.94	6.60	2.6681E+000		-6.0753E-001
	591.81	4.83	2.8132E+000		-1.9713E+000
	723.30	19.70	7.2670E-001		6.6986E-002
	756.87	4.33	2.9859E+000		-1.0442E+000
	873.19	11.50	1.0095E+000		-5.2494E-001
	996.32	10.30	1.1556E+000		1.3306E+000
	1004.76	17.90	6.6875E-001		-5.7638E-001
	1274.45	35.50	3.2386E-001		7.3882E-002
Eu-155	86.54	30.90	2.0050E+000	1.88E+000	1.3664E+000
	105.31	20.70	1.8784E+000		6.8798E-001
Am-241	59.54	35.90	4.9768E+000	4.98E+000	-1.9272E+000
Cm-243	228.19	10.56	1.7278E+000	1.21E+000	-5.2475E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.2068E+000	1.21E+000	-8.9398E-001

+ = 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

Report Generated On 5/25/2006 3:30:21 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: GRN7780

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-162-F-G
Sample ID: NOL-05-01-162
Sample Title: NOL-05-01-162-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/23/2006 1:15:35 PM
Live Time: 600.0 seconds
Real Time: 601.1 seconds

Energy Calibration Date: 4/19/2006
Eff Calibration Date: 3/23/2006
Calibration Efficiency: 7780Soil1M180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-162-F-G
Log Number: NOL-05-01-162
Title: NOL-05-01-162-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
F	1	942-	963	953.88	238.43	1.28	2.64E+002	78.77	3.96E+002
F	2	1398-	1414	1406.40	351.56	1.38	1.30E+002	67.36	1.47E+002
F	3	1613-	1622	1617.21	404.26	1.42	1.90E+001	16.86	5.61E+001
F	4	2321-	2341	2330.34	582.54	1.53	1.59E+002	26.85	8.43E+001
F	5	2426-	2445	2434.24	608.52	1.55	1.04E+002	22.62	6.87E+001
F	6	3630-	3652	3641.70	910.39	1.70	1.24E+002	23.35	5.12E+001
F	7	3864-	3880	3871.76	967.90	1.73	6.12E+001	18.93	4.58E+001
F	8	5824-	5853	5839.40	1459.82	1.94	8.16E+002	85.36	2.62E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-162-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.968	1460.81*		10.67	1.86701E+001	2.26204E+000
TL-208	0.463	277.35		6.80		
		510.84		21.60		
		583.14*		84.20	3.65617E-001	7.15170E-002
		860.37		12.46		
Pb-212	0.445	74.81	@	10.70		
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	8.57746E-001	2.86307E-001
Bi-214	0.390	609.31*		46.30	4.37588E-001	1.03634E-001
		1120.29		15.10		
		1764.49		15.80		
Ac-228	0.614	338.32		11.40		
		911.07*		27.70	9.52879E-001	1.89348E-001
		969.11*		16.60	7.96812E-001	2.50618E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-162-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40	0.968	1.867013E+001	2.262037E+000
TL-208	0.463	3.656170E-001	7.151703E-002
Pb-212 @	0.445	8.577464E-001	2.863068E-001
Bi-214	0.390	4.375882E-001	1.036336E-001
Ac-228	0.614	8.961661E-001	1.510768E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
F 2	351.56	2.1614E-001	51.94
F 3	404.26	3.1592E-002	88.95

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-162-F-G
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	1.2119E-001	9.63E-002	6.5592E-002
	1332.49	100.00	9.6255E-002		1.0874E-002
Nb-94	702.63	100.00	1.2835E-001	1.13E-001	-4.0519E-002
	871.10	100.00	1.1292E-001		-5.7114E-002
Ag-108m	79.20	7.10	1.0527E+001	1.43E-001	-2.6877E+001
	433.93	89.90	1.6106E-001		-5.9977E-002
	614.37	90.40	1.5273E-001		-1.1850E-001
	722.95	90.50	1.4349E-001		-4.1618E-002
Sb-125	176.33	6.89	3.0908E+000	5.00E-001	-9.7409E-001
	427.89	29.33	5.0042E-001		6.0946E-002
	463.38	10.35	1.3714E+000		8.3715E-001
	600.56	17.80	7.4098E-001		7.8067E-001
	606.64	5.02	3.2572E+000		6.0956E+000
	635.90	11.32	1.0743E+000		-1.3426E-001
Cs-134	563.23	8.38	1.6378E+000	1.46E-001	3.2317E-001
	569.32	15.43	8.6414E-001		-1.6205E-001
	604.70	97.60	1.6632E-001		-7.0383E-003
	795.84	85.40	1.4626E-001		-4.2374E-002
	801.93	8.73	1.4198E+000		7.3299E-002
Cs-137	661.65	85.12	1.5089E-001	1.51E-001	4.4807E-002
Eu-152	121.78	28.40	1.1215E+000	3.82E-001	7.8073E-001
	244.69	7.49	2.4692E+000		-7.2509E-001
	344.27	26.50	5.9362E-001		-3.2169E-001
	778.89	12.74	9.2280E-001		-5.4996E-001
	867.32	4.16	2.7762E+000		-9.1262E-001
	964.01	14.40	1.0728E+000		1.9553E+000
	1085.78	10.00	1.0670E+000		-1.5432E-001
	1112.02	13.30	9.2972E-001		-1.8905E+000
	1407.95	20.70	3.8214E-001		-2.4339E-001
Eu-154	123.07	40.50	7.6200E-001	3.13E-001	-3.8453E-002
	247.94	6.60	2.6681E+000		1.9379E+000
	591.81	4.83	2.7009E+000		4.3012E-001
	723.30	19.70	6.6098E-001		2.4756E-001
	756.87	4.33	2.8464E+000		-2.0045E+000
	873.19	11.50	9.9414E-001		-4.3351E-001
	996.32	10.30	1.0542E+000		1.7272E-001
	1004.76	17.90	6.2701E-001		-2.0441E-001
	1274.45	35.50	3.1306E-001		7.5291E-002
Eu-155	86.54	30.90	2.0112E+000	1.86E+000	1.1187E+000
	105.31	20.70	1.8578E+000		1.7061E-001
Am-241	59.54	35.90	5.1502E+000	5.15E+000	-3.9813E+000
Cm-243	228.19	10.56	1.6801E+000	1.18E+000	2.2338E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.1783E+000	1.18E+000	-4.3151E-001

+ = 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

Report Generated On 5/25/2006 3:31:03 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: GRN7780

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-163-F-G
Sample ID: NOL-05-01-163
Sample Title: NOL-05-01-163-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/23/2006 4:34:20 PM
Live Time: 600.0 seconds
Real Time: 601.4 seconds

Energy Calibration Date: 4/19/2006
Eff Calibration Date: 3/23/2006
Calibration Efficiency: 7780Soil1M180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-163-F-G
Log Number: NOL-05-01-163
Title: NOL-05-01-163-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	286-	305	292.10	72.98	1.08	1.51E+002	46.67	8.28E+002
m	2	286-	305	300.27	75.02	1.09	3.42E+002	54.16	9.54E+002
F	3	334-	346	339.19	84.75	1.10	1.70E+002	268.22	7.78E+002
F	4	738-	748	743.95	185.94	1.23	6.85E+001	31.49	2.89E+002
F	5	949-	960	954.66	238.62	1.28	2.75E+002	39.51	2.33E+002
F	6	1172-	1190	1180.90	295.18	1.33	8.24E+001	25.64	2.21E+002
F	7	1398-	1437	1407.62	351.86	1.38	1.01E+002	86.07	3.78E+002
F	8	2037-	2054	2044.88	511.18	2.23	8.47E+001	23.90	1.12E+002
F	9	2325-	2341	2332.28	583.03	1.53	1.60E+002	102.71	8.23E+001
F	10	2428-	2444	2436.24	609.02	1.55	9.91E+001	23.11	7.03E+001
F	11	3437-	3449	3442.78	860.66	1.68	2.72E+001	14.67	2.97E+001
F	12	3634-	3653	3644.74	911.15	1.71	1.19E+002	36.11	5.74E+001
F	13	3867-	3883	3875.79	968.91	1.73	6.86E+001	19.91	4.88E+001
F	14	5830-	5857	5844.15	1461.01	1.94	8.47E+002	88.97	6.99E+000
F	15	7051-	7069	7060.67	1765.14	2.04	5.33E+001	34.52	0.00E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-163-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
ANN	0.999	511.00*	100.00	1.58331E-001	4.73107E-002
K-40	0.999	1460.81*	10.67	1.93877E+001	2.35601E+000
TL-208	0.901	277.35	6.80		
		510.84*	21.60	7.33012E-001	2.27064E-001
		583.14*	84.20	3.68691E-001	2.38810E-001
		860.37*	12.46	4.59485E-001	2.50448E-001
Pb-212	0.596	74.81* @	10.70	1.28300E+001	2.86870E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	8.94266E-001	1.85762E-001
Bi-214	0.690	609.31*	46.30	4.18480E-001	1.04878E-001
		1120.29	15.10		
		1764.49*	15.80	9.04531E-001	5.91324E-001
PB-214	0.624	74.82* @	6.21	2.21065E+001	5.19682E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	6.66449E-001	2.31354E-001
		351.92*	37.20	4.48407E-001	3.87980E-001
Ac-228	0.635	338.32	11.40		
		911.07*	27.70	9.14864E-001	2.83791E-001
		969.11*	16.60	8.93481E-001	2.64295E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-163-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
ANN		0.999	6.934834E-002	6.023016E-002
K-40		0.999	1.938771E+001	2.356013E+000
TL-208		0.901	4.119553E-001	1.725659E-001
Pb-212	@	0.596	8.942660E-001	1.857621E-001
Bi-214		0.690	4.333032E-001	1.032663E-001
PB-214	@	0.624	6.092546E-001	1.987080E-001
Ac-228		0.635	9.034131E-001	1.934105E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.98	2.5231E-001	30.83
F 3	84.75	2.8360E-001	157.63
F 4	185.94	1.1415E-001	45.97

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-163-F-G
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	1.2959E-001	1.00E-001	7.0274E-002
	1332.49	100.00	1.0019E-001		-2.2005E-002
Nb-94	702.63	100.00	1.2396E-001	1.18E-001	-2.7501E-002
	871.10	100.00	1.1777E-001		2.8267E-002
Ag-108m	79.20	7.10	9.6864E+000	1.50E-001	-2.0055E-001
	433.93	89.90	1.5636E-001		3.6051E-002
	614.37	90.40	1.7554E-001		-3.1330E-002
	722.95	90.50	1.4970E-001		1.2173E-001
Sb-125	176.33	6.89	2.9640E+000	4.85E-001	-1.7324E-001
	427.89	29.33	4.8468E-001		1.0029E-001
	463.38	10.35	1.4329E+000		7.4934E-001
	600.56	17.80	7.5184E-001		-1.3505E-001
	606.64	5.02	3.1135E+000		3.7580E+000
	635.90	11.32	1.0933E+000		1.6631E-001
Cs-134	563.23	8.38	1.5490E+000	1.45E-001	-2.8099E-001
	569.32	15.43	8.1617E-001		-1.0811E-001
	604.70	97.60	1.5775E-001		-1.0730E-001
	795.84	85.40	1.4489E-001		9.3293E-002
	801.93	8.73	1.3213E+000		-1.3713E+000
Cs-137	661.65	85.12	1.4965E-001	1.50E-001	-7.4790E-002
Eu-152	121.78	28.40	9.8806E-001	3.94E-001	-7.5123E-002
	244.69	7.49	2.3827E+000		-2.0035E+000
	344.27	26.50	5.7975E-001		-9.4807E-001
	778.89	12.74	8.7291E-001		-1.7251E+000
	867.32	4.16	2.7972E+000		6.9921E-001
	964.01	14.40	1.0680E+000		1.6854E-001
	1085.78	10.00	1.0932E+000		-6.1061E-001
	1112.02	13.30	8.7630E-001		-2.3685E-001
	1407.95	20.70	3.9445E-001		5.2139E-002
Eu-154	123.07	40.50	6.8354E-001	3.07E-001	-5.4003E-001
	247.94	6.60	2.4727E+000		-2.4029E+000
	591.81	4.83	2.9887E+000		2.7422E+000
	723.30	19.70	6.8420E-001		1.8870E-001
	756.87	4.33	2.7462E+000		0.0000E+000
	873.19	11.50	1.0133E+000		4.7172E-002
	996.32	10.30	1.1107E+000		-1.1880E-001
	1004.76	17.90	6.8862E-001		1.9805E-002
	1274.45	35.50	3.0670E-001		1.4480E-001
Eu-155	86.54	30.90	1.8269E+000	1.72E+000	9.9347E-001
	105.31	20.70	1.7171E+000		-7.9744E-001
Am-241	59.54	35.90	5.1306E+000	5.13E+000	-2.3431E+000
Cm-243	228.19	10.56	1.6348E+000	1.12E+000	-1.0240E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.1213E+000	1.12E+000	-1.6714E-002

+ = 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

Report Generated On 5/24/2006 1:44:08 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: ORG7829

Spectrum File: ORG7829
Sample ID: NOL-05-01-164
Sample Title: NOL-05-01-164-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/24/2006 1:34:06 PM
Live Time: 600.0 seconds
Real Time: 600.9 seconds

Energy Calibration Date: 5/10/2006
Eff Calibration Date: 5/1/2006
Calibration Efficiency: 7829Soil1m180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: ORG7829
Log Number: NOL-05-01-164
Title: NOL-05-01-164-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	944-	962	954.84	238.72	1.88	2.67E+002	73.18	3.31E+002
2	1398-	1415	1407.86	351.99	0.84	8.11E+001	49.98	1.75E+002
3	2319-	2343	2331.47	582.91	1.48	1.94E+002	45.05	8.11E+001
4	2424-	2446	2434.74	608.73	1.67	1.50E+002	45.23	9.82E+001
5	3634-	3653	3644.99	911.31	1.90	1.12E+002	33.45	5.05E+001
6	5827-	5855	5841.84	1460.57	2.11	8.31E+002	60.93	2.91E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: ORG7829

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Gram)	Activity Uncertainty
K-40	0.998	1460.81*	10.67	1.88825E+001	2.06264E+000
TL-208	0.470	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	4.32690E-001	1.15259E-001
		860.37	12.46		
Pb-212	0.446	74.81 @	10.70		
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	8.72613E-001	2.75288E-001
Bi-214	0.396	609.31*	46.30	6.17097E-001	2.01248E-001
		1120.29	15.10		
		1764.49	15.80		

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:ORG7829

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Gram)	Wt mean Activity Uncertainty
K-40	0.998	1.888248E+001	2.062637E+000
TL-208	0.470	4.326897E-001	1.152588E-001
Pb-212 @	0.446	8.726130E-001	2.752882E-001
Bi-214	0.396	6.170966E-001	2.012479E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
2	351.99	1.3514E-001	61.64
5	911.31	1.8583E-001	30.00

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:ORG7829
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Co-60	1173.22	100.00	1.1413E-001	1.04E-001	-8.9639E-002
	1332.49	100.00	1.0450E-001		-1.9326E-002
Nb-94	702.63	100.00	1.2496E-001	1.16E-001	5.1536E-003
	871.10	100.00	1.1632E-001		4.0704E-002
Ag-108m	79.20	7.10	1.0093E+001	1.42E-001	-2.1859E+001
	433.93	89.90	1.5037E-001		5.1648E-002
	614.37	90.40	1.6049E-001		-4.2791E-002
	722.95	90.50	1.4211E-001		7.2476E-002
Sb-125	176.33	6.89	2.9638E+000	4.38E-001	6.4995E-002
	427.89	29.33	4.3793E-001		-5.1659E-001
	463.38	10.35	1.2703E+000		-2.5413E-001
	600.56	17.80	6.9092E-001		-5.2813E-001
	606.64	5.02	3.3101E+000		5.7917E+000
	635.90	11.32	1.0959E+000		-2.7098E-001
Cs-134	563.23	8.38	1.5649E+000	1.47E-001	1.3407E-001
	569.32	15.43	8.2162E-001		-9.4910E-001
	604.70	97.60	1.6780E-001		-5.6094E-002
	795.84	85.40	1.4650E-001		6.8834E-002
	801.93	8.73	1.3176E+000		-1.7175E+000
Cs-137	661.65	85.12	1.4319E-001	1.43E-001	5.2845E-002
Eu-152	121.78	28.40	1.0012E+000	4.12E-001	-1.1651E-001
	244.69	7.49	2.3147E+000		-1.4620E+000
	344.27	26.50	5.2720E-001		-1.0744E+000
	778.89	12.74	8.6070E-001		-3.1945E-001
	867.32	4.16	2.7313E+000		-6.0645E+000
	964.01	14.40	1.0109E+000		8.9047E-001
	1085.78	10.00	1.1620E+000		5.5126E-001
	1112.02	13.30	9.2514E-001		-6.8282E-001
	1407.95	20.70	4.1245E-001		-2.0584E-001
Eu-154	123.07	40.50	6.9482E-001	2.92E-001	-1.4795E-001
	247.94	6.60	2.5353E+000		-4.1243E+000
	591.81	4.83	2.6598E+000		6.6484E-001
	723.30	19.70	6.5468E-001		5.4880E-001
	756.87	4.33	2.7154E+000		1.1982E+000
	873.19	11.50	1.0083E+000		5.7553E-001
	996.32	10.30	1.1296E+000		5.3242E-001
	1004.76	17.90	6.3329E-001		2.5592E-001
	1274.45	35.50	2.9151E-001		2.1257E-001
Eu-155	86.54	30.90	1.7428E+000	1.68E+000	1.8285E+000
	105.31	20.70	1.6764E+000		-1.1723E+000
Am-241	59.54	35.90	4.0508E+000	4.05E+000	1.2790E+000
Cm-243	228.19	10.56	1.5964E+000	1.11E+000	-2.4081E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.1135E+000	1.11E+000	-6.9247E-001

+ = 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

Report Generated On 5/31/2006 4:12:03 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-165-F-G
Sample ID: NOL-05-01-165
Sample Title: NOL-05-01-165-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/30/2006 3:54:27 PM
Live Time: 600.0 seconds
Real Time: 600.5 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-165-F-G
Log Number: NOL-05-01-165
Title: NOL-05-01-165-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	283-	312	291.59	72.73	0.97	1.70E+002	38.79	4.70E+002
m	2	283-	312	300.04	74.84	0.98	3.22E+002	47.47	4.56E+002
m	3	283-	312	308.36	76.92	0.98	5.74E+001	34.46	4.36E+002
	4	946-	961	953.60	238.28	1.02	1.65E+002	49.47	1.57E+002
	5	1401-	1414	1405.62	351.32	0.51	7.38E+001	33.64	7.92E+001
	6	2324-	2337	2330.52	582.61	1.01	6.46E+001	28.74	5.44E+001
	7	2428-	2442	2434.70	608.67	0.45	6.85E+001	26.52	3.95E+001
	8	3634-	3652	3642.34	910.67	1.04	9.33E+001	26.72	2.67E+001
	9	3865-	3881	3872.93	968.33	0.33	3.91E+001	21.62	2.59E+001
	10	4472-	4483	4477.64	1119.56	0.73	2.95E+001	16.51	1.65E+001
	11	5828-	5853	5841.29	1460.57	2.02	5.39E+002	46.68	6.52E+000
	12	7050-	7063	7056.18	1764.38	0.54	2.55E+001	11.62	3.50E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-165-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.998	1460.81*	10.67	2.89002E+001	3.23405E+000
TL-208	0.467	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.45331E-001	1.56743E-001
		860.37	12.46		
Pb-212	0.844	74.81* @	10.70	1.53279E+001	3.60243E+000
		77.11* @	18.00	1.57137E+000	9.89152E-001
		87.30 @	8.00		
		238.63*	44.60	1.32264E+000	4.49791E-001
Bi-214	0.988	609.31*	46.30	6.72300E-001	2.66728E-001
		1120.29*	15.10	1.03941E+000	5.88900E-001
		1764.49*	15.80	9.58776E-001	4.45583E-001
PB-214	0.386	74.82* @	6.21	2.64103E+001	6.49643E+000
		77.11* @	10.50	2.69378E+000	1.70758E+000
		87.30 @	4.67		
		241.98	7.49		
		295.21	19.20		
		351.92*	37.20	7.86756E-001	3.76221E-001
Ac-228	0.629	338.32	11.40		
		911.07*	27.70	1.69576E+000	5.02117E-001
		969.11*	16.60	1.20623E+000	6.71698E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-165-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40		0.998	2.890019E+001	3.234051E+000
TL-208		0.467	3.453315E-001	1.567435E-001
Pb-212	@	0.844	1.322639E+000	4.497913E-001
Bi-214		0.988	7.861248E-001	2.133163E-001
PB-214	@	0.386	7.867562E-001	3.735691E-001
Ac-228		0.629	1.520269E+000	4.021689E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.73	2.8267E-001	22.87

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-165-F-G
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	2.2168E-001	1.79E-001	-3.8970E-002
	1332.49	100.00	1.7946E-001		-1.1310E-002
Nb-94	702.63	100.00	2.2175E-001	2.22E-001	2.5602E-002
	871.10	100.00	2.2568E-001		-2.2518E-001
Ag-108m	79.20	7.10	9.7437E+000	2.54E-001	-8.1632E-001
	433.93	89.90	2.7089E-001		6.9417E-002
	614.37	90.40	2.5400E-001		3.3565E-002
	722.95	90.50	2.7341E-001		1.3033E-002
Sb-125	176.33	6.89	4.8404E+000	8.02E-001	-2.0819E+000
	427.89	29.33	8.0201E-001		-2.4115E-001
	463.38	10.35	2.4391E+000		-1.3416E+000
	600.56	17.80	1.2052E+000		-7.8934E-001
	606.64	5.02	5.7512E+000		6.5765E+000
	635.90	11.32	1.9315E+000		2.6880E-001
Cs-134	563.23	8.38	3.0441E+000	2.69E-001	2.1073E+000
	569.32	15.43	1.5806E+000		-2.2574E-001
	604.70	97.60	2.9140E-001		-7.0514E-002
	795.84	85.40	2.6941E-001		2.5916E-001
	801.93	8.73	2.6271E+000		1.5279E+000
Cs-137	661.65	85.12	2.5800E-001	2.58E-001	-1.9427E-001
Eu-152	121.78	28.40	1.4832E+000	8.59E-001	2.6264E-002
	244.69	7.49	3.9533E+000		1.7973E+000
	344.27	26.50	9.9547E-001		3.4031E-001
	778.89	12.74	1.4928E+000		-1.6905E+000
	867.32	4.16	5.3265E+000		-5.5672E+000
	964.01	14.40	1.9134E+000		-8.8771E-002
	1085.78	10.00	2.1093E+000		1.3207E-002
	1112.02	13.30	1.6534E+000		-5.5797E-001
	1407.95	20.70	8.5899E-001		4.7118E-001
Eu-154	123.07	40.50	1.0325E+000	5.98E-001	-9.9907E-001
	247.94	6.60	4.2710E+000		1.1180E+000
	591.81	4.83	4.1447E+000		-6.9463E-001
	723.30	19.70	1.2667E+000		3.3111E-001
	756.87	4.33	5.1093E+000		-8.9231E-001
	873.19	11.50	2.0806E+000		2.0442E+000
	996.32	10.30	2.0714E+000		-2.7075E+000
	1004.76	17.90	1.1866E+000		4.3345E-001
	1274.45	35.50	5.9776E-001		7.1135E-001
Eu-155	86.54	30.90	2.1443E+000	2.14E+000	2.4762E+000
	105.31	20.70	2.4383E+000		-4.5837E-002
Am-241	59.54	35.90	2.5720E+000	2.57E+000	1.4033E+000
Cm-243	228.19	10.56	2.8339E+000	2.02E+000	4.3359E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	2.0150E+000	2.02E+000	-5.6433E-001

+ = 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

Report Generated On 5/31/2006 3:58:52 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: GRN7780

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-166-F-G
Sample ID: NOL-05-01-166
Sample Title: NOL-05-01-166-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/25/2006 10:34:24 AM
Live Time: 600.0 seconds
Real Time: 600.6 seconds

Energy Calibration Date: 4/19/2006
Eff Calibration Date: 9/29/2005
Calibration Efficiency: GREEN_SOIL_2M90D
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-166-F-G
Log Number: NOL-05-01-166
Title: NOL-05-01-166-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	948-	963	953.33	238.29	0.57	1.15E+002	43.96	1.27E+002
2	3637-	3650	3643.99	910.96	1.14	3.10E+001	22.11	3.50E+001
3	5832-	5855	5841.88	1460.44	2.19	3.69E+002	38.56	5.09E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-166-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.995	1460.81*		10.67	2.36480E+001	2.85795E+000
Pb-212	0.405	74.81	@	10.70		
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	1.08024E+000	4.40372E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-166-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40	0.995	2.364795E+001	2.857951E+000
Pb-212 @	0.405	1.080242E+000	4.403719E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
2	910.96	5.1667E-002	71.34

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-166-F-G
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	2.1458E-001	1.93E-001	-1.8392E-001
	1332.49	100.00	1.9259E-001		2.9858E-002
Nb-94	702.63	100.00	2.2274E-001	2.08E-001	-5.5385E-002
	871.10	100.00	2.0761E-001		-3.7785E-002
Ag-108m	79.20	7.10	1.4817E+001	2.82E-001	-7.2830E+000
	433.93	89.90	2.8943E-001		-7.2134E-003
	614.37	90.40	3.2716E-001		-2.1073E-001
	722.95	90.50	2.8233E-001		2.1827E-002
Sb-125	176.33	6.89	5.2749E+000	8.98E-001	1.9314E+000
	427.89	29.33	8.9849E-001		4.9421E-002
	463.38	10.35	2.5505E+000		-5.9170E-001
	600.56	17.80	1.4440E+000		2.1776E-001
	606.64	5.02	6.3591E+000		9.1041E+000
	635.90	11.32	1.8792E+000		-8.9890E-002
Cs-134	563.23	8.38	3.0504E+000	2.60E-001	-2.6929E+000
	569.32	15.43	1.6441E+000		-3.8943E-002
	604.70	97.60	3.2682E-001		3.5138E-001
	795.84	85.40	2.6003E-001		-1.6463E-001
	801.93	8.73	2.6482E+000		-1.2861E+000
Cs-137	661.65	85.12	2.8212E-001	2.82E-001	8.3149E-002
Eu-152	121.78	28.40	1.7827E+000	8.63E-001	1.9788E-001
	244.69	7.49	4.2693E+000		-8.9585E-001
	344.27	26.50	1.1360E+000		-1.0226E+000
	778.89	12.74	1.9189E+000		3.5063E-001
	867.32	4.16	5.2192E+000		-1.9538E+000
	964.01	14.40	1.9474E+000		1.5741E+000
	1085.78	10.00	2.1459E+000		-3.5074E+000
	1112.02	13.30	1.7024E+000		-2.1082E+000
	1407.95	20.70	8.6254E-001		1.3838E-001
Eu-154	123.07	40.50	1.2115E+000	6.25E-001	-1.2593E+000
	247.94	6.60	4.5968E+000		4.2654E+000
	591.81	4.83	5.1637E+000		-3.6232E+000
	723.30	19.70	1.2896E+000		8.9943E-001
	756.87	4.33	5.2315E+000		5.6086E-001
	873.19	11.50	1.6988E+000		-3.4220E-001
	996.32	10.30	1.7276E+000		7.0214E-001
	1004.76	17.90	1.1153E+000		3.1095E-001
	1274.45	35.50	6.2545E-001		6.9151E-002
Eu-155	86.54	30.90	3.0419E+000	3.01E+000	1.3428E+000
	105.31	20.70	3.0133E+000		-2.2791E+000
Am-241	59.54	35.90	5.2608E+000	5.26E+000	-9.4942E-001
Cm-243	228.19	10.56	2.8280E+000	2.16E+000	-1.0809E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	2.1563E+000	2.16E+000	8.5298E-001

+ = 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

Report Generated On 5/30/2006 10:19:58 AM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-01166
Sample Title: NOL-05-01-166-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/30/2006 10:09:56 AM
Live Time: 600.0 seconds
Real Time: 600.8 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-01166
Title: NOL-05-01-166-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
	1	296-	306	300.80	75.03	0.75	2.11E+002	77.91	5.72E+002
M	2	333-	355	340.00	84.83	0.96	1.29E+002	39.22	4.62E+002
m	3	333-	355	350.62	87.49	0.97	6.87E+001	35.41	4.79E+002
	4	946-	961	955.64	238.79	1.18	1.31E+002	45.97	1.39E+002
	5	1400-	1415	1407.96	351.90	0.81	9.10E+001	30.08	4.80E+001
	6	2328-	2340	2334.21	583.54	1.38	7.58E+001	27.70	4.62E+001
	7	2432-	2444	2438.36	609.58	0.88	6.03E+001	24.34	3.58E+001
	8	5836-	5861	5848.87	1462.46	1.72	5.09E+002	46.52	1.28E+001
	9	7060-	7073	7066.91	1767.07	1.19	2.76E+001	12.82	5.38E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.909	1460.81*	10.67	2.71488E+001	3.31404E+000
Eu-155	0.315	86.54*	30.90	9.57621E-001	5.28155E-001
		105.31	20.70		
TL-208	0.469	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	4.06841E-001	1.58109E-001
		860.37	12.46		
Pb-212	0.678	74.81* @	10.70	1.03990E+001	4.34727E+000
		77.11 @	18.00		
		87.30* @	8.00	3.69881E+000	2.04000E+000
		238.63*	44.60	1.07143E+000	4.12279E-001
Bi-214	0.397	609.31*	46.30	5.94968E-001	2.51497E-001
		1120.29	15.10		
		1764.49	15.80		

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40	0.909	2.714880E+001	3.314040E+000
Eu-155	0.315	6.802285E-001	5.388334E-001
TL-208	0.469	4.068409E-001	1.581089E-001
Pb-212 @	0.678	1.071429E+000	4.122793E-001
Bi-214	0.397	5.949683E-001	2.514968E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 2	84.83	2.1576E-001	30.29
5	351.90	1.5167E-001	33.05
9	1767.07	4.6035E-002	46.43

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
	Co-60	1173.22	100.00	2.4291E-001	1.73E-001	3.0681E-001
		1332.49	100.00	1.7292E-001		-7.8338E-002
	Nb-94	702.63	100.00	2.1560E-001	2.12E-001	-2.9897E-002
		871.10	100.00	2.1221E-001		2.2702E-002
	Ag-108m	79.20	7.10	1.0143E+001	2.56E-001	-1.7403E+000
		433.93	89.90	2.6500E-001		-2.4501E-001
		614.37	90.40	2.9961E-001		-1.7360E-001
		722.95	90.50	2.5622E-001		5.9107E-003
	Sb-125	176.33	6.89	4.8517E+000	7.95E-001	7.5664E-001
		427.89	29.33	7.9504E-001		1.0688E-001
		463.38	10.35	2.4065E+000		1.0934E+000
		600.56	17.80	1.2833E+000		5.6289E-001
		606.64	5.02	5.8768E+000		3.5275E+000
		635.90	11.32	1.9331E+000		5.8574E-001
	Cs-134	563.23	8.38	2.7524E+000	2.59E-001	1.7697E+000
		569.32	15.43	1.4664E+000		-8.3379E-001
		604.70	97.60	2.7814E-001		-6.6256E-002
		795.84	85.40	2.5882E-001		2.5659E-001
		801.93	8.73	2.4354E+000		-9.9180E-001
	Cs-137	661.65	85.12	2.8388E-001	2.84E-001	1.1369E-001
	Eu-152	121.78	28.40	1.5516E+000	7.45E-001	-1.8822E-001
		244.69	7.49	3.8184E+000		-8.9551E-001
		344.27	26.50	9.2251E-001		-7.8223E-001
		778.89	12.74	1.7275E+000		-4.1035E-001
		867.32	4.16	5.1286E+000		-2.7808E+000
		964.01	14.40	1.7125E+000		-1.0647E+000
		1085.78	10.00	2.3412E+000		8.2537E-001
		1112.02	13.30	1.5020E+000		-1.8413E+000
		1407.95	20.70	7.4494E-001		3.8847E-001
	Eu-154	123.07	40.50	1.0629E+000	5.54E-001	-7.1605E-001
		247.94	6.60	4.1060E+000		-3.2482E+000
		591.81	4.83	4.3070E+000		-2.7906E+000
		723.30	19.70	1.1771E+000		-3.4718E-001
		756.87	4.33	5.1093E+000		8.9358E-001
		873.19	11.50	1.8230E+000		-8.7296E-001
		996.32	10.30	1.7756E+000		-1.1719E+000
		1004.76	17.90	1.0433E+000		7.4147E-002
		1274.45	35.50	5.5370E-001		2.6778E-001
+	Eu-155	86.54*	30.90	1.4568E+000	1.46E+000	9.5762E-001
		105.31	20.70	2.4888E+000		-1.4329E-001
	Am-241	59.54	35.90	2.6705E+000	2.67E+000	-1.9906E+000
	Cm-243	228.19	10.56	2.7110E+000	2.12E+000	1.3423E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	2.1197E+000	2.12E+000	1.4152E+000

+ = 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

Report Generated On 5/30/2006 3:57:34 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: ORG7829

Spectrum File: ORG7829
Sample ID: NOL-05-01-167
Sample Title: NOL-05-01-167-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/30/2006 3:47:32 PM
Live Time: 600.0 seconds
Real Time: 600.4 seconds

Energy Calibration Date: 5/10/2006
Eff Calibration Date: 4/26/2006
Calibration Efficiency: 7829Soil2m90170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: ORG7829
Log Number: NOL-05-01-167
Title: NOL-05-01-167-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	296-	305	300.65	75.16	0.42	6.12E+001	51.57	2.77E+002
2	947-	960	953.43	238.37	1.28	7.88E+001	39.90	1.21E+002
3	1401-	1414	1406.87	351.74	0.56	4.98E+001	26.78	4.72E+001
4	2322-	2341	2329.17	582.33	2.00	7.77E+001	25.51	2.63E+001
5	3632-	3649	3641.12	910.34	0.55	7.19E+001	19.79	9.09E+000
6	4874-	4885	4879.69	1220.01	0.61	1.25E+001	11.16	7.50E+000
7	5827-	5850	5838.96	1459.85	1.99	3.54E+002	38.69	8.95E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: ORG7829

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Gram)	Activity Uncertainty
K-40	0.970	1460.81*	10.67	2.48660E+001	3.38201E+000
TL-208	0.458	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	5.28903E-001	1.87301E-001
		860.37	12.46		
Pb-212	0.576	74.81* @	10.70	6.31014E+000	5.46105E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	8.04456E-001	4.26619E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:ORG7829

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Gram)	Wt mean Activity Uncertainty
K-40	0.970	2.486601E+001	3.382008E+000
TL-208	0.458	5.289031E-001	1.873005E-001
Pb-212 @	0.576	8.044557E-001	4.266189E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
3	351.74	8.2981E-002	53.79
5	910.34	1.1986E-001	27.52
6	1220.01	2.0833E-002	89.30

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:ORG7829
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Co-60	1173.22	100.00	2.8337E-001	1.92E-001	5.0171E-002
	1332.49	100.00	1.9187E-001		8.8926E-002
Nb-94	702.63	100.00	2.6678E-001	2.17E-001	1.0745E-001
	871.10	100.00	2.1652E-001		9.4445E-002
Ag-108m	79.20	7.10	1.7324E+001	2.83E-001	-1.5324E+001
	433.93	89.90	2.8258E-001		-3.6092E-001
	614.37	90.40	3.1147E-001		-5.1228E-001
	722.95	90.50	2.9331E-001		9.0562E-002
Sb-125	176.33	6.89	5.7620E+000	8.99E-001	1.8669E+000
	427.89	29.33	8.9945E-001		1.4993E-001
	463.38	10.35	2.4432E+000		-1.2904E-002
	600.56	17.80	1.4245E+000		-1.1826E+000
	606.64	5.02	6.2827E+000		2.9465E+000
	635.90	11.32	2.0936E+000		-3.6620E-001
Cs-134	563.23	8.38	3.0541E+000	2.67E-001	6.6175E-001
	569.32	15.43	1.6452E+000		-1.6010E+000
	604.70	97.60	3.3022E-001		3.3974E-001
	795.84	85.40	2.6742E-001		-1.3252E-001
	801.93	8.73	2.5036E+000		5.0006E-002
Cs-137	661.65	85.12	2.8589E-001	2.86E-001	-1.2375E-001
Eu-152	121.78	28.40	1.8722E+000	9.28E-001	1.1641E+000
	244.69	7.49	4.7727E+000		2.7710E+000
	344.27	26.50	1.0460E+000		-3.4243E-001
	778.89	12.74	1.8592E+000		-7.4864E-001
	867.32	4.16	5.6072E+000		-3.3414E+000
	964.01	14.40	2.1976E+000		2.3852E+000
	1085.78	10.00	2.0962E+000		-8.8022E-001
	1112.02	13.30	1.7525E+000		-3.8034E+000
	1407.95	20.70	9.2838E-001		-3.1637E-001
Eu-154	123.07	40.50	1.2877E+000	6.53E-001	3.1612E-001
	247.94	6.60	4.9823E+000		-3.5168E+000
	591.81	4.83	4.9677E+000		2.9489E+000
	723.30	19.70	1.3558E+000		5.9589E-001
	756.87	4.33	5.0709E+000		-4.5929E+000
	873.19	11.50	1.8839E+000		-1.1464E+000
	996.32	10.30	2.0854E+000		-1.7893E+000
	1004.76	17.90	1.3537E+000		-7.3402E-001
	1274.45	35.50	6.5282E-001		3.8608E-001
Eu-155	86.54	30.90	3.1159E+000	3.12E+000	3.0416E+000
	105.31	20.70	3.2624E+000		4.5101E-001
Am-241	59.54	35.90	6.2688E+000	6.27E+000	6.5730E+000
Cm-243	228.19	10.56	3.4369E+000	2.35E+000	1.8300E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	2.3483E+000	2.35E+000	-2.3480E+000

+ = 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

Report Generated On 5/31/2006 4:12:22 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-168-F-G
Sample ID: NOL-05-01-168
Sample Title: NOL-05-01-168-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/31/2006 10:37:09 AM
Live Time: 600.0 seconds
Real Time: 600.5 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-168-F-G
Log Number: NOL-05-01-168
Title: NOL-05-01-168-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	286-	305	292.58	72.97	0.85	1.21E+002	36.65	4.40E+002
m	2	286-	305	300.44	74.94	0.85	2.30E+002	44.37	4.67E+002
	3	333-	345	339.04	84.59	0.34	7.43E+001	70.33	4.58E+002
	4	947-	961	955.03	238.64	1.02	1.43E+002	41.10	1.03E+002
	5	1400-	1413	1406.89	351.63	1.44	6.68E+001	30.53	6.32E+001
	6	2325-	2343	2333.10	583.26	1.12	6.91E+001	31.43	5.49E+001
	7	2431-	2445	2437.88	609.46	0.55	4.30E+001	22.82	3.20E+001
	8	3637-	3655	3646.17	911.62	1.13	7.08E+001	24.74	2.62E+001
	9	3871-	3886	3878.52	969.73	0.46	4.20E+001	22.79	3.10E+001
	10	5835-	5858	5847.39	1462.09	1.63	4.86E+002	44.80	9.05E+000
	11	7060-	7073	7067.00	1767.09	0.29	2.80E+001	10.37	0.00E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-168-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.944	1460.81*	10.67	2.60367E+001	3.02929E+000
TL-208	0.473	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.69304E-001	1.71255E-001
		860.37	12.46		
Pb-212	0.524	74.81* @	10.70	1.09384E+001	2.91065E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.14996E+000	3.77648E-001
Bi-214	0.400	609.31*	46.30	4.22517E-001	2.27045E-001
		1120.29	15.10		
		1764.49	15.80		
Ac-228	0.629	338.32	11.40		
		911.07*	27.70	1.28830E+000	4.60083E-001
		969.11*	16.60	1.29584E+000	7.08638E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-168-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40	0.944	2.603666E+001	3.029290E+000
TL-208	0.473	3.693039E-001	1.712548E-001
Pb-212 @	0.524	1.149961E+000	3.776480E-001
Bi-214	0.400	4.225171E-001	2.270447E-001
Ac-228	0.629	1.290534E+000	3.858858E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.97	2.0249E-001	30.17
3	84.59	1.2379E-001	94.69
5	351.63	1.1141E-001	45.67
11	1767.09	4.6667E-002	37.04

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-168-F-G
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	2.1861E-001	1.69E-001	4.6775E-002
	1332.49	100.00	1.6885E-001		4.1888E-002
Nb-94	702.63	100.00	2.1235E-001	1.99E-001	8.3004E-002
	871.10	100.00	1.9870E-001		-1.1508E-001
Ag-108m	79.20	7.10	9.2304E+000	2.66E-001	-1.1535E+001
	433.93	89.90	2.7629E-001		-1.3114E-001
	614.37	90.40	2.6952E-001		-8.8625E-002
	722.95	90.50	2.6643E-001		6.1718E-002
Sb-125	176.33	6.89	4.6012E+000	8.30E-001	-2.8165E+000
	427.89	29.33	8.3020E-001		-1.1431E-001
	463.38	10.35	2.2420E+000		9.6509E-002
	600.56	17.80	1.3504E+000		5.1382E-001
	606.64	5.02	5.1554E+000		2.4635E+000
	635.90	11.32	1.8204E+000		-2.3629E-001
Cs-134	563.23	8.38	2.5463E+000	2.48E-001	6.3279E-001
	569.32	15.43	1.4475E+000		7.3473E-001
	604.70	97.60	2.5453E-001		2.4651E-002
	795.84	85.40	2.4778E-001		1.1077E-001
	801.93	8.73	2.2113E+000		-3.4503E+000
Cs-137	661.65	85.12	2.6452E-001	2.65E-001	8.6816E-003
Eu-152	121.78	28.40	1.4786E+000	7.36E-001	-1.9749E-001
	244.69	7.49	4.0570E+000		1.0021E+000
	344.27	26.50	9.5699E-001		-1.2202E-001
	778.89	12.74	1.7014E+000		-1.1323E+000
	867.32	4.16	5.3879E+000		4.4445E-001
	964.01	14.40	1.9579E+000		-2.1559E-002
	1085.78	10.00	1.9492E+000		1.5848E-001
	1112.02	13.30	1.6646E+000		-2.3760E-001
	1407.95	20.70	7.3569E-001		-5.3695E-001
Eu-154	123.07	40.50	1.0236E+000	6.07E-001	-5.2361E-001
	247.94	6.60	4.4488E+000		3.9305E+000
	591.81	4.83	4.7115E+000		7.7416E-001
	723.30	19.70	1.2295E+000		5.6004E-001
	756.87	4.33	5.3256E+000		5.2232E-001
	873.19	11.50	1.7412E+000		-2.9973E-003
	996.32	10.30	1.9853E+000		-5.3090E-001
	1004.76	17.90	1.0930E+000		4.3435E-001
	1274.45	35.50	6.0710E-001		-1.8837E-001
Eu-155	86.54	30.90	2.0689E+000	2.07E+000	3.1504E-001
	105.31	20.70	2.3890E+000		1.5711E+000
Am-241	59.54	35.90	2.4352E+000	2.44E+000	-1.5000E+000
Cm-243	228.19	10.56	2.6062E+000	2.02E+000	-1.7132E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	2.0229E+000	2.02E+000	-1.1033E+000

+ = 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

Report Generated On 5/24/2006 2:25:15 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: ORG7829

Spectrum File: ORG7829
Sample ID: NOL-05-01-169
Sample Title: NOL-05-01-169-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/24/2006 2:15:12 PM
Live Time: 600.0 seconds
Real Time: 600.9 seconds

Energy Calibration Date: 5/10/2006
Eff Calibration Date: 5/1/2006
Calibration Efficiency: 7829Soil1m180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: ORG7829
Log Number: NOL-05-01-169
Title: NOL-05-01-169-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	946-	961	953.44	238.37	0.63	2.55E+002	68.65	3.23E+002
2	2321-	2341	2331.54	582.93	1.96	1.53E+002	42.74	8.76E+001
3	2427-	2446	2435.58	608.94	1.77	1.65E+002	41.17	7.78E+001
4	3633-	3655	3643.51	910.94	0.87	1.13E+002	33.88	4.81E+001
5	3868-	3885	3875.21	968.87	0.69	6.44E+001	30.12	5.26E+001
6	5828-	5856	5842.65	1460.77	2.65	9.39E+002	62.15	1.45E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: ORG7829

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/Gram)	Activity Uncertainty
K-40	1.000	1460.81*		10.67	2.13295E+001	2.23102E+000
TL-208	0.471	277.35		6.80		
		510.84		21.60		
		583.14*		84.20	3.42452E-001	1.05300E-001
		860.37		12.46		
Pb-212	0.445	74.81	@	10.70		
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	8.33065E-001	2.59320E-001
Bi-214	0.400	609.31*		46.30	6.80552E-001	1.89210E-001
		1120.29		15.10		
		1764.49		15.80		
Ac-228	0.632	338.32		11.40		
		911.07*		27.70	8.59173E-001	2.76191E-001
		969.11*		16.60	8.31578E-001	3.98513E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:ORG7829

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Gram)	Wt mean Activity Uncertainty
K-40		1.000	2.132946E+001	2.231023E+000
TL-208		0.471	3.424524E-001	1.053002E-001
Pb-212	@	0.445	8.330650E-001	2.593196E-001
Bi-214		0.400	6.805517E-001	1.892105E-001
Ac-228		0.632	8.502194E-001	2.270026E-001

? = 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 1.960 sigma

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

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

All peaks were identified.

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:ORG7829
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Co-60	1173.22	100.00	1.2104E-001	8.70E-002	1.7195E-002
	1332.49	100.00	8.6993E-002		-2.6416E-003
Nb-94	702.63	100.00	1.2388E-001	1.14E-001	3.6235E-002
	871.10	100.00	1.1373E-001		9.2876E-002
Ag-108m	79.20	7.10	1.0224E+001	1.51E-001	-2.4333E+001
	433.93	89.90	1.5662E-001		-3.7641E-002
	614.37	90.40	1.7138E-001		3.1809E-002
	722.95	90.50	1.5114E-001		6.3282E-002
Sb-125	176.33	6.89	2.9306E+000	4.68E-001	-5.3465E-001
	427.89	29.33	4.6834E-001		-7.0607E-002
	463.38	10.35	1.4359E+000		9.1250E-001
	600.56	17.80	7.0381E-001		2.2599E-001
	606.64	5.02	3.4012E+000		5.7363E+000
	635.90	11.32	1.1256E+000		-3.9502E-002
Cs-134	563.23	8.38	1.5894E+000	1.40E-001	-2.5058E-002
	569.32	15.43	8.0747E-001		-2.4813E-001
	604.70	97.60	1.7402E-001		1.4581E-002
	795.84	85.40	1.3969E-001		-7.1995E-004
	801.93	8.73	1.3734E+000		-1.0111E+000
Cs-137	661.65	85.12	1.5135E-001	1.51E-001	1.1438E-001
Eu-152	121.78	28.40	1.0195E+000	4.49E-001	-2.7123E-001
	244.69	7.49	2.3796E+000		-1.8208E+000
	344.27	26.50	5.5901E-001		-6.7640E-001
	778.89	12.74	9.4426E-001		-8.1346E-001
	867.32	4.16	2.6461E+000		-3.3274E+000
	964.01	14.40	1.0890E+000		-5.3393E-001
	1085.78	10.00	1.0721E+000		-5.3388E-001
	1112.02	13.30	9.1824E-001		-1.3316E+000
	1407.95	20.70	4.4882E-001		6.6606E-003
Eu-154	123.07	40.50	7.1402E-001	3.13E-001	6.0307E-001
	247.94	6.60	2.6683E+000		-4.1942E-001
	591.81	4.83	2.6008E+000		9.6450E-001
	723.30	19.70	6.9774E-001		4.5576E-001
	756.87	4.33	2.6694E+000		5.4741E-001
	873.19	11.50	9.8949E-001		1.0791E-001
	996.32	10.30	1.0889E+000		-6.4198E-002
	1004.76	17.90	6.3065E-001		5.3225E-002
	1274.45	35.50	3.1267E-001		-1.0059E-001
Eu-155	86.54	30.90	1.7685E+000	1.77E+000	2.4722E+000
	105.31	20.70	1.8019E+000		1.4713E+000
Am-241	59.54	35.90	4.1159E+000	4.12E+000	-3.2925E+000
Cm-243	228.19	10.56	1.7122E+000	1.18E+000	1.6686E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.1799E+000	1.18E+000	7.7644E-001

+ = 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

Report Generated On 5/24/2006 1:13:38 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: RED6264

Spectrum File: RED6264
Sample ID: NOL-05-01-170
Sample Title: NOL-05-01-170-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/24/2006 1:03:35 PM
Live Time: 600.0 seconds
Real Time: 601.1 seconds

Energy Calibration Date: 3/22/2006
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number: NOL-05-01-170
Title: NOL-05-01-170-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
	1	296-	309	300.22	74.96	1.22	4.56E+002	148.47	1.89E+003
	2	330-	344	339.81	84.86	1.39	2.46E+002	134.96	1.56E+003
	3	943-	964	953.73	238.38	1.25	4.24E+002	95.81	5.21E+002
	4	1170-	1185	1180.14	295.00	1.05	9.39E+001	55.06	2.31E+002
	5	1400-	1417	1407.05	351.74	1.43	1.74E+002	54.88	1.87E+002
	6	2032-	2053	2041.67	510.44	0.37	1.43E+002	58.06	1.94E+002
	7	2320-	2341	2331.64	582.95	1.54	2.60E+002	50.53	1.07E+002
	8	2423-	2447	2436.58	609.19	1.45	2.01E+002	52.49	1.25E+002
	9	3173-	3185	3178.54	794.73	0.49	2.75E+001	23.84	4.55E+001
	10	3632-	3652	3643.55	911.01	1.27	1.60E+002	40.42	7.33E+001
M	11	3852-	3886	3857.70	964.56	1.94	3.90E+001	16.82	4.14E+001
m	12	3852-	3886	3875.06	968.90	1.94	1.33E+002	24.94	6.47E+001
	13	5094-	5107	5100.03	1275.23	0.69	2.40E+001	15.54	1.40E+001
	14	5828-	5859	5843.95	1461.26	2.45	1.16E+003	70.52	2.75E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	0.990	511.00*		100.00	2.01364E-001	8.61067E-002
K-40	0.994	1460.81*		10.67	2.00443E+001	2.03038E+000
TL-208	0.750	277.35		6.80		
		510.84*		21.60	9.32241E-001	4.05847E-001
		583.14*		84.20	4.53024E-001	1.06106E-001
		860.37		12.46		
Pb-212	0.520	74.81*	@	10.70	6.76690E+000	2.57180E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	1.06269E+000	2.92507E-001
Bi-214	0.398	609.31*		46.30	6.47320E-001	1.86897E-001
		1120.29		15.10		
		1764.49		15.80		
PB-214	0.582	74.82*	@	6.21	1.16596E+001	4.51139E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	5.81514E-001	3.54705E-001
		351.92*		37.20	5.85585E-001	2.08767E-001
Ac-228	0.633	338.32		11.40		
		911.07*		27.70	9.44446E-001	2.62527E-001
		969.11*		16.60	1.33168E+000	2.86689E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN		0.990	1.035108E-001	8.904762E-002
K-40		0.994	2.004431E+001	2.030383E+000
TL-208		0.750	4.530242E-001	1.050738E-001
Pb-212	@	0.520	1.062693E+000	2.925071E-001
Bi-214		0.398	6.473200E-001	1.868972E-001
PB-214	@	0.582	5.845374E-001	1.799176E-001
Ac-228		0.633	1.121059E+000	1.936143E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
2	84.86	4.0998E-001	54.86
9	794.73	4.5833E-002	86.68
M 11	964.56	6.4965E-002	43.14
13	1275.23	4.0000E-002	64.75

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Co-60	1173.22	100.00	1.1611E-001	9.30E-002	-2.5679E-003
	1332.49	100.00	9.2952E-002		4.2595E-002
Nb-94	702.63	100.00	1.1855E-001	1.08E-001	-2.6086E-002
	871.10	100.00	1.0808E-001		3.8972E-002
Ag-108m	79.20	7.10	5.7745E+000	1.33E-001	-6.6762E+000
	433.93	89.90	1.3308E-001		-1.2139E-002
	614.37	90.40	1.4866E-001		5.6421E-003
	722.95	90.50	1.3377E-001		1.5698E-001
Sb-125	176.33	6.89	2.4967E+000	4.03E-001	2.1175E-001
	427.89	29.33	4.0319E-001		1.4602E-001
	463.38	10.35	1.1975E+000		6.1770E-001
	600.56	17.80	6.1470E-001		-2.0218E-001
	606.64	5.02	2.9587E+000		5.3192E+000
	635.90	11.32	9.8298E-001		-2.2661E-002
Cs-134	563.23	8.38	1.3798E+000	1.25E-001	-3.1055E-001
	569.32	15.43	7.3996E-001		-6.3805E-003
	604.70	97.60	1.5048E-001		9.5610E-003
	795.84	85.40	1.2549E-001		-1.1149E-002
	801.93	8.73	1.1373E+000		3.9979E-001
Cs-137	661.65	85.12	1.3941E-001	1.39E-001	-4.2260E-002
Eu-152	121.78	28.40	7.8988E-001	3.76E-001	-6.2464E-001
	244.69	7.49	2.0499E+000		-4.4705E-001
	344.27	26.50	4.8653E-001		-7.4220E-001
	778.89	12.74	8.5807E-001		-2.5041E-001
	867.32	4.16	2.6736E+000		2.9830E-002
	964.01	14.40	9.7960E-001		-2.6756E-001
	1085.78	10.00	1.0846E+000		-7.6895E-002
	1112.02	13.30	8.2804E-001		-4.3376E-001
	1407.95	20.70	3.7589E-001		7.1520E-002
Eu-154	123.07	40.50	5.5277E-001	2.68E-001	2.9583E-001
	247.94	6.60	2.2033E+000		-1.2095E+000
	591.81	4.83	2.3546E+000		1.9639E+000
	723.30	19.70	6.2029E-001		7.4960E-001
	756.87	4.33	2.6145E+000		2.2000E+000
	873.19	11.50	9.3309E-001		-4.5816E-001
	996.32	10.30	9.5791E-001		-2.0387E-002
	1004.76	17.90	5.9447E-001		3.3757E-001
	1274.45	35.50	2.6798E-001		1.0485E-001
Eu-155	86.54	30.90	1.1683E+000	1.17E+000	-2.9837E-001
	105.31	20.70	1.2842E+000		-6.4974E-001
Am-241	59.54	35.90	1.4055E+000	1.41E+000	3.2657E-001
Cm-243	228.19	10.56	1.4556E+000	1.06E+000	-6.3566E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Cm-243	277.60	14.00	1.0647E+000	1.06E+000	1.1260E-001

+ = 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

Report Generated On 5/25/2006 3:31:48 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: GRN7780

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-171-F-G
Sample ID: NOL-05-01-171
Sample Title: NOL-05-01-171-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/23/2006 1:45:33 PM
Live Time: 600.0 seconds
Real Time: 601.0 seconds

Energy Calibration Date: 4/19/2006
Eff Calibration Date: 3/23/2006
Calibration Efficiency: 7780Soil1M180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-171-F-G
Log Number: NOL-05-01-171
Title: NOL-05-01-171-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
F	1	296-	309	301.78	75.40	1.09	1.98E+002	167.26	1.13E+003
F	2	945-	959	953.87	238.42	1.28	1.51E+002	37.06	4.01E+002
F	3	2319-	2343	2331.96	582.95	1.53	1.93E+002	54.44	1.00E+002
F	4	3634-	3655	3643.67	910.88	1.71	1.27E+002	24.12	5.21E+001
M	5	3851-	3884	3857.34	964.30	1.73	1.83E+001	13.51	3.55E+001
m	6	3851-	3884	3874.83	968.67	1.73	7.38E+001	19.79	5.28E+001
F	7	5829-	5858	5843.18	1460.76	1.94	8.72E+002	87.99	1.05E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-171-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	1.000	1460.81*	10.67	1.99721E+001	2.35495E+000
TL-208	0.470	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	4.43692E-001	1.32562E-001
		860.37	12.46		
Pb-212	0.594	74.81* @	10.70	7.31412E+000	6.27952E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	4.89980E-001	1.41048E-001
Ac-228	0.633	338.32	11.40		
		911.07*	27.70	9.75915E-001	1.95434E-001
		969.11*	16.60	9.60166E-001	2.63546E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-171-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40	1.000	1.997209E+001	2.354949E+000
TL-208	0.470	4.436921E-001	1.325621E-001
Pb-212 @	0.594	4.899800E-001	1.410476E-001
Ac-228	0.633	9.703271E-001	1.569810E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 5	964.30	3.0516E-002	73.80

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-171-F-G
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	1.2215E-001	9.63E-002	-1.6051E-002
	1332.49	100.00	9.6255E-002		4.9995E-002
Nb-94	702.63	100.00	1.2132E-001	1.14E-001	1.9108E-002
	871.10	100.00	1.1382E-001		-2.0934E-001
Ag-108m	79.20	7.10	1.0424E+001	1.50E-001	-6.7724E+000
	433.93	89.90	1.5942E-001		-1.0427E-001
	614.37	90.40	1.6503E-001		-1.0485E-001
	722.95	90.50	1.5008E-001		8.5923E-002
Sb-125	176.33	6.89	3.2084E+000	4.82E-001	-4.0590E-001
	427.89	29.33	4.8215E-001		3.9060E-001
	463.38	10.35	1.3864E+000		4.9794E-001
	600.56	17.80	7.7830E-001		2.6079E-001
	606.64	5.02	3.3595E+000		4.9481E+000
	635.90	11.32	1.0965E+000		-6.1950E-001
Cs-134	563.23	8.38	1.5452E+000	1.49E-001	2.8533E-001
	569.32	15.43	8.2046E-001		-4.5790E-001
	604.70	97.60	1.6952E-001		1.3809E-001
	795.84	85.40	1.4853E-001		9.3658E-002
	801.93	8.73	1.2251E+000		-1.6082E+000
Cs-137	661.65	85.12	1.5293E-001	1.53E-001	9.4026E-002
Eu-152	121.78	28.40	1.0726E+000	4.25E-001	7.2535E-001
	244.69	7.49	2.3292E+000		-3.9917E+000
	344.27	26.50	5.8049E-001		-7.6657E-001
	778.89	12.74	9.6693E-001		-6.3230E-001
	867.32	4.16	2.9200E+000		-4.9269E-002
	964.01	14.40	1.0633E+000		-2.1442E-001
	1085.78	10.00	1.1237E+000		-6.1014E-001
	1112.02	13.30	8.2313E-001		-1.0757E+000
	1407.95	20.70	4.2539E-001		-3.5821E-002
Eu-154	123.07	40.50	7.4077E-001	3.36E-001	1.2118E-001
	247.94	6.60	2.5617E+000		1.4707E+000
	591.81	4.83	2.6601E+000		-5.2938E-001
	723.30	19.70	6.9981E-001		5.8668E-001
	756.87	4.33	2.7276E+000		-3.5565E-001
	873.19	11.50	9.8637E-001		-6.1731E-001
	996.32	10.30	1.1061E+000		-2.4080E-003
	1004.76	17.90	5.9367E-001		-1.9292E-001
	1274.45	35.50	3.3575E-001		5.0890E-002
Eu-155	86.54	30.90	1.9672E+000	1.85E+000	2.0229E+000
	105.31	20.70	1.8461E+000		-2.7159E-001
Am-241	59.54	35.90	5.1697E+000	5.17E+000	-4.4599E+000
Cm-243	228.19	10.56	1.7730E+000	1.18E+000	6.8066E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.1805E+000	1.18E+000	3.0777E-001

+ = 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

Report Generated On 5/25/2006 3:32:26 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: GRN7780

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-172-F-G
Sample ID: NOL-05-01-172
Sample Title: NOL-05-01-172-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/23/2006 2:04:12 PM
Live Time: 600.0 seconds
Real Time: 601.1 seconds

Energy Calibration Date: 4/19/2006
Eff Calibration Date: 3/23/2006
Calibration Efficiency: 7780Soil1M180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-172-F-G
Log Number: NOL-05-01-172
Title: NOL-05-01-172-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
F	1	946-	962	954.38	238.55	1.28	2.32E+002	38.53	3.95E+002
F	2	1402-	1416	1407.36	351.80	1.38	9.48E+001	27.28	1.73E+002
F	3	2322-	2342	2332.56	583.10	1.53	1.52E+002	70.12	9.92E+001
F	4	2427-	2446	2437.20	609.26	1.55	1.31E+002	56.03	8.77E+001
F	5	3173-	3185	3179.28	794.78	1.65	1.89E+001	15.34	4.53E+001
F	6	3634-	3654	3643.50	910.84	1.71	1.19E+002	51.83	4.78E+001
F	7	5829-	5857	5843.59	1460.87	1.94	7.73E+002	88.02	2.86E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-172-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	1.000	1460.81*		10.67	1.77018E+001	2.28707E+000
TL-208	0.471	277.35		6.80		
		510.84		21.60		
		583.14*		84.20	3.50144E-001	1.64829E-001
		860.37		12.46		
Pb-212	0.446	74.81	@	10.70		
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	7.51863E-001	1.68535E-001
Bi-214	0.402	609.31*		46.30	5.53822E-001	2.42064E-001
		1120.29		15.10		
		1764.49		15.80		

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-172-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40		1.000	1.770177E+001	2.287074E+000
TL-208		0.471	3.501437E-001	1.648286E-001
Pb-212	@	0.446	7.518629E-001	1.685349E-001
Bi-214		0.402	5.538221E-001	2.420639E-001

? = 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 1.960 sigma

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

	Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
F	2	351.80	1.5805E-001	28.76
F	5	794.78	3.1427E-002	81.34
F	6	910.84	1.9772E-001	43.69

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-172-F-G
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	1.2777E-001	1.06E-001	-1.1850E-001
	1332.49	100.00	1.0581E-001		4.6950E-002
Nb-94	702.63	100.00	1.2907E-001	1.25E-001	-5.9264E-002
	871.10	100.00	1.2527E-001		-1.0550E-002
Ag-108m	79.20	7.10	1.0807E+001	1.53E-001	-1.1439E+001
	433.93	89.90	1.5324E-001		-9.4685E-003
	614.37	90.40	1.7910E-001		-4.8214E-002
	722.95	90.50	1.5602E-001		3.1673E-002
Sb-125	176.33	6.89	3.2084E+000	4.56E-001	2.7757E-001
	427.89	29.33	4.5601E-001		-5.5534E-001
	463.38	10.35	1.4448E+000		3.8370E-001
	600.56	17.80	7.3732E-001		3.2562E-002
	606.64	5.02	3.3139E+000		4.3609E+000
	635.90	11.32	1.0838E+000		-1.0073E+000
Cs-134	563.23	8.38	1.6734E+000	1.56E-001	4.8678E-001
	569.32	15.43	8.5804E-001		-4.2626E-001
	604.70	97.60	1.6846E-001		-2.2524E-002
	795.84	85.40	1.5639E-001		1.4500E-001
	801.93	8.73	1.3454E+000		-1.7636E-001
Cs-137	661.65	85.12	1.5534E-001	1.55E-001	8.5041E-002
Eu-152	121.78	28.40	1.0955E+000	3.86E-001	-9.2718E-001
	244.69	7.49	2.5113E+000		-9.7212E-001
	344.27	26.50	5.6780E-001		-1.1908E+000
	778.89	12.74	9.8521E-001		-1.6344E-001
	867.32	4.16	3.0853E+000		1.2699E-001
	964.01	14.40	1.0319E+000		1.0025E+000
	1085.78	10.00	1.1237E+000		8.8606E-002
	1112.02	13.30	8.7630E-001		4.6865E-002
	1407.95	20.70	3.8629E-001		-4.0426E-001
Eu-154	123.07	40.50	7.6004E-001	2.94E-001	-5.4948E-001
	247.94	6.60	2.7347E+000		-7.5130E-001
	591.81	4.83	2.8067E+000		-2.3118E-001
	723.30	19.70	7.2007E-001		1.0553E-001
	756.87	4.33	3.0029E+000		-1.4216E-002
	873.19	11.50	1.0614E+000		-5.7887E-001
	996.32	10.30	1.0248E+000		-3.7481E-001
	1004.76	17.90	6.1335E-001		-1.1870E-001
	1274.45	35.50	2.9356E-001		-1.6767E-002
Eu-155	86.54	30.90	1.9757E+000	1.95E+000	-4.3936E-001
	105.31	20.70	1.9515E+000		7.4309E-001
Am-241	59.54	35.90	5.3419E+000	5.34E+000	1.0782E+000
Cm-243	228.19	10.56	1.7684E+000	1.22E+000	-4.1740E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.2229E+000	1.22E+000	-7.2370E-001

+ = 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

Report Generated On 5/25/2006 3:33:03 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: GRN7780

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-173-F-G
Sample ID: NOL-05-01-173
Sample Title: NOL-05-01-173-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/23/2006 5:46:11 PM
Live Time: 600.0 seconds
Real Time: 601.5 seconds

Energy Calibration Date: 4/19/2006
Eff Calibration Date: 3/23/2006
Calibration Efficiency: 7780Soil1M180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-173-F-G
Log Number: NOL-05-01-173
Title: NOL-05-01-173-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
F	1	296-	307	300.72	75.14	1.09	2.95E+002	58.54	1.06E+003
M	2	332-	357	339.89	84.93	1.10	2.02E+002	50.76	1.09E+003
m	3	332-	357	350.99	87.70	1.11	1.27E+002	47.56	1.17E+003
F	4	948-	962	954.66	238.62	1.28	2.35E+002	38.22	3.08E+002
F	5	1171-	1187	1180.61	295.11	1.33	6.65E+001	62.35	2.07E+002
F	6	1396-	1417	1407.67	351.88	1.38	1.54E+002	60.54	1.76E+002
F	7	1845-	1856	1850.95	462.70	1.46	2.40E+001	16.86	6.44E+001
F	8	2036-	2051	2042.39	510.56	2.23	8.64E+001	24.69	9.48E+001
F	9	2323-	2343	2332.27	583.03	1.53	1.78E+002	28.21	7.67E+001
F	10	2427-	2444	2436.32	609.04	1.55	1.31E+002	25.36	6.98E+001
F	11	3636-	3654	3644.07	910.98	1.71	1.22E+002	72.81	3.67E+001
F	12	3869-	3883	3875.62	968.87	1.73	5.73E+001	18.72	3.54E+001
F	13	4473-	4489	4480.94	1120.20	1.80	4.98E+001	157.13	2.75E+001
F	14	5830-	5856	5843.98	1460.96	1.94	7.41E+002	89.16	1.71E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-173-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
ANN	0.994	511.00*	100.00	1.61372E-001	4.87828E-002
K-40	0.999	1460.81*	10.67	1.69580E+001	2.28887E+000
TL-208	0.750	277.35	6.80		
		510.84*	21.60	7.47092E-001	2.33942E-001
		583.14*	84.20	4.09641E-001	7.64580E-002
		860.37	12.46		
Pb-212	0.734	74.81* @	10.70	1.10099E+001	2.79279E+000
		77.11 @	18.00		
		87.30* @	8.00	4.15931E+000	1.69066E+000
		238.63*	44.60	7.63381E-001	1.68971E-001
Bi-214	0.706	609.31*	46.30	5.53669E-001	1.18537E-001
		1120.29*	15.10	7.38299E-001	2.32989E+000
		1764.49	15.80		
PB-214	0.698	74.82* @	6.21	1.89704E+001	5.00523E+000
		77.11 @	10.50		
		87.30* @	4.67	7.12516E+000	2.94581E+000
		241.98	7.49		
		295.21*	19.20	5.37792E-001	5.11205E-001
		351.92*	37.20	6.87197E-001	2.85634E-001
Ac-228	0.635	338.32	11.40		
		911.07*	27.70	9.40859E-001	5.63620E-001
		969.11*	16.60	7.45818E-001	2.47448E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-173-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
ANN		0.994	7.288946E-002	5.142168E-002
K-40		0.999	1.695803E+001	2.288868E+000
TL-208		0.750	4.096411E-001	7.528355E-002
Pb-212	@	0.734	7.633813E-001	1.689711E-001
Bi-214		0.706	5.541457E-001	1.183843E-001
PB-214	@	0.698	6.516504E-001	2.493505E-001
Ac-228		0.635	7.773372E-001	2.265731E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 2	84.93	3.3700E-001	25.10
F 7	462.70	4.0049E-002	70.16

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-173-F-G
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	1.2167E-001	1.03E-001	-2.6929E-002
	1332.49	100.00	1.0335E-001		8.9050E-002
Nb-94	702.63	100.00	1.2978E-001	1.16E-001	1.1506E-001
	871.10	100.00	1.1647E-001		-4.5778E-003
Ag-108m	79.20	7.10	1.0582E+001	1.48E-001	-1.1125E+000
	433.93	89.90	1.6024E-001		-9.9421E-002
	614.37	90.40	1.6944E-001		-1.6174E-002
	722.95	90.50	1.4818E-001		8.0613E-002
Sb-125	176.33	6.89	3.1794E+000	4.72E-001	-9.2009E-001
	427.89	29.33	4.7187E-001		-2.6747E-001
	463.38	10.35	1.3764E+000		3.4530E-001
	600.56	17.80	7.4462E-001		1.1105E+000
	606.64	5.02	3.2882E+000		2.9469E+000
	635.90	11.32	1.0996E+000		8.6615E-001
Cs-134	563.23	8.38	1.5904E+000	1.31E-001	5.9752E-001
	569.32	15.43	8.4364E-001		-5.6669E-001
	604.70	97.60	1.7109E-001		8.2361E-002
	795.84	85.40	1.3131E-001		-5.6633E-002
	801.93	8.73	1.2817E+000		-5.0485E-001
Cs-137	661.65	85.12	1.5732E-001	1.57E-001	9.4073E-002
Eu-152	121.78	28.40	1.1107E+000	4.61E-001	-1.2491E-001
	244.69	7.49	2.3111E+000		1.4048E-001
	344.27	26.50	5.6249E-001		-3.1190E-001
	778.89	12.74	9.4828E-001		-1.8297E-001
	867.32	4.16	2.8898E+000		-2.3300E+000
	964.01	14.40	1.0270E+000		9.3421E-002
	1085.78	10.00	1.1485E+000		4.2708E-002
	1112.02	13.30	8.5771E-001		-5.1299E-001
	1407.95	20.70	4.6095E-001		6.1609E-002
Eu-154	123.07	40.50	7.6026E-001	2.83E-001	-2.6243E-001
	247.94	6.60	2.5078E+000		-1.6762E+000
	591.81	4.83	2.7009E+000		-4.0635E-001
	723.30	19.70	6.7714E-001		2.7861E-001
	756.87	4.33	2.7922E+000		-1.9293E+000
	873.19	11.50	1.0395E+000		6.4422E-001
	996.32	10.30	1.1015E+000		5.7134E-002
	1004.76	17.90	5.8502E-001		-2.3739E-001
	1274.45	35.50	2.8328E-001		-1.8106E-001
Eu-155	86.54	30.90	2.0351E+000	1.89E+000	1.4248E+000
	105.31	20.70	1.8875E+000		-9.7024E-001
Am-241	59.54	35.90	5.1750E+000	5.18E+000	-5.2561E+000
Cm-243	228.19	10.56	1.7101E+000	1.17E+000	-7.4497E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.1716E+000	1.17E+000	-8.6393E-001

+ = 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

Report Generated On 5/25/2006 3:33:39 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: GRN7780

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-174-F-G
Sample ID: NOL-05-01-174
Sample Title: NOL-05-01-174-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/23/2006 6:51:30 PM
Live Time: 600.0 seconds
Real Time: 601.0 seconds

Energy Calibration Date: 4/19/2006
Eff Calibration Date: 3/23/2006
Calibration Efficiency: 7780Soil1M180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-174-F-G
Log Number: NOL-05-01-174
Title: NOL-05-01-174-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
F	1	943-	962	953.08	238.23	1.28	1.18E+002	91.18	4.19E+002
F	2	1343-	1358	1353.18	338.25	1.37	4.75E+001	60.78	1.59E+002
F	3	2322-	2342	2331.22	582.77	1.53	9.86E+001	21.92	7.08E+001
F	4	2427-	2444	2435.30	608.79	1.55	9.49E+001	23.48	9.45E+001
F	5	3633-	3655	3646.36	911.55	1.71	7.85E+001	43.83	7.19E+001
F	6	5320-	5335	5328.10	1331.99	1.89	3.15E+001	42.37	1.81E+001
F	7	5830-	5859	5845.67	1461.39	1.94	6.24E+002	68.71	2.23E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-174-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.989	1460.81*		10.67	1.42980E+001	1.79938E+000
TL-208	0.468	277.35		6.80		
		510.84		21.60		
		583.14*		84.20	2.26498E-001	5.51286E-002
		860.37		12.46		
Pb-212	0.443	74.81	@	10.70		
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	3.83089E-001	3.01441E-001
Bi-214	0.397	609.31*		46.30	4.00732E-001	1.05767E-001
		1120.29		15.10		
		1764.49		15.80		
Ac-228	0.535	338.32*		11.40	6.79972E-001	8.74635E-001
		911.07*		27.70	6.04075E-001	3.39496E-001
		969.11		16.60		

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-174-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40	0.989	1.429795E+001	1.799381E+000
TL-208	0.468	2.264981E-001	5.512859E-002
Pb-212 @	0.443	3.830887E-001	3.014413E-001
Bi-214	0.397	4.007324E-001	1.057667E-001
Ac-228	0.535	6.140128E-001	3.164897E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
F 6	1331.99	5.2477E-002	134.55

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-174-F-G
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	1.3488E-001	1.10E-001	9.8523E-002
	1332.49	100.00	1.0996E-001		6.4952E-002
Nb-94	702.63	100.00	1.2470E-001	1.16E-001	9.4805E-002
	871.10	100.00	1.1647E-001		2.2993E-002
Ag-108m	79.20	7.10	1.0527E+001	1.42E-001	-2.3574E+001
	433.93	89.90	1.4917E-001		-1.9957E-002
	614.37	90.40	1.7006E-001		-1.4836E-001
	722.95	90.50	1.4229E-001		-3.4381E-002
Sb-125	176.33	6.89	3.0361E+000	4.62E-001	-1.3662E+000
	427.89	29.33	4.6224E-001		1.2842E-001
	463.38	10.35	1.3042E+000		-4.2372E-001
	600.56	17.80	7.0351E-001		2.5515E-001
	606.64	5.02	3.2468E+000		2.5199E+000
	635.90	11.32	1.1516E+000		1.3666E+000
Cs-134	563.23	8.38	1.6161E+000	1.52E-001	2.6715E-001
	569.32	15.43	8.7220E-001		-5.5975E-002
	604.70	97.60	1.6085E-001		2.7736E-002
	795.84	85.40	1.5164E-001		1.5803E-001
	801.93	8.73	1.4332E+000		7.9284E-002
Cs-137	661.65	85.12	1.6004E-001	1.60E-001	1.6185E-001
Eu-152	121.78	28.40	1.1151E+000	4.29E-001	7.5521E-002
	244.69	7.49	2.2928E+000		-3.1577E+000
	344.27	26.50	5.6780E-001		-3.0766E-001
	778.89	12.74	9.2602E-001		-8.5054E-001
	867.32	4.16	2.8077E+000		-3.2261E-001
	964.01	14.40	9.9182E-001		1.0532E+000
	1085.78	10.00	1.0828E+000		-1.0872E+000
	1112.02	13.30	8.5394E-001		-3.1658E-001
	1407.95	20.70	4.2909E-001		2.1272E-001
Eu-154	123.07	40.50	7.7218E-001	3.03E-001	6.5814E-001
	247.94	6.60	2.4505E+000		-5.6030E-001
	591.81	4.83	2.5905E+000		4.6648E-001
	723.30	19.70	6.6461E-001		4.7706E-001
	756.87	4.33	2.5932E+000		-1.6172E+000
	873.19	11.50	1.0018E+000		2.6824E-001
	996.32	10.30	1.1379E+000		7.9394E-001
	1004.76	17.90	6.1886E-001		2.0866E-001
	1274.45	35.50	3.0348E-001		-1.0165E-001
Eu-155	86.54	30.90	2.0112E+000	1.93E+000	1.2476E+000
	105.31	20.70	1.9307E+000		6.3784E-001
Am-241	59.54	35.90	5.3761E+000	5.38E+000	-3.2455E+000
Cm-243	228.19	10.56	1.6716E+000	1.13E+000	-9.6046E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.1341E+000	1.13E+000	-5.7247E-001

+ = 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

Report Generated On 5/22/2006 8:28:08 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: YEL7810

Spectrum File: YEL7810
Sample ID: NOL-05-01-175
Sample Title: NOL-05-01-175-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/22/2006 8:18:05 PM
Live Time: 600.0 seconds
Real Time: 601.0 seconds

Energy Calibration Date: 5/9/2006
Eff Calibration Date: 5/1/2006
Calibration Efficiency: 7810Soil1m180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: YEL7810
Log Number: NOL-05-01-175
Title: NOL-05-01-175-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	946-	962	953.90	238.51	0.84	2.26E+002	67.43	3.05E+002
2	1396-	1415	1407.01	351.80	1.48	1.41E+002	54.85	1.82E+002
3	2032-	2051	2043.53	510.95	1.29	1.01E+002	44.45	1.16E+002
4	2321-	2340	2331.91	583.05	1.58	1.16E+002	43.46	1.07E+002
5	2429-	2443	2437.44	609.43	0.92	7.66E+001	31.28	6.14E+001
6	5829-	5857	5843.12	1460.93	2.64	7.06E+002	55.06	1.81E+001
7	7052-	7066	7059.00	1764.93	0.84	2.75E+001	13.82	7.55E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: YEL7810

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/Gram)	Activity Uncertainty
ANN	1.000	511.00*		100.00	1.79103E-001	8.24476E-002
K-40	0.999	1460.81*		10.67	1.63064E+001	1.83324E+000
TL-208	0.751	277.35		6.80		
		510.84*		21.60	8.29182E-001	3.87662E-001
		583.14*		84.20	2.56272E-001	1.01993E-001
		860.37		12.46		
Pb-212	0.419	74.81	@	10.70		
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	6.98866E-001	2.35326E-001
Bi-214	0.694	609.31*		46.30	3.14578E-001	1.34085E-001
		1120.29		15.10		
		1764.49*		15.80	4.67265E-001	2.39848E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:YEL7810

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Gram)	Wt mean Activity Uncertainty
ANN	1.000	1.237486E-001	8.532109E-002
K-40	0.999	1.630644E+001	1.833238E+000
TL-208	0.751	2.562716E-001	1.016502E-001
Pb-212 @	0.419	6.988658E-001	2.353260E-001
Bi-214	0.694	3.509345E-001	1.170381E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
2	351.80	2.3442E-001	39.00

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:YEL7810
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Co-60	1173.22	100.00	1.1643E-001	1.10E-001	3.9034E-002
	1332.49	100.00	1.1007E-001		5.9643E-002
Nb-94	702.63	100.00	1.1600E-001	1.15E-001	-9.5107E-002
	871.10	100.00	1.1518E-001		7.1676E-002
Ag-108m	79.20	7.10	9.3413E+000	1.37E-001	-1.2128E+001
	433.93	89.90	1.3712E-001		-6.7146E-002
	614.37	90.40	1.3952E-001		-1.3125E-001
	722.95	90.50	1.4085E-001		7.4905E-002
Sb-125	176.33	6.89	2.8262E+000	4.27E-001	-6.3696E-001
	427.89	29.33	4.2725E-001		-1.4247E-001
	463.38	10.35	1.3251E+000		3.7030E-002
	600.56	17.80	6.8202E-001		-3.0345E-001
	606.64	5.02	2.8709E+000		4.8285E+000
	635.90	11.32	1.0757E+000		-5.8895E-001
Cs-134	563.23	8.38	1.5730E+000	1.38E-001	9.8365E-001
	569.32	15.43	7.9929E-001		-1.5230E-001
	604.70	97.60	1.3951E-001		-5.0496E-002
	795.84	85.40	1.3760E-001		1.0374E-001
	801.93	8.73	1.2422E+000		-1.2031E+000
Cs-137	661.65	85.12	1.5798E-001	1.58E-001	1.1084E-001
Eu-152	121.78	28.40	9.9289E-001	3.45E-001	-1.3358E-001
	244.69	7.49	2.2534E+000		-7.8158E-001
	344.27	26.50	4.9884E-001		-5.1728E-001
	778.89	12.74	8.4596E-001		-8.2893E-001
	867.32	4.16	2.7143E+000		-3.4917E+000
	964.01	14.40	9.6857E-001		8.8286E-001
	1085.78	10.00	1.1431E+000		6.5655E-001
	1112.02	13.30	8.6796E-001		-8.2563E-001
	1407.95	20.70	3.4453E-001		-1.6618E-001
Eu-154	123.07	40.50	6.8437E-001	2.86E-001	1.0814E-001
	247.94	6.60	2.4512E+000		-5.4620E-001
	591.81	4.83	2.5928E+000		-6.3566E-001
	723.30	19.70	6.5607E-001		6.2851E-001
	756.87	4.33	2.7756E+000		2.0398E+000
	873.19	11.50	9.4450E-001		-8.1476E-002
	996.32	10.30	9.1840E-001		-1.0566E+000
	1004.76	17.90	5.8608E-001		7.2967E-003
	1274.45	35.50	2.8570E-001		9.7847E-003
Eu-155	86.54	30.90	1.6393E+000	1.64E+000	2.1660E+000
	105.31	20.70	1.7701E+000		2.0469E-002
Am-241	59.54	35.90	3.4589E+000	3.46E+000	-1.8138E+000
Cm-243	228.19	10.56	1.6230E+000	1.08E+000	-1.4894E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.0759E+000	1.08E+000	-9.3254E-003

+ = 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

Report Generated On 5/21/2006 10:12:18 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-01-176
Sample Title: NOL-05-01-176-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/21/2006 10:02:15 PM
Live Time: 600.0 seconds
Real Time: 601.6 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-01-176
Title: NOL-05-01-176-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	286-	308	291.60	72.73	1.00	6.17E+002	81.12	1.88E+003
m	2	286-	308	300.22	74.88	1.00	1.10E+003	93.71	2.39E+003
M	3	333-	356	339.48	84.70	1.26	5.01E+002	79.00	2.09E+003
m	4	333-	356	350.50	87.46	1.27	1.93E+002	71.49	2.56E+003
	5	945-	959	954.20	238.43	0.99	3.67E+002	79.00	4.37E+002
	6	1176-	1189	1180.13	294.93	0.67	8.61E+001	56.49	2.69E+002
	7	1347-	1362	1353.08	338.18	1.30	9.76E+001	54.15	2.20E+002
	8	1400-	1416	1406.56	351.55	1.02	1.86E+002	58.11	2.21E+002
	9	2031-	2052	2040.85	510.17	1.60	2.01E+002	56.91	1.70E+002
	10	2325-	2337	2331.51	582.86	0.90	1.68E+002	40.76	9.97E+001
	11	2427-	2444	2435.51	608.87	1.19	1.97E+002	45.35	1.04E+002
	12	2901-	2916	2907.77	726.97	1.00	7.42E+001	29.70	5.18E+001
	13	3066-	3078	3071.26	767.85	1.44	2.81E+001	24.08	4.59E+001
	14	3435-	3447	3440.91	860.29	0.79	1.94E+001	24.46	5.16E+001
	15	3633-	3653	3643.04	910.84	1.50	1.66E+002	38.57	6.06E+001
	16	3866-	3883	3874.17	968.64	0.49	1.04E+002	33.54	5.78E+001
	17	4471-	4489	4480.90	1120.37	0.40	7.41E+001	33.40	6.39E+001
	18	4683-	4699	4691.40	1173.01	1.06	4.70E+001	23.80	3.20E+001
	19	4945-	4957	4950.59	1237.83	0.64	2.64E+001	22.20	3.86E+001
	20	5322-	5337	5330.16	1332.75	0.49	4.70E+001	18.50	1.40E+001
	21	5830-	5856	5842.57	1460.89	2.03	1.20E+003	72.24	3.64E+001
	22	7049-	7067	7058.35	1764.93	0.33	7.60E+001	21.18	1.20E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
ANN	0.976	511.00*	100.00	2.73620E-001	8.60118E-002
K-40	1.000	1460.81*	10.67	2.01367E+001	2.03121E+000
Co-60	0.998	1173.22*	100.00	8.01999E-002	4.10882E-002
		1332.49*	100.00	8.26091E-002	3.31696E-002
Eu-155	0.316	86.54*	30.90	7.74874E-001	3.24073E-001
		105.31	20.70		
TL-208	0.898	277.35	6.80		
		510.84*	21.60	1.26676E+000	4.11422E-001
		583.14*	84.20	2.84856E-001	7.83089E-002
		860.37*	12.46	2.43779E-001	3.08694E-001
Bi-212	0.999	727.17*	11.80	9.52170E-001	3.97127E-001
Pb-212	0.676	74.81* @	10.70	1.57801E+001	3.37133E+000
		77.11 @	18.00		
		87.30* @	8.00	2.99295E+000	1.25173E+000
		238.63*	44.60	8.91248E-001	2.37480E-001
Bi-214	0.995	609.31*	46.30	6.15936E-001	1.60647E-001
		1120.29*	15.10	8.25760E-001	3.82580E-001
		1764.49*	15.80	8.93268E-001	2.64397E-001
PB-214	0.667	74.82* @	6.21	2.71896E+001	6.13507E+000
		77.11 @	10.50		
		87.30* @	4.67	5.12711E+000	2.17900E+000
		241.98	7.49		
		295.21*	19.20	5.16760E-001	3.49876E-001
		351.92*	37.20	6.06426E-001	2.14640E-001
Ac-228	0.997	338.32*	11.40	1.02587E+000	5.91254E-001
		911.07*	27.70	9.52135E-001	2.46443E-001
		969.11*	16.60	1.01337E+000	3.42976E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
ANN		0.976	2.126205E-001	8.754018E-002
K-40		1.000	2.013668E+001	2.031209E+000
Co-60		0.998	8.165850E-002	2.580922E-002
Eu-155		0.316	4.561344E-001	3.309859E-001
TL-208		0.898	2.824039E-001	7.539992E-002
Bi-212		0.999	9.521698E-001	3.971270E-001
Pb-212	@	0.676	8.912477E-001	2.374799E-001
Bi-214		0.995	7.061212E-001	1.292228E-001
PB-214	@	0.667	5.822439E-001	1.809516E-001
Ac-228		0.997	9.784234E-001	1.895693E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.73	1.0280E+000	13.15
M 3	84.70	8.3442E-001	15.78
13	767.85	4.6757E-002	85.85
19	1237.83	4.4045E-002	84.01

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
+	Co-60	1173.22*	100.00	6.0870E-002	4.23E-002	8.0200E-002
		1332.49*	100.00	4.2304E-002		8.2609E-002
	Nb-94	702.63	100.00	1.1290E-001	9.49E-002	5.9395E-002
		871.10	100.00	9.4851E-002		-9.7950E-002
	Ag-108m	79.20	7.10	5.7892E+000	1.26E-001	-4.2588E+000
		433.93	89.90	1.2612E-001		-1.6231E-001
		614.37	90.40	1.2898E-001		-9.7519E-002
		722.95	90.50	1.2988E-001		-1.0932E-002
	Sb-125	176.33	6.89	2.6280E+000	4.10E-001	-4.7551E-001
		427.89	29.33	4.0962E-001		1.0694E-001
		463.38	10.35	1.1842E+000		6.9811E-001
		600.56	17.80	6.4901E-001		-5.4959E-002
		606.64	5.02	2.9164E+000		4.0708E+000
		635.90	11.32	9.6881E-001		-4.8800E-001
	Cs-134	563.23	8.38	1.3211E+000	1.28E-001	6.6907E-001
		569.32	15.43	7.0286E-001		-4.1022E-001
		604.70	97.60	1.4936E-001		6.4380E-002
		795.84	85.40	1.2830E-001		1.2477E-001
		801.93	8.73	1.2286E+000		-4.2924E-001
	Cs-137	661.65	85.12	1.3916E-001	1.39E-001	1.3198E-002
	Eu-152	121.78	28.40	8.7197E-001	3.53E-001	-9.5231E-001
		244.69	7.49	2.0938E+000		7.2090E-001
		344.27	26.50	4.6665E-001		-2.3199E-001
		778.89	12.74	8.3511E-001		-5.8019E-001
		867.32	4.16	2.3951E+000		2.3697E+000
		964.01	14.40	9.3366E-001		3.8644E-002
		1085.78	10.00	1.0020E+000		5.3190E-001
		1112.02	13.30	7.5385E-001		-7.6947E-001
		1407.95	20.70	3.5258E-001		1.7392E-001
	Eu-154	123.07	40.50	6.1109E-001	2.65E-001	2.4528E-001
		247.94	6.60	2.2887E+000		-4.4415E-001
		591.81	4.83	2.4253E+000		1.5868E+000
		723.30	19.70	6.0003E-001		-1.4314E-002
		756.87	4.33	2.4374E+000		-7.4010E-001
		873.19	11.50	8.3535E-001		-8.8736E-002
		996.32	10.30	9.9252E-001		4.4955E-001
		1004.76	17.90	5.7252E-001		1.2254E-001
		1274.45	35.50	2.6510E-001		1.7781E-001
+	Eu-155	86.54*	30.90	9.5402E-001	9.54E-001	7.7487E-001
		105.31	20.70	1.4686E+000		1.3813E+000
	Am-241	59.54	35.90	1.5550E+000	1.56E+000	2.4384E-001
	Cm-243	228.19	10.56	1.4980E+000	1.04E+000	6.1498E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.0427E+000	1.04E+000	-3.2255E-001

+ = 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

Report Generated On 5/19/2006 8:25:40 AM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: RED6264

Spectrum File: RED6264
Sample ID: NOL-05-01-177-F-
Sample Title: NOL-05-01-177-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/19/2006 8:15:35 AM
Live Time: 600.0 seconds
Real Time: 601.4 seconds

Energy Calibration Date: 3/22/2006
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number: NOL-05-01-177-F-
Title: NOL-05-01-177-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	282-	309	291.26	72.72	1.42	5.06E+002	84.89	2.75E+003
m	2	282-	309	299.99	74.90	1.42	1.10E+003	98.62	3.49E+003
	3	332-	345	338.71	84.58	1.04	2.59E+002	151.70	2.07E+003
M	4	943-	977	954.19	238.49	1.63	3.29E+002	44.67	4.78E+002
m	5	943-	977	967.14	241.73	1.63	1.16E+002	34.74	5.35E+002
	6	1172-	1190	1180.20	295.01	0.65	2.30E+002	68.47	2.93E+002
	7	1395-	1416	1407.17	351.77	1.41	3.44E+002	74.05	2.89E+002
	8	2033-	2055	2043.22	510.82	0.83	1.65E+002	58.31	1.85E+002
	9	2319-	2343	2332.12	583.07	1.55	1.97E+002	55.45	1.46E+002
	10	2428-	2446	2436.38	609.14	1.59	3.78E+002	55.88	1.29E+002
	11	2562-	2574	2567.46	641.92	0.31	3.19E+001	27.53	6.21E+001
	12	2901-	2915	2907.63	726.98	1.19	3.10E+001	31.94	8.10E+001
	13	3065-	3080	3072.16	768.12	0.40	4.19E+001	31.89	7.41E+001
	14	3635-	3652	3642.87	910.84	1.13	1.25E+002	36.00	6.50E+001
	15	3728-	3740	3734.34	933.71	0.37	2.33E+001	24.12	4.88E+001
	16	4470-	4488	4478.99	1119.93	0.83	8.73E+001	35.94	7.37E+001
	17	5319-	5338	5330.22	1332.79	1.02	6.02E+001	27.28	3.78E+001
	18	5504-	5517	5510.32	1377.83	0.40	1.80E+001	19.78	3.00E+001
	19	5828-	5859	5843.75	1461.21	2.12	1.12E+003	68.47	1.96E+001
	20	6915-	6929	6921.57	1730.73	0.45	1.97E+001	10.62	3.33E+000
	21	7049-	7071	7060.50	1765.48	0.40	1.10E+002	25.15	1.41E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	0.999	511.00*		100.00	2.31549E-001	8.78350E-002
K-40	0.995	1460.81*		10.67	1.94367E+001	1.96970E+000
TL-208	0.752	277.35		6.80		
		510.84*		21.60	1.07199E+000	4.15961E-001
		583.14*		84.20	3.43359E-001	1.06612E-001
		860.37		12.46		
Bi-212	0.999	727.17*		11.80	4.10489E-001	4.25596E-001
Pb-212	0.521	74.81*	@	10.70	1.63526E+001	3.52415E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	8.25788E-001	1.71266E-001
Bi-214	0.992	609.31*		46.30	1.21848E+000	2.34333E-001
		1120.29*		15.10	1.00409E+000	4.26893E-001
		1764.49*		15.80	1.33307E+000	3.32951E-001
PB-214	0.732	74.82*	@	6.21	2.81759E+001	6.40744E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98*		7.49	1.74501E+000	5.96277E-001
		295.21*		19.20	1.42326E+000	4.87007E-001
		351.92*		37.20	1.15643E+000	3.15085E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN		0.999	1.573836E-001	9.077144E-002
K-40		0.995	1.943667E+001	1.969696E+000
TL-208		0.752	3.433589E-001	1.060235E-001
Bi-212		0.999	4.104892E-001	4.255955E-001
Pb-212	@	0.521	8.257882E-001	1.712664E-001
Bi-214		0.992	1.214118E+000	1.748236E-001
PB-214	@	0.732	1.319015E+000	2.418148E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.72	8.4289E-001	16.79
3	84.58	4.3244E-001	58.47
11	641.92	5.3085E-002	86.44
13	768.12	6.9838E-002	76.11
14	910.84	2.0831E-001	28.81
15	933.71	3.8750E-002	103.76
17	1332.79	1.0040E-001	45.29
18	1377.83	2.9974E-002	109.98
20	1730.73	3.2790E-002	54.00

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Co-60	1173.22	100.00	1.2140E-001	1.14E-001	5.5723E-002
	1332.49	100.00	1.1389E-001		1.5963E-001
Nb-94	702.63	100.00	1.2147E-001	1.06E-001	7.9258E-002
	871.10	100.00	1.0642E-001		-5.5178E-002
Ag-108m	79.20	7.10	6.9010E+000	1.35E-001	-6.2765E+000
	433.93	89.90	1.3902E-001		-3.0866E-002
	614.37	90.40	1.8215E-001		-4.1172E-002
	722.95	90.50	1.3476E-001		-9.2620E-003
Sb-125	176.33	6.89	2.7430E+000	4.32E-001	2.4243E+000
	427.89	29.33	4.3214E-001		-2.7182E-002
	463.38	10.35	1.2246E+000		9.6408E-001
	600.56	17.80	6.9670E-001		1.2909E-001
	606.64	5.02	3.7107E+000		1.1718E+001
	635.90	11.32	1.0538E+000		2.5034E-001
Cs-134	563.23	8.38	1.4855E+000	1.35E-001	2.1226E+000
	569.32	15.43	7.2492E-001		-7.9249E-001
	604.70	97.60	1.8753E-001		-1.4518E-001
	795.84	85.40	1.3538E-001		-4.5823E-002
	801.93	8.73	1.3349E+000		2.4294E-001
Cs-137	661.65	85.12	1.5424E-001	1.54E-001	2.1479E-001
Eu-152	121.78	28.40	9.3211E-001	4.10E-001	1.3144E-001
	244.69	7.49	2.1615E+000		1.6844E-001
	344.27	26.50	5.1195E-001		-5.7823E-001
	778.89	12.74	8.8406E-001		-5.8485E-001
	867.32	4.16	2.6927E+000		-9.4394E-001
	964.01	14.40	9.0169E-001		1.2070E+000
	1085.78	10.00	1.0501E+000		3.8568E-001
	1112.02	13.30	8.6651E-001		1.1266E-001
	1407.95	20.70	4.1036E-001		3.4405E-002
Eu-154	123.07	40.50	6.5070E-001	2.72E-001	2.6060E-001
	247.94	6.60	2.3253E+000		-5.6139E-001
	591.81	4.83	2.3724E+000		-1.1641E+000
	723.30	19.70	6.2143E-001		3.1544E-002
	756.87	4.33	2.7205E+000		5.9824E-001
	873.19	11.50	9.5448E-001		5.9233E-001
	996.32	10.30	1.0277E+000		6.6054E-001
	1004.76	17.90	6.0448E-001		2.1537E-001
	1274.45	35.50	2.7229E-001		-2.8633E-001
Eu-155	86.54	30.90	1.3676E+000	1.37E+000	3.4155E+000
	105.31	20.70	1.4718E+000		1.1907E-001
Am-241	59.54	35.90	1.7394E+000	1.74E+000	-1.0676E+000
Cm-243	228.19	10.56	1.4811E+000	1.08E+000	-6.8831E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Cm-243	277.60	14.00	1.0797E+000	1.08E+000	-1.2660E+000

+ = 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

Report Generated On 5/21/2006 8:54:06 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-01-177
Sample Title: NOL-05-01-177-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/21/2006 8:44:03 PM
Live Time: 600.0 seconds
Real Time: 601.4 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-01-177
Title: NOL-05-01-177-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	285-	307	291.93	72.81	1.00	4.23E+002	74.28	1.94E+003
m	2	285-	307	300.16	74.87	1.00	9.27E+002	90.58	2.37E+003
M	3	331-	354	339.36	84.67	1.07	4.19E+002	74.51	1.96E+003
m	4	331-	354	349.45	87.20	1.08	1.74E+002	65.49	1.79E+003
	5	944-	960	954.30	238.45	1.08	2.98E+002	76.87	3.97E+002
	6	1345-	1359	1354.03	338.42	1.29	7.05E+001	46.49	1.71E+002
	7	1400-	1415	1406.99	351.66	0.85	1.55E+002	52.69	1.89E+002
	8	2324-	2338	2331.14	582.77	1.16	1.42E+002	40.83	1.01E+002
	9	2428-	2443	2436.09	609.01	1.25	1.62E+002	41.84	9.78E+001
	10	2638-	2651	2644.41	661.11	0.73	3.06E+001	30.31	7.54E+001
	11	3172-	3186	3178.73	794.73	0.72	3.35E+001	28.73	6.25E+001
	12	3632-	3653	3643.31	910.91	1.16	1.68E+002	39.40	6.30E+001
	13	3869-	3881	3875.26	968.91	0.76	5.96E+001	28.27	5.64E+001
	14	4475-	4487	4480.06	1120.16	0.40	3.32E+001	25.13	4.98E+001
	15	4947-	4958	4952.62	1238.34	0.80	3.12E+001	18.18	2.18E+001
	16	5830-	5855	5842.94	1460.98	1.82	1.18E+003	71.56	3.57E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.999	1460.81*	10.67	1.98132E+001	2.00347E+000
Cs-137	0.990	661.65*	85.12	5.34025E-002	5.32722E-002
Eu-155	0.324	86.54*	30.90	6.97680E-001	2.96739E-001
		105.31	20.70		
TL-208	0.468	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	2.39567E-001	7.58003E-002
		860.37	12.46		
Pb-212	0.676	74.81* @	10.70	1.32746E+001	2.90726E+000
		77.11 @	18.00		
		87.30* @	8.00	2.69479E+000	1.14615E+000
		238.63*	44.60	7.25460E-001	2.18739E-001
Bi-214	0.697	609.31*	46.30	5.06352E-001	1.44755E-001
		1120.29*	15.10	3.70483E-001	2.82886E-001
		1764.49	15.80		
Ac-228	0.999	338.32*	11.40	7.40886E-001	5.02179E-001
		911.07*	27.70	9.61285E-001	2.51184E-001
		969.11*	16.60	5.79858E-001	2.81506E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40	0.999	1.981318E+001	2.003468E+000
Cs-137	0.990	5.340247E-002	5.327221E-002
Eu-155	0.324	5.098589E-001	3.020942E-001
TL-208	0.468	2.395672E-001	7.580029E-002
Pb-212 @	0.676	7.254605E-001	2.187390E-001
Bi-214	0.697	4.781580E-001	1.288638E-001
Ac-228	0.999	7.859373E-001	1.755903E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.81	7.0465E-001	17.57
M 3	84.67	6.9753E-001	17.80
7	351.66	2.5824E-001	34.01
11	794.73	5.5764E-002	85.87
15	1238.34	5.2013E-002	58.26

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
	Co-60	1173.22	100.00	1.0312E-001	9.44E-002	8.8712E-002
		1332.49	100.00	9.4362E-002		8.2170E-002
	Nb-94	702.63	100.00	1.1109E-001	9.97E-002	7.2438E-002
		871.10	100.00	9.9721E-002		1.9961E-002
	Ag-108m	79.20	7.10	5.5923E+000	1.27E-001	-3.1813E+000
		433.93	89.90	1.2954E-001		6.7697E-002
		614.37	90.40	1.3593E-001		-3.2807E-002
		722.95	90.50	1.2745E-001		1.4418E-001
	Sb-125	176.33	6.89	2.3431E+000	4.00E-001	1.9102E-001
		427.89	29.33	4.0009E-001		6.0890E-002
		463.38	10.35	1.0385E+000		3.2160E-001
		600.56	17.80	5.7722E-001		-3.9155E-001
		606.64	5.02	2.7373E+000		3.0475E+000
		635.90	11.32	8.9804E-001		-1.2272E-001
	Cs-134	563.23	8.38	1.3636E+000	1.24E-001	8.4159E-001
		569.32	15.43	6.5709E-001		-4.0137E-001
		604.70	97.60	1.3767E-001		2.2466E-002
		795.84	85.40	1.2364E-001		5.3043E-002
		801.93	8.73	1.1046E+000		-3.9521E-001
+	Cs-137	661.65*	85.12	8.7644E-002	8.76E-002	5.3402E-002
	Eu-152	121.78	28.40	8.0694E-001	3.30E-001	-4.3826E-001
		244.69	7.49	1.8560E+000		-6.9136E-002
		344.27	26.50	4.5115E-001		9.0423E-002
		778.89	12.74	7.8249E-001		-9.6176E-001
		867.32	4.16	2.3201E+000		-1.2921E+000
		964.01	14.40	8.7951E-001		-7.2443E-002
		1085.78	10.00	1.0330E+000		3.5025E-001
		1112.02	13.30	7.7513E-001		3.1573E-003
		1407.95	20.70	3.3001E-001		-1.4877E-001
	Eu-154	123.07	40.50	5.6219E-001	2.49E-001	-1.2091E-001
		247.94	6.60	2.0408E+000		-9.1939E-001
		591.81	4.83	2.2172E+000		1.7288E-001
		723.30	19.70	5.7065E-001		-3.3970E-001
		756.87	4.33	2.1953E+000		-1.1668E+000
		873.19	11.50	8.4039E-001		-6.0654E-001
		996.32	10.30	9.3988E-001		3.4404E-001
		1004.76	17.90	5.5586E-001		-1.3366E-001
		1274.45	35.50	2.4911E-001		-5.2771E-002
+	Eu-155	86.54*	30.90	8.0238E-001	8.02E-001	6.9768E-001
		105.31	20.70	1.3572E+000		-1.6218E-001
	Am-241	59.54	35.90	1.4651E+000	1.47E+000	-4.0163E-001
	Cm-243	228.19	10.56	1.2983E+000	9.42E-001	-4.8164E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	9.4201E-001	9.42E-001	5.5970E-001

+ = 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

Report Generated On 5/23/2006 4:01:04 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: ORG7829

Spectrum File: ORG7829
Sample ID: NOL-05-01-178-F-
Sample Title: NOL-05-01-178-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/23/2006 3:51:01 PM
Live Time: 600.0 seconds
Real Time: 601.1 seconds

Energy Calibration Date: 5/10/2006
Eff Calibration Date: 5/1/2006
Calibration Efficiency: 7829Soil1m180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: ORG7829
Log Number: NOL-05-01-178-F-
Title: NOL-05-01-178-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	293-	307	301.76	75.44	1.96	3.90E+002	131.42	1.42E+003
2	332-	347	338.72	84.68	0.39	1.48E+002	131.21	1.44E+003
3	947-	962	955.20	238.81	1.89	2.10E+002	74.78	4.12E+002
4	1400-	1418	1408.79	352.22	0.72	1.57E+002	56.37	1.98E+002
5	2029-	2045	2040.25	510.10	0.99	4.80E+001	47.05	1.67E+002
6	2323-	2341	2331.97	583.03	1.18	1.10E+002	45.77	1.29E+002
7	2429-	2445	2435.55	608.93	0.40	9.37E+001	41.65	1.13E+002
8	3633-	3653	3643.60	910.96	2.11	9.03E+001	39.41	8.57E+001
9	4470-	4490	4480.61	1120.23	0.96	7.44E+001	30.13	4.46E+001
10	5324-	5336	5329.76	1332.54	1.17	2.30E+001	16.80	1.90E+001
11	5830-	5856	5842.23	1460.66	2.46	1.02E+003	65.25	1.97E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: ORG7829

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Gram)	Activity Uncertainty
K-40	0.999	1460.81*	10.67	2.32558E+001	2.39667E+000
TL-208	0.749	277.35	6.80		
		510.84*	21.60	3.99024E-001	3.96120E-001
		583.14*	84.20	2.46266E-001	1.07067E-001
		860.37	12.46		
Pb-212	0.592	74.81* @	10.70	1.48968E+001	5.81114E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	6.85918E-001	2.66774E-001
Bi-214	0.702	609.31*	46.30	3.86198E-001	1.78074E-001
		1120.29*	15.10	1.09684E+000	4.59503E-001
		1764.49	15.80		

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:ORG7829

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Gram)	Wt mean Activity Uncertainty
X	ANN		0.973		
	K-40		0.999	2.325585E+001	2.396668E+000
	TL-208		0.749	2.566659E-001	1.033581E-001
	Pb-212	@	0.592	6.859176E-001	2.667736E-001
	Bi-214		0.702	4.789886E-001	1.660415E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
2	84.68	2.4601E-001	88.89
4	352.22	2.6234E-001	35.81
8	910.96	1.5049E-001	43.64
10	1332.54	3.8413E-002	72.90

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:ORG7829
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Co-60	1173.22	100.00	1.4129E-001	1.14E-001	7.5592E-002
	1332.49	100.00	1.1386E-001		1.7191E-004
Nb-94	702.63	100.00	1.4480E-001	1.24E-001	1.1687E-001
	871.10	100.00	1.2373E-001		2.5710E-002
Ag-108m	79.20	7.10	1.2123E+001	1.61E-001	-1.4604E+001
	433.93	89.90	1.6065E-001		-1.2614E-001
	614.37	90.40	1.7629E-001		-8.1189E-002
	722.95	90.50	1.6136E-001		-1.4181E-002
Sb-125	176.33	6.89	3.4487E+000	5.09E-001	-9.5127E-001
	427.89	29.33	5.0937E-001		4.1289E-001
	463.38	10.35	1.4748E+000		1.1498E+000
	600.56	17.80	8.4577E-001		5.5058E-002
	606.64	5.02	3.4944E+000		6.1400E+000
	635.90	11.32	1.2530E+000		-5.6518E-001
Cs-134	563.23	8.38	1.7793E+000	1.48E-001	1.4890E+000
	569.32	15.43	9.6650E-001		-8.6554E-001
	604.70	97.60	1.7353E-001		-7.8627E-002
	795.84	85.40	1.4826E-001		-1.8699E-002
	801.93	8.73	1.4225E+000		-7.7947E-001
Cs-137	661.65	85.12	1.7954E-001	1.80E-001	1.5103E-001
Eu-152	121.78	28.40	1.1807E+000	5.01E-001	-7.8436E-001
	244.69	7.49	2.5824E+000		-2.8237E+000
	344.27	26.50	6.2532E-001		-7.6705E-001
	778.89	12.74	1.0007E+000		-1.5738E+000
	867.32	4.16	2.9618E+000		-6.1091E-001
	964.01	14.40	1.1227E+000		1.0692E+000
	1085.78	10.00	1.2135E+000		-3.6450E-001
	1112.02	13.30	9.1824E-001		-1.2728E-001
	1407.95	20.70	5.0120E-001		2.2931E-001
Eu-154	123.07	40.50	8.2434E-001	3.37E-001	2.5075E-001
	247.94	6.60	2.9623E+000		-4.3012E-001
	591.81	4.83	3.0567E+000		-3.3725E+000
	723.30	19.70	7.4447E-001		1.9588E-001
	756.87	4.33	2.9172E+000		-2.9741E+000
	873.19	11.50	1.0903E+000		2.5965E-001
	996.32	10.30	1.1472E+000		-1.6708E+000
	1004.76	17.90	7.1237E-001		5.3193E-001
	1274.45	35.50	3.3678E-001		4.3840E-002
Eu-155	86.54	30.90	2.1031E+000	2.10E+000	2.5433E+000
	105.31	20.70	2.1103E+000		1.0849E+000
Am-241	59.54	35.90	5.0610E+000	5.06E+000	6.0020E+000
Cm-243	228.19	10.56	1.8573E+000	1.28E+000	8.1014E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.2846E+000	1.28E+000	1.0065E+000

+ = 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

Report Generated On 5/21/2006 9:32:39 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-01-179
Sample Title: NOL-05-01-179-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/21/2006 9:22:36 PM
Live Time: 600.0 seconds
Real Time: 601.5 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-01-179
Title: NOL-05-01-179-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	283-	308	291.42	72.68	1.07	6.26E+002	79.98	2.20E+003
m	2	283-	308	300.29	74.90	1.07	1.11E+003	93.53	2.30E+003
	3	334-	344	339.72	84.76	0.76	2.49E+002	128.18	1.69E+003
	4	948-	962	954.05	238.39	1.17	3.26E+002	76.08	4.07E+002
	5	1401-	1417	1407.04	351.67	0.97	1.44E+002	54.92	2.04E+002
	6	2030-	2053	2041.82	510.42	1.35	2.08E+002	54.02	1.38E+002
	7	2322-	2343	2331.55	582.87	1.20	1.83E+002	48.54	1.15E+002
	8	2428-	2447	2435.27	608.81	1.38	1.66E+002	44.84	1.02E+002
	9	2637-	2653	2644.38	661.10	1.87	8.12E+001	35.53	7.88E+001
	10	2901-	2915	2907.63	726.93	0.49	4.99E+001	29.32	5.91E+001
	11	3633-	3652	3643.52	910.96	1.40	1.53E+002	37.95	6.27E+001
	12	3867-	3885	3874.24	968.66	1.09	8.52E+001	34.55	6.68E+001
	13	4687-	4702	4693.42	1173.51	1.14	4.30E+001	25.40	4.00E+001
	14	5828-	5856	5843.00	1461.00	1.75	1.14E+003	69.99	2.90E+001
	15	7050-	7064	7057.08	1764.61	0.43	3.88E+001	16.55	1.12E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
ANN	0.988	511.00*	100.00	2.83856E-001	8.31045E-002
K-40	0.999	1460.81*	10.67	1.91378E+001	1.94392E+000
Cs-137	0.990	661.65*	85.12	1.41734E-001	6.42179E-002
TL-208	0.749	277.35	6.80		
		510.84*	21.60	1.31415E+000	3.99431E-001
		583.14*	84.20	3.09519E-001	9.14969E-002
		860.37	12.46		
Bi-212	0.998	727.17*	11.80	6.40401E-001	3.83644E-001
Pb-212	0.519	74.81* @	10.70	1.58776E+001	3.38768E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	7.93452E-001	2.22859E-001
Bi-214	0.693	609.31*	46.30	5.18802E-001	1.53894E-001
		1120.29	15.10		
		1764.49*	15.80	4.55733E-001	1.99654E-001
Ac-228	0.631	338.32	11.40		
		911.07*	27.70	8.77279E-001	2.39492E-001
		969.11*	16.60	8.28472E-001	3.46935E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
ANN		0.988	2.169994E-001	8.539441E-002
K-40		0.999	1.913776E+001	1.943925E+000
Cs-137		0.990	1.417342E-001	6.421787E-002
TL-208		0.749	3.095190E-001	9.093920E-002
Bi-212		0.998	6.404006E-001	3.836444E-001
Pb-212	@	0.519	7.934524E-001	2.228591E-001
Bi-214		0.693	4.952964E-001	1.218871E-001
Ac-228		0.631	8.615270E-001	1.970929E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.68	1.0429E+000	12.78
3	84.76	4.1424E-001	51.57
5	351.67	2.4081E-001	38.01
13	1173.51	7.1627E-002	59.10

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
	Co-60	1173.22	100.00	1.1022E-001	9.44E-002	7.3546E-002
		1332.49	100.00	9.4362E-002		5.3199E-002
	Nb-94	702.63	100.00	1.0878E-001	9.54E-002	4.8986E-002
		871.10	100.00	9.5437E-002		3.5106E-003
	Ag-108m	79.20	7.10	5.7628E+000	1.23E-001	-4.8685E+000
		433.93	89.90	1.2775E-001		-5.3371E-002
		614.37	90.40	1.2695E-001		3.4461E-002
		722.95	90.50	1.2294E-001		-5.2492E-002
	Sb-125	176.33	6.89	2.5680E+000	3.85E-001	6.5943E-001
		427.89	29.33	3.8477E-001		-2.3286E-001
		463.38	10.35	1.0781E+000		5.1690E-001
		600.56	17.80	6.0820E-001		2.9459E-001
		606.64	5.02	2.7474E+000		2.8915E-001
		635.90	11.32	9.1884E-001		4.2868E-001
	Cs-134	563.23	8.38	1.3402E+000	1.11E-001	4.7910E-001
		569.32	15.43	7.4573E-001		7.9209E-002
		604.70	97.60	1.3661E-001		-1.8948E-002
		795.84	85.40	1.1110E-001		1.0894E-002
		801.93	8.73	1.1014E+000		-1.6186E-001
+	Cs-137	661.65*	85.12	9.5039E-002	9.50E-002	1.4173E-001
	Eu-152	121.78	28.40	8.9794E-001	3.43E-001	1.4458E+000
		244.69	7.49	1.9927E+000		-1.9742E+000
		344.27	26.50	4.6369E-001		-1.7566E-001
		778.89	12.74	7.5692E-001		-5.6249E-001
		867.32	4.16	2.2992E+000		-2.6223E+000
		964.01	14.40	8.8588E-001		2.8953E-001
		1085.78	10.00	9.9253E-001		1.3009E-001
		1112.02	13.30	7.0929E-001		-1.1478E+000
		1407.95	20.70	3.4274E-001		1.9542E-001
	Eu-154	123.07	40.50	6.1727E-001	2.51E-001	4.1977E-002
		247.94	6.60	2.2471E+000		-2.1133E-001
		591.81	4.83	2.1169E+000		9.5539E-001
		723.30	19.70	5.6247E-001		-1.9874E-001
		756.87	4.33	2.3437E+000		1.8414E+000
		873.19	11.50	8.2518E-001		-6.3733E-001
		996.32	10.30	9.6365E-001		3.5147E-001
		1004.76	17.90	5.3162E-001		-8.6067E-002
		1274.45	35.50	2.5131E-001		-2.1429E-001
	Eu-155	86.54	30.90	1.2224E+000	1.22E+000	3.9636E-002
		105.31	20.70	1.4491E+000		3.5801E-001
	Am-241	59.54	35.90	1.5376E+000	1.54E+000	-3.6334E-001
	Cm-243	228.19	10.56	1.4534E+000	1.03E+000	-9.1827E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.0301E+000	1.03E+000	1.3112E+000

+ = 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

Report Generated On 5/22/2006 7:07:10 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: YEL7810

Spectrum File: YEL7810
Sample ID: NOL-05-01-180
Sample Title: NOL-05-01-180-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/22/2006 6:57:06 PM
Live Time: 600.0 seconds
Real Time: 601.0 seconds

Energy Calibration Date: 5/9/2006
Eff Calibration Date: 5/1/2006
Calibration Efficiency: 7810Soil1m180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: YEL7810
Log Number: NOL-05-01-180
Title: NOL-05-01-180-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	944-	964	954.72	238.72	1.60	2.30E+002	82.61	4.24E+002
2	2322-	2340	2333.73	583.50	1.32	1.20E+002	38.08	7.61E+001
3	2426-	2447	2436.75	609.26	1.34	1.62E+002	36.47	4.92E+001
4	3633-	3654	3643.44	910.96	0.42	1.10E+002	29.90	3.27E+001
5	5829-	5857	5844.12	1461.18	2.23	6.91E+002	55.10	2.15E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: YEL7810

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/Gram)	Activity Uncertainty
K-40	0.995	1460.81*		10.67	1.59740E+001	1.81466E+000
TL-208	0.467	277.35		6.80		
		510.84		21.60		
		583.14*		84.20	2.65963E-001	9.13030E-002
		860.37		12.46		
Pb-212	0.420	74.81	@	10.70		
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	7.10162E-001	2.78455E-001
Bi-214	0.407	609.31*		46.30	6.63969E-001	1.70553E-001
		1120.29		15.10		
		1764.49		15.80		

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:YEL7810

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Gram)	Wt mean Activity Uncertainty
K-40		0.995	1.597402E+001	1.814662E+000
TL-208		0.467	2.659629E-001	9.130298E-002
Pb-212	@	0.420	7.101615E-001	2.784547E-001
Bi-214		0.407	6.639690E-001	1.705527E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
4	910.96	1.8382E-001	27.11

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:YEL7810
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Co-60	1173.22	100.00	1.3491E-001	1.19E-001	1.3072E-001
	1332.49	100.00	1.1901E-001		1.5772E-001
Nb-94	702.63	100.00	1.1754E-001	1.11E-001	1.4912E-003
	871.10	100.00	1.1081E-001		1.2331E-001
Ag-108m	79.20	7.10	9.2684E+000	1.42E-001	-1.5341E+001
	433.93	89.90	1.4865E-001		8.5554E-002
	614.37	90.40	1.4789E-001		1.8431E-002
	722.95	90.50	1.4163E-001		8.0141E-002
Sb-125	176.33	6.89	2.8013E+000	4.24E-001	5.6019E-002
	427.89	29.33	4.2390E-001		-3.0393E-001
	463.38	10.35	1.1843E+000		-3.0914E-001
	600.56	17.80	6.6115E-001		3.0281E-001
	606.64	5.02	3.0177E+000		-1.7032E-001
	635.90	11.32	1.0477E+000		1.2103E-001
Cs-134	563.23	8.38	1.4505E+000	1.36E-001	1.2829E-001
	569.32	15.43	7.8702E-001		4.2340E-001
	604.70	97.60	1.4251E-001		-5.4318E-002
	795.84	85.40	1.3570E-001		9.2780E-002
	801.93	8.73	1.2116E+000		-9.3835E-001
Cs-137	661.65	85.12	1.4573E-001	1.46E-001	-2.8977E-002
Eu-152	121.78	28.40	1.0040E+000	3.63E-001	2.4959E-001
	244.69	7.49	2.2039E+000		-4.7665E-001
	344.27	26.50	5.1147E-001		-2.4657E-001
	778.89	12.74	8.5279E-001		-7.9030E-001
	867.32	4.16	2.7143E+000		-2.0610E+000
	964.01	14.40	9.1877E-001		2.5956E-002
	1085.78	10.00	1.0940E+000		-1.1392E-001
	1112.02	13.30	8.4601E-001		-3.1014E-001
	1407.95	20.70	3.6295E-001		-1.2314E-001
Eu-154	123.07	40.50	6.9632E-001	2.96E-001	7.7590E-001
	247.94	6.60	2.3482E+000		-1.1523E+000
	591.81	4.83	2.4645E+000		1.0342E+000
	723.30	19.70	6.5429E-001		3.2505E-001
	756.87	4.33	2.8109E+000		-4.4758E-001
	873.19	11.50	9.4450E-001		-1.0571E-001
	996.32	10.30	1.0873E+000		3.7261E-002
	1004.76	17.90	5.9170E-001		7.5113E-002
	1274.45	35.50	2.9582E-001		8.2316E-003
Eu-155	86.54	30.90	1.6504E+000	1.65E+000	9.6155E-001
	105.31	20.70	1.7247E+000		8.9850E-001
Am-241	59.54	35.90	3.4113E+000	3.41E+000	6.6256E-001
Cm-243	228.19	10.56	1.6071E+000	1.06E+000	1.0459E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.0583E+000	1.06E+000	-4.1846E-001

+ = 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

Report Generated On 5/22/2006 9:12:24 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: YEL7810

Spectrum File: YEL7810
Sample ID: NOL-05-01-181
Sample Title: NOL-05-01-181-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/22/2006 9:02:25 PM
Live Time: 600.0 seconds
Real Time: 600.9 seconds

Energy Calibration Date: 5/9/2006
Eff Calibration Date: 5/1/2006
Calibration Efficiency: 7810Soil1m180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: YEL7810
Log Number: NOL-05-01-181
Title: NOL-05-01-181-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	293-	310	302.04	75.53	1.82	4.13E+002	142.81	1.50E+003
2	946-	964	956.10	239.06	0.42	1.91E+002	75.68	3.82E+002
3	1344-	1363	1352.80	338.25	1.01	4.95E+001	54.36	2.05E+002
4	2321-	2340	2332.03	583.08	0.81	1.42E+002	37.68	6.50E+001
5	2428-	2446	2437.16	609.36	0.45	1.36E+002	37.51	6.81E+001
6	3634-	3654	3643.52	910.98	2.05	1.11E+002	29.57	3.18E+001
7	3869-	3882	3874.41	968.71	0.37	3.68E+001	24.23	4.12E+001
8	5508-	5519	5513.85	1378.61	0.66	1.28E+001	11.04	7.20E+000
9	5829-	5857	5843.54	1461.04	1.99	6.69E+002	53.74	1.80E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: YEL7810

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Gram)	Activity Uncertainty
K-40	0.998	1460.81*	10.67	1.54541E+001	1.76255E+000
TL-208	0.470	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.14927E-001	9.30789E-002
		860.37	12.46		
Pb-212	0.570	74.81* @	10.70	1.26182E+001	5.01552E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	5.91196E-001	2.51609E-001
Bi-214	0.407	609.31*	46.30	5.57701E-001	1.68550E-001
		1120.29	15.10		
		1764.49	15.80		
Ac-228	0.998	338.32*	11.40	6.63432E-001	7.35978E-001
		911.07*	27.70	8.43956E-001	2.44459E-001
		969.11*	16.60	4.72879E-001	3.15240E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:YEL7810

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Gram)	Wt mean Activity Uncertainty
K-40	0.998	1.545414E+001	1.762548E+000
TL-208	0.470	3.149266E-001	9.307889E-002
Pb-212 @	0.570	5.911955E-001	2.516094E-001
Bi-214	0.407	5.577008E-001	1.685499E-001
Ac-228	0.998	7.019526E-001	1.868508E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
8	1378.61	2.1333E-002	86.26

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:YEL7810
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Co-60	1173.22	100.00	1.2261E-001	1.12E-001	3.9555E-002
	1332.49	100.00	1.1181E-001		1.5572E-001
Nb-94	702.63	100.00	1.1366E-001	1.13E-001	-8.3860E-002
	871.10	100.00	1.1302E-001		-3.7240E-002
Ag-108m	79.20	7.10	9.1950E+000	1.31E-001	-2.4737E+000
	433.93	89.90	1.4207E-001		9.1253E-002
	614.37	90.40	1.4619E-001		2.9295E-002
	722.95	90.50	1.3109E-001		-7.8554E-003
Sb-125	176.33	6.89	2.6500E+000	4.10E-001	-7.6043E-001
	427.89	29.33	4.1022E-001		7.1900E-002
	463.38	10.35	1.2123E+000		-3.7962E-001
	600.56	17.80	6.1927E-001		-2.2510E-001
	606.64	5.02	3.1116E+000		-8.0878E-001
	635.90	11.32	9.4481E-001		-7.8217E-001
Cs-134	563.23	8.38	1.4124E+000	1.28E-001	-3.1185E-001
	569.32	15.43	7.7245E-001		5.7646E-001
	604.70	97.60	1.4805E-001		-5.0129E-002
	795.84	85.40	1.2831E-001		6.0780E-002
	801.93	8.73	1.2012E+000		-6.1276E-001
Cs-137	661.65	85.12	1.5297E-001	1.53E-001	2.9129E-002
Eu-152	121.78	28.40	9.5648E-001	4.01E-001	1.4156E-001
	244.69	7.49	2.1480E+000		-4.1409E-001
	344.27	26.50	5.1000E-001		1.4417E-001
	778.89	12.74	8.4596E-001		-7.5152E-001
	867.32	4.16	2.7248E+000		-3.5925E+000
	964.01	14.40	9.4532E-001		-3.9117E-001
	1085.78	10.00	1.0990E+000		8.7944E-001
	1112.02	13.30	7.8025E-001		-7.2331E-002
	1407.95	20.70	4.0105E-001		1.5535E-001
Eu-154	123.07	40.50	6.7276E-001	2.73E-001	8.0913E-001
	247.94	6.60	2.2624E+000		-1.8058E+000
	591.81	4.83	2.2231E+000		-5.4077E-002
	723.30	19.70	6.1190E-001		3.5092E-001
	756.87	4.33	2.6387E+000		1.0196E+000
	873.19	11.50	9.7948E-001		1.0409E+000
	996.32	10.30	1.0502E+000		3.9638E-001
	1004.76	17.90	5.8608E-001		-7.9283E-002
	1274.45	35.50	2.7339E-001		-7.2444E-002
Eu-155	86.54	30.90	1.6144E+000	1.61E+000	1.8027E+000
	105.31	20.70	1.6746E+000		-7.4005E-001
Am-241	59.54	35.90	3.3293E+000	3.33E+000	8.0090E-002
Cm-243	228.19	10.56	1.5620E+000	1.05E+000	3.7235E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.0493E+000	1.05E+000	-2.3334E-001

+ = 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

Report Generated On 5/25/2006 3:34:31 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: GRN7780

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-182-F-G
Sample ID: NOL-05-01-182
Sample Title: NOL-05-01-182-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/23/2006 5:30:58 PM
Live Time: 600.0 seconds
Real Time: 601.4 seconds

Energy Calibration Date: 4/19/2006
Eff Calibration Date: 3/23/2006
Calibration Efficiency: 7780Soil1M180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-182-F-G
Log Number: NOL-05-01-182
Title: NOL-05-01-182-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	282-	308	291.59	72.85	1.08	1.79E+002	138.98	9.50E+002
m	2	282-	308	300.49	75.08	1.09	3.67E+002	254.23	1.05E+003
F	3	950-	960	955.09	238.73	1.28	2.49E+002	38.67	2.05E+002
F	4	1176-	1185	1180.96	295.20	1.33	4.70E+001	24.69	1.37E+002
F	5	1347-	1358	1353.11	338.24	1.37	5.93E+001	24.33	1.27E+002
F	6	1399-	1417	1407.49	351.83	1.38	1.30E+002	63.27	1.27E+002
F	7	2035-	2055	2044.66	511.12	2.23	1.08E+002	24.13	1.12E+002
F	8	2323-	2340	2331.67	582.88	1.53	1.55E+002	32.96	7.00E+001
F	9	2428-	2445	2436.00	608.96	1.55	1.08E+002	23.78	7.56E+001
F	10	3635-	3653	3644.58	911.11	1.71	1.12E+002	23.06	4.25E+001
F	11	3868-	3884	3875.55	968.85	1.73	5.96E+001	18.94	4.44E+001
F	12	5832-	5856	5843.93	1460.95	1.94	7.63E+002	54.33	1.81E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-182-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
ANN	0.999	511.00*		100.00	2.01276E-001	4.92512E-002
K-40	0.999	1460.81*		10.67	1.74649E+001	1.63840E+000
TL-208	0.749	277.35		6.80		
		510.84*		21.60	9.31833E-001	2.40379E-001
		583.14*		84.20	3.55968E-001	8.35292E-002
		860.37		12.46		
Pb-212	0.596	74.81*	@	10.70	1.37184E+001	9.75416E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	8.08274E-001	1.74697E-001
Bi-214	0.400	609.31*		46.30	4.57714E-001	1.08860E-001
		1120.29		15.10		
		1764.49		15.80		
PB-214	0.624	74.82*	@	6.21	2.36373E+001	1.68940E+001
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	3.80410E-001	2.08137E-001
		351.92*		37.20	5.79090E-001	2.92676E-001
Ac-228	0.999	338.32*		11.40	8.48607E-001	3.65150E-001
		911.07*		27.70	8.61089E-001	1.85465E-001
		969.11*		16.60	7.76617E-001	2.50667E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-182-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
ANN		0.999	1.243868E-001	5.239201E-002
K-40		0.999	1.746487E+001	1.638402E+000
TL-208		0.749	3.559685E-001	8.271970E-002
Pb-212	@	0.596	8.082742E-001	1.746970E-001
Bi-214		0.400	4.577142E-001	1.088604E-001
PB-214	@	0.624	4.471411E-001	1.696190E-001
Ac-228		0.999	8.336919E-001	1.380304E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.85	2.9885E-001	77.51

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-182-F-G
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	1.3093E-001	1.03E-001	1.5288E-001
	1332.49	100.00	1.0335E-001		6.9204E-002
Nb-94	702.63	100.00	1.1823E-001	1.18E-001	-8.6053E-002
	871.10	100.00	1.1863E-001		3.3067E-002
Ag-108m	79.20	7.10	1.0332E+001	1.49E-001	4.2247E-001
	433.93	89.90	1.4917E-001		-8.5560E-002
	614.37	90.40	1.6342E-001		-7.7233E-002
	722.95	90.50	1.4856E-001		1.4539E-001
Sb-125	176.33	6.89	3.0433E+000	4.57E-001	9.0157E-001
	427.89	29.33	4.5690E-001		1.5616E-001
	463.38	10.35	1.2882E+000		-1.3317E+000
	600.56	17.80	7.5543E-001		4.3951E-001
	606.64	5.02	3.3139E+000		6.1949E+000
	635.90	11.32	1.0710E+000		-4.6711E-001
Cs-134	563.23	8.38	1.5792E+000	1.43E-001	-8.9594E-001
	569.32	15.43	8.6008E-001		-4.8729E-001
	604.70	97.60	1.7031E-001		3.6267E-002
	795.84	85.40	1.4256E-001		-1.0639E-001
	801.93	8.73	1.3878E+000		-8.0496E-001
Cs-137	661.65	85.12	1.4924E-001	1.49E-001	9.8224E-002
Eu-152	121.78	28.40	1.0662E+000	4.36E-001	-1.7389E-001
	244.69	7.49	2.3074E+000		-3.5308E+000
	344.27	26.50	5.7006E-001		3.3532E-001
	778.89	12.74	8.9322E-001		-6.2016E-001
	867.32	4.16	2.9400E+000		-4.5703E+000
	964.01	14.40	1.0045E+000		1.1150E-001
	1085.78	10.00	1.1485E+000		-7.1878E-001
	1112.02	13.30	8.2313E-001		-1.8622E-001
	1407.95	20.70	4.3639E-001		1.5409E-001
Eu-154	123.07	40.50	7.3355E-001	3.05E-001	1.4836E-001
	247.94	6.60	2.4882E+000		-7.8585E-001
	591.81	4.83	2.5550E+000		-3.5192E-001
	723.30	19.70	6.9292E-001		9.5888E-001
	756.87	4.33	2.6899E+000		2.3605E-001
	873.19	11.50	1.0095E+000		-2.6701E-001
	996.32	10.30	1.0734E+000		5.1315E-001
	1004.76	17.90	6.1611E-001		2.9746E-002
	1274.45	35.50	3.0509E-001		-2.4246E-001
Eu-155	86.54	30.90	2.0265E+000	1.86E+000	2.7497E+000
	105.31	20.70	1.8553E+000		-1.5986E-001
Am-241	59.54	35.90	5.2990E+000	5.30E+000	-1.5538E+000
Cm-243	228.19	10.56	1.6704E+000	1.18E+000	2.8857E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.1827E+000	1.18E+000	-1.0169E+000

+ = 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

Report Generated On 5/22/2006 10:23:20 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: YEL7810

Spectrum File: YEL7810
Sample ID: NOL-05-01-183
Sample Title: NOL-05-01-183-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/22/2006 10:13:18 PM
Live Time: 600.0 seconds
Real Time: 600.9 seconds

Energy Calibration Date: 5/9/2006
Eff Calibration Date: 5/1/2006
Calibration Efficiency: 7810Soil1m180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: YEL7810
Log Number: NOL-05-01-183
Title: NOL-05-01-183-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	624-	631	627.50	156.91	0.55	4.93E+001	47.26	2.64E+002
2	946-	965	955.86	239.00	1.74	2.68E+002	78.25	3.79E+002
3	2427-	2448	2436.54	609.21	1.46	1.50E+002	37.08	5.56E+001
4	3634-	3653	3643.76	911.04	1.15	8.72E+001	30.61	4.48E+001
5	5830-	5857	5842.68	1460.82	2.29	7.49E+002	57.72	2.69E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: YEL7810

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/Gram)	Activity Uncertainty
K-40	1.000	1460.81*		10.67	1.73029E+001	1.93387E+000
Pb-212	0.417	74.81	@	10.70		
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	8.29129E-001	2.74559E-001
Bi-214	0.406	609.31*		46.30	6.17332E-001	1.70090E-001
		1120.29		15.10		
		1764.49		15.80		

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:YEL7810

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Gram)	Wt mean Activity Uncertainty
K-40	1.000	1.730295E+001	1.933872E+000
Pb-212 @	0.417	8.291293E-001	2.745590E-001
Bi-214	0.406	6.173316E-001	1.700899E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
1	156.91	8.2231E-002	95.78
4	911.04	1.4530E-001	35.11

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:YEL7810
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Co-60	1173.22	100.00	1.0456E-001	1.04E-001	-9.7213E-002
	1332.49	100.00	1.0408E-001		3.5984E-002
Nb-94	702.63	100.00	1.2166E-001	9.70E-002	-8.1667E-003
	871.10	100.00	9.6980E-002		2.3372E-002
Ag-108m	79.20	7.10	9.1152E+000	1.34E-001	-1.0993E+001
	433.93	89.90	1.3401E-001		9.1304E-002
	614.37	90.40	1.4516E-001		-8.2445E-002
	722.95	90.50	1.4046E-001		1.4631E-001
Sb-125	176.33	6.89	2.7145E+000	4.21E-001	-9.7301E-001
	427.89	29.33	4.2137E-001		-1.5594E-001
	463.38	10.35	1.2421E+000		-8.7532E-001
	600.56	17.80	6.6500E-001		-2.2817E-001
	606.64	5.02	3.0388E+000		-7.2657E-001
	635.90	11.32	1.0757E+000		-4.7479E-002
Cs-134	563.23	8.38	1.3491E+000	1.34E-001	-2.4936E-001
	569.32	15.43	7.4678E-001		-6.9501E-002
	604.70	97.60	1.4661E-001		-2.3839E-002
	795.84	85.40	1.3377E-001		1.0397E-002
	801.93	8.73	1.1532E+000		-1.5798E+000
Cs-137	661.65	85.12	1.4899E-001	1.49E-001	-3.8813E-002
Eu-152	121.78	28.40	9.4974E-001	3.45E-001	-1.8397E-001
	244.69	7.49	2.1533E+000		-1.6391E+000
	344.27	26.50	4.8742E-001		-4.2372E-001
	778.89	12.74	9.0869E-001		-9.2689E-002
	867.32	4.16	2.3899E+000		-2.8234E-001
	964.01	14.40	9.6857E-001		2.9517E-001
	1085.78	10.00	1.0425E+000		-3.4583E-001
	1112.02	13.30	8.0019E-001		-1.5166E+000
	1407.95	20.70	3.4453E-001		-1.4569E-001
Eu-154	123.07	40.50	6.5981E-001	3.04E-001	-6.4028E-002
	247.94	6.60	2.3356E+000		-2.1685E+000
	591.81	4.83	2.4365E+000		7.7780E-002
	723.30	19.70	6.4351E-001		6.6529E-001
	756.87	4.33	2.6943E+000		-1.1936E+000
	873.19	11.50	8.5261E-001		1.1127E-001
	996.32	10.30	1.0736E+000		9.1050E-002
	1004.76	17.90	6.3217E-001		4.3417E-001
	1274.45	35.50	3.0398E-001		1.1842E-001
Eu-155	86.54	30.90	1.6097E+000	1.61E+000	2.2231E+000
	105.31	20.70	1.6688E+000		1.9460E-001
Am-241	59.54	35.90	3.2295E+000	3.23E+000	-1.3871E+000
Cm-243	228.19	10.56	1.5841E+000	1.05E+000	6.5289E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.0493E+000	1.05E+000	6.0882E-002

+ = 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

Report Generated On 5/25/2006 3:35:14 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: GRN7780

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-184-F-G
Sample ID: NOL-05-01-184
Sample Title: NOL-05-01-184-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/23/2006 3:14:40 PM
Live Time: 600.0 seconds
Real Time: 601.1 seconds

Energy Calibration Date: 4/19/2006
Eff Calibration Date: 3/23/2006
Calibration Efficiency: 7780Soil1M180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-184-F-G
Log Number: NOL-05-01-184
Title: NOL-05-01-184-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
F	1	288-	302	297.26	74.27	1.09	1.95E+002	267.48	1.20E+003
F	2	947-	962	952.97	238.20	1.28	1.57E+002	34.50	3.60E+002
F	3	2322-	2343	2331.48	582.83	1.53	1.14E+002	82.63	9.36E+001
F	4	2427-	2447	2435.55	608.85	1.55	8.29E+001	22.84	1.17E+002
F	5	4475-	4487	4483.32	1120.80	1.80	1.76E+001	14.13	3.72E+001
F	6	5829-	5858	5843.94	1460.95	1.94	7.29E+002	75.45	1.50E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-184-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.999	1460.81*	10.67	1.66885E+001	2.00583E+000
TL-208	0.469	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	2.61830E-001	1.91619E-001
		860.37	12.46		
Pb-212	0.592	74.81* @	10.70	7.56477E+000	1.04347E+001
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	5.10908E-001	1.35744E-001
Bi-214	0.702	609.31*	46.30	3.50152E-001	1.01660E-001
		1120.29*	15.10	2.60470E-001	2.10656E-001
		1764.49	15.80		

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-184-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40		0.999	1.668846E+001	2.005828E+000
TL-208		0.469	2.618304E-001	1.916193E-001
Pb-212	@	0.592	5.109082E-001	1.357442E-001
Bi-214		0.702	3.332112E-001	9.155618E-002

? = 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 1.960 sigma

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

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

All peaks were identified.

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-184-F-G
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	1.2022E-001	1.05E-001	-1.7349E-001
	1332.49	100.00	1.0520E-001		2.6438E-002
Nb-94	702.63	100.00	1.2359E-001	1.03E-001	-4.2983E-002
	871.10	100.00	1.0300E-001		-4.8548E-002
Ag-108m	79.20	7.10	1.0320E+001	1.44E-001	-8.9547E+000
	433.93	89.90	1.5467E-001		5.4911E-002
	614.37	90.40	1.6756E-001		-9.6783E-002
	722.95	90.50	1.4389E-001		6.1071E-003
Sb-125	176.33	6.89	3.0332E+000	4.64E-001	9.0284E-001
	427.89	29.33	4.6401E-001		-5.1160E-001
	463.38	10.35	1.4353E+000		-5.0163E-002
	600.56	17.80	7.6959E-001		-2.6869E-001
	606.64	5.02	3.4293E+000		4.6026E+000
	635.90	11.32	1.1121E+000		4.9476E-001
Cs-134	563.23	8.38	1.6051E+000	1.60E-001	1.0694E+000
	569.32	15.43	8.4984E-001		1.9951E-001
	604.70	97.60	1.7240E-001		6.0752E-002
	795.84	85.40	1.5976E-001		1.0024E-001
	801.93	8.73	1.3738E+000		-1.1827E+000
Cs-137	661.65	85.12	1.6941E-001	1.69E-001	8.6208E-002
Eu-152	121.78	28.40	1.0742E+000	4.61E-001	6.3151E-001
	244.69	7.49	2.3844E+000		-4.4086E+000
	344.27	26.50	5.9000E-001		-7.6684E-001
	778.89	12.74	9.6693E-001		-5.6319E-002
	867.32	4.16	2.5559E+000		-5.6207E+000
	964.01	14.40	9.8669E-001		7.6535E-001
	1085.78	10.00	1.1337E+000		2.6804E-001
	1112.02	13.30	9.1580E-001		-3.6567E-001
	1407.95	20.70	4.6095E-001		-1.7892E-001
Eu-154	123.07	40.50	7.4144E-001	2.99E-001	1.4056E-001
	247.94	6.60	2.5424E+000		-5.0895E-001
	591.81	4.83	2.7211E+000		-4.6438E-001
	723.30	19.70	6.6098E-001		1.0344E-002
	756.87	4.33	2.8996E+000		1.0056E+000
	873.19	11.50	9.0476E-001		4.6879E-001
	996.32	10.30	1.1198E+000		-7.3901E-001
	1004.76	17.90	6.0219E-001		-7.6382E-001
	1274.45	35.50	2.9856E-001		-6.2736E-002
Eu-155	86.54	30.90	1.9896E+000	1.84E+000	1.8228E+000
	105.31	20.70	1.8403E+000		-8.9951E-001
Am-241	59.54	35.90	5.1074E+000	5.11E+000	-1.7113E+000
Cm-243	228.19	10.56	1.6435E+000	1.17E+000	-2.0770E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.1660E+000	1.17E+000	3.2556E-001

+ = 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

Report Generated On 5/25/2006 3:36:03 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: GRN7780

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-185-F-G
Sample ID: NOL-05-01-185
Sample Title: NOL-05-01-185-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/23/2006 3:57:00 PM
Live Time: 600.0 seconds
Real Time: 601.9 seconds

Energy Calibration Date: 4/19/2006
Eff Calibration Date: 3/23/2006
Calibration Efficiency: 7780Soil1M180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-185-F-G
Log Number: NOL-05-01-185
Title: NOL-05-01-185-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
F	1	945-	961	954.53	238.59	1.28	2.27E+002	91.00	3.76E+002
M	2	1406-	1451	1426.65	356.62	1.38	2.75E+003	146.32	2.36E+003
m	3	1406-	1451	1441.30	360.28	1.38	6.03E+003	285.74	2.70E+003
F	4	1654-	1663	1658.56	414.60	1.42	2.35E+001	17.86	6.25E+001
F	5	2321-	2341	2331.22	582.77	1.53	1.79E+002	61.85	9.98E+001
F	6	2426-	2446	2435.64	608.87	1.55	1.31E+002	65.45	1.03E+002
F	7	3634-	3653	3642.65	910.63	1.71	9.49E+001	22.08	6.22E+001
F	8	3866-	3885	3874.12	968.49	1.73	7.24E+001	20.04	5.14E+001
F	9	5827-	5856	5842.16	1460.51	1.94	8.14E+002	80.47	2.22E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-185-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.997	1460.81*		10.67	1.86383E+001	2.16550E+000
TL-208	0.468	277.35		6.80		
		510.84		21.60		
		583.14*		84.20	4.10468E-001	1.47809E-001
		860.37		12.46		
Pb-212	0.446	74.81	@	10.70		
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	7.37035E-001	3.15522E-001
Bi-214	0.398	609.31*		46.30	5.53560E-001	2.81002E-001
		1120.29		15.10		
		1764.49		15.80		
Ac-228	0.629	338.32		11.40		
		911.07*		27.70	7.30711E-001	1.75943E-001
		969.11*		16.60	9.42014E-001	2.66462E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-185-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40		0.997	1.863835E+001	2.165503E+000
TL-208		0.468	4.104683E-001	1.478090E-001
Pb-212	@	0.446	7.370350E-001	3.155216E-001
Bi-214		0.398	5.535597E-001	2.810024E-001
Ac-228		0.629	7.948661E-001	1.468240E-001

? = 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 1.960 sigma

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

	Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M	2	356.62	4.5792E+000	5.33
m	3	360.28	1.0046E+001	4.74
F	4	414.60	3.9232E-002	75.86

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-185-F-G
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	1.3049E-001	1.15E-001	1.4757E-001
	1332.49	100.00	1.1452E-001		1.0133E-001
Nb-94	702.63	100.00	1.3500E-001	1.18E-001	1.4447E-001
	871.10	100.00	1.1820E-001		2.0300E-002
Ag-108m	79.20	7.10	9.8640E+000	1.49E-001	-1.9587E+001
	433.93	89.90	1.6376E-001		-6.3202E-002
	614.37	90.40	1.8516E-001		-2.9927E-002
	722.95	90.50	1.4894E-001		-1.9398E-001
Sb-125	176.33	6.89	3.1613E+000	5.01E-001	3.5439E-001
	427.89	29.33	5.0124E-001		-4.5837E-001
	463.38	10.35	1.4964E+000		-5.9712E-001
	600.56	17.80	8.2044E-001		-4.6350E-002
	606.64	5.02	3.5930E+000		7.7781E+000
	635.90	11.32	1.1546E+000		3.0018E-001
Cs-134	563.23	8.38	1.6450E+000	1.64E-001	1.6593E-001
	569.32	15.43	8.8019E-001		-1.3945E-001
	604.70	97.60	1.8099E-001		1.2000E-002
	795.84	85.40	1.6427E-001		4.4768E-002
	801.93	8.73	1.5073E+000		-1.8784E+000
Cs-137	661.65	85.12	1.6081E-001	1.61E-001	8.8675E-002
Eu-152	121.78	28.40	1.0551E+000	4.22E-001	-1.3004E-001
	244.69	7.49	2.3967E+000		-5.2545E+000
	344.27	26.50	1.2733E+000		-3.4711E+000
	778.89	12.74	1.0437E+000		-1.3362E-001
	867.32	4.16	2.8593E+000		-4.1845E+000
	964.01	14.40	1.1211E+000		4.1569E-001
	1085.78	10.00	1.2058E+000		-2.4605E-001
	1112.02	13.30	9.0875E-001		-8.0980E-001
	1407.95	20.70	4.2166E-001		-4.1028E-001
Eu-154	123.07	40.50	7.3060E-001	3.36E-001	1.6979E-001
	247.94	6.60	2.6455E+000		6.0862E-001
	591.81	4.83	3.0725E+000		2.3541E+000
	723.30	19.70	6.9118E-001		-5.0062E-001
	756.87	4.33	2.9688E+000		-1.6522E+000
	873.19	11.50	1.0246E+000		-3.1241E-001
	996.32	10.30	1.1643E+000		9.2436E-001
	1004.76	17.90	6.0500E-001		-4.7872E-001
	1274.45	35.50	3.3575E-001		-2.2014E-002
Eu-155	86.54	30.90	1.9230E+000	1.78E+000	1.5820E-001
	105.31	20.70	1.7843E+000		3.0050E-001
Am-241	59.54	35.90	4.9786E+000	4.98E+000	4.6423E+000
Cm-243	228.19	10.56	1.7441E+000	1.25E+000	1.7790E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.2515E+000	1.25E+000	-3.7633E-001

+ = 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

Report Generated On 5/24/2006 7:12:23 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: RED6264

Spectrum File: RED6264
Sample ID: NOL-05-01-186
Sample Title: NOL-05-01-186-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/24/2006 7:02:07 PM
Live Time: 600.0 seconds
Real Time: 601.1 seconds

Energy Calibration Date: 3/22/2006
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number: NOL-05-01-186
Title: NOL-05-01-186-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	281-	309	291.56	72.79	1.59	3.66E+002	78.83	2.07E+003
m	2	281-	309	300.08	74.92	1.59	8.83E+002	88.00	2.64E+003
	3	330-	345	339.29	84.73	1.10	2.32E+002	141.37	1.65E+003
	4	946-	961	953.23	238.25	1.04	2.90E+002	76.26	4.06E+002
	5	1176-	1185	1180.71	295.14	0.89	4.87E+001	39.07	1.53E+002
	6	1396-	1414	1406.55	351.61	1.52	1.53E+002	56.06	1.97E+002
	7	2322-	2341	2330.11	582.56	1.52	1.66E+002	49.26	1.32E+002
	8	2425-	2444	2434.77	608.74	1.48	1.65E+002	42.07	8.40E+001
	9	2899-	2911	2905.56	726.46	1.77	5.31E+001	25.43	4.39E+001
	10	3630-	3653	3642.66	910.79	1.78	1.82E+002	43.56	7.80E+001
	11	3864-	3884	3873.62	968.54	1.05	1.07E+002	36.40	6.53E+001
	12	4471-	4488	4478.89	1119.90	1.54	5.91E+001	26.93	3.99E+001
	13	5828-	5858	5842.29	1460.84	2.48	1.26E+003	71.25	1.19E+001
	14	6347-	6360	6353.39	1588.65	0.70	2.34E+001	15.03	1.26E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/gram)	Activity Uncertainty
K-40	1.000	1460.81*		10.67	2.18359E+001	2.15522E+000
TL-208	0.464	277.35		6.80		
		510.84		21.60		
		583.14*		84.20	2.89252E-001	9.38539E-002
		860.37		12.46		
Bi-212	0.984	727.17*		11.80	7.03324E-001	3.46589E-001
Pb-212	0.519	74.81*	@	10.70	1.31111E+001	2.88297E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	7.28686E-001	2.22838E-001
Bi-214	0.692	609.31*		46.30	5.31368E-001	1.50458E-001
		1120.29*		15.10	6.79936E-001	3.18003E-001
		1764.49		15.80		
PB-214	0.581	74.82*	@	6.21	2.25907E+001	5.23113E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	3.01520E-001	2.47241E-001
		351.92*		37.20	5.13646E-001	2.06985E-001
Ac-228	0.629	338.32		11.40		
		911.07*		27.70	1.07623E+000	2.85803E-001
		969.11*		16.60	1.07081E+000	3.82279E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
K-40		1.000	2.183589E+001	2.155223E+000
TL-208		0.464	2.892522E-001	9.385390E-002
Bi-212		0.984	7.033240E-001	3.465889E-001
Pb-212	@	0.519	7.286864E-001	2.228377E-001
Bi-214		0.692	5.585431E-001	1.360038E-001
PB-214	@	0.581	4.262363E-001	1.587098E-001
Ac-228		0.629	1.074284E+000	2.289028E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.79	6.0948E-001	21.56
3	84.73	3.8719E-001	60.85
14	1588.65	3.8935E-002	64.36

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Co-60	1173.22	100.00	1.1306E-001	8.58E-002	5.7130E-002
	1332.49	100.00	8.5795E-002		7.6669E-002
Nb-94	702.63	100.00	1.0395E-001	1.04E-001	8.5024E-002
	871.10	100.00	1.0359E-001		7.1824E-002
Ag-108m	79.20	7.10	5.6488E+000	1.26E-001	-4.5470E+000
	433.93	89.90	1.2567E-001		-1.3187E-001
	614.37	90.40	1.3755E-001		-3.4955E-002
	722.95	90.50	1.2633E-001		2.2772E-002
Sb-125	176.33	6.89	2.4662E+000	3.79E-001	1.4203E+000
	427.89	29.33	3.7922E-001		-1.5833E-002
	463.38	10.35	1.1631E+000		6.1313E-001
	600.56	17.80	6.0960E-001		2.6322E-001
	606.64	5.02	2.7278E+000		2.2395E+000
	635.90	11.32	8.8848E-001		-3.4914E-001
Cs-134	563.23	8.38	1.3527E+000	1.33E-001	2.5422E-001
	569.32	15.43	7.3725E-001		3.0911E-001
	604.70	97.60	1.4126E-001		2.6825E-002
	795.84	85.40	1.3306E-001		1.0065E-001
	801.93	8.73	1.1954E+000		-8.5508E-001
Cs-137	661.65	85.12	1.3162E-001	1.32E-001	-1.0801E-002
Eu-152	121.78	28.40	7.9939E-001	3.32E-001	-4.7838E-001
	244.69	7.49	1.9765E+000		-1.8620E+000
	344.27	26.50	4.3165E-001		-7.6625E-001
	778.89	12.74	7.8364E-001		-9.5759E-001
	867.32	4.16	2.4393E+000		-1.6758E+000
	964.01	14.40	9.3909E-001		2.0847E-001
	1085.78	10.00	9.5621E-001		-6.7611E-001
	1112.02	13.30	7.6780E-001		1.6827E-002
	1407.95	20.70	3.3220E-001		1.4339E-001
Eu-154	123.07	40.50	5.5578E-001	2.56E-001	-1.9297E-001
	247.94	6.60	2.1206E+000		-1.3047E+000
	591.81	4.83	2.1395E+000		-2.0435E+000
	723.30	19.70	5.8162E-001		2.5560E-001
	756.87	4.33	2.3310E+000		-2.2303E+000
	873.19	11.50	8.8615E-001		3.6187E-002
	996.32	10.30	9.4841E-001		8.6034E-001
	1004.76	17.90	5.0494E-001		-7.1896E-001
	1274.45	35.50	2.5573E-001		-1.6022E-001
Eu-155	86.54	30.90	1.1549E+000	1.15E+000	-1.8768E-001
	105.31	20.70	1.2426E+000		-1.7097E-001
Am-241	59.54	35.90	1.3787E+000	1.38E+000	-7.1641E-001
Cm-243	228.19	10.56	1.3620E+000	9.94E-001	-2.1951E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Cm-243	277.60	14.00	9.9426E-001	9.94E-001	4.3466E-001

+ = 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

Report Generated On 5/31/2006 4:12:38 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-187-F-G
Sample ID: NOL-05-01-187
Sample Title: NOL-05-01-187-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/31/2006 9:43:36 AM
Live Time: 600.0 seconds
Real Time: 600.5 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-187-F-G
Log Number: NOL-05-01-187
Title: NOL-05-01-187-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	285-	305	291.87	72.80	0.94	1.67E+002	40.49	5.02E+002
m	2	285-	305	300.41	74.93	0.95	2.42E+002	45.95	5.20E+002
	3	947-	960	954.66	238.54	1.19	1.17E+002	42.45	1.27E+002
	4	1175-	1187	1181.18	295.19	0.91	4.05E+001	30.57	7.55E+001
	5	1349-	1359	1353.36	338.25	1.32	3.39E+001	25.33	5.41E+001
	6	1401-	1413	1407.13	351.70	1.01	4.45E+001	26.36	5.15E+001
	7	2325-	2340	2332.39	583.08	0.59	6.62E+001	28.03	4.58E+001
	8	2430-	2442	2436.24	609.05	0.74	4.87E+001	24.38	3.93E+001
	9	3638-	3653	3645.35	911.42	0.85	5.34E+001	22.34	2.46E+001
	10	3868-	3882	3876.09	969.12	0.41	3.14E+001	18.84	2.06E+001
	11	5326-	5337	5331.35	1333.05	0.39	2.77E+001	10.88	1.31E+000
	12	5832-	5857	5845.01	1461.50	1.63	4.60E+002	42.64	3.21E+000
	13	7052-	7066	7059.97	1765.33	0.36	2.19E+001	10.45	2.07E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-187-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.983	1460.81*	10.67	2.46362E+001	2.87708E+000
TL-208	0.473	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.54032E-001	1.53137E-001
		860.37	12.46		
Pb-212	0.524	74.81* @	10.70	1.15014E+001	3.03614E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	9.42740E-001	3.72704E-001
Bi-214	0.692	609.31*	46.30	4.78175E-001	2.42965E-001
		1120.29	15.10		
		1764.49*	15.80	8.24598E-001	4.00185E-001
PB-214	0.585	74.82* @	6.21	1.98172E+001	5.42555E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	7.98293E-001	6.16868E-001
		351.92*	37.20	4.74272E-001	2.89342E-001
Ac-228	0.998	338.32*	11.40	1.16991E+000	8.87483E-001
		911.07*	27.70	9.70401E-001	4.12611E-001
		969.11*	16.60	9.69277E-001	5.84793E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-187-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40		0.983	2.463625E+001	2.877081E+000
TL-208		0.473	3.540324E-001	1.531374E-001
Pb-212	@	0.524	9.427405E-001	3.727042E-001
Bi-214		0.692	5.714778E-001	2.076847E-001
PB-214	@	0.585	5.327035E-001	2.619571E-001
Ac-228		0.998	9.952347E-001	3.151650E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.80	2.7771E-001	24.30
11	1333.05	4.6149E-002	39.30

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-187-F-G
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	2.5283E-001	1.91E-001	1.0884E-001
	1332.49	100.00	1.9136E-001		2.1645E-001
Nb-94	702.63	100.00	2.4254E-001	1.87E-001	1.5823E-001
	871.10	100.00	1.8673E-001		-4.1788E-002
Ag-108m	79.20	7.10	9.6824E+000	2.49E-001	-1.3302E+001
	433.93	89.90	2.4905E-001		-3.5941E-001
	614.37	90.40	2.7694E-001		-2.6011E-001
	722.95	90.50	2.6406E-001		-2.6168E-002
Sb-125	176.33	6.89	4.7337E+000	8.30E-001	4.3653E+000
	427.89	29.33	8.3020E-001		1.8456E-001
	463.38	10.35	2.3509E+000		-5.8084E-001
	600.56	17.80	1.1803E+000		-8.7484E-001
	606.64	5.02	5.4533E+000		4.7078E+000
	635.90	11.32	1.9118E+000		-4.5016E-001
Cs-134	563.23	8.38	2.8469E+000	2.54E-001	-1.5543E+000
	569.32	15.43	1.4607E+000		-7.7444E-001
	604.70	97.60	2.6027E-001		-2.3527E-001
	795.84	85.40	2.5374E-001		-7.7575E-002
	801.93	8.73	2.4287E+000		-9.7631E-002
Cs-137	661.65	85.12	2.7213E-001	2.72E-001	-1.6378E-002
Eu-152	121.78	28.40	1.5172E+000	7.23E-001	2.4253E-001
	244.69	7.49	3.8332E+000		1.0783E+000
	344.27	26.50	9.3580E-001		2.0606E-001
	778.89	12.74	1.5798E+000		-2.0598E+000
	867.32	4.16	4.5570E+000		-1.4647E+000
	964.01	14.40	1.7565E+000		-1.2428E-001
	1085.78	10.00	2.1994E+000		6.5506E-001
	1112.02	13.30	1.6308E+000		-1.2621E-001
	1407.95	20.70	7.2333E-001		-4.1051E-002
Eu-154	123.07	40.50	1.0517E+000	5.33E-001	-1.7293E-001
	247.94	6.60	4.0935E+000		4.3876E-001
	591.81	4.83	4.7537E+000		-1.0007E-001
	723.30	19.70	1.2614E+000		1.2814E+000
	756.87	4.33	4.4889E+000		-2.0779E+000
	873.19	11.50	1.7412E+000		1.5082E+000
	996.32	10.30	2.0573E+000		1.5653E+000
	1004.76	17.90	1.2266E+000		-3.6834E-001
	1274.45	35.50	5.3274E-001		-3.1486E-001
Eu-155	86.54	30.90	2.0825E+000	2.08E+000	2.0288E+000
	105.31	20.70	2.4486E+000		3.0923E-001
Am-241	59.54	35.90	2.6244E+000	2.62E+000	6.0047E-001
Cm-243	228.19	10.56	2.5172E+000	1.93E+000	5.4095E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.9303E+000	1.93E+000	7.3781E-001

+ = 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

Report Generated On 5/30/2006 3:02:29 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: ORG7829

Spectrum File: ORG7829
Sample ID: NOL-05-01-188
Sample Title: NOL-05-01-188-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/30/2006 2:47:27 PM
Live Time: 900.0 seconds
Real Time: 900.6 seconds

Energy Calibration Date: 5/10/2006
Eff Calibration Date: 4/26/2006
Calibration Efficiency: 7829Soil2m90170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: ORG7829
Log Number: NOL-05-01-188
Title: NOL-05-01-188-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	292-	310	301.28	75.32	1.42	1.69E+002	99.12	7.04E+002
2	946-	964	954.15	238.55	1.66	1.44E+002	59.64	2.29E+002
3	1348-	1359	1353.72	338.45	0.70	2.45E+001	29.64	8.05E+001
4	1395-	1414	1406.94	351.76	1.84	9.61E+001	39.55	8.89E+001
5	2033-	2047	2039.57	509.93	0.57	6.94E+001	34.05	7.86E+001
6	2323-	2339	2330.60	582.69	1.69	8.20E+001	30.26	5.00E+001
7	2426-	2442	2434.00	608.54	1.66	4.89E+001	29.50	5.61E+001
8	3632-	3651	3641.78	910.51	1.15	8.20E+001	26.81	3.00E+001
9	3868-	3881	3874.48	968.69	0.38	4.02E+001	17.64	1.48E+001
10	5827-	5852	5840.11	1460.13	1.62	5.03E+002	46.86	1.61E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: ORG7829

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Gram)	Activity Uncertainty
ANN	0.963	511.00*	100.00	2.54757E-001	1.29939E-001
K-40	0.985	1460.81*	10.67	2.35469E+001	2.90670E+000
TL-208	0.744	277.35	6.80		
		510.84*	21.60	1.17943E+000	6.09231E-001
		583.14*	84.20	3.72304E-001	1.45990E-001
		860.37	12.46		
Pb-212	0.576	74.81* @	10.70	1.15279E+001	7.13974E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	9.77640E-001	4.34189E-001
Bi-214	0.393	609.31*	46.30	4.08946E-001	2.52148E-001
		1120.29	15.10		
		1764.49	15.80		
Ac-228	0.993	338.32*	11.40	7.04900E-001	8.59376E-001
		911.07*	27.70	1.27395E+000	4.41669E-001
		969.11*	16.60	1.05828E+000	4.77786E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:ORG7829

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Gram)	Wt mean Activity Uncertainty
ANN	0.963	1.743397E-001	1.336848E-001
K-40	0.985	2.354691E+001	2.906697E+000
TL-208	0.744	3.723038E-001	1.454853E-001
Pb-212 @	0.576	9.776396E-001	4.341887E-001
Bi-214	0.393	4.089464E-001	2.521479E-001
Ac-228	0.993	1.116017E+000	3.034350E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
4	351.76	1.0683E-001	41.13

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:ORG7829
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Co-60	1173.22	100.00	1.9778E-001	1.88E-001	6.9313E-002
	1332.49	100.00	1.8751E-001		1.5728E-001
Nb-94	702.63	100.00	2.2090E-001	2.09E-001	2.1049E-001
	871.10	100.00	2.0854E-001		1.0288E-001
Ag-108m	79.20	7.10	1.4167E+001	2.46E-001	-4.0144E+000
	433.93	89.90	2.5147E-001		7.6939E-002
	614.37	90.40	2.4579E-001		5.5788E-002
	722.95	90.50	2.4860E-001		-2.0528E-003
Sb-125	176.33	6.89	4.4962E+000	7.49E-001	6.7989E-002
	427.89	29.33	7.4872E-001		4.7952E-001
	463.38	10.35	2.1497E+000		5.7315E-001
	600.56	17.80	1.1866E+000		-6.9199E-001
	606.64	5.02	5.0763E+000		3.3804E+000
	635.90	11.32	1.7720E+000		5.9737E-001
Cs-134	563.23	8.38	2.5900E+000	2.62E-001	-1.3725E-001
	569.32	15.43	1.3717E+000		1.1226E+000
	604.70	97.60	2.6152E-001		6.6285E-002
	795.84	85.40	2.6672E-001		1.8774E-001
	801.93	8.73	2.3182E+000		-7.6083E-001
Cs-137	661.65	85.12	2.4880E-001	2.49E-001	2.6855E-001
Eu-152	121.78	28.40	1.6159E+000	7.11E-001	1.5171E-001
	244.69	7.49	3.6603E+000		3.4339E-001
	344.27	26.50	9.0205E-001		5.1063E-001
	778.89	12.74	1.6299E+000		1.1202E+000
	867.32	4.16	5.0076E+000		-1.7765E+000
	964.01	14.40	1.7037E+000		-1.1161E+000
	1085.78	10.00	1.8889E+000		4.1530E-001
	1112.02	13.30	1.4754E+000		-1.3604E+000
	1407.95	20.70	7.1106E-001		4.8260E-001
Eu-154	123.07	40.50	1.1183E+000	5.15E-001	5.2218E-001
	247.94	6.60	4.0428E+000		-1.5742E+000
	591.81	4.83	4.6566E+000		2.0584E+000
	723.30	19.70	1.1379E+000		-2.8891E-001
	756.87	4.33	4.5626E+000		1.2848E+000
	873.19	11.50	1.7617E+000		1.2746E+000
	996.32	10.30	1.8396E+000		4.2267E-001
	1004.76	17.90	1.0675E+000		-2.2723E-002
	1274.45	35.50	5.1485E-001		-3.9325E-002
Eu-155	86.54	30.90	2.6065E+000	2.61E+000	4.1580E+000
	105.31	20.70	2.6509E+000		-5.7064E-001
Am-241	59.54	35.90	5.2817E+000	5.28E+000	1.1607E+000
Cm-243	228.19	10.56	2.8002E+000	1.83E+000	1.2036E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.8284E+000	1.83E+000	3.9928E-001

+ = 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

Report Generated On 5/30/2006 11:39:04 AM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BRN7722

Spectrum File: BRN7722
Sample ID: NOL-05-01-189
Sample Title: NOL-05-01-189-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/30/2006 11:28:57 AM
Live Time: 600.0 seconds
Real Time: 600.5 seconds

Energy Calibration Date: 4/7/2006
Eff Calibration Date: 3/23/2006
Calibration Efficiency: 7722Soil2m90170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: BRN7722
Log Number: NOL-05-01-189
Title: NOL-05-01-189-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
	1	297-	306	300.81	75.40	0.78	7.93E+001	54.00	2.99E+002
M	2	336-	354	339.85	85.16	0.84	9.09E+001	32.34	2.14E+002
m	3	336-	354	349.87	87.66	0.84	4.61E+001	27.58	2.58E+002
	4	950-	961	954.90	238.90	0.69	9.63E+001	37.13	9.97E+001
	5	1403-	1414	1408.47	352.28	0.60	3.65E+001	24.56	4.65E+001
	6	2326-	2340	2333.45	583.50	0.82	6.12E+001	20.76	1.78E+001
	7	2431-	2446	2438.19	609.68	0.80	5.17E+001	21.98	2.43E+001
	8	3640-	3653	3647.00	911.85	0.41	4.20E+001	18.47	1.70E+001
	9	5836-	5859	5848.08	1462.06	1.21	3.15E+002	36.71	8.96E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: BRN7722

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.951	1460.81*	10.67	2.07283E+001	2.94109E+000
TL-208	0.470	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.97175E-001	1.44612E-001
		860.37	12.46		
Pb-212	0.712	74.81* @	10.70	6.92649E+000	4.90852E+000
		77.11 @	18.00		
		87.30* @	8.00	3.62766E+000	2.28273E+000
		238.63*	44.60	9.42841E-001	3.92344E-001
Bi-214	0.403	609.31*	46.30	6.18232E-001	2.73878E-001
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.302	74.82* @	6.21	1.19345E+001	8.50178E+000
		77.11 @	10.50		
		87.30* @	4.67	6.21440E+000	3.93854E+000
		241.98	7.49		
		295.21	19.20		
		351.92*	37.20	4.65954E-001	3.22889E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:BRN7722

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40		0.951	2.072829E+001	2.941086E+000
TL-208		0.470	3.971752E-001	1.446123E-001
Pb-212	@	0.712	9.428408E-001	3.923437E-001
Bi-214		0.403	6.182318E-001	2.738779E-001
PB-214	@	0.302	4.659540E-001	3.218076E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 2	85.16	1.5158E-001	35.56
8	911.85	6.9986E-002	43.99

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:BRN7722
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	2.7798E-001	2.12E-001	1.7505E-001
	1332.49	100.00	2.1177E-001		1.6835E-001
Nb-94	702.63	100.00	2.6818E-001	2.33E-001	1.4242E-001
	871.10	100.00	2.3284E-001		1.1805E-002
Ag-108m	79.20	7.10	1.6317E+001	2.84E-001	2.9410E+000
	433.93	89.90	3.0921E-001		6.1488E-002
	614.37	90.40	3.2158E-001		-1.9103E-001
	722.95	90.50	2.8376E-001		-3.6513E-002
Sb-125	176.33	6.89	5.6341E+000	9.61E-001	3.6956E+000
	427.89	29.33	9.6114E-001		-6.5557E-001
	463.38	10.35	2.4158E+000		-1.0162E+000
	600.56	17.80	1.4733E+000		-6.0510E-001
	606.64	5.02	6.3393E+000		9.8067E+000
	635.90	11.32	2.2711E+000		-4.8060E-001
Cs-134	563.23	8.38	2.8264E+000	2.97E-001	-9.6261E-001
	569.32	15.43	1.6034E+000		1.2305E+000
	604.70	97.60	3.1783E-001		1.0567E-001
	795.84	85.40	2.9661E-001		3.3853E-001
	801.93	8.73	2.8322E+000		-1.8756E+000
Cs-137	661.65	85.12	3.0728E-001	3.07E-001	3.2367E-002
Eu-152	121.78	28.40	1.8686E+000	7.08E-001	-6.5266E-001
	244.69	7.49	4.5791E+000		-2.9333E+000
	344.27	26.50	1.0434E+000		-2.5212E+000
	778.89	12.74	1.9014E+000		-2.8320E-001
	867.32	4.16	6.0147E+000		6.1496E-001
	964.01	14.40	2.0330E+000		-7.5409E-001
	1085.78	10.00	2.2947E+000		-1.7131E-001
	1112.02	13.30	1.7022E+000		-1.6312E+000
	1407.95	20.70	7.0796E-001		-3.3211E-002
Eu-154	123.07	40.50	1.3131E+000	5.75E-001	1.2692E+000
	247.94	6.60	5.2779E+000		6.6230E-001
	591.81	4.83	5.5142E+000		3.8542E+000
	723.30	19.70	1.3189E+000		2.2599E-002
	756.87	4.33	5.5944E+000		2.4968E+000
	873.19	11.50	2.1495E+000		5.7710E-001
	996.32	10.30	2.2297E+000		-5.8921E-001
	1004.76	17.90	1.3284E+000		6.8730E-001
	1274.45	35.50	5.7485E-001		1.7249E-001
Eu-155	86.54	30.90	2.9817E+000	2.98E+000	2.3328E+000
	105.31	20.70	3.1632E+000		-1.6111E+000
Am-241	59.54	35.90	5.4610E+000	5.46E+000	4.1140E+000
Cm-243	228.19	10.56	3.3032E+000	2.23E+000	1.1249E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	2.2328E+000	2.23E+000	-1.9246E-001

+ = 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

Report Generated On 5/24/2006 1:49:15 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: RED6264

Spectrum File: RED6264
Sample ID: NOL-05-01-190
Sample Title: NOL-05-01-190-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/24/2006 1:39:10 PM
Live Time: 600.0 seconds
Real Time: 601.1 seconds

Energy Calibration Date: 3/22/2006
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number: NOL-05-01-190
Title: NOL-05-01-190-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	285-	308	291.40	72.75	1.52	3.51E+002	74.53	1.61E+003
m	2	285-	308	299.79	74.85	1.52	7.33E+002	83.01	2.49E+003
	3	942-	962	953.15	238.23	1.46	2.52E+002	89.65	5.06E+002
M	4	1173-	1206	1179.62	294.86	1.32	9.16E+001	28.19	1.79E+002
m	5	1173-	1206	1198.72	299.64	1.32	5.57E+001	25.20	2.24E+002
	6	1345-	1358	1351.95	337.96	1.27	6.53E+001	43.54	1.56E+002
	7	1401-	1415	1406.51	351.60	1.17	1.54E+002	44.23	1.23E+002
	8	2030-	2050	2042.24	510.58	1.31	1.54E+002	46.83	1.14E+002
	9	2321-	2342	2331.85	583.00	0.98	1.81E+002	51.64	1.37E+002
	10	2423-	2444	2436.22	609.10	1.46	1.69E+002	42.87	8.29E+001
	11	3631-	3653	3643.67	911.04	2.46	1.63E+002	37.84	5.40E+001
	12	3867-	3883	3875.58	969.03	0.38	8.83E+001	30.02	4.68E+001
	13	4471-	4487	4478.79	1119.88	1.70	4.53E+001	27.99	5.07E+001
	14	5830-	5857	5843.52	1461.15	2.15	1.04E+003	65.93	2.10E+001
	15	7051-	7066	7059.43	1765.21	0.93	3.97E+001	17.00	1.13E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	0.994	511.00*		100.00	2.16497E-001	7.21120E-002
K-40	0.996	1460.81*		10.67	1.79422E+001	1.84704E+000
TL-208	0.751	277.35		6.80		
		510.84*		21.60	1.00230E+000	3.43740E-001
		583.14*		84.20	3.16109E-001	9.90900E-002
		860.37		12.46		
Pb-212	0.518	74.81*	@	10.70	1.09032E+001	2.46798E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	6.33233E-001	2.45841E-001
Bi-214	0.995	609.31*		46.30	5.44548E-001	1.53478E-001
		1120.29*		15.10	5.21198E-001	3.26609E-001
		1764.49*		15.80	4.81374E-001	2.11776E-001
PB-214	0.581	74.82*	@	6.21	1.87866E+001	4.46573E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	5.67401E-001	1.98977E-001
		351.92*		37.20	5.17486E-001	1.71944E-001
Ac-228	0.999	338.32*		11.40	7.07730E-001	4.84881E-001
		911.07*		27.70	9.63655E-001	2.49688E-001
		969.11*		16.60	8.86084E-001	3.15366E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN		0.994	1.482180E-001	7.518843E-002
K-40		0.996	1.794221E+001	1.847036E+000
TL-208		0.751	3.161086E-001	9.855310E-002
Pb-212	@	0.518	6.332330E-001	2.458408E-001
Bi-214		0.995	5.225920E-001	1.161500E-001
PB-214	@	0.581	5.388246E-001	1.300987E-001
Ac-228		0.999	9.020861E-001	1.815241E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.75	5.8455E-001	21.25
m 5	299.64	9.2843E-002	45.24

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Co-60	1173.22	100.00	1.0701E-001	7.44E-002	3.2562E-002
	1332.49	100.00	7.4448E-002		2.4616E-002
Nb-94	702.63	100.00	1.0602E-001	1.02E-001	-6.0388E-002
	871.10	100.00	1.0215E-001		8.7282E-002
Ag-108m	79.20	7.10	5.6736E+000	1.25E-001	-8.6899E+000
	433.93	89.90	1.2857E-001		-1.3742E-002
	614.37	90.40	1.3910E-001		1.5607E-002
	722.95	90.50	1.2500E-001		9.7963E-002
Sb-125	176.33	6.89	2.3263E+000	3.99E-001	2.2585E-001
	427.89	29.33	3.9863E-001		1.5602E-001
	463.38	10.35	1.1103E+000		1.1356E+000
	600.56	17.80	5.8472E-001		4.6634E-002
	606.64	5.02	2.6879E+000		4.4706E+000
	635.90	11.32	9.1526E-001		4.0615E-001
Cs-134	563.23	8.38	1.2215E+000	1.20E-001	-8.1841E-001
	569.32	15.43	6.8068E-001		-7.5854E-002
	604.70	97.60	1.3678E-001		2.4892E-002
	795.84	85.40	1.2006E-001		9.5332E-002
	801.93	8.73	1.1570E+000		-1.6665E-001
Cs-137	661.65	85.12	1.2450E-001	1.25E-001	1.1512E-001
Eu-152	121.78	28.40	7.8082E-001	3.24E-001	-7.8388E-002
	244.69	7.49	1.9714E+000		-2.1219E-001
	344.27	26.50	4.6338E-001		-1.6393E-001
	778.89	12.74	7.3041E-001		-1.1073E+000
	867.32	4.16	2.3091E+000		-3.4268E+000
	964.01	14.40	8.9836E-001		1.7939E-001
	1085.78	10.00	9.5621E-001		-7.4447E-001
	1112.02	13.30	7.2650E-001		4.1157E-001
	1407.95	20.70	3.2383E-001		1.6006E-001
Eu-154	123.07	40.50	5.3908E-001	2.59E-001	-4.0758E-001
	247.94	6.60	2.0819E+000		-1.2176E+000
	591.81	4.83	2.1833E+000		1.4468E-001
	723.30	19.70	5.7797E-001		4.7196E-001
	756.87	4.33	2.4375E+000		-7.8214E-001
	873.19	11.50	8.7849E-001		-2.8802E-001
	996.32	10.30	9.7663E-001		3.5428E-001
	1004.76	17.90	5.4335E-001		4.1712E-001
	1274.45	35.50	2.5913E-001		1.3981E-001
Eu-155	86.54	30.90	1.1380E+000	1.14E+000	2.6539E+000
	105.31	20.70	1.2541E+000		-2.4601E-001
Am-241	59.54	35.90	1.4044E+000	1.40E+000	-2.7480E-001
Cm-243	228.19	10.56	1.3788E+000	9.69E-001	3.7156E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Cm-243	277.60	14.00	9.6909E-001	9.69E-001	7.2617E-001

+ = 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

Report Generated On 5/25/2006 3:36:48 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: GRN7780

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-191-F-G
Sample ID: NOL-05-01-191
Sample Title: NOL-05-01-191-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/23/2006 3:35:40 PM
Live Time: 600.0 seconds
Real Time: 601.1 seconds

Energy Calibration Date: 4/19/2006
Eff Calibration Date: 3/23/2006
Calibration Efficiency: 7780Soil1M180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-191-F-G
Log Number: NOL-05-01-191
Title: NOL-05-01-191-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	284-	308	291.25	72.77	1.08	1.91E+002	79.96	7.82E+002
m	2	284-	308	300.34	75.04	1.09	3.38E+002	114.95	1.32E+003
F	3	329-	345	338.13	84.49	1.10	1.38E+002	123.50	1.01E+003
F	4	945-	962	954.38	238.55	1.28	1.93E+002	36.40	3.97E+002
F	5	1398-	1415	1407.99	351.95	1.38	1.46E+002	82.85	1.64E+002
F	6	2322-	2343	2332.71	583.14	1.53	1.45E+002	61.85	1.07E+002
F	7	2428-	2446	2436.93	609.19	1.55	1.19E+002	57.25	7.70E+001
F	8	3638-	3655	3646.40	911.56	1.71	1.08E+002	64.63	3.61E+001
F	9	5831-	5859	5844.03	1460.98	1.94	9.54E+002	98.12	1.30E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-191-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.999	1460.81*	10.67	2.18507E+001	2.61297E+000
TL-208	0.471	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.33982E-001	1.45923E-001
		860.37	12.46		
Pb-212	0.596	74.81* @	10.70	1.26713E+001	4.74960E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	6.25555E-001	1.50994E-001
Bi-214	0.402	609.31*	46.30	5.04131E-001	2.46195E-001
		1120.29	15.10		
		1764.49	15.80		

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-191-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40		0.999	2.185074E+001	2.612972E+000
TL-208		0.471	3.339824E-001	1.459229E-001
Pb-212	@	0.596	6.255546E-001	1.509945E-001
Bi-214		0.402	5.041308E-001	2.461950E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.77	3.1798E-001	41.91
F 3	84.49	2.3027E-001	89.39
F 5	351.95	2.4250E-001	56.94
F 8	911.56	1.7958E-001	59.98

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-191-F-G
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	1.3401E-001	1.01E-001	3.3460E-002
	1332.49	100.00	1.0147E-001		-1.0462E-003
Nb-94	702.63	100.00	1.2094E-001	1.13E-001	-9.1403E-002
	871.10	100.00	1.1292E-001		-4.2666E-002
Ag-108m	79.20	7.10	9.8282E+000	1.54E-001	-7.9236E+000
	433.93	89.90	1.5410E-001		-5.1334E-002
	614.37	90.40	1.7037E-001		1.4741E-003
	722.95	90.50	1.5382E-001		1.3545E-001
Sb-125	176.33	6.89	3.0098E+000	4.86E-001	-2.4980E+000
	427.89	29.33	4.8636E-001		1.2448E-001
	463.38	10.35	1.4208E+000		1.6395E+000
	600.56	17.80	7.2624E-001		2.8119E-001
	606.64	5.02	3.2153E+000		3.7878E+000
	635.90	11.32	1.0965E+000		2.5910E-001
Cs-134	563.23	8.38	1.7013E+000	1.44E-001	1.7198E+000
	569.32	15.43	8.8416E-001		-1.1130E-001
	604.70	97.60	1.6251E-001		-3.7033E-002
	795.84	85.40	1.4442E-001		1.3512E-001
	801.93	8.73	1.2967E+000		-6.5103E-001
Cs-137	661.65	85.12	1.5573E-001	1.56E-001	1.3632E-001
Eu-152	121.78	28.40	1.0384E+000	4.18E-001	2.3517E-001
	244.69	7.49	2.3202E+000		-1.5880E+000
	344.27	26.50	5.8782E-001		-4.5866E-001
	778.89	12.74	9.7000E-001		-3.8754E-001
	867.32	4.16	2.8388E+000		-1.9564E+000
	964.01	14.40	1.0513E+000		1.8102E+000
	1085.78	10.00	1.0456E+000		-1.0935E+000
	1112.02	13.30	8.6891E-001		-1.4826E+000
	1407.95	20.70	4.1789E-001		9.5944E-002
Eu-154	123.07	40.50	7.1239E-001	3.02E-001	-3.0232E-001
	247.94	6.60	2.4727E+000		-1.9482E+000
	591.81	4.83	2.7076E+000		1.1836E+000
	723.30	19.70	7.0833E-001		4.5358E-001
	756.87	4.33	2.5833E+000		-2.6483E-001
	873.19	11.50	9.6265E-001		9.1803E-002
	996.32	10.30	1.0922E+000		-2.1687E-001
	1004.76	17.90	6.4036E-001		-1.2174E-003
	1274.45	35.50	3.0185E-001		-2.8830E-001
Eu-155	86.54	30.90	1.8942E+000	1.77E+000	3.1447E-001
	105.31	20.70	1.7691E+000		3.8800E-001
Am-241	59.54	35.90	4.5560E+000	4.56E+000	-1.3854E+000
Cm-243	228.19	10.56	1.7313E+000	1.15E+000	7.4187E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.1547E+000	1.15E+000	-1.7327E-001

+ = 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

Report Generated On 5/25/2006 3:37:29 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: GRN7780

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-192-F-G
Sample ID: NOL-05-01-192
Sample Title: NOL-05-01-192-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/23/2006 2:43:16 PM
Live Time: 600.0 seconds
Real Time: 601.0 seconds

Energy Calibration Date: 4/19/2006
Eff Calibration Date: 3/23/2006
Calibration Efficiency: 7780Soil1M180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-192-F-G
Log Number: NOL-05-01-192
Title: NOL-05-01-192-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
F	1	293-	306	298.41	74.56	1.09	1.75E+002	49.71	1.01E+003
F	2	946-	963	956.05	238.97	1.28	2.19E+002	98.52	3.43E+002
F	3	2030-	2047	2041.13	510.24	2.23	7.02E+001	78.98	1.10E+002
F	4	2322-	2342	2331.19	582.76	1.53	1.17E+002	57.96	9.72E+001
F	5	2428-	2448	2438.62	609.62	1.55	1.26E+002	56.47	6.43E+001
F	6	5829-	5858	5844.17	1461.01	1.94	7.60E+002	77.28	1.10E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-192-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.999	1460.81*	10.67	1.74024E+001	2.06390E+000
TL-208	0.745	277.35	6.80		
		510.84*	21.60	6.07217E-001	6.87430E-001
		583.14*	84.20	2.68961E-001	1.35813E-001
		860.37	12.46		
Pb-212	0.594	74.81* @	10.70	6.67950E+000	2.17348E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	7.12136E-001	3.37404E-001
Bi-214	0.400	609.31*	46.30	5.32672E-001	2.43513E-001
		1120.29	15.10		
		1764.49	15.80		

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-192-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
X	ANN		0.981		
	K-40		0.999	1.740239E+001	2.063904E+000
	TL-208		0.745	2.816677E-001	1.332379E-001
	Pb-212	@	0.594	7.121357E-001	3.374037E-001
	Bi-214		0.400	5.326716E-001	2.435131E-001

? = 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 1.960 sigma

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

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

All peaks were identified.

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-192-F-G
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	1.1318E-001	9.28E-002	-6.3550E-003
	1332.49	100.00	9.2837E-002		-6.2999E-002
Nb-94	702.63	100.00	1.2654E-001	1.08E-001	7.6057E-002
	871.10	100.00	1.0832E-001		-8.3412E-002
Ag-108m	79.20	7.10	9.8333E+000	1.51E-001	-6.2768E+000
	433.93	89.90	1.5495E-001		7.4442E-002
	614.37	90.40	1.6630E-001		-2.2898E-002
	722.95	90.50	1.5084E-001		5.8825E-002
Sb-125	176.33	6.89	2.9566E+000	4.72E-001	4.6217E-001
	427.89	29.33	4.7187E-001		-6.5106E-002
	463.38	10.35	1.3408E+000		4.5984E-001
	600.56	17.80	7.1874E-001		2.8598E-001
	606.64	5.02	3.2831E+000		-1.0240E+000
	635.90	11.32	1.1213E+000		2.9559E-001
Cs-134	563.23	8.38	1.5941E+000	1.43E-001	9.6036E-001
	569.32	15.43	8.9594E-001		5.3299E-001
	604.70	97.60	1.6223E-001		-4.5330E-002
	795.84	85.40	1.4350E-001		5.7165E-002
	801.93	8.73	1.2817E+000		-1.8447E+000
Cs-137	661.65	85.12	1.5252E-001	1.53E-001	5.2958E-002
Eu-152	121.78	28.40	1.0337E+000	4.14E-001	6.5313E-001
	244.69	7.49	2.2484E+000		-3.7803E+000
	344.27	26.50	5.8343E-001		-9.9536E-002
	778.89	12.74	8.7973E-001		-2.8612E-001
	867.32	4.16	2.7121E+000		-2.0145E+000
	964.01	14.40	1.0513E+000		1.5789E+000
	1085.78	10.00	1.0456E+000		-4.2926E-001
	1112.02	13.30	8.6519E-001		-6.9041E-001
	1407.95	20.70	4.1408E-001		-6.5590E-002
Eu-154	123.07	40.50	7.1099E-001	2.61E-001	-1.4292E-001
	247.94	6.60	2.4528E+000		-5.9323E-001
	591.81	4.83	2.6046E+000		-9.6280E-001
	723.30	19.70	6.9465E-001		3.3998E-001
	756.87	4.33	2.7555E+000		8.6671E-001
	873.19	11.50	9.4649E-001		-3.4486E-001
	996.32	10.30	1.1902E+000		-2.0005E-002
	1004.76	17.90	6.5084E-001		-4.7847E-001
	1274.45	35.50	2.6141E-001		-5.2346E-001
Eu-155	86.54	30.90	1.8667E+000	1.73E+000	1.4833E+000
	105.31	20.70	1.7301E+000		6.3434E-001
Am-241	59.54	35.90	5.1626E+000	5.16E+000	4.1685E+000
Cm-243	228.19	10.56	1.6273E+000	1.14E+000	-9.4818E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.1398E+000	1.14E+000	-9.6770E-001

+ = 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

Report Generated On 5/22/2006 10:01:04 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: YEL7810

Spectrum File: YEL7810
Sample ID: NOL-05-01-193
Sample Title: NOL-05-01-193-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/22/2006 9:51:02 PM
Live Time: 600.0 seconds
Real Time: 600.8 seconds

Energy Calibration Date: 5/9/2006
Eff Calibration Date: 5/1/2006
Calibration Efficiency: 7810Soil1m180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: YEL7810
Log Number: NOL-05-01-193
Title: NOL-05-01-193-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	945-	964	954.68	238.71	1.14	2.17E+002	77.90	3.88E+002
2	1777-	1786	1781.15	445.34	0.59	1.81E+001	20.12	3.79E+001
3	2318-	2339	2330.18	582.61	1.74	1.04E+002	42.06	9.52E+001
4	5828-	5856	5843.41	1461.01	2.16	7.24E+002	55.72	1.82E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: YEL7810

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/Gram)	Activity Uncertainty
K-40	0.999	1460.81*		10.67	1.67195E+001	1.86793E+000
TL-208	0.463	277.35		6.80		
		510.84		21.60		
		583.14*		84.20	2.30091E-001	9.79390E-002
		860.37		12.46		
Pb-212	0.420	74.81	@	10.70		
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	6.69802E-001	2.62566E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:YEL7810

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Gram)	Wt mean Activity Uncertainty
K-40	0.999	1.671947E+001	1.867934E+000
TL-208	0.463	2.300907E-001	9.793901E-002
Pb-212 @	0.420	6.698024E-001	2.625661E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
2	445.34	3.0149E-002	111.21

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:YEL7810
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Co-60	1173.22	100.00	1.0672E-001	8.33E-002	-3.8821E-003
	1332.49	100.00	8.3324E-002		-8.4481E-003
Nb-94	702.63	100.00	1.1600E-001	1.07E-001	3.6959E-002
	871.10	100.00	1.0719E-001		-4.6754E-002
Ag-108m	79.20	7.10	8.1966E+000	1.35E-001	-1.8099E+001
	433.93	89.90	1.3515E-001		1.5651E-002
	614.37	90.40	1.3844E-001		-2.5956E-001
	722.95	90.50	1.3728E-001		1.0600E-002
Sb-125	176.33	6.89	2.5980E+000	3.98E-001	3.7371E-001
	427.89	29.33	3.9785E-001		3.3943E-001
	463.38	10.35	1.1920E+000		1.1990E-001
	600.56	17.80	6.0039E-001		-4.1977E-001
	606.64	5.02	2.9696E+000		5.4748E+000
	635.90	11.32	9.7925E-001		6.2736E-001
Cs-134	563.23	8.38	1.4124E+000	1.24E-001	1.8960E-001
	569.32	15.43	7.3801E-001		-5.7208E-001
	604.70	97.60	1.4192E-001		6.3759E-002
	795.84	85.40	1.2418E-001		5.5207E-002
	801.93	8.73	1.0915E+000		-8.1395E-001
Cs-137	661.65	85.12	1.3983E-001	1.40E-001	2.7331E-002
Eu-152	121.78	28.40	8.8289E-001	3.85E-001	-6.7105E-001
	244.69	7.49	2.0276E+000		-3.0530E-001
	344.27	26.50	4.8121E-001		-6.5732E-001
	778.89	12.74	8.3212E-001		-5.3137E-001
	867.32	4.16	2.7867E+000		1.0326E+000
	964.01	14.40	8.8581E-001		8.2662E-001
	1085.78	10.00	1.0737E+000		-8.4163E-002
	1112.02	13.30	7.8829E-001		-7.1390E-001
	1407.95	20.70	3.8462E-001		-4.2571E-002
Eu-154	123.07	40.50	6.1849E-001	2.72E-001	2.8389E-001
	247.94	6.60	2.1223E+000		-3.5073E+000
	591.81	4.83	2.4575E+000		5.6902E-001
	723.30	19.70	6.3805E-001		4.2718E-001
	756.87	4.33	2.4436E+000		7.8565E-002
	873.19	11.50	9.1632E-001		8.2561E-001
	996.32	10.30	1.0066E+000		-2.9703E-001
	1004.76	17.90	5.4805E-001		-1.3089E-001
	1274.45	35.50	2.7158E-001		4.0770E-002
Eu-155	86.54	30.90	1.4997E+000	1.50E+000	2.7897E+000
	105.31	20.70	1.5680E+000		-5.5381E-002
Am-241	59.54	35.90	3.1202E+000	3.12E+000	-1.7463E+000
Cm-243	228.19	10.56	1.4599E+000	9.93E-001	-5.4219E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	9.9275E-001	9.93E-001	1.7262E-001

+ = 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

Report Generated On 5/22/2006 9:34:55 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: YEL7810

Spectrum File: YEL7810
Sample ID: NOL-05-01-194
Sample Title: NOL-05-01-194-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/22/2006 9:24:52 PM
Live Time: 600.0 seconds
Real Time: 600.9 seconds

Energy Calibration Date: 5/9/2006
Eff Calibration Date: 5/1/2006
Calibration Efficiency: 7810Soil1m180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: YEL7810
Log Number: NOL-05-01-194
Title: NOL-05-01-194-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	947-	964	954.87	238.75	1.44	1.71E+002	69.25	3.29E+002
2	1399-	1419	1408.63	352.21	1.40	7.45E+001	53.75	1.87E+002
3	3866-	3883	3876.19	969.15	0.94	6.09E+001	28.05	4.41E+001
4	5829-	5856	5842.64	1460.81	2.79	8.20E+002	58.71	1.73E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: YEL7810

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/Gram)	Activity Uncertainty
K-40	1.000	1460.81*		10.67	1.89329E+001	2.04658E+000
Pb-212	0.419	74.81	@	10.70		
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	5.27037E-001	2.29355E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:YEL7810

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Gram)	Wt mean Activity Uncertainty
K-40	1.000	1.893293E+001	2.046578E+000
Pb-212	@ 0.419	5.270371E-001	2.293551E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
2	352.21	1.2416E-001	72.15
3	969.15	1.0150E-001	46.06

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:YEL7810
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Co-60	1173.22	100.00	1.1643E-001	9.29E-002	-1.7554E-002
	1332.49	100.00	9.2929E-002		4.0841E-002
Nb-94	702.63	100.00	1.2166E-001	1.08E-001	4.5188E-002
	871.10	100.00	1.0811E-001		4.7039E-002
Ag-108m	79.20	7.10	8.7412E+000	1.37E-001	-1.6490E+001
	433.93	89.90	1.3879E-001		-3.0400E-003
	614.37	90.40	1.4024E-001		-1.1964E-001
	722.95	90.50	1.3687E-001		3.4812E-002
Sb-125	176.33	6.89	2.6859E+000	4.15E-001	3.9999E-001
	427.89	29.33	4.1455E-001		-2.8594E-001
	463.38	10.35	1.2148E+000		8.0373E-001
	600.56	17.80	6.9128E-001		5.6689E-001
	606.64	5.02	2.9803E+000		3.5772E+000
	635.90	11.32	1.0059E+000		5.7258E-001
Cs-134	563.23	8.38	1.3732E+000	1.34E-001	2.5455E-001
	569.32	15.43	7.4460E-001		-7.1031E-002
	604.70	97.60	1.4545E-001		-7.9175E-002
	795.84	85.40	1.3426E-001		4.8101E-002
	801.93	8.73	1.1641E+000		-1.1916E+000
Cs-137	661.65	85.12	1.4154E-001	1.42E-001	8.1026E-002
Eu-152	121.78	28.40	9.2476E-001	3.35E-001	2.1094E-002
	244.69	7.49	2.0941E+000		1.5565E+000
	344.27	26.50	4.9049E-001		-6.5008E-001
	778.89	12.74	8.9587E-001		4.0377E-001
	867.32	4.16	2.6614E+000		-3.3356E+000
	964.01	14.40	9.5573E-001		-3.3641E-001
	1085.78	10.00	1.1715E+000		2.2801E-001
	1112.02	13.30	7.9624E-001		3.7804E-002
	1407.95	20.70	3.3490E-001		-5.7431E-001
Eu-154	123.07	40.50	6.3507E-001	2.73E-001	-2.6065E-001
	247.94	6.60	2.2448E+000		-9.9470E-001
	591.81	4.83	2.4506E+000		7.8231E-001
	723.30	19.70	6.3255E-001		2.4828E-001
	756.87	4.33	2.7667E+000		1.3650E+000
	873.19	11.50	9.3654E-001		2.0243E-001
	996.32	10.30	9.9668E-001		-6.3707E-001
	1004.76	17.90	6.0550E-001		3.9285E-001
	1274.45	35.50	2.7339E-001		-9.9432E-002
Eu-155	86.54	30.90	1.5192E+000	1.52E+000	2.0180E+000
	105.31	20.70	1.6337E+000		9.1396E-001
Am-241	59.54	35.90	3.2259E+000	3.23E+000	2.0309E+000
Cm-243	228.19	10.56	1.5620E+000	1.04E+000	9.8588E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.0392E+000	1.04E+000	4.1065E-002

+ = 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

Report Generated On 5/22/2006 8:52:03 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: YEL7810

Spectrum File: YEL7810
Sample ID: NOL-05-01-195
Sample Title: NOL-05-01-195-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/22/2006 8:42:00 PM
Live Time: 600.0 seconds
Real Time: 600.9 seconds

Energy Calibration Date: 5/9/2006
Eff Calibration Date: 5/1/2006
Calibration Efficiency: 7810Soil1m180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: YEL7810
Log Number: NOL-05-01-195
Title: NOL-05-01-195-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	300-	309	303.67	75.94	0.95	9.69E+001	88.47	8.39E+002
2	946-	965	955.85	239.00	1.62	2.29E+002	78.50	3.91E+002
3	2325-	2339	2331.44	582.93	2.27	8.17E+001	37.58	9.83E+001
4	2427-	2447	2435.28	608.89	2.06	1.56E+002	37.74	5.96E+001
5	3631-	3652	3643.56	910.99	0.78	1.10E+002	32.44	4.37E+001
6	5828-	5857	5843.23	1460.96	2.82	7.37E+002	56.40	1.89E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: YEL7810

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Gram)	Activity Uncertainty
K-40	0.999	1460.81*	10.67	1.70253E+001	1.89662E+000
TL-208	0.469	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	1.81213E-001	8.66035E-002
		860.37	12.46		
Pb-212	0.567	74.81* @	10.70	2.91245E+000	2.71949E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	7.07434E-001	2.66750E-001
Bi-214	0.403	609.31*	46.30	6.41550E-001	1.73855E-001
		1120.29	15.10		
		1764.49	15.80		

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:YEL7810

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Gram)	Wt mean Activity Uncertainty
K-40	0.999	1.702531E+001	1.896623E+000
TL-208	0.469	1.812126E-001	8.660351E-002
Pb-212 @	0.567	7.074344E-001	2.667500E-001
Bi-214	0.403	6.415495E-001	1.738553E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
5	910.99	1.8378E-001	29.42

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:YEL7810
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Co-60	1173.22	100.00	1.2891E-001	9.64E-002	8.2932E-002
	1332.49	100.00	9.6351E-002		3.5273E-002
Nb-94	702.63	100.00	1.1943E-001	1.10E-001	-1.5041E-004
	871.10	100.00	1.0992E-001		-2.7969E-002
Ag-108m	79.20	7.10	8.7253E+000	1.40E-001	-2.6153E+000
	433.93	89.90	1.3962E-001		2.9439E-002
	614.37	90.40	1.4059E-001		-2.3040E-002
	722.95	90.50	1.3967E-001		1.5912E-001
Sb-125	176.33	6.89	2.6914E+000	4.08E-001	9.2018E-001
	427.89	29.33	4.0760E-001		-2.5937E-001
	463.38	10.35	1.2592E+000		1.1657E+000
	600.56	17.80	7.1301E-001		1.1471E-001
	606.64	5.02	3.1826E+000		-5.6678E-002
	635.90	11.32	1.0634E+000		-2.7027E-001
Cs-134	563.23	8.38	1.4543E+000	1.34E-001	9.3035E-001
	569.32	15.43	7.7455E-001		3.8574E-002
	604.70	97.60	1.5771E-001		5.1852E-002
	795.84	85.40	1.3426E-001		4.6217E-002
	801.93	8.73	1.2770E+000		2.5954E-001
Cs-137	661.65	85.12	1.4111E-001	1.41E-001	4.0912E-002
Eu-152	121.78	28.40	9.4021E-001	3.97E-001	7.4218E-001
	244.69	7.49	2.1444E+000		-2.5819E+000
	344.27	26.50	5.1658E-001		-2.3768E-001
	778.89	12.74	8.2157E-001		-5.6700E-002
	867.32	4.16	2.5853E+000		-1.6830E+000
	964.01	14.40	9.2949E-001		7.6881E-001
	1085.78	10.00	1.1383E+000		2.3458E-001
	1112.02	13.30	7.5559E-001		-1.2284E+000
	1407.95	20.70	3.9701E-001		2.8821E-001
Eu-154	123.07	40.50	6.4795E-001	2.72E-001	2.0129E-002
	247.94	6.60	2.2536E+000		-2.7313E+000
	591.81	4.83	2.4012E+000		-3.1071E+000
	723.30	19.70	6.4351E-001		6.6349E-001
	756.87	4.33	2.8371E+000		7.4712E-001
	873.19	11.50	9.4845E-001		-7.0954E-001
	996.32	10.30	9.9668E-001		-1.2632E+000
	1004.76	17.90	5.9170E-001		7.5474E-002
	1274.45	35.50	2.7158E-001		-4.6687E-002
Eu-155	86.54	30.90	1.5670E+000	1.57E+000	1.9288E+000
	105.31	20.70	1.6196E+000		8.4920E-001
Am-241	59.54	35.90	3.2222E+000	3.22E+000	-1.2264E+000
Cm-243	228.19	10.56	1.5514E+000	1.04E+000	5.4265E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.0392E+000	1.04E+000	2.6341E-001

+ = 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

Report Generated On 5/22/2006 6:44:54 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: YEL7810

Spectrum File: YEL7810
Sample ID: NOL-05-01-196
Sample Title: NOL-05-01-196-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/22/2006 6:34:51 PM
Live Time: 600.0 seconds
Real Time: 601.0 seconds

Energy Calibration Date: 5/9/2006
Eff Calibration Date: 5/1/2006
Calibration Efficiency: 7810Soil1m180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: YEL7810
Log Number: NOL-05-01-196
Title: NOL-05-01-196-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	2321-	2341	2332.51	583.20	1.71	1.04E+002	43.15	1.05E+002
2	3101-	3113	3107.01	776.84	0.43	1.88E+001	17.74	2.32E+001
3	5829-	5858	5843.56	1461.04	2.45	7.68E+002	57.38	1.87E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: YEL7810

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Gram)	Activity Uncertainty
K-40	0.998	1460.81*	10.67	1.77477E+001	1.95480E+000
TL-208	0.470	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	2.30669E-001	1.00311E-001
		860.37	12.46		

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:YEL7810

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Gram)	Wt mean Activity Uncertainty
K-40	0.998	1.774769E+001	1.954804E+000
TL-208	0.470	2.306694E-001	1.003105E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
2	776.84	3.1329E-002	94.38

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:YEL7810
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Co-60	1173.22	100.00	1.1346E-001	9.15E-002	5.3994E-002
	1332.49	100.00	9.1522E-002		6.6572E-002
Nb-94	702.63	100.00	1.1754E-001	1.16E-001	-1.0259E-002
	871.10	100.00	1.1646E-001		2.7575E-002
Ag-108m	79.20	7.10	9.0174E+000	1.42E-001	-1.6530E+001
	433.93	89.90	1.4180E-001		4.4227E-002
	614.37	90.40	1.5057E-001		-2.2663E-001
	722.95	90.50	1.4548E-001		1.5227E-001
Sb-125	176.33	6.89	2.7763E+000	4.14E-001	2.4345E+000
	427.89	29.33	4.1369E-001		2.1980E-001
	463.38	10.35	1.2688E+000		7.3539E-001
	600.56	17.80	6.9495E-001		8.7974E-002
	606.64	5.02	2.9803E+000		3.5931E+000
	635.90	11.32	1.0254E+000		3.9533E-001
Cs-134	563.23	8.38	1.4803E+000	1.36E-001	2.8032E-001
	569.32	15.43	7.6612E-001		-8.1609E-001
	604.70	97.60	1.4975E-001		1.0676E-002
	795.84	85.40	1.3618E-001		-2.8194E-002
	801.93	8.73	1.2770E+000		5.7198E-001
Cs-137	661.65	85.12	1.5020E-001	1.50E-001	-6.2727E-002
Eu-152	121.78	28.40	9.6212E-001	4.36E-001	-4.3630E-002
	244.69	7.49	2.2331E+000		-4.4820E+000
	344.27	26.50	5.2806E-001		-3.7455E-001
	778.89	12.74	9.1819E-001		-3.2706E-002
	867.32	4.16	2.8966E+000		-2.7019E+000
	964.01	14.40	9.1065E-001		-1.7648E-001
	1085.78	10.00	1.1668E+000		-7.7668E-002
	1112.02	13.30	7.8025E-001		-1.1712E+000
	1407.95	20.70	4.3557E-001		1.7473E-001
Eu-154	123.07	40.50	6.6641E-001	2.79E-001	1.5678E-002
	247.94	6.60	2.3545E+000		-1.8371E+000
	591.81	4.83	2.2309E+000		-1.8315E+000
	723.30	19.70	6.6489E-001		5.3075E-001
	756.87	4.33	2.6943E+000		1.2405E+000
	873.19	11.50	1.0350E+000		1.3365E+000
	996.32	10.30	1.0873E+000		4.9804E-002
	1004.76	17.90	6.3477E-001		5.2258E-001
	1274.45	35.50	2.7874E-001		2.6820E-002
Eu-155	86.54	30.90	1.6497E+000	1.65E+000	2.6662E+000
	105.31	20.70	1.7130E+000		-3.2123E-001
Am-241	59.54	35.90	3.2952E+000	3.30E+000	-1.3150E+000
Cm-243	228.19	10.56	1.5934E+000	1.09E+000	-1.5306E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.0922E+000	1.09E+000	9.3451E-001

+ = 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

Report Generated On 5/21/2006 9:15:26 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-01-197
Sample Title: NOL-05-01-197-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/21/2006 9:05:23 PM
Live Time: 600.0 seconds
Real Time: 601.3 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-01-197
Title: NOL-05-01-197-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	283-	306	291.62	72.73	0.80	4.58E+002	70.70	1.50E+003
m	2	283-	306	300.35	74.92	0.81	7.94E+002	83.97	1.59E+003
	3	332-	345	340.40	84.93	0.91	2.53E+002	144.22	1.87E+003
	4	949-	961	954.23	238.44	0.93	2.80E+002	66.68	3.24E+002
	5	1175-	1185	1180.42	295.00	0.79	5.39E+001	43.29	1.81E+002
	6	1347-	1357	1352.05	337.92	0.76	5.88E+001	37.43	1.28E+002
	7	1400-	1415	1407.10	351.69	1.04	1.29E+002	49.48	1.69E+002
	8	2030-	2052	2041.73	510.39	1.51	1.98E+002	50.67	1.21E+002
	9	2325-	2340	2331.49	582.86	1.29	1.84E+002	42.27	9.32E+001
	10	2427-	2444	2435.50	608.87	1.10	1.44E+002	43.90	1.09E+002
	11	2640-	2652	2644.77	661.20	1.20	3.70E+001	28.72	6.40E+001
	12	2899-	2914	2907.60	726.93	0.47	4.19E+001	31.19	7.01E+001
	13	3633-	3653	3642.97	910.82	1.28	1.42E+002	37.78	6.32E+001
	14	3869-	3884	3875.09	968.87	0.62	6.91E+001	25.63	3.39E+001
	15	4472-	4487	4479.77	1120.09	1.37	6.70E+001	26.84	4.00E+001
	16	4685-	4698	4691.76	1173.10	0.87	2.64E+001	25.22	4.96E+001
	17	5321-	5337	5329.01	1332.46	0.47	5.82E+001	20.63	1.68E+001
	18	5829-	5856	5842.77	1460.94	1.85	1.06E+003	66.51	2.10E+001
	19	6714-	6727	6720.81	1680.52	0.79	1.83E+001	9.42	1.71E+000
	20	7050-	7068	7058.61	1764.99	1.00	5.30E+001	19.03	1.20E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
ANN	0.987	511.00*		100.00	2.70061E-001	7.81935E-002
K-40	0.999	1460.81*		10.67	1.77287E+001	1.81789E+000
Co-60	1.000	1173.22*		100.00	4.49610E-002	4.31730E-002
		1332.49*		100.00	1.02264E-001	3.71379E-002
Cs-137	0.993	661.65*		85.12	6.45024E-002	5.06855E-002
TL-208	0.749	277.35		6.80		
		510.84*		21.60	1.25028E+000	3.76131E-001
		583.14*		84.20	3.10957E-001	8.21979E-002
		860.37		12.46		
Bi-212	0.998	727.17*		11.80	5.37966E-001	4.05159E-001
Pb-212	0.520	74.81*	@	10.70	1.13581E+001	2.52967E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	6.80819E-001	1.94076E-001
Bi-214	0.994	609.31*		46.30	4.50179E-001	1.47853E-001
		1120.29*		15.10	7.46862E-001	3.09486E-001
		1764.49*		15.80	6.22211E-001	2.32054E-001
PB-214	0.581	74.82*	@	6.21	1.95703E+001	4.58437E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	3.23152E-001	2.65387E-001
		351.92*		37.20	4.19174E-001	1.75699E-001
Ac-228	0.997	338.32*		11.40	6.17974E-001	4.04969E-001
		911.07*		27.70	8.11678E-001	2.35536E-001
		969.11*		16.60	6.71772E-001	2.58899E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
ANN		0.987	2.028943E-001	8.015400E-002
K-40		0.999	1.772871E+001	1.817890E+000
Co-60		1.000	7.789463E-002	2.815447E-002
Cs-137		0.993	6.450242E-002	5.068546E-002
TL-208		0.749	3.109566E-001	8.157079E-002
Bi-212		0.998	5.379662E-001	4.051587E-001
Pb-212	@	0.520	6.808187E-001	1.940759E-001
Bi-214		0.994	5.343495E-001	1.156586E-001
PB-214	@	0.581	3.899126E-001	1.465018E-001
Ac-228		0.997	7.279634E-001	1.600422E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.73	7.6279E-001	15.45
3	84.93	4.2218E-001	56.94
19	1680.52	3.0479E-002	51.51

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
+	Co-60	1173.22*	100.00	7.0847E-002	4.67E-002	4.4961E-002
		1332.49*	100.00	4.6698E-002		1.0226E-001
	Nb-94	702.63	100.00	1.0226E-001	9.57E-002	2.1887E-003
		871.10	100.00	9.5729E-002		-3.9218E-002
	Ag-108m	79.20	7.10	5.3849E+000	1.19E-001	-2.2583E+000
		433.93	89.90	1.1915E-001		-7.5464E-003
		614.37	90.40	1.2898E-001		7.5729E-002
		722.95	90.50	1.2396E-001		-8.6614E-003
	Sb-125	176.33	6.89	2.2806E+000	3.88E-001	-1.3041E+000
		427.89	29.33	3.8811E-001		2.1443E-001
		463.38	10.35	1.0815E+000		1.3351E-001
		600.56	17.80	5.5513E-001		-3.0789E-001
		606.64	5.02	2.6343E+000		4.2398E+000
		635.90	11.32	8.8532E-001		-4.7741E-001
	Cs-134	563.23	8.38	1.2161E+000	1.24E-001	-2.8390E-001
		569.32	15.43	6.5132E-001		2.6850E-002
		604.70	97.60	1.3096E-001		-8.3001E-003
		795.84	85.40	1.2423E-001		1.4123E-001
		801.93	8.73	1.1078E+000		2.7066E-001
+	Cs-137	661.65*	85.12	8.1256E-002	8.13E-002	6.4502E-002
	Eu-152	121.78	28.40	7.8341E-001	3.22E-001	-5.5886E-001
		244.69	7.49	1.8458E+000		-7.9254E-001
		344.27	26.50	4.3401E-001		9.9444E-002
		778.89	12.74	7.8875E-001		-6.5353E-001
		867.32	4.16	2.3749E+000		-1.3286E+000
		964.01	14.40	7.9555E-001		-6.7169E-002
		1085.78	10.00	1.0421E+000		6.0304E-001
		1112.02	13.30	7.4662E-001		-6.6146E-001
		1407.95	20.70	3.2211E-001		-5.9207E-002
	Eu-154	123.07	40.50	5.4465E-001	2.70E-001	-4.1030E-001
		247.94	6.60	2.0661E+000		4.3720E-001
		591.81	4.83	2.0213E+000		-1.4220E+000
		723.30	19.70	5.6599E-001		9.1562E-002
		756.87	4.33	2.2271E+000		4.1390E-001
		873.19	11.50	8.4789E-001		-9.8326E-002
		996.32	10.30	9.4588E-001		6.6888E-001
		1004.76	17.90	5.2268E-001		2.6407E-001
		1274.45	35.50	2.7021E-001		6.8963E-002
	Eu-155	86.54	30.90	1.1368E+000	1.14E+000	3.0751E-002
		105.31	20.70	1.3323E+000		-2.0189E-001
	Am-241	59.54	35.90	1.4244E+000	1.42E+000	-4.8879E-001
	Cm-243	228.19	10.56	1.3036E+000	9.10E-001	2.0909E-002

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	9.0990E-001	9.10E-001	-8.0030E-001

+ = 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

Report Generated On 5/25/2006 3:38:17 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: GRN7780

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-198-F-G
Sample ID: NOL-05-01-198
Sample Title: NOL-05-01-198-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/23/2006 9:30:37 PM
Live Time: 600.0 seconds
Real Time: 601.2 seconds

Energy Calibration Date: 4/19/2006
Eff Calibration Date: 3/23/2006
Calibration Efficiency: 7780Soil1M180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-198-F-G
Log Number: NOL-05-01-198
Title: NOL-05-01-198-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
F	1	519-	528	523.07	130.72	1.17	9.21E+001	43.11	5.56E+002
F	2	2322-	2341	2329.94	582.45	1.53	1.07E+002	23.46	9.05E+001
F	3	2427-	2439	2434.42	608.57	1.55	3.89E+001	23.59	1.27E+002
F	4	3636-	3655	3644.50	911.09	1.71	9.00E+001	63.79	5.27E+001
F	5	5826-	5857	5843.31	1460.80	1.94	7.46E+002	70.76	1.98E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-198-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	1.000	1460.81*	10.67	1.70730E+001	1.92647E+000
TL-208	0.460	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	2.46827E-001	5.91780E-002
		860.37	12.46		
Bi-214	0.391	609.31*	46.30	1.64453E-001	1.00770E-001
		1120.29	15.10		
		1764.49	15.80		

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-198-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40	1.000	1.707300E+001	1.926474E+000
TL-208	0.460	2.468269E-001	5.917799E-002
Bi-214	0.391	1.644528E-001	1.007703E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
F 1	130.72	1.5355E-001	46.79
F 4	911.09	1.5006E-001	70.85

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-198-F-G
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	1.3660E-001	1.31E-001	4.7605E-002
	1332.49	100.00	1.3060E-001		2.3715E-001
Nb-94	702.63	100.00	1.2727E-001	1.24E-001	-2.2578E-002
	871.10	100.00	1.2406E-001		-1.6017E-001
Ag-108m	79.20	7.10	1.1347E+001	1.63E-001	-2.6343E+001
	433.93	89.90	1.7686E-001		-4.2029E-003
	614.37	90.40	1.8374E-001		-1.9000E-001
	722.95	90.50	1.6348E-001		5.6840E-002
Sb-125	176.33	6.89	3.3639E+000	5.37E-001	-1.5029E-001
	427.89	29.33	5.3732E-001		1.2137E-001
	463.38	10.35	1.4941E+000		8.2123E-001
	600.56	17.80	8.3829E-001		-1.9623E-001
	606.64	5.02	3.6628E+000		7.7069E+000
	635.90	11.32	1.1839E+000		-4.9410E-001
Cs-134	563.23	8.38	1.7558E+000	1.50E-001	8.7558E-001
	569.32	15.43	9.2849E-001		7.3577E-001
	604.70	97.60	1.7851E-001		5.5252E-002
	795.84	85.40	1.4987E-001		3.3013E-002
	801.93	8.73	1.4773E+000		8.2782E-001
Cs-137	661.65	85.12	1.8801E-001	1.88E-001	1.0025E-001
Eu-152	121.78	28.40	1.2108E+000	4.22E-001	-4.0295E-001
	244.69	7.49	2.5789E+000		-3.2766E+000
	344.27	26.50	6.4206E-001		-3.4765E-001
	778.89	12.74	1.0827E+000		6.9272E-001
	867.32	4.16	3.0281E+000		-1.4435E+000
	964.01	14.40	1.0368E+000		8.5309E-001
	1085.78	10.00	1.1086E+000		-2.6090E-001
	1112.02	13.30	8.4252E-001		-1.1290E+000
	1407.95	20.70	4.2166E-001		4.4997E-001
Eu-154	123.07	40.50	8.4291E-001	3.43E-001	5.5083E-001
	247.94	6.60	2.7860E+000		-4.3281E-001
	591.81	4.83	2.9826E+000		-2.3685E-001
	723.30	19.70	7.5259E-001		4.2032E-001
	756.87	4.33	3.0780E+000		9.6433E-001
	873.19	11.50	1.1039E+000		3.1700E-001
	996.32	10.30	1.2113E+000		7.5795E-001
	1004.76	17.90	6.8124E-001		-8.9515E-002
	1274.45	35.50	3.4296E-001		5.6196E-002
Eu-155	86.54	30.90	2.2312E+000	2.09E+000	4.6361E+000
	105.31	20.70	2.0943E+000		8.2204E-001
Am-241	59.54	35.90	5.6025E+000	5.60E+000	5.3127E-001
Cm-243	228.19	10.56	1.8259E+000	1.30E+000	1.3207E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.2956E+000	1.30E+000	1.5380E-001

+ = 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

Report Generated On 5/23/2006 3:36:04 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: ORG7829

Spectrum File: ORG7829
Sample ID: NOL-05-01-199-F-
Sample Title: NOL-05-01-199-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/23/2006 3:26:02 PM
Live Time: 600.0 seconds
Real Time: 600.9 seconds

Energy Calibration Date: 5/10/2006
Eff Calibration Date: 5/1/2006
Calibration Efficiency: 7829Soil1m180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: ORG7829
Log Number: NOL-05-01-199-F-
Title: NOL-05-01-199-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	296-	310	301.79	75.45	0.86	1.95E+002	115.74	1.13E+003
2	947-	963	954.79	238.71	1.80	1.80E+002	68.93	3.38E+002
3	2324-	2341	2331.34	582.87	0.93	8.87E+001	36.91	8.13E+001
4	2426-	2446	2435.40	608.89	1.57	1.13E+002	39.98	8.23E+001
5	2903-	2917	2909.60	727.45	1.33	3.02E+001	25.70	4.78E+001
6	3635-	3656	3642.60	910.71	1.13	1.03E+002	31.93	4.32E+001
7	3867-	3886	3875.12	968.85	0.82	7.32E+001	28.55	3.98E+001
8	5828-	5857	5843.16	1460.90	2.00	7.99E+002	57.79	1.48E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: ORG7829

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Gram)	Activity Uncertainty
K-40	1.000	1460.81*	10.67	1.81633E+001	1.97168E+000
TL-208	0.470	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	1.97955E-001	8.63045E-002
		860.37	12.46		
Bi-212	0.997	727.17*	11.80	5.13631E-001	4.40743E-001
Pb-212	0.592	74.81* @	10.70	7.44496E+000	4.65766E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	5.88822E-001	2.43214E-001
Bi-214	0.399	609.31*	46.30	4.64271E-001	1.74360E-001
		1120.29	15.10		
		1764.49	15.80		
Ac-228	0.630	338.32	11.40		
		911.07*	27.70	7.82317E-001	2.59187E-001
		969.11*	16.60	9.45385E-001	3.81644E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:ORG7829

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Gram)	Wt mean Activity Uncertainty
K-40		1.000	1.816328E+001	1.971683E+000
TL-208		0.470	1.979551E-001	8.630452E-002
Bi-212		0.997	5.136307E-001	4.407430E-001
Pb-212	@	0.592	5.888223E-001	2.432143E-001
Bi-214		0.399	4.642715E-001	1.743598E-001
Ac-228		0.630	8.337877E-001	2.144149E-001

? = 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 1.960 sigma

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

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

All peaks were identified.

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:ORG7829
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Co-60	1173.22	100.00	1.2573E-001	9.75E-002	9.5883E-003
	1332.49	100.00	9.7505E-002		1.7111E-002
Nb-94	702.63	100.00	1.1795E-001	1.18E-001	-5.2898E-002
	871.10	100.00	1.1884E-001		1.0721E-001
Ag-108m	79.20	7.10	1.0625E+001	1.44E-001	-5.9717E+000
	433.93	89.90	1.4356E-001		8.1249E-002
	614.37	90.40	1.6205E-001		2.2046E-002
	722.95	90.50	1.4594E-001		-3.0649E-002
Sb-125	176.33	6.89	3.0431E+000	4.01E-001	3.0506E+000
	427.89	29.33	4.0144E-001		-1.9434E-001
	463.38	10.35	1.1879E+000		-3.2696E-001
	600.56	17.80	6.8532E-001		-2.1349E-001
	606.64	5.02	3.0834E+000		3.6604E+000
	635.90	11.32	1.1019E+000		2.8617E-002
Cs-134	563.23	8.38	1.5146E+000	1.42E-001	-5.6497E-001
	569.32	15.43	8.4529E-001		-3.2569E-001
	604.70	97.60	1.5516E-001		5.8363E-003
	795.84	85.40	1.4154E-001		8.0471E-002
	801.93	8.73	1.3365E+000		-1.0471E-001
Cs-137	661.65	85.12	1.3849E-001	1.38E-001	-1.3340E-002
Eu-152	121.78	28.40	1.0470E+000	4.01E-001	-3.4196E-001
	244.69	7.49	2.1827E+000		-2.1429E+000
	344.27	26.50	5.2491E-001		-6.7809E-001
	778.89	12.74	8.6407E-001		-1.1580E-001
	867.32	4.16	2.8838E+000		-3.0859E+000
	964.01	14.40	1.0109E+000		-4.8302E-001
	1085.78	10.00	1.0978E+000		1.5577E-001
	1112.02	13.30	7.9121E-001		-6.3592E-002
	1407.95	20.70	4.0084E-001		1.3882E-001
Eu-154	123.07	40.50	7.3354E-001	3.06E-001	4.4905E-001
	247.94	6.60	2.4335E+000		-2.0527E+000
	591.81	4.83	2.6663E+000		1.8083E+000
	723.30	19.70	6.7225E-001		-3.3816E-002
	756.87	4.33	2.6508E+000		8.7167E-002
	873.19	11.50	1.0157E+000		5.3411E-002
	996.32	10.30	1.0981E+000		-6.0323E-001
	1004.76	17.90	6.6411E-001		4.1704E-001
	1274.45	35.50	3.0632E-001		9.6249E-002
Eu-155	86.54	30.90	1.8568E+000	1.83E+000	4.0560E+000
	105.31	20.70	1.8254E+000		-2.1122E+000
Am-241	59.54	35.90	4.2466E+000	4.25E+000	-6.4632E-002
Cm-243	228.19	10.56	1.6941E+000	1.09E+000	-1.3411E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.0912E+000	1.09E+000	-2.2939E-001

+ = 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

Report Generated On 5/23/2006 3:17:10 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: ORG7829

Spectrum File: ORG7829
Sample ID: NOL-05-01-200-F-
Sample Title: NOL-05-01-200-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/23/2006 3:07:07 PM
Live Time: 600.0 seconds
Real Time: 600.9 seconds

Energy Calibration Date: 5/10/2006
Eff Calibration Date: 5/1/2006
Calibration Efficiency: 7829Soil1m180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: ORG7829
Log Number: NOL-05-01-200-F-
Title: NOL-05-01-200-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	292-	308	301.34	75.34	1.55	3.46E+002	133.79	1.38E+003
2	948-	960	954.64	238.67	1.67	2.00E+002	57.98	2.57E+002
3	2320-	2340	2331.14	582.82	1.53	1.61E+002	39.78	6.90E+001
4	2429-	2445	2437.41	609.39	1.01	9.14E+001	36.43	7.96E+001
5	3634-	3651	3644.25	911.13	1.05	8.82E+001	31.79	5.38E+001
6	5828-	5857	5843.00	1460.86	2.04	7.85E+002	57.96	1.87E+001
7	7051-	7064	7057.66	1764.54	1.04	2.41E+001	14.98	1.19E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: ORG7829

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Gram)	Activity Uncertainty
K-40	1.000	1460.81*	10.67	1.78469E+001	1.95519E+000
TL-208	0.469	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.59246E-001	1.00342E-001
		860.37	12.46		
Pb-212	0.593	74.81* @	10.70	1.32983E+001	5.76296E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	6.53665E-001	2.15232E-001
Bi-214	0.697	609.31*	46.30	3.76568E-001	1.57103E-001
		1120.29	15.10		
		1764.49*	15.80	3.92414E-001	2.46657E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:ORG7829

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Gram)	Wt mean Activity Uncertainty
K-40	1.000	1.784685E+001	1.955189E+000
TL-208	0.469	3.592458E-001	1.003417E-001
Pb-212 @	0.593	6.536654E-001	2.152323E-001
Bi-214	0.697	3.811414E-001	1.325075E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
5	911.13	1.4697E-001	36.05

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:ORG7829
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Co-60	1173.22	100.00	1.2527E-001	9.95E-002	7.2765E-002
	1332.49	100.00	9.9464E-002		7.9247E-003
Nb-94	702.63	100.00	1.2059E-001	1.08E-001	-3.2684E-002
	871.10	100.00	1.0837E-001		-2.2091E-002
Ag-108m	79.20	7.10	1.1288E+001	1.40E-001	-1.7751E+000
	433.93	89.90	1.4741E-001		7.9561E-002
	614.37	90.40	1.7109E-001		1.7078E-002
	722.95	90.50	1.3975E-001		6.3693E-002
Sb-125	176.33	6.89	3.0792E+000	4.38E-001	-6.6684E-001
	427.89	29.33	4.3793E-001		1.2432E-001
	463.38	10.35	1.2827E+000		9.2541E-001
	600.56	17.80	6.2227E-001		-3.3840E-001
	606.64	5.02	3.0360E+000		4.3113E+000
	635.90	11.32	1.1109E+000		7.6474E-001
Cs-134	563.23	8.38	1.5292E+000	1.42E-001	-2.0042E-001
	569.32	15.43	8.3551E-001		-1.0209E+000
	604.70	97.60	1.4842E-001		-1.2330E-001
	795.84	85.40	1.4154E-001		3.9871E-002
	801.93	8.73	1.4048E+000		-1.2845E+000
Cs-137	661.65	85.12	1.4773E-001	1.48E-001	1.0081E-001
Eu-152	121.78	28.40	1.0887E+000	3.97E-001	-2.6021E-001
	244.69	7.49	2.3110E+000		-3.4817E+000
	344.27	26.50	5.5973E-001		-3.4938E-001
	778.89	12.74	8.8402E-001		-3.1543E-001
	867.32	4.16	2.6135E+000		-1.6602E+000
	964.01	14.40	9.8083E-001		1.0441E+000
	1085.78	10.00	1.0349E+000		-7.5084E-001
	1112.02	13.30	8.4973E-001		-1.3259E-001
	1407.95	20.70	3.9689E-001		2.9828E-001
Eu-154	123.07	40.50	7.5154E-001	3.00E-001	-5.3318E-001
	247.94	6.60	2.5889E+000		-1.5099E+000
	591.81	4.83	2.5403E+000		6.6604E-001
	723.30	19.70	6.4931E-001		4.1418E-001
	756.87	4.33	2.8487E+000		1.3493E+000
	873.19	11.50	9.6646E-001		-9.1212E-002
	996.32	10.30	1.1428E+000		4.6456E-001
	1004.76	17.90	6.2533E-001		-4.7326E-001
	1274.45	35.50	2.9983E-001		-1.7602E-002
Eu-155	86.54	30.90	1.9311E+000	1.93E+000	2.1875E+000
	105.31	20.70	1.9260E+000		7.5707E-001
Am-241	59.54	35.90	4.3919E+000	4.39E+000	-1.6333E+000
Cm-243	228.19	10.56	1.7194E+000	1.14E+000	1.2539E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.1410E+000	1.14E+000	5.2392E-001

+ = 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

Report Generated On 5/25/2006 3:39:01 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: GRN7780

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-201-F-G
Sample ID: NOL-05-01-201
Sample Title: NOL-05-01-201-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/23/2006 9:58:27 PM
Live Time: 600.0 seconds
Real Time: 601.0 seconds

Energy Calibration Date: 4/19/2006
Eff Calibration Date: 3/23/2006
Calibration Efficiency: 7780Soil1M180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-201-F-G
Log Number: NOL-05-01-201
Title: NOL-05-01-201-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
F	1	945-	958	952.00	237.96	1.28	1.02E+002	34.42	3.73E+002
F	2	1396-	1410	1405.12	351.24	1.38	5.95E+001	25.90	1.90E+002
F	3	5827-	5858	5844.34	1461.05	1.94	7.05E+002	67.40	1.19E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-201-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.998	1460.81*		10.67	1.61563E+001	1.83171E+000
Pb-212	0.438	74.81	@	10.70		
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	3.30706E-001	1.22205E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-201-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40	0.998	1.615630E+001	1.831705E+000
Pb-212 @	0.438	3.307057E-001	1.222049E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
F 2	351.24	9.9087E-002	43.56

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-201-F-G
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	1.2263E-001	8.93E-002	-3.8946E-002
	1332.49	100.00	8.9277E-002		5.9304E-003
Nb-94	702.63	100.00	1.2871E-001	1.14E-001	2.7501E-002
	871.10	100.00	1.1426E-001		-9.1153E-003
Ag-108m	79.20	7.10	1.0971E+001	1.39E-001	-9.6509E+000
	433.93	89.90	1.5122E-001		-1.2072E-001
	614.37	90.40	1.6277E-001		-1.2243E-001
	722.95	90.50	1.3905E-001		1.1259E-001
Sb-125	176.33	6.89	3.1599E+000	4.55E-001	1.1071E+000
	427.89	29.33	4.5511E-001		-2.5772E-001
	463.38	10.35	1.2963E+000		3.2277E-001
	600.56	17.80	7.1497E-001		-1.1804E-001
	606.64	5.02	3.1994E+000		5.0574E+000
	635.90	11.32	1.0933E+000		-4.3653E-001
Cs-134	563.23	8.38	1.5104E+000	1.39E-001	-3.0589E-001
	569.32	15.43	8.5395E-001		-3.0528E-001
	604.70	97.60	1.5775E-001		2.3426E-002
	795.84	85.40	1.3876E-001		6.6077E-002
	801.93	8.73	1.2356E+000		-1.0058E+000
Cs-137	661.65	85.12	1.4714E-001	1.47E-001	-3.0394E-003
Eu-152	121.78	28.40	1.1485E+000	4.06E-001	1.2079E+000
	244.69	7.49	2.3668E+000		-1.8437E+000
	344.27	26.50	5.4151E-001		-7.1016E-001
	778.89	12.74	9.3244E-001		-2.6991E-001
	867.32	4.16	2.9300E+000		-1.1592E+000
	964.01	14.40	9.7895E-001		8.6958E-001
	1085.78	10.00	1.0617E+000		-4.1514E-002
	1112.02	13.30	8.3868E-001		-1.9707E+000
	1407.95	20.70	4.0635E-001		-9.0250E-003
Eu-154	123.07	40.50	7.9298E-001	2.95E-001	5.6890E-001
	247.94	6.60	2.5274E+000		-3.2812E+000
	591.81	4.83	2.6186E+000		-1.8003E-001
	723.30	19.70	6.3687E-001		5.0307E-001
	756.87	4.33	2.5635E+000		-8.9333E-003
	873.19	11.50	9.8637E-001		2.9874E-001
	996.32	10.30	1.1334E+000		1.0892E-001
	1004.76	17.90	6.1058E-001		-2.1635E-001
	1274.45	35.50	2.9524E-001		-3.1740E-001
Eu-155	86.54	30.90	2.1103E+000	1.97E+000	3.3498E+000
	105.31	20.70	1.9694E+000		-1.0938E+000
Am-241	59.54	35.90	5.1891E+000	5.19E+000	-1.0319E+000
Cm-243	228.19	10.56	1.6582E+000	1.18E+000	-2.0508E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.1783E+000	1.18E+000	7.4270E-001

+ = 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

Report Generated On 5/25/2006 3:57:31 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-202-F-G
Sample ID: NOL-05-01-202
Sample Title: NOL-05-01-202-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/25/2006 10:23:57 AM
Live Time: 600.0 seconds
Real Time: 601.2 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-202-F-G
Log Number: NOL-05-01-202
Title: NOL-05-01-202-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	284-	304	291.91	72.81	0.96	4.21E+002	136.23	1.37E+003
m	2	284-	304	300.33	74.91	0.96	8.07E+002	232.62	1.34E+003
F	3	336-	346	339.43	84.69	0.98	2.19E+002	60.45	1.26E+003
F	4	948-	961	955.03	238.64	1.18	3.00E+002	41.96	3.01E+002
F	5	1174-	1190	1181.14	295.18	1.23	1.40E+002	31.03	2.49E+002
F	6	1347-	1359	1352.93	338.14	1.27	4.94E+001	24.76	1.67E+002
F	7	1397-	1412	1407.64	351.82	1.28	1.76E+002	93.78	1.50E+002
F	8	2033-	2053	2042.92	510.69	2.10	1.44E+002	27.68	1.47E+002
F	9	2321-	2339	2332.64	583.14	1.45	1.88E+002	58.08	8.03E+001
F	10	2427-	2445	2437.18	609.29	1.47	2.25E+002	39.83	8.46E+001
F	11	3068-	3080	3073.54	768.42	1.56	2.85E+001	22.03	3.85E+001
F	12	3636-	3656	3645.41	911.43	1.64	1.69E+002	61.94	3.91E+001
F	13	3867-	3885	3876.45	969.21	1.67	9.60E+001	54.45	5.16E+001
F	14	4474-	4490	4482.65	1120.81	1.75	7.10E+001	50.83	4.28E+001
F	15	5833-	5859	5846.19	1461.79	1.90	1.11E+003	64.30	2.99E+001
F	16	7053-	7071	7062.72	1766.02	2.02	5.06E+001	15.71	1.43E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-202-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
ANN	0.997	511.00*		100.00	2.06312E-001	4.85151E-002
K-40	0.967	1460.81*		10.67	1.94893E+001	1.94223E+000
TL-208	0.752	277.35		6.80		
		510.84*		21.60	9.55148E-001	2.37766E-001
		583.14*		84.20	3.34490E-001	1.12018E-001
		860.37		12.46		
Pb-212	0.521	74.81*	@	10.70	1.21314E+001	4.22710E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	7.65305E-001	1.60848E-001
Bi-214	0.982	609.31*		46.30	7.38056E-001	1.59106E-001
		1120.29*		15.10	8.30665E-001	6.01598E-001
		1764.49*		15.80	6.24528E-001	2.03593E-001
PB-214	0.582	74.82*	@	6.21	2.09028E+001	7.43980E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	8.79544E-001	2.45243E-001
		351.92*		37.20	6.01723E-001	3.36080E-001
Ac-228	0.997	338.32*		11.40	5.44805E-001	2.86188E-001
		911.07*		27.70	1.01808E+000	3.90247E-001
		969.11*		16.60	9.80597E-001	5.65318E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-202-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
ANN		0.997	1.340620E-001	5.416283E-002
K-40		0.967	1.948926E+001	1.942225E+000
TL-208		0.752	3.344904E-001	1.114866E-001
Pb-212	@	0.521	7.653052E-001	1.608484E-001
Bi-214		0.982	7.006565E-001	1.227284E-001
PB-214	@	0.582	7.830107E-001	1.981067E-001
Ac-228		0.997	7.489286E-001	2.136632E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.81	7.0228E-001	32.33
F 3	84.69	3.6489E-001	27.61
F 11	768.42	4.7515E-002	77.27

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-202-F-G
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	9.6905E-002	7.48E-002	7.0580E-002
	1332.49	100.00	7.4770E-002		-1.9040E-002
Nb-94	702.63	100.00	1.0633E-001	9.45E-002	2.9581E-002
	871.10	100.00	9.4516E-002		5.5256E-002
Ag-108m	79.20	7.10	5.0346E+000	1.23E-001	-2.4107E+001
	433.93	89.90	1.2388E-001		-3.9856E-002
	614.37	90.40	1.4515E-001		2.0599E-003
	722.95	90.50	1.2304E-001		-3.3830E-002
Sb-125	176.33	6.89	2.3162E+000	3.79E-001	-3.5272E-001
	427.89	29.33	3.7919E-001		-4.0763E-002
	463.38	10.35	1.0700E+000		5.1148E-001
	600.56	17.80	5.5136E-001		4.2311E-001
	606.64	5.02	2.8636E+000		6.1732E+000
	635.90	11.32	8.6440E-001		3.0939E-001
Cs-134	563.23	8.38	1.2179E+000	1.23E-001	-2.4474E-001
	569.32	15.43	6.5588E-001		4.4088E-001
	604.70	97.60	1.3334E-001		-1.9226E-002
	795.84	85.40	1.2276E-001		7.0053E-002
	801.93	8.73	1.1292E+000		-6.6142E-002
Cs-137	661.65	85.12	1.3087E-001	1.31E-001	8.7292E-002
Eu-152	121.78	28.40	7.6377E-001	3.78E-001	-7.6974E-002
	244.69	7.49	1.8251E+000		2.7947E-001
	344.27	26.50	4.4955E-001		3.0593E-001
	778.89	12.74	7.2056E-001		-2.1224E-001
	867.32	4.16	2.3319E+000		-2.7391E+000
	964.01	14.40	8.8231E-001		-1.2458E-001
	1085.78	10.00	9.6939E-001		5.6233E-001
	1112.02	13.30	7.1177E-001		-7.2420E-001
	1407.95	20.70	3.7775E-001		2.6836E-001
Eu-154	123.07	40.50	5.2960E-001	2.41E-001	1.9647E-001
	247.94	6.60	1.9657E+000		-6.0729E-001
	591.81	4.83	2.0649E+000		-1.5190E-002
	723.30	19.70	5.6530E-001		-2.2964E-001
	756.87	4.33	2.2916E+000		-1.2609E-001
	873.19	11.50	8.0794E-001		4.6778E-001
	996.32	10.30	8.9726E-001		1.0091E-001
	1004.76	17.90	5.3538E-001		3.7473E-001
	1274.45	35.50	2.4104E-001		-1.0016E-001
Eu-155	86.54	30.90	1.0857E+000	1.09E+000	1.5035E+000
	105.31	20.70	1.2636E+000		-1.2653E-002
Am-241	59.54	35.90	1.3920E+000	1.39E+000	-7.0505E-002
Cm-243	228.19	10.56	1.2570E+000	9.70E-001	-1.2514E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	9.6952E-001	9.70E-001	5.8621E-001

+ = 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

Report Generated On 5/24/2006 10:04:34 AM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: RED6264

Spectrum File: RED6264
Sample ID: NOL-05-01-203
Sample Title: NOL-05-01-203-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/24/2006 9:54:32 AM
Live Time: 600.0 seconds
Real Time: 601.0 seconds

Energy Calibration Date: 3/22/2006
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number: NOL-05-01-203
Title: NOL-05-01-203-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	286-	309	291.22	72.71	1.35	3.28E+002	68.76	1.49E+003
m	2	286-	309	300.27	74.97	1.35	6.96E+002	78.54	2.25E+003
	3	948-	961	953.97	238.44	1.43	1.78E+002	66.58	3.52E+002
	4	1173-	1186	1180.73	295.14	1.11	5.82E+001	46.32	1.82E+002
	5	1345-	1357	1351.48	337.84	0.48	7.86E+001	40.82	1.31E+002
	6	1396-	1413	1406.69	351.65	1.05	1.58E+002	49.82	1.50E+002
	7	2032-	2052	2040.47	510.13	1.07	1.21E+002	46.17	1.20E+002
	8	2320-	2342	2330.75	582.72	1.38	1.61E+002	44.97	9.45E+001
	9	2427-	2446	2434.02	608.55	1.19	1.81E+002	38.96	6.16E+001
	10	3633-	3651	3642.66	910.79	1.64	1.45E+002	34.71	4.99E+001
	11	3866-	3883	3874.47	968.76	0.78	7.24E+001	26.88	3.56E+001
	12	5829-	5856	5842.59	1460.92	2.23	9.74E+002	64.51	2.44E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	0.977	511.00*		100.00	1.70655E-001	6.89319E-002
K-40	1.000	1460.81*		10.67	1.68444E+001	1.76225E+000
TL-208	0.746	277.35		6.80		
		510.84*		21.60	7.90067E-001	3.25586E-001
		583.14*		84.20	2.80113E-001	8.65416E-002
		860.37		12.46		
Pb-212	0.520	74.81*	@	10.70	1.03296E+001	2.33603E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	4.47326E-001	1.81189E-001
Bi-214	0.387	609.31*		46.30	5.84013E-001	1.44605E-001
		1120.29		15.10		
		1764.49		15.80		
PB-214	0.582	74.82*	@	6.21	1.77982E+001	4.22732E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	3.60244E-001	2.93211E-001
		351.92*		37.20	5.29865E-001	1.89363E-001
Ac-228	0.996	338.32*		11.40	8.51566E-001	4.62149E-001
		911.07*		27.70	8.57928E-001	2.27734E-001
		969.11*		16.60	7.26583E-001	2.80441E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN		0.977	1.101501E-001	7.139431E-002
K-40		1.000	1.684437E+001	1.762246E+000
TL-208		0.746	2.801131E-001	8.605884E-002
Pb-212	@	0.520	4.473260E-001	1.811892E-001
Bi-214		0.387	5.840128E-001	1.446051E-001
PB-214	@	0.582	4.799405E-001	1.590731E-001
Ac-228		0.996	8.115841E-001	1.651174E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.71	5.4669E-001	20.96

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Co-60	1173.22	100.00	9.7741E-002	8.84E-002	1.6582E-002
	1332.49	100.00	8.8391E-002		1.0167E-001
Nb-94	702.63	100.00	9.9408E-002	9.20E-002	-1.2642E-002
	871.10	100.00	9.2022E-002		4.4363E-002
Ag-108m	79.20	7.10	5.6621E+000	1.19E-001	-6.4654E+000
	433.93	89.90	1.1862E-001		-4.7286E-002
	614.37	90.40	1.2999E-001		-3.5415E-002
	722.95	90.50	1.2092E-001		2.4754E-002
Sb-125	176.33	6.89	2.3347E+000	3.63E-001	-1.1339E+000
	427.89	29.33	3.6318E-001		-2.2735E-001
	463.38	10.35	1.0249E+000		-2.0836E-001
	600.56	17.80	5.4590E-001		1.8565E-001
	606.64	5.02	2.6175E+000		4.6326E+000
	635.90	11.32	8.6783E-001		4.3755E-001
Cs-134	563.23	8.38	1.2836E+000	1.17E-001	-3.0205E-001
	569.32	15.43	6.9815E-001		-7.3357E-002
	604.70	97.60	1.3274E-001		-8.0211E-002
	795.84	85.40	1.1742E-001		6.6385E-003
	801.93	8.73	1.1339E+000		-1.8327E-001
Cs-137	661.65	85.12	1.2421E-001	1.24E-001	5.9913E-002
Eu-152	121.78	28.40	7.6857E-001	3.38E-001	3.5998E-001
	244.69	7.49	1.9226E+000		-1.0757E+000
	344.27	26.50	4.5107E-001		-2.3287E-001
	778.89	12.74	7.5636E-001		-1.1274E+000
	867.32	4.16	2.2564E+000		-1.4804E+000
	964.01	14.40	8.1240E-001		1.4266E-001
	1085.78	10.00	8.6724E-001		-1.0777E+000
	1112.02	13.30	7.0763E-001		-2.0384E+000
	1407.95	20.70	3.3765E-001		-7.6203E-002
Eu-154	123.07	40.50	5.3162E-001	2.44E-001	-4.6952E-001
	247.94	6.60	2.0912E+000		8.0672E-001
	591.81	4.83	1.9432E+000		5.8723E-001
	723.30	19.70	5.5808E-001		2.7985E-001
	756.87	4.33	2.1851E+000		4.2826E-001
	873.19	11.50	8.0621E-001		6.7155E-001
	996.32	10.30	8.4003E-001		2.9172E-002
	1004.76	17.90	5.0494E-001		2.8928E-001
	1274.45	35.50	2.4403E-001		-2.4604E-001
Eu-155	86.54	30.90	1.1341E+000	1.13E+000	2.3248E+000
	105.31	20.70	1.2520E+000		8.4220E-001
Am-241	59.54	35.90	1.4236E+000	1.42E+000	-5.0983E-001
Cm-243	228.19	10.56	1.3341E+000	9.28E-001	4.9595E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Cm-243	277.60	14.00	9.2755E-001	9.28E-001	9.8532E-002

+ = 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

Report Generated On 5/24/2006 9:48:37 AM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: RED6264

Spectrum File: RED6264
Sample ID: NOL-05-01-204
Sample Title: NOL-05-01-204-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/24/2006 9:38:34 AM
Live Time: 600.0 seconds
Real Time: 601.1 seconds

Energy Calibration Date: 3/22/2006
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number: NOL-05-01-204
Title: NOL-05-01-204-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	282-	307	291.80	72.85	1.33	3.88E+002	68.81	1.84E+003
m	2	282-	307	300.26	74.97	1.33	7.00E+002	80.08	2.10E+003
	3	332-	345	338.64	84.57	1.23	1.89E+002	127.66	1.46E+003
M	4	946-	972	954.08	238.47	1.33	3.00E+002	43.35	3.72E+002
m	5	946-	972	966.39	241.54	1.33	8.58E+001	30.40	3.12E+002
	6	1176-	1185	1180.74	295.15	0.42	4.09E+001	38.96	1.57E+002
	7	1342-	1359	1353.41	338.33	0.42	6.18E+001	52.12	1.98E+002
	8	1398-	1417	1406.74	351.66	0.82	1.37E+002	55.67	1.91E+002
	9	2033-	2051	2040.70	510.19	1.03	1.17E+002	45.35	1.24E+002
	10	2320-	2342	2330.21	582.59	1.28	2.20E+002	46.80	9.05E+001
	11	2425-	2444	2434.84	608.75	1.40	1.30E+002	44.49	1.10E+002
	12	3632-	3652	3643.21	910.93	1.13	1.30E+002	37.10	6.30E+001
	13	3867-	3882	3873.96	968.63	1.22	7.65E+001	28.85	4.65E+001
	14	4476-	4489	4481.59	1120.58	0.38	3.26E+001	25.53	4.94E+001
	15	5827-	5856	5842.60	1460.92	2.18	1.08E+003	65.84	1.12E+001
	16	7053-	7067	7060.14	1765.38	0.50	4.96E+001	15.80	5.43E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	0.979	511.00*		100.00	1.64800E-001	6.75800E-002
K-40	1.000	1460.81*		10.67	1.86136E+001	1.88913E+000
TL-208	0.743	277.35		6.80		
		510.84*		21.60	7.62961E-001	3.19014E-001
		583.14*		84.20	3.84742E-001	9.58132E-002
		860.37		12.46		
Pb-212	0.521	74.81*	@	10.70	1.03857E+001	2.35708E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	7.52151E-001	1.60441E-001
Bi-214	0.988	609.31*		46.30	4.18465E-001	1.52247E-001
		1120.29*		15.10	3.75032E-001	2.96271E-001
		1764.49*		15.80	6.01398E-001	2.00958E-001
PB-214	0.731	74.82*	@	6.21	1.78948E+001	4.26400E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98*		7.49	1.28700E+000	5.03539E-001
		295.21*		19.20	2.53557E-001	2.45002E-001
		351.92*		37.20	4.59109E-001	2.02161E-001
Ac-228	0.997	338.32*		11.40	6.70015E-001	5.74783E-001
		911.07*		27.70	7.68646E-001	2.36547E-001
		969.11*		16.60	7.67648E-001	3.00646E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN		0.979	8.169530E-002	7.062601E-002
K-40		1.000	1.861365E+001	1.889131E+000
TL-208		0.743	3.847423E-001	9.498924E-002
Pb-212	@	0.521	7.521508E-001	1.604411E-001
Bi-214		0.988	4.693501E-001	1.122979E-001
PB-214	@	0.731	4.555770E-001	1.489521E-001
Ac-228		0.997	7.589599E-001	1.768820E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.85	6.4618E-001	17.75
3	84.57	3.1573E-001	67.39

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Co-60	1173.22	100.00	1.0701E-001	8.62E-002	1.8999E-002
	1332.49	100.00	8.6234E-002		2.7583E-002
Nb-94	702.63	100.00	1.0343E-001	9.52E-002	5.7971E-002
	871.10	100.00	9.5210E-002		-7.4622E-002
Ag-108m	79.20	7.10	5.6703E+000	1.19E-001	-3.6087E+000
	433.93	89.90	1.1883E-001		1.3704E-001
	614.37	90.40	1.3233E-001		-6.0859E-002
	722.95	90.50	1.2473E-001		2.8507E-002
Sb-125	176.33	6.89	2.3701E+000	3.60E-001	-1.7792E+000
	427.89	29.33	3.6001E-001		-1.1309E-001
	463.38	10.35	1.0493E+000		2.1567E-002
	600.56	17.80	5.8338E-001		-3.4068E-002
	606.64	5.02	2.7097E+000		5.5053E+000
	635.90	11.32	9.2401E-001		1.0136E+000
Cs-134	563.23	8.38	1.2543E+000	1.19E-001	3.7161E-001
	569.32	15.43	6.8509E-001		-5.0620E-002
	604.70	97.60	1.3640E-001		1.5580E-002
	795.84	85.40	1.1941E-001		3.6618E-002
	801.93	8.73	1.1795E+000		-5.3170E-001
Cs-137	661.65	85.12	1.2797E-001	1.28E-001	7.3326E-002
Eu-152	121.78	28.40	7.8931E-001	3.03E-001	1.7987E-001
	244.69	7.49	1.9342E+000		-8.3293E-001
	344.27	26.50	4.5270E-001		1.8384E-001
	778.89	12.74	7.7013E-001		-4.2283E-001
	867.32	4.16	2.3313E+000		-2.4883E+000
	964.01	14.40	8.5738E-001		4.6538E-001
	1085.78	10.00	9.0916E-001		-5.5943E-002
	1112.02	13.30	7.9489E-001		-2.1477E-001
	1407.95	20.70	3.0332E-001		1.5493E-001
Eu-154	123.07	40.50	5.4656E-001	2.50E-001	3.8591E-002
	247.94	6.60	2.0709E+000		2.1976E-001
	591.81	4.83	2.1148E+000		7.3116E-001
	723.30	19.70	5.6562E-001		-1.6301E-001
	756.87	4.33	2.4375E+000		1.6071E+000
	873.19	11.50	8.8360E-001		2.9810E-001
	996.32	10.30	8.8231E-001		2.6323E-001
	1004.76	17.90	5.3402E-001		-2.9915E-001
	1274.45	35.50	2.4995E-001		2.4002E-002
Eu-155	86.54	30.90	1.1574E+000	1.16E+000	2.0553E+000
	105.31	20.70	1.2583E+000		5.3764E-001
Am-241	59.54	35.90	1.3760E+000	1.38E+000	-8.1546E-001
Cm-243	228.19	10.56	1.3047E+000	9.47E-001	-7.2310E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Cm-243	277.60	14.00	9.4652E-001	9.47E-001	-4.6339E-001

+ = 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

Report Generated On 5/23/2006 10:48:45 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BRN7722

Spectrum File: BRN7722
Sample ID: NOL-05-01-205
Sample Title: NOL-05-01-205-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/23/2006 10:38:44 PM
Live Time: 600.0 seconds
Real Time: 601.0 seconds

Energy Calibration Date: 4/7/2006
Eff Calibration Date: 3/23/2006
Calibration Efficiency: 7722Soil1m180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: BRN7722
Log Number: NOL-05-01-205
Title: NOL-05-01-205-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	284-	304	291.86	73.16	0.97	1.88E+002	49.12	8.34E+002
m	2	284-	304	300.15	75.23	0.98	3.36E+002	57.33	7.91E+002
	3	331-	344	339.36	85.03	0.38	1.14E+002	100.61	9.11E+002
	4	947-	960	953.67	238.60	1.19	2.79E+002	60.76	2.46E+002
	5	1347-	1359	1352.43	338.27	0.81	6.88E+001	39.02	1.24E+002
	6	1401-	1412	1406.59	351.81	1.01	1.41E+002	39.42	1.05E+002
	7	2030-	2052	2042.49	510.77	0.94	1.42E+002	48.39	1.19E+002
	8	2320-	2339	2330.54	582.77	0.82	1.32E+002	39.78	7.99E+001
	9	2429-	2442	2434.97	608.88	1.29	1.23E+002	32.34	5.24E+001
	10	3433-	3444	3438.71	859.79	0.48	2.47E+001	17.43	2.13E+001
	11	3633-	3650	3641.74	910.54	0.79	1.18E+002	29.83	3.39E+001
M	12	3848-	3883	3855.85	964.06	1.34	3.25E+001	15.26	3.68E+001
m	13	3848-	3883	3873.60	968.50	1.34	5.19E+001	19.11	5.16E+001
	14	4470-	4487	4479.32	1119.91	0.69	4.05E+001	23.00	2.95E+001
	15	5829-	5854	5841.78	1460.49	2.09	8.04E+002	57.95	1.64E+001
	16	7051-	7066	7057.78	1764.46	0.59	4.66E+001	14.49	2.36E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: BRN7722

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
ANN	0.998	511.00*		100.00	2.42519E-001	8.89050E-002
K-40	0.997	1460.81*		10.67	1.70428E+001	1.84784E+000
TL-208	0.900	277.35		6.80		
		510.84*		21.60	1.12277E+000	4.21687E-001
		583.14*		84.20	2.79402E-001	9.16527E-002
		860.37*		12.46	3.89210E-001	2.78879E-001
Pb-212	0.580	74.81*	@	10.70	1.08477E+001	2.82031E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	8.69278E-001	2.33419E-001
Bi-214	0.996	609.31*		46.30	4.78201E-001	1.39218E-001
		1120.29*		15.10	5.57257E-001	3.21874E-001
		1764.49*		15.80	7.27297E-001	2.37405E-001
Ac-228	0.992	338.32*		11.40	9.13077E-001	5.37506E-001
		911.07*		27.70	8.48150E-001	2.35446E-001
		969.11*		16.60	6.29937E-001	2.41247E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:BRN7722

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
ANN		0.998	1.798724E-001	9.085476E-002
K-40		0.997	1.704280E+001	1.847843E+000
TL-208		0.900	2.900311E-001	8.667311E-002
Pb-212	@	0.580	8.692784E-001	2.334193E-001
Bi-214		0.996	5.438136E-001	1.125160E-001
Ac-228		0.992	7.570332E-001	1.607838E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	73.16	3.1265E-001	26.18
3	85.03	1.8955E-001	88.46
6	351.81	2.3479E-001	27.98
M 12	964.06	5.4198E-002	46.94

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:BRN7722
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	1.0078E-001	8.22E-002	-1.9012E-002
	1332.49	100.00	8.2161E-002		3.5737E-002
Nb-94	702.63	100.00	1.0890E-001	9.93E-002	2.6816E-002
	871.10	100.00	9.9267E-002		-6.9452E-002
Ag-108m	79.20	7.10	9.0030E+000	1.28E-001	-1.7268E+001
	433.93	89.90	1.3534E-001		2.0054E-002
	614.37	90.40	1.5219E-001		-8.8564E-002
	722.95	90.50	1.2823E-001		-7.3988E-002
Sb-125	176.33	6.89	2.7002E+000	4.03E-001	-1.5242E+000
	427.89	29.33	4.0298E-001		-3.1350E-001
	463.38	10.35	1.1714E+000		3.1694E-001
	600.56	17.80	6.4181E-001		3.6035E-001
	606.64	5.02	2.9682E+000		5.0051E+000
	635.90	11.32	1.0075E+000		-8.9794E-002
Cs-134	563.23	8.38	1.3206E+000	1.25E-001	8.4603E-002
	569.32	15.43	7.1966E-001		-1.1104E+000
	604.70	97.60	1.5301E-001		-1.1030E-001
	795.84	85.40	1.2470E-001		6.4530E-002
	801.93	8.73	1.1064E+000		-5.4584E-001
Cs-137	661.65	85.12	1.3997E-001	1.40E-001	1.1249E-001
Eu-152	121.78	28.40	9.7018E-001	3.33E-001	-1.7947E-001
	244.69	7.49	2.2533E+000		8.4341E-001
	344.27	26.50	5.1123E-001		-5.5399E-001
	778.89	12.74	8.6550E-001		-1.2090E-001
	867.32	4.16	2.3732E+000		-9.9574E-001
	964.01	14.40	9.6684E-001		4.6532E-002
	1085.78	10.00	9.6164E-001		-5.6766E-001
	1112.02	13.30	8.0312E-001		-2.7193E-001
	1407.95	20.70	3.3345E-001		-3.2051E-001
Eu-154	123.07	40.50	6.6888E-001	2.79E-001	-1.1074E-001
	247.94	6.60	2.4596E+000		-2.4692E+000
	591.81	4.83	2.3608E+000		9.7848E-001
	723.30	19.70	5.9968E-001		-1.1723E-001
	756.87	4.33	2.5041E+000		1.8086E+000
	873.19	11.50	8.3190E-001		-9.5614E-001
	996.32	10.30	1.0048E+000		3.6898E-001
	1004.76	17.90	5.4241E-001		4.5767E-002
	1274.45	35.50	2.7861E-001		9.0125E-002
Eu-155	86.54	30.90	1.6171E+000	1.62E+000	2.4566E+000
	105.31	20.70	1.6718E+000		1.5423E-001
Am-241	59.54	35.90	3.5403E+000	3.54E+000	-1.3743E+000
Cm-243	228.19	10.56	1.6485E+000	1.11E+000	1.5492E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.1076E+000	1.11E+000	1.7189E-001

+ = 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

Report Generated On 5/23/2006 10:30:37 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BRN7722

Spectrum File: BRN7722
Sample ID: NOL-05-01-206
Sample Title: NOL-05-01-206-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/23/2006 10:20:36 PM
Live Time: 600.0 seconds
Real Time: 601.0 seconds

Energy Calibration Date: 4/7/2006
Eff Calibration Date: 3/23/2006
Calibration Efficiency: 7722Soil1m180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: BRN7722
Log Number: NOL-05-01-206
Title: NOL-05-01-206-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	286-	306	291.08	72.97	0.89	1.76E+002	47.21	6.78E+002
m	2	286-	306	300.03	75.20	0.89	3.73E+002	58.73	7.87E+002
	3	333-	344	339.31	85.02	0.76	7.94E+001	89.81	8.03E+002
M	4	945-	971	953.79	238.63	0.96	2.55E+002	39.91	2.20E+002
m	5	945-	971	966.32	241.76	0.97	4.61E+001	25.77	2.11E+002
	6	1174-	1188	1180.60	295.32	0.55	5.77E+001	47.30	1.81E+002
	7	1348-	1359	1353.11	338.45	0.84	6.16E+001	35.80	1.07E+002
	8	1400-	1417	1406.42	351.77	0.89	1.30E+002	45.88	1.28E+002
	9	1748-	1758	1753.14	438.44	1.17	2.92E+001	23.23	4.68E+001
	10	2031-	2053	2040.86	510.36	1.32	1.29E+002	48.84	1.27E+002
	11	2322-	2338	2330.83	582.85	1.44	1.36E+002	35.94	6.39E+001
	12	2428-	2446	2435.42	608.99	1.22	1.16E+002	35.48	6.26E+001
	13	2900-	2913	2906.76	726.82	0.71	3.95E+001	25.15	4.55E+001
	14	3435-	3446	3440.43	860.22	0.42	2.35E+001	16.11	1.75E+001
	15	3630-	3652	3642.21	910.66	0.76	1.25E+002	32.86	4.03E+001
	16	3865-	3882	3873.89	968.57	0.97	6.89E+001	26.79	3.61E+001
	17	5831-	5854	5842.17	1460.59	1.97	7.90E+002	56.52	1.10E+001
	18	7052-	7065	7058.02	1764.51	1.54	3.33E+001	14.09	6.70E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: BRN7722

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
ANN	0.987	511.00*		100.00	2.19300E-001	8.85004E-002
K-40	0.998	1460.81*		10.67	1.67551E+001	1.81034E+000
TL-208	0.901	277.35		6.80		
		510.84*		21.60	1.01528E+000	4.18030E-001
		583.14*		84.20	2.87862E-001	8.47436E-002
		860.37*		12.46	3.70378E-001	2.58093E-001
Bi-212	0.996	727.17*		11.80	6.33700E-001	4.10278E-001
Pb-212	0.580	74.81*	@	10.70	1.20717E+001	3.03490E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	7.96415E-001	1.76318E-001
Bi-214	0.693	609.31*		46.30	4.53811E-001	1.49246E-001
		1120.29		15.10		
		1764.49*		15.80	5.19251E-001	2.25797E-001
PB-214	0.776	74.82*	@	6.21	2.07998E+001	5.44285E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98*		7.49	8.58214E-001	5.00894E-001
		295.21*		19.20	4.39937E-001	3.68313E-001
		351.92*		37.20	5.35046E-001	2.08588E-001
Ac-228	0.994	338.32*		11.40	8.18238E-001	4.92361E-001
		911.07*		27.70	8.95917E-001	2.57529E-001
		969.11*		16.60	8.36195E-001	3.36785E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:BRN7722

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
ANN		0.987	1.554033E-001	9.017408E-002
K-40		0.998	1.675507E+001	1.810341E+000
TL-208		0.901	2.958194E-001	8.005877E-002
Bi-212		0.996	6.336999E-001	4.102783E-001
Pb-212	@	0.580	7.964154E-001	1.763185E-001
Bi-214		0.693	4.737078E-001	1.245066E-001
PB-214	@	0.776	5.521380E-001	1.706446E-001
Ac-228		0.994	8.656892E-001	1.889160E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.97	2.9311E-001	26.84
3	85.02	1.3240E-001	113.05
9	438.44	4.8706E-002	79.49

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:BRN7722
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	1.0940E-001	8.86E-002	1.6731E-002
	1332.49	100.00	8.8582E-002		-6.0125E-003
Nb-94	702.63	100.00	1.1144E-001	1.01E-001	-8.9252E-003
	871.10	100.00	1.0060E-001		1.0882E-002
Ag-108m	79.20	7.10	9.0135E+000	1.37E-001	-3.8738E+000
	433.93	89.90	1.3721E-001		3.0843E-002
	614.37	90.40	1.5130E-001		-1.8426E-002
	722.95	90.50	1.3930E-001		9.6519E-002
Sb-125	176.33	6.89	2.7614E+000	4.20E-001	1.0214E+000
	427.89	29.33	4.1950E-001		-6.9427E-002
	463.38	10.35	1.2656E+000		-5.1598E-001
	600.56	17.80	6.3458E-001		-2.4085E-001
	606.64	5.02	2.8591E+000		3.8411E+000
	635.90	11.32	9.6541E-001		-2.0039E-001
Cs-134	563.23	8.38	1.4467E+000	1.33E-001	6.0973E-001
	569.32	15.43	7.3998E-001		-2.9299E-001
	604.70	97.60	1.4639E-001		-1.2847E-002
	795.84	85.40	1.3326E-001		-9.7390E-002
	801.93	8.73	1.1265E+000		-1.3016E+000
Cs-137	661.65	85.12	1.3843E-001	1.38E-001	-4.9119E-002
Eu-152	121.78	28.40	9.5679E-001	3.38E-001	-7.0091E-001
	244.69	7.49	2.2447E+000		-1.0051E+000
	344.27	26.50	5.1051E-001		8.8459E-002
	778.89	12.74	8.0984E-001		-8.4442E-001
	867.32	4.16	2.4159E+000		8.8719E-001
	964.01	14.40	9.4845E-001		1.7551E-001
	1085.78	10.00	9.4105E-001		5.6870E-002
	1112.02	13.30	7.3048E-001		-1.3761E+000
	1407.95	20.70	3.3754E-001		-6.5259E-001
Eu-154	123.07	40.50	6.6548E-001	2.76E-001	1.0702E-003
	247.94	6.60	2.4636E+000		-1.3839E-001
	591.81	4.83	2.3804E+000		2.3154E-001
	723.30	19.70	6.4323E-001		6.4487E-001
	756.87	4.33	2.4233E+000		-3.8501E+000
	873.19	11.50	8.5189E-001		-7.9289E-001
	996.32	10.30	1.0092E+000		4.8182E-001
	1004.76	17.90	6.3247E-001		3.1226E-001
	1274.45	35.50	2.7558E-001		2.2343E-001
Eu-155	86.54	30.90	1.5979E+000	1.60E+000	1.5015E+000
	105.31	20.70	1.6588E+000		-6.3482E-002
Am-241	59.54	35.90	3.3968E+000	3.40E+000	-1.0812E+000
Cm-243	228.19	10.56	1.5606E+000	1.13E+000	-1.8894E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.1287E+000	1.13E+000	4.8240E-002

+ = 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

Report Generated On 5/23/2006 10:03:59 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BRN7722

Spectrum File: BRN7722
Sample ID: NOL-05-01-207
Sample Title: NOL-05-01-207-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/23/2006 9:53:58 PM
Live Time: 600.0 seconds
Real Time: 600.9 seconds

Energy Calibration Date: 4/7/2006
Eff Calibration Date: 3/23/2006
Calibration Efficiency: 7722Soil1m180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: BRN7722
Log Number: NOL-05-01-207
Title: NOL-05-01-207-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	287-	306	291.72	73.12	0.79	1.29E+002	44.32	6.37E+002
m	2	287-	306	300.32	75.27	0.79	2.84E+002	55.63	7.55E+002
	3	945-	962	953.66	238.59	1.10	2.33E+002	71.65	3.39E+002
	4	1174-	1186	1180.52	295.30	0.41	8.09E+001	43.56	1.57E+002
	5	1346-	1359	1352.66	338.33	1.40	6.71E+001	39.33	1.22E+002
	6	1401-	1412	1406.18	351.71	0.93	1.25E+002	36.46	8.80E+001
	7	2032-	2052	2040.36	510.24	1.76	1.18E+002	45.35	1.14E+002
	8	2320-	2340	2330.90	582.86	1.39	1.61E+002	39.19	6.57E+001
	9	2427-	2445	2435.62	609.04	1.01	1.21E+002	37.58	7.29E+001
	10	2899-	2910	2904.69	726.30	0.54	3.28E+001	20.65	3.12E+001
	11	3635-	3652	3642.89	910.83	0.91	1.29E+002	31.71	4.10E+001
	12	3865-	3881	3873.60	968.50	1.25	5.60E+001	24.97	3.40E+001
	13	4473-	4485	4479.55	1119.97	0.43	3.56E+001	19.20	2.24E+001
	14	5830-	5855	5841.97	1460.54	1.93	7.56E+002	55.74	1.26E+001
	15	7051-	7065	7057.54	1764.40	1.58	4.34E+001	13.55	1.63E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: BRN7722

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
ANN	0.981	511.00*		100.00	2.01759E-001	8.20798E-002
K-40	0.998	1460.81*		10.67	1.60433E+001	1.75633E+000
TL-208	0.749	277.35		6.80		
		510.84*		21.60	9.34068E-001	3.87580E-001
		583.14*		84.20	3.41166E-001	9.40358E-002
		860.37		12.46		
Bi-212	0.976	727.17*		11.80	5.26016E-001	3.36942E-001
Pb-212	0.580	74.81*	@	10.70	9.16408E+000	2.53934E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	7.25159E-001	2.50736E-001
Bi-214	0.998	609.31*		46.30	4.72230E-001	1.57679E-001
		1120.29*		15.10	4.89123E-001	2.69213E-001
		1764.49*		15.80	6.76201E-001	2.21801E-001
PB-214	0.619	74.82*	@	6.21	1.57900E+001	4.52300E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	6.17242E-001	3.48135E-001
		351.92*		37.20	5.13435E-001	1.72606E-001
Ac-228	0.995	338.32*		11.40	8.91167E-001	5.40597E-001
		911.07*		27.70	9.26317E-001	2.51471E-001
		969.11*		16.60	6.79766E-001	3.11366E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:BRN7722

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
ANN		0.981	1.280668E-001	8.452152E-002
K-40		0.998	1.604332E+001	1.756330E+000
TL-208		0.749	3.411660E-001	9.337619E-002
Bi-212		0.976	5.260160E-001	3.369416E-001
Pb-212	@	0.580	7.251588E-001	2.507359E-001
Bi-214		0.998	5.311334E-001	1.159773E-001
PB-214	@	0.619	5.339173E-001	1.546422E-001
Ac-228		0.995	8.361850E-001	1.839595E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	73.12	2.1561E-001	34.26

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:BRN7722
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	1.0801E-001	8.41E-002	-6.7538E-002
	1332.49	100.00	8.4142E-002		-4.8862E-002
Nb-94	702.63	100.00	1.0085E-001	1.01E-001	-2.8330E-002
	871.10	100.00	1.1105E-001		7.3341E-002
Ag-108m	79.20	7.10	8.9224E+000	1.32E-001	-2.1564E+000
	433.93	89.90	1.3534E-001		3.9581E-002
	614.37	90.40	1.5743E-001		-1.4088E-002
	722.95	90.50	1.3240E-001		1.5158E-001
Sb-125	176.33	6.89	2.6945E+000	4.06E-001	2.0757E+000
	427.89	29.33	4.0550E-001		-9.8758E-002
	463.38	10.35	1.1566E+000		-1.8015E-001
	600.56	17.80	6.3276E-001		2.4094E-001
	606.64	5.02	2.9241E+000		3.5320E+000
	635.90	11.32	9.5925E-001		5.4392E-001
Cs-134	563.23	8.38	1.3869E+000	1.24E-001	-9.8680E-001
	569.32	15.43	7.8652E-001		6.2903E-001
	604.70	97.60	1.5176E-001		-3.6779E-002
	795.84	85.40	1.2376E-001		1.1647E-001
	801.93	8.73	1.0050E+000		-2.5636E+000
Cs-137	661.65	85.12	1.1967E-001	1.20E-001	9.7552E-002
Eu-152	121.78	28.40	9.5046E-001	3.49E-001	4.4585E-001
	244.69	7.49	2.2100E+000		3.6466E-001
	344.27	26.50	5.1194E-001		-6.6191E-002
	778.89	12.74	7.2506E-001		-6.0269E-001
	867.32	4.16	2.6478E+000		-3.0003E+000
	964.01	14.40	9.0318E-001		1.7058E-001
	1085.78	10.00	9.8673E-001		9.4288E-002
	1112.02	13.30	7.3048E-001		1.8712E-001
	1407.95	20.70	3.4948E-001		-7.0556E-002
Eu-154	123.07	40.50	6.4615E-001	2.60E-001	-5.1421E-001
	247.94	6.60	2.4164E+000		-3.4360E+000
	591.81	4.83	2.1324E+000		-1.5906E+000
	723.30	19.70	6.1002E-001		6.9513E-001
	756.87	4.33	2.4595E+000		2.8130E-001
	873.19	11.50	9.4165E-001		-2.2223E-001
	996.32	10.30	1.0048E+000		2.2667E-001
	1004.76	17.90	5.7152E-001		-3.3612E-001
	1274.45	35.50	2.5985E-001		-1.7763E-001
Eu-155	86.54	30.90	1.5534E+000	1.55E+000	2.3278E+000
	105.31	20.70	1.6316E+000		-1.8797E+000
Am-241	59.54	35.90	3.3462E+000	3.35E+000	-1.4747E+000
Cm-243	228.19	10.56	1.6267E+000	1.06E+000	1.5483E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.0586E+000	1.06E+000	3.1488E-002

+ = 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

Report Generated On 5/23/2006 7:22:56 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BRN7722

Spectrum File: BRN7722
Sample ID: NOL-05-01-208
Sample Title: NOL-05-01-208-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/23/2006 7:12:52 PM
Live Time: 600.0 seconds
Real Time: 601.0 seconds

Energy Calibration Date: 4/7/2006
Eff Calibration Date: 3/23/2006
Calibration Efficiency: 7722Soil1m180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: BRN7722
Log Number: NOL-05-01-208
Title: NOL-05-01-208-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	285-	313	291.96	73.19	0.83	1.71E+002	46.70	6.97E+002
m	2	285-	313	300.12	75.22	0.84	3.52E+002	55.08	7.22E+002
m	3	285-	313	308.83	77.40	0.84	8.97E+001	41.14	6.30E+002
M	4	332-	354	338.55	84.83	1.06	2.05E+002	50.43	7.33E+002
m	5	332-	354	349.90	87.67	1.06	9.78E+001	44.57	7.36E+002
	6	947-	960	953.63	238.58	1.07	2.31E+002	62.80	2.87E+002
	7	1346-	1358	1352.70	338.34	0.59	4.21E+001	38.15	1.27E+002
	8	1395-	1413	1406.57	351.81	1.43	1.40E+002	49.14	1.45E+002
	9	2031-	2053	2041.64	510.56	0.64	1.45E+002	44.48	9.52E+001
	10	2322-	2340	2330.58	582.78	1.23	1.77E+002	36.54	5.08E+001
	11	2426-	2443	2434.39	608.74	1.20	1.57E+002	38.27	6.91E+001
	12	2638-	2651	2645.00	661.38	0.53	3.70E+001	24.23	4.20E+001
	13	3633-	3652	3641.84	910.56	0.50	1.12E+002	31.07	4.02E+001
M	14	3849-	3880	3855.42	963.95	1.47	3.29E+001	13.13	1.29E+001
m	15	3849-	3880	3871.71	968.02	1.48	7.18E+001	19.18	2.82E+001
	16	4471-	4488	4478.56	1119.72	0.35	4.66E+001	25.34	3.64E+001
	17	5321-	5334	5327.67	1331.97	0.89	2.04E+001	9.78	1.65E+000
	18	5829-	5853	5841.16	1460.33	1.77	8.13E+002	58.39	1.84E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: BRN7722

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
ANN	0.994	511.00*	100.00	2.47207E-001	8.29947E-002
K-40	0.993	1460.81*	10.67	1.72346E+001	1.86556E+000
Cs-137	0.998	661.65*	85.12	8.05206E-002	5.36144E-002
TL-208	0.750	277.35	6.80		
		510.84*	21.60	1.14448E+000	3.95439E-001
		583.14*	84.20	3.74767E-001	9.13966E-002
		860.37	12.46		
Pb-212	0.998	74.81* @	10.70	1.13686E+001	2.85238E+000
		77.11* @	18.00	1.58048E+000	7.88130E-001
		87.30* @	8.00	2.65086E+000	1.31495E+000
		238.63*	44.60	7.20798E-001	2.26117E-001
Bi-214	0.699	609.31*	46.30	6.11766E-001	1.67198E-001
		1120.29*	15.10	6.40809E-001	3.55164E-001
		1764.49	15.80		
PB-214	0.449	74.82* @	6.21	1.95885E+001	5.11630E+000
		77.11* @	10.50	2.70939E+000	1.36614E+000
		87.30* @	4.67	4.54109E+000	2.27856E+000
		241.98	7.49		
		295.21	19.20		
		351.92*	37.20	5.76513E-001	2.23665E-001
Ac-228	0.985	338.32*	11.40	5.59148E-001	5.14074E-001
		911.07*	27.70	8.03247E-001	2.41523E-001
		969.11*	16.60	8.71021E-001	2.50093E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:BRN7722

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
ANN		0.994	1.662572E-001	8.526952E-002
K-40		0.993	1.723461E+001	1.865560E+000
Cs-137		0.998	8.052058E-002	5.361444E-002
TL-208		0.750	3.747667E-001	9.057685E-002
Pb-212	@	0.998	7.207981E-001	2.261172E-001
Bi-214		0.699	6.170349E-001	1.512735E-001
PB-214	@	0.449	5.765128E-001	2.212652E-001
Ac-228		0.985	8.075786E-001	1.645883E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	73.19	2.8427E-001	27.38
M 4	84.83	3.4108E-001	24.64
M 14	963.95	5.4873E-002	39.89
17	1331.97	3.3920E-002	48.05

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:BRN7722
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
	Co-60	1173.22	100.00	1.0755E-001	8.22E-002	-3.1121E-002
		1332.49	100.00	8.2161E-002		-3.7518E-002
	Nb-94	702.63	100.00	1.1322E-001	1.08E-001	-1.0261E-002
		871.10	100.00	1.0782E-001		5.7642E-002
	Ag-108m	79.20	7.10	8.7155E+000	1.35E-001	-1.8067E+000
		433.93	89.90	1.3561E-001		-1.4525E-002
		614.37	90.40	1.5743E-001		2.0696E-002
		722.95	90.50	1.3462E-001		8.1621E-002
	Sb-125	176.33	6.89	2.7359E+000	4.05E-001	-1.2104E+000
		427.89	29.33	4.0466E-001		1.7802E-001
		463.38	10.35	1.2519E+000		8.6188E-001
		600.56	17.80	6.6301E-001		4.2882E-001
		606.64	5.02	3.1476E+000		6.4678E+000
		635.90	11.32	9.8967E-001		-6.6589E-002
	Cs-134	563.23	8.38	1.4807E+000	1.36E-001	-5.0966E-001
		569.32	15.43	8.0692E-001		2.4074E-001
		604.70	97.60	1.6243E-001		5.7088E-002
		795.84	85.40	1.3585E-001		9.9404E-002
		801.93	8.73	1.1560E+000		-1.5120E+000
+	Cs-137	661.65*	85.12	8.3014E-002	8.30E-002	8.0521E-002
	Eu-152	121.78	28.40	9.6877E-001	3.83E-001	1.0642E-001
		244.69	7.49	2.2291E+000		4.6970E-001
		344.27	26.50	5.0033E-001		1.7988E-002
		778.89	12.74	9.0061E-001		-9.0000E-002
		867.32	4.16	2.4786E+000		-1.8354E+000
		964.01	14.40	9.5308E-001		-4.6178E-002
		1085.78	10.00	9.9167E-001		3.6993E-001
		1112.02	13.30	7.6041E-001		-8.4495E-001
		1407.95	20.70	3.8290E-001		2.3121E-001
	Eu-154	123.07	40.50	6.7107E-001	2.74E-001	-1.8210E-001
		247.94	6.60	2.4779E+000		-8.8229E-001
		591.81	4.83	2.3410E+000		6.5882E-001
		723.30	19.70	6.1173E-001		2.2184E-001
		756.87	4.33	2.4324E+000		-3.6263E-001
		873.19	11.50	9.5225E-001		2.8204E-001
		996.32	10.30	9.4098E-001		-3.9578E-001
		1004.76	17.90	5.4241E-001		-3.1105E-002
		1274.45	35.50	2.7405E-001		-2.0144E-003
	Eu-155	86.54	30.90	1.5560E+000	1.56E+000	1.8908E+000
		105.31	20.70	1.6606E+000		7.2406E-001
	Am-241	59.54	35.90	3.3792E+000	3.38E+000	1.3451E+000
	Cm-243	228.19	10.56	1.5738E+000	1.14E+000	-1.3082E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.1401E+000	1.14E+000	8.9469E-001

+ = 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

Report Generated On 5/23/2006 8:41:52 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BRN7722

Spectrum File: BRN7722
Sample ID: NOL-05-01-209
Sample Title: NOL-05-01-209-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/23/2006 8:31:51 PM
Live Time: 600.0 seconds
Real Time: 601.0 seconds

Energy Calibration Date: 4/7/2006
Eff Calibration Date: 3/23/2006
Calibration Efficiency: 7722Soil1m180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: BRN7722
Log Number: NOL-05-01-209
Title: NOL-05-01-209-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	285-	306	291.76	73.14	0.82	1.48E+002	43.63	6.36E+002
m	2	285-	306	300.37	75.29	0.82	3.53E+002	56.98	7.02E+002
	3	336-	345	339.55	85.08	0.78	1.43E+002	76.62	6.03E+002
	4	367-	376	371.55	93.08	1.08	6.65E+001	72.00	5.68E+002
	5	948-	959	953.86	238.64	1.21	2.02E+002	55.46	2.38E+002
	6	1346-	1357	1352.13	338.20	0.78	6.97E+001	34.84	9.83E+001
	7	1395-	1415	1406.71	351.84	1.24	1.30E+002	57.61	2.02E+002
	8	2033-	2052	2041.70	510.57	0.68	1.35E+002	41.13	8.74E+001
	9	2322-	2338	2331.12	582.92	0.76	1.35E+002	37.49	7.34E+001
	10	2430-	2448	2435.91	609.12	0.76	1.49E+002	37.70	6.45E+001
	11	2901-	2914	2908.00	727.12	0.61	5.89E+001	24.01	3.31E+001
	12	3434-	3447	3439.91	860.09	0.96	2.26E+001	21.27	3.44E+001
	13	3633-	3651	3642.71	910.78	0.49	1.03E+002	33.41	5.50E+001
M	14	3851-	3880	3856.90	964.32	1.08	3.38E+001	14.53	2.65E+001
m	15	3851-	3880	3873.74	968.53	1.09	4.26E+001	16.51	3.71E+001
	16	4469-	4487	4479.58	1119.98	0.92	5.47E+001	24.06	2.83E+001
	17	5831-	5855	5842.83	1460.75	1.86	8.91E+002	60.53	1.54E+001
	18	7053-	7066	7059.40	1764.86	0.36	3.85E+001	13.61	3.50E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: BRN7722

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
ANN	0.994	511.00*	100.00	2.29686E-001	7.67923E-002
K-40	1.000	1460.81*	10.67	1.88904E+001	1.99683E+000
TL-208	0.902	277.35	6.80		
		510.84*	21.60	1.06336E+000	3.65972E-001
		583.14*	84.20	2.84706E-001	8.75197E-002
		860.37*	12.46	3.55757E-001	3.38265E-001
Bi-212	1.000	727.17*	11.80	9.44404E-001	4.00936E-001
Pb-212	0.580	74.81* @	10.70	1.13781E+001	2.88963E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	6.30057E-001	1.99185E-001
Bi-214	0.998	609.31*	46.30	5.82992E-001	1.63651E-001
		1120.29*	15.10	7.53031E-001	3.40489E-001
		1764.49*	15.80	6.00388E-001	2.20585E-001
Ac-228	0.995	338.32*	11.40	9.24827E-001	4.84734E-001
		911.07*	27.70	7.39986E-001	2.54593E-001
		969.11*	16.60	5.17588E-001	2.07580E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:BRN7722

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
ANN		0.994	1.672351E-001	7.892056E-002
K-40		1.000	1.889038E+001	1.996830E+000
TL-208		0.902	2.891222E-001	8.427875E-002
Bi-212		1.000	9.444042E-001	4.009363E-001
Pb-212	@	0.580	6.300569E-001	1.991845E-001
Bi-214		0.998	6.104173E-001	1.226130E-001
Ac-228		0.995	6.379929E-001	1.526915E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	73.14	2.4679E-001	29.46
3	85.08	2.3757E-001	53.75
4	93.08	1.1083E-001	108.28
7	351.84	2.1629E-001	44.39
M 14	964.32	5.6352E-002	42.97

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:BRN7722
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	1.2398E-001	8.08E-002	8.9347E-002
	1332.49	100.00	8.0810E-002		5.5979E-002
Nb-94	702.63	100.00	1.2270E-001	1.04E-001	-1.4591E-002
	871.10	100.00	1.0364E-001		-7.2035E-002
Ag-108m	79.20	7.10	8.9011E+000	1.45E-001	-6.5247E-001
	433.93	89.90	1.4546E-001		3.5144E-002
	614.37	90.40	1.6276E-001		-4.3439E-002
	722.95	90.50	1.4619E-001		-4.8439E-003
Sb-125	176.33	6.89	2.8060E+000	4.42E-001	1.2921E+000
	427.89	29.33	4.4232E-001		-3.2588E-001
	463.38	10.35	1.2288E+000		5.3764E-001
	600.56	17.80	6.7163E-001		-1.3701E-001
	606.64	5.02	3.1292E+000		-4.5080E-001
	635.90	11.32	9.8065E-001		-4.7978E-001
Cs-134	563.23	8.38	1.3977E+000	1.41E-001	-4.2302E-001
	569.32	15.43	7.5973E-001		-3.0638E-001
	604.70	97.60	1.5622E-001		-7.7835E-002
	795.84	85.40	1.4128E-001		-5.7395E-003
	801.93	8.73	1.2756E+000		-1.8993E+000
Cs-137	661.65	85.12	1.5589E-001	1.56E-001	4.4590E-002
Eu-152	121.78	28.40	9.6820E-001	3.79E-001	-1.9514E-001
	244.69	7.49	2.3424E+000		-1.9753E+000
	344.27	26.50	5.2189E-001		-1.3073E-002
	778.89	12.74	9.0632E-001		5.3344E-001
	867.32	4.16	2.6285E+000		1.1463E+000
	964.01	14.40	9.9156E-001		-9.8811E-002
	1085.78	10.00	1.0720E+000		-2.9111E-001
	1112.02	13.30	7.9267E-001		-7.3420E-001
	1407.95	20.70	3.7935E-001		2.3291E-001
Eu-154	123.07	40.50	6.6868E-001	2.76E-001	-6.2725E-001
	247.94	6.60	2.6251E+000		5.0240E-002
	591.81	4.83	2.4320E+000		-1.4256E+000
	723.30	19.70	6.6857E-001		3.8717E-001
	756.87	4.33	2.4864E+000		-1.6496E+000
	873.19	11.50	9.0168E-001		4.4166E-001
	996.32	10.30	1.0521E+000		5.0971E-001
	1004.76	17.90	6.4166E-001		-6.6919E-002
	1274.45	35.50	2.7558E-001		1.8142E-001
Eu-155	86.54	30.90	1.5462E+000	1.55E+000	1.6269E+000
	105.31	20.70	1.6502E+000		-1.4555E+000
Am-241	59.54	35.90	3.3220E+000	3.32E+000	-2.1675E+000
Cm-243	228.19	10.56	1.6324E+000	1.11E+000	-1.1335E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.1055E+000	1.11E+000	-1.1411E-001

+ = 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

Report Generated On 5/23/2006 8:59:19 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BRN7722

Spectrum File: BRN7722
Sample ID: NOL-05-01-210
Sample Title: NOL-05-01-210-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/23/2006 8:49:17 PM
Live Time: 600.0 seconds
Real Time: 600.9 seconds

Energy Calibration Date: 4/7/2006
Eff Calibration Date: 3/23/2006
Calibration Efficiency: 7722Soil1m180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: BRN7722
Log Number: NOL-05-01-210
Title: NOL-05-01-210-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	282-	304	291.55	73.08	0.75	1.51E+002	43.29	6.49E+002
m	2	282-	304	299.96	75.19	0.76	3.04E+002	55.17	6.41E+002
	3	333-	343	339.62	85.10	0.94	1.54E+002	80.21	6.40E+002
	4	944-	958	953.85	238.64	0.86	1.97E+002	64.66	3.08E+002
	5	1172-	1188	1180.38	295.27	1.23	6.02E+001	50.45	1.92E+002
	6	1345-	1356	1351.76	338.11	1.01	4.18E+001	35.94	1.17E+002
	7	1399-	1414	1406.62	351.82	0.95	1.45E+002	45.13	1.28E+002
	8	2033-	2051	2041.61	510.55	1.08	8.67E+001	43.83	1.22E+002
	9	2322-	2339	2331.14	582.93	0.90	1.28E+002	35.71	6.27E+001
	10	2427-	2443	2434.81	608.84	0.81	1.18E+002	34.59	6.17E+001
	11	2902-	2913	2907.51	727.00	0.32	2.93E+001	22.09	3.87E+001
	12	3635-	3651	3643.13	910.89	1.34	9.56E+001	31.56	5.24E+001
	13	3868-	3884	3874.81	968.80	0.47	7.22E+001	26.70	3.58E+001
	14	4474-	4486	4480.50	1120.21	0.61	3.33E+001	21.69	3.37E+001
	15	5831-	5855	5842.52	1460.67	1.71	7.65E+002	55.90	1.20E+001
	16	7055-	7068	7061.39	1765.36	0.66	1.85E+001	11.84	6.52E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: BRN7722

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
ANN	0.993	511.00*	100.00	1.47948E-001	7.74448E-002
K-40	0.999	1460.81*	10.67	1.62257E+001	1.76954E+000
TL-208	0.751	277.35	6.80		
		510.84*	21.60	6.84944E-001	3.62878E-001
		583.14*	84.20	2.71405E-001	8.33795E-002
		860.37	12.46		
Bi-212	0.999	727.17*	11.80	4.70583E-001	3.58775E-001
Pb-212	0.580	74.81* @	10.70	9.84964E+000	2.63044E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	6.12860E-001	2.23396E-001
Bi-214	0.991	609.31*	46.30	4.61371E-001	1.46371E-001
		1120.29*	15.10	4.58238E-001	3.02275E-001
		1764.49*	15.80	2.88223E-001	1.86952E-001
PB-214	0.619	74.82* @	6.21	1.69712E+001	4.69677E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	4.59100E-001	3.92535E-001
		351.92*	37.20	5.94001E-001	2.10303E-001
Ac-228	0.998	338.32*	11.40	5.54389E-001	4.85016E-001
		911.07*	27.70	6.86738E-001	2.40042E-001
		969.11*	16.60	8.76993E-001	3.36904E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:BRN7722

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
ANN		0.993	8.932438E-002	7.948845E-002
K-40		0.999	1.622574E+001	1.769537E+000
TL-208		0.751	2.714053E-001	8.290903E-002
Bi-212		0.999	4.705831E-001	3.587751E-001
Pb-212	@	0.580	6.128602E-001	2.233962E-001
Bi-214		0.991	4.035234E-001	1.076878E-001
PB-214	@	0.619	5.639158E-001	1.853745E-001
Ac-228		0.998	7.233491E-001	1.813205E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	73.08	2.5149E-001	28.69
3	85.10	2.5719E-001	51.98

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:BRN7722
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	1.1031E-001	8.92E-002	5.4841E-002
	1332.49	100.00	8.9197E-002		5.7899E-002
Nb-94	702.63	100.00	1.0165E-001	1.02E-001	-5.8603E-002
	871.10	100.00	1.0741E-001		3.1536E-002
Ag-108m	79.20	7.10	8.6674E+000	1.34E-001	-1.4968E+001
	433.93	89.90	1.4114E-001		1.7791E-001
	614.37	90.40	1.5512E-001		-8.2572E-002
	722.95	90.50	1.3352E-001		1.2955E-001
Sb-125	176.33	6.89	2.7543E+000	4.07E-001	1.1787E+000
	427.89	29.33	4.0717E-001		-1.1231E-001
	463.38	10.35	1.2611E+000		2.4042E-002
	600.56	17.80	6.7845E-001		5.1163E-001
	606.64	5.02	3.0021E+000		4.4103E+000
	635.90	11.32	1.0162E+000		-6.0409E-001
Cs-134	563.23	8.38	1.3797E+000	1.32E-001	5.8830E-002
	569.32	15.43	7.4795E-001		4.1402E-001
	604.70	97.60	1.5548E-001		9.4791E-002
	795.84	85.40	1.3239E-001		9.1707E-002
	801.93	8.73	1.1942E+000		-6.2874E-001
Cs-137	661.65	85.12	1.3727E-001	1.37E-001	7.2340E-002
Eu-152	121.78	28.40	9.6080E-001	3.97E-001	1.1024E-001
	244.69	7.49	2.2205E+000		-3.0980E+000
	344.27	26.50	5.2609E-001		-5.4527E-001
	778.89	12.74	8.2883E-001		1.2825E-001
	867.32	4.16	2.5894E+000		-3.7075E+000
	964.01	14.40	9.5769E-001		-1.8473E-002
	1085.78	10.00	9.5140E-001		-1.0087E+000
	1112.02	13.30	8.4683E-001		-1.6801E-001
	1407.95	20.70	3.9678E-001		-3.1166E-002
Eu-154	123.07	40.50	6.6928E-001	3.03E-001	3.8277E-001
	247.94	6.60	2.5020E+000		-7.3310E-001
	591.81	4.83	2.4510E+000		2.7278E+000
	723.30	19.70	6.1173E-001		3.9971E-001
	756.87	4.33	2.3299E+000		-5.8449E-001
	873.19	11.50	9.1643E-001		1.8582E-001
	996.32	10.30	1.0563E+000		-1.3529E-001
	1004.76	17.90	5.7409E-001		1.7762E-001
	1274.45	35.50	3.0309E-001		3.0111E-001
Eu-155	86.54	30.90	1.5447E+000	1.54E+000	1.8401E+000
	105.31	20.70	1.6475E+000		-7.5716E-001
Am-241	59.54	35.90	3.2599E+000	3.26E+000	-2.1679E+000
Cm-243	228.19	10.56	1.5845E+000	1.12E+000	-4.6037E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.1172E+000	1.12E+000	-3.9634E-001

+ = 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

Report Generated On 5/23/2006 9:28:33 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BRN7722

Spectrum File: BRN7722
Sample ID: NOL-05-01-211
Sample Title: NOL-05-01-211-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/23/2006 9:18:31 PM
Live Time: 600.0 seconds
Real Time: 601.0 seconds

Energy Calibration Date: 4/7/2006
Eff Calibration Date: 3/23/2006
Calibration Efficiency: 7722Soil1m180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: BRN7722
Log Number: NOL-05-01-211
Title: NOL-05-01-211-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	287-	314	291.89	73.17	0.90	2.27E+002	47.79	5.83E+002
m	2	287-	314	300.23	75.25	0.91	3.87E+002	55.48	6.55E+002
m	3	287-	314	308.96	77.44	0.91	7.25E+001	41.05	7.30E+002
	4	333-	346	338.57	84.84	0.70	1.00E+002	98.81	8.84E+002
	5	945-	960	953.94	238.66	0.90	1.93E+002	67.41	3.30E+002
	6	1346-	1362	1351.36	338.01	0.76	1.12E+002	46.40	1.43E+002
	7	1398-	1415	1406.24	351.72	1.35	1.20E+002	49.48	1.59E+002
	8	1842-	1854	1849.64	462.56	0.83	3.51E+001	26.18	5.19E+001
	9	2030-	2050	2041.93	510.63	1.80	1.45E+002	41.97	8.64E+001
	10	2322-	2338	2330.82	582.85	0.89	1.34E+002	41.10	9.77E+001
	11	2429-	2445	2435.05	608.90	1.21	1.16E+002	35.61	6.85E+001
	12	2638-	2651	2644.28	661.20	0.53	3.29E+001	26.88	5.61E+001
	13	2901-	2914	2906.88	726.84	1.14	3.01E+001	25.27	4.89E+001
	14	3173-	3184	3178.25	794.68	0.45	2.73E+001	17.76	2.17E+001
	15	3636-	3653	3642.87	910.82	1.22	1.14E+002	30.99	4.22E+001
M	16	3850-	3882	3856.56	964.24	1.22	2.07E+001	12.71	2.74E+001
m	17	3850-	3882	3873.82	968.55	1.22	5.57E+001	18.69	4.21E+001
	18	5830-	5853	5842.30	1460.62	1.64	7.60E+002	56.14	1.51E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: BRN7722

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
ANN	0.996	511.00*	100.00	2.46755E-001	7.90689E-002
K-40	0.999	1460.81*	10.67	1.61183E+001	1.76659E+000
Cs-137	0.994	661.65*	85.12	7.16017E-002	5.91513E-002
TL-208	0.751	277.35	6.80		
		510.84*	21.60	1.14238E+000	3.77761E-001
		583.14*	84.20	2.83961E-001	9.44523E-002
		860.37	12.46		
Bi-212	0.997	727.17*	11.80	4.83072E-001	4.09319E-001
Pb-212	0.852	74.81* @	10.70	1.24977E+001	3.03483E+000
		77.11* @	18.00	1.27615E+000	7.64288E-001
		87.30 @	8.00		
		238.63*	44.60	6.02230E-001	2.30480E-001
Bi-214	0.399	609.31*	46.30	4.50545E-001	1.49553E-001
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.371	74.82* @	6.21	2.15338E+001	5.45774E+000
		77.11* @	10.50	2.18769E+000	1.32035E+000
		87.30 @	4.67		
		241.98	7.49		
		295.21	19.20		
		351.92*	37.20	4.94008E-001	2.19381E-001
Ac-228	0.995	338.32*	11.40	1.48158E+000	6.58244E-001
		911.07*	27.70	8.17547E-001	2.41671E-001
		969.11*	16.60	6.76698E-001	2.37669E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:BRN7722

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
ANN		0.996	1.854189E-001	8.163405E-002
K-40		0.999	1.611835E+001	1.766588E+000
Cs-137		0.994	7.160175E-002	5.915126E-002
TL-208		0.751	2.839611E-001	9.399790E-002
Bi-212		0.997	4.830723E-001	4.093193E-001
Pb-212	@	0.852	6.022299E-001	2.304804E-001
Bi-214		0.399	4.505448E-001	1.495527E-001
PB-214	@	0.371	4.940080E-001	2.175875E-001
Ac-228		0.995	7.916689E-001	1.641038E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	73.17	3.7821E-001	21.06
4	84.84	1.6699E-001	98.61
8	462.56	5.8424E-002	74.69
14	794.68	4.5493E-002	65.05
M 16	964.24	3.4487E-002	61.42

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:BRN7722
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
	Co-60	1173.22	100.00	1.2438E-001	1.02E-001	3.5510E-002
		1332.49	100.00	1.0226E-001		6.2148E-002
	Nb-94	702.63	100.00	1.1738E-001	9.93E-002	-2.2918E-003
		871.10	100.00	9.9267E-002		-1.1886E-001
	Ag-108m	79.20	7.10	8.7133E+000	1.39E-001	3.1448E-001
		433.93	89.90	1.4191E-001		3.7851E-002
		614.37	90.40	1.5828E-001		1.2853E-002
		722.95	90.50	1.3930E-001		-4.6744E-002
	Sb-125	176.33	6.89	2.8101E+000	4.31E-001	-5.9903E-001
		427.89	29.33	4.3068E-001		2.6679E-001
		463.38	10.35	1.1315E+000		3.8696E-001
		600.56	17.80	6.4539E-001		1.1088E-001
		606.64	5.02	2.9192E+000		5.4490E+000
		635.90	11.32	1.0249E+000		2.3987E-001
	Cs-134	563.23	8.38	1.4432E+000	1.28E-001	1.1372E+000
		569.32	15.43	7.8086E-001		-4.5814E-002
		604.70	97.60	1.4923E-001		-1.0254E-001
		795.84	85.40	1.2838E-001		5.3297E-002
		801.93	8.73	1.2265E+000		8.3071E-001
+	Cs-137	661.65*	85.12	9.5169E-002	9.52E-002	7.1602E-002
	Eu-152	121.78	28.40	9.6223E-001	3.42E-001	-1.4709E-001
		244.69	7.49	2.2239E+000		1.9371E-001
		344.27	26.50	5.5985E-001		-5.1619E-001
		778.89	12.74	8.2883E-001		-9.3546E-001
		867.32	4.16	2.4992E+000		-2.7762E+000
		964.01	14.40	9.5308E-001		2.5811E-001
		1085.78	10.00	1.0583E+000		-3.4059E-001
		1112.02	13.30	7.7493E-001		-8.1971E-001
		1407.95	20.70	3.4157E-001		-1.8743E-001
	Eu-154	123.07	40.50	6.7306E-001	2.53E-001	-1.1269E-001
		247.94	6.60	2.4080E+000		-3.4309E+000
		591.81	4.83	2.4256E+000		-5.5360E-001
		723.30	19.70	6.3346E-001		3.1244E-001
		756.87	4.33	2.6415E+000		1.4253E+000
		873.19	11.50	9.0168E-001		3.3453E-001
		996.32	10.30	9.2189E-001		-7.6224E-001
		1004.76	17.90	5.5318E-001		3.1837E-001
		1274.45	35.50	2.5327E-001		-1.5042E-001
	Eu-155	86.54	30.90	1.5432E+000	1.54E+000	1.4738E+000
		105.31	20.70	1.6691E+000		8.9638E-001
	Am-241	59.54	35.90	3.2742E+000	3.27E+000	-4.2605E+000
	Cm-243	228.19	10.56	1.6128E+000	1.13E+000	-5.6339E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.1308E+000	1.13E+000	-2.0452E-001

+ = 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

Report Generated On 5/24/2006 11:43:00 AM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: RED6264

Spectrum File: RED6264
Sample ID: NOL-05-01-212
Sample Title: NOL-05-01-212-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/24/2006 11:33:00 AM
Live Time: 600.0 seconds
Real Time: 601.1 seconds

Energy Calibration Date: 3/22/2006
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number: NOL-05-01-212
Title: NOL-05-01-212-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	284-	309	291.13	72.68	1.60	4.77E+002	76.31	1.64E+003
m	2	284-	309	300.35	74.99	1.60	8.75E+002	84.24	2.56E+003
M	3	331-	356	339.57	84.80	1.32	3.45E+002	65.87	1.59E+003
m	4	331-	356	349.73	87.34	1.32	1.43E+002	60.52	1.83E+003
	5	943-	962	954.08	238.47	1.45	3.82E+002	88.45	4.73E+002
	6	1170-	1186	1179.28	294.78	0.29	6.12E+001	55.59	2.38E+002
	7	1347-	1359	1352.81	338.17	0.74	6.84E+001	44.27	1.67E+002
	8	1400-	1414	1406.39	351.57	0.74	1.21E+002	50.05	1.84E+002
	9	2033-	2054	2042.09	510.54	1.90	1.80E+002	52.53	1.44E+002
	10	2324-	2340	2330.87	582.75	1.72	1.88E+002	42.76	9.16E+001
	11	2424-	2445	2435.47	608.91	1.42	1.34E+002	48.39	1.27E+002
	12	3434-	3449	3440.68	860.28	1.34	4.55E+001	25.38	4.05E+001
	13	3632-	3653	3642.84	910.83	1.91	1.94E+002	38.44	5.11E+001
	14	3867-	3885	3872.54	968.27	1.26	9.19E+001	33.09	5.51E+001
	15	4472-	4490	4480.90	1120.40	0.37	7.83E+001	28.10	3.77E+001
	16	5828-	5858	5842.82	1460.97	2.43	1.14E+003	68.79	1.92E+001
	17	7054-	7067	7060.63	1765.51	0.42	3.24E+001	15.74	1.16E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	0.993	511.00*	100.00	2.53792E-001	8.15021E-002
K-40	0.999	1460.81*	10.67	1.97030E+001	1.99031E+000
Eu-155	0.321	86.54*	30.90	5.93881E-001	2.77098E-001
		105.31	20.70		
TL-208	0.899	277.35	6.80		
		510.84*	21.60	1.17496E+000	3.89334E-001
		583.14*	84.20	3.28747E-001	8.60243E-002
		860.37*	12.46	5.89849E-001	3.37122E-001
Pb-212	0.677	74.81* @	10.70	1.29786E+001	2.83409E+000
		77.11 @	18.00		
		87.30* @	8.00	2.29387E+000	1.07029E+000
		238.63*	44.60	9.59731E-001	2.68163E-001
Bi-214	0.990	609.31*	46.30	4.32956E-001	1.64702E-001
		1120.29*	15.10	9.00167E-001	3.37000E-001
		1764.49*	15.80	3.92665E-001	1.94926E-001
PB-214	0.667	74.82* @	6.21	2.23625E+001	5.14598E+000
		77.11 @	10.50		
		87.30* @	4.67	3.92953E+000	1.85735E+000
		241.98	7.49		
		295.21*	19.20	3.78692E-001	3.50028E-001
		351.92*	37.20	4.07317E-001	1.81392E-001
Ac-228	0.992	338.32*	11.40	7.41060E-001	4.93791E-001
		911.07*	27.70	1.14664E+000	2.62797E-001
		969.11*	16.60	9.22251E-001	3.45954E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN		0.993	1.793747E-001	8.343832E-002
K-40		0.999	1.970296E+001	1.990307E+000
Eu-155		0.321	2.847547E-001	2.866835E-001
TL-208		0.899	3.445253E-001	8.273536E-002
Pb-212	@	0.677	9.597312E-001	2.681626E-001
Bi-214		0.990	4.753729E-001	1.178613E-001
PB-214	@	0.667	4.013172E-001	1.598948E-001
Ac-228		0.992	1.015286E+000	1.926777E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.68	7.9541E-001	15.99
M 3	84.80	5.7490E-001	19.09

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
	Co-60	1173.22	100.00	1.0668E-001	8.54E-002	3.1849E-002
		1332.49	100.00	8.5354E-002		2.3862E-002
	Nb-94	702.63	100.00	1.1077E-001	9.61E-002	2.7152E-002
		871.10	100.00	9.6145E-002		-6.0640E-002
	Ag-108m	79.20	7.10	5.6720E+000	1.24E-001	-8.5776E+000
		433.93	89.90	1.2410E-001		-4.2439E-003
		614.37	90.40	1.4257E-001		-1.4329E-002
		722.95	90.50	1.2659E-001		-8.9496E-002
	Sb-125	176.33	6.89	2.4443E+000	3.85E-001	1.6336E+000
		427.89	29.33	3.8521E-001		1.1404E-001
		463.38	10.35	1.0980E+000		4.5407E-001
		600.56	17.80	5.9401E-001		-1.5109E-001
		606.64	5.02	2.7349E+000		3.7165E+000
		635.90	11.32	9.1085E-001		-1.4615E-001
	Cs-134	563.23	8.38	1.3250E+000	1.31E-001	3.7210E-001
		569.32	15.43	7.2354E-001		-2.7498E-001
		604.70	97.60	1.3773E-001		-3.6309E-002
		795.84	85.40	1.3068E-001		1.3858E-002
		801.93	8.73	1.1827E+000		-2.1017E+000
	Cs-137	661.65	85.12	1.2654E-001	1.27E-001	4.8301E-002
	Eu-152	121.78	28.40	7.8668E-001	3.61E-001	-4.2103E-001
		244.69	7.49	1.9702E+000		-9.2425E-001
		344.27	26.50	4.5647E-001		-3.2000E-001
		778.89	12.74	8.0996E-001		-1.8399E-001
		867.32	4.16	2.3165E+000		-9.2217E-001
		964.01	14.40	9.1324E-001		-2.7496E-001
		1085.78	10.00	9.4557E-001		9.2008E-002
		1112.02	13.30	7.4227E-001		-5.6580E-001
		1407.95	20.70	3.6111E-001		4.5817E-002
	Eu-154	123.07	40.50	5.4723E-001	2.52E-001	3.2690E-003
		247.94	6.60	2.1601E+000		-4.6514E-001
		591.81	4.83	2.2121E+000		-2.4291E-001
		723.30	19.70	5.8162E-001		-3.2541E-001
		756.87	4.33	2.3880E+000		-1.4346E+000
		873.19	11.50	8.6298E-001		8.6483E-001
		996.32	10.30	9.1929E-001		-6.3770E-001
		1004.76	17.90	5.3213E-001		2.1865E-001
		1274.45	35.50	2.5228E-001		7.2802E-002
+	Eu-155	86.54*	30.90	8.3890E-001	8.39E-001	5.9388E-001
		105.31	20.70	1.2588E+000		1.5293E-001
	Am-241	59.54	35.90	1.4102E+000	1.41E+000	6.4540E-002
	Cm-243	228.19	10.56	1.3620E+000	1.01E+000	7.3942E-002

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Cm-243	277.60	14.00	1.0097E+000	1.01E+000	-5.4972E-002

+ = 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

Report Generated On 5/24/2006 11:11:25 AM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: RED6264

Spectrum File: RED6264
Sample ID: NOL-05-01-213
Sample Title: NOL-05-01-213-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/24/2006 11:01:23 AM
Live Time: 600.0 seconds
Real Time: 601.2 seconds

Energy Calibration Date: 3/22/2006
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number: NOL-05-01-213
Title: NOL-05-01-213-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	281-	306	291.29	72.72	1.45	3.71E+002	71.42	2.01E+003
m	2	281-	306	299.99	74.90	1.45	6.64E+002	81.71	2.38E+003
	3	331-	347	340.06	84.92	1.69	2.65E+002	145.20	1.67E+003
	4	613-	623	617.39	154.27	0.47	5.65E+001	65.05	4.39E+002
	5	947-	962	953.68	238.36	1.28	2.92E+002	79.14	4.41E+002
	6	1343-	1357	1351.53	337.86	1.53	6.07E+001	48.29	1.88E+002
	7	1399-	1415	1406.39	351.57	1.08	1.30E+002	52.94	1.90E+002
	8	2031-	2052	2040.51	510.14	0.86	1.15E+002	52.07	1.57E+002
	9	2321-	2341	2330.41	582.64	1.16	1.89E+002	45.74	9.60E+001
	10	2424-	2447	2435.51	608.92	1.94	1.82E+002	45.70	9.01E+001
	11	3631-	3651	3642.79	910.82	2.13	1.94E+002	40.85	6.59E+001
	12	3897-	3908	3902.73	975.82	0.44	2.23E+001	16.94	2.07E+001
	13	5827-	5856	5842.46	1460.88	2.25	1.19E+003	70.54	2.28E+001
	14	7051-	7066	7058.03	1764.86	1.19	5.27E+001	17.39	8.32E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	0.977	511.00*	100.00	1.61623E-001	7.64325E-002
K-40	1.000	1460.81*	10.67	2.05050E+001	2.06042E+000
TL-208	0.744	277.35	6.80		
		510.84*	21.60	7.48255E-001	3.59092E-001
		583.14*	84.20	3.29738E-001	9.06402E-002
		860.37	12.46		
Pb-212	0.520	74.81* @	10.70	9.86563E+000	2.28319E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	7.32524E-001	2.29394E-001
Bi-214	0.695	609.31*	46.30	5.85842E-001	1.63903E-001
		1120.29	15.10		
		1764.49*	15.80	6.39118E-001	2.20440E-001
Ac-228	0.538	338.32*	11.40	6.57800E-001	5.33480E-001
		911.07*	27.70	1.14750E+000	2.75258E-001
		969.11	16.60		

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN	0.977	9.039981E-002	7.886606E-002
K-40	1.000	2.050496E+001	2.060425E+000
TL-208	0.744	3.297376E-001	9.000097E-002
Pb-212 @	0.520	7.325236E-001	2.293941E-001
Bi-214	0.695	6.048090E-001	1.315299E-001
Ac-228	0.538	1.044538E+000	2.446161E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.72	6.1908E-001	19.23
3	84.92	4.4208E-001	54.74
4	154.27	9.4157E-002	115.15
7	351.57	2.1656E-001	40.74
12	975.82	3.7209E-002	75.87

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Co-60	1173.22	100.00	1.0435E-001	8.58E-002	-1.7957E-002
	1332.49	100.00	8.5795E-002		2.6218E-002
Nb-94	702.63	100.00	1.0369E-001	1.04E-001	-5.8066E-002
	871.10	100.00	1.0445E-001		-2.8442E-002
Ag-108m	79.20	7.10	5.6621E+000	1.27E-001	-7.3941E+000
	433.93	89.90	1.2761E-001		-5.5413E-002
	614.37	90.40	1.3279E-001		3.3081E-003
	722.95	90.50	1.2686E-001		7.6072E-002
Sb-125	176.33	6.89	2.4781E+000	3.88E-001	1.6079E+000
	427.89	29.33	3.8817E-001		-2.1428E-001
	463.38	10.35	1.0784E+000		2.3211E-001
	600.56	17.80	6.4203E-001		3.6876E-001
	606.64	5.02	2.7457E+000		5.0155E+000
	635.90	11.32	9.2618E-001		-3.4533E-001
Cs-134	563.23	8.38	1.3096E+000	1.20E-001	9.2071E-001
	569.32	15.43	7.0530E-001		8.4584E-002
	604.70	97.60	1.4470E-001		1.3111E-002
	795.84	85.40	1.2039E-001		-9.0013E-004
	801.93	8.73	1.1891E+000		-1.1867E+000
Cs-137	661.65	85.12	1.2392E-001	1.24E-001	6.6706E-003
Eu-152	121.78	28.40	7.8517E-001	3.43E-001	-9.6499E-002
	244.69	7.49	1.9574E+000		-1.5245E+000
	344.27	26.50	4.5861E-001		-2.0978E-001
	778.89	12.74	8.0564E-001		-1.0432E+000
	867.32	4.16	2.4393E+000		-3.8864E+000
	964.01	14.40	9.2949E-001		1.1069E+000
	1085.78	10.00	1.0110E+000		-7.1271E-001
	1112.02	13.30	8.1636E-001		-5.8460E-001
	1407.95	20.70	3.4302E-001		-1.6105E-001
Eu-154	123.07	40.50	5.4510E-001	2.98E-001	-1.6385E-001
	247.94	6.60	2.0850E+000		-2.3614E+000
	591.81	4.83	2.1542E+000		-2.1624E-001
	723.30	19.70	5.8162E-001		4.3731E-001
	756.87	4.33	2.3565E+000		-1.2186E+000
	873.19	11.50	8.8360E-001		-6.8435E-002
	996.32	10.30	9.3235E-001		-4.3935E-001
	1004.76	17.90	5.4150E-001		5.8605E-001
	1274.45	35.50	2.9775E-001		2.8664E-001
Eu-155	86.54	30.90	1.1329E+000	1.13E+000	2.9632E-001
	105.31	20.70	1.2625E+000		7.6284E-001
Am-241	59.54	35.90	1.4081E+000	1.41E+000	-7.5328E-001
Cm-243	228.19	10.56	1.3770E+000	9.52E-001	9.1278E-002

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Cm-243	277.60	14.00	9.5221E-001	9.52E-001	4.5132E-002

+ = 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

Report Generated On 5/25/2006 3:09:08 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: GRN7780

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-214-F-G
Sample ID: NOL-05-01-214
Sample Title: NOL-05-01-214-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/23/2006 4:18:24 PM
Live Time: 600.0 seconds
Real Time: 601.4 seconds

Energy Calibration Date: 4/19/2006
Eff Calibration Date: 3/23/2006
Calibration Efficiency: 7780Soil1M180170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-214-F-G
Log Number: NOL-05-01-214
Title: NOL-05-01-214-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	284-	306	291.54	72.84	1.08	1.93E+002	81.56	8.21E+002
m	2	284-	306	300.67	75.12	1.09	3.93E+002	134.93	1.05E+003
F	3	331-	345	339.76	84.90	1.10	1.75E+002	120.84	9.14E+002
M	4	950-	973	954.60	238.61	1.28	3.28E+002	43.28	2.57E+002
m	5	950-	973	966.45	241.57	1.29	8.04E+001	28.31	3.23E+002
F	6	1174-	1190	1182.24	295.52	1.33	7.13E+001	25.77	2.19E+002
F	7	1346-	1359	1353.13	338.24	1.37	4.79E+001	23.41	1.56E+002
F	8	1400-	1415	1407.62	351.86	1.38	1.73E+002	29.83	1.33E+002
F	9	2036-	2052	2043.78	510.91	2.23	1.25E+002	26.17	9.84E+001
F	10	2323-	2341	2332.62	583.12	1.53	1.65E+002	77.24	9.99E+001
F	11	2428-	2448	2436.56	609.10	1.55	1.15E+002	25.16	9.71E+001
F	12	2901-	2914	2907.80	726.91	1.61	3.82E+001	18.96	6.73E+001
F	13	3636-	3653	3644.84	911.17	1.71	1.14E+002	106.46	5.88E+001
F	14	3867-	3884	3876.23	969.02	1.73	1.05E+002	23.25	4.95E+001
F	15	5831-	5856	5844.36	1461.06	1.94	8.25E+002	56.49	2.95E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-214-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
ANN	1.000	511.00*	100.00	2.34466E-001	5.40824E-002
K-40	0.998	1460.81*	10.67	1.88958E+001	1.73313E+000
TL-208	0.750	277.35	6.80		
		510.84*	21.60	1.08549E+000	2.65611E-001
		583.14*	84.20	3.79068E-001	1.81409E-001
		860.37	12.46		
Bi-212	0.998	727.17*	11.80	6.58537E-001	3.31351E-001
Pb-212	0.596	74.81* @	10.70	1.46561E+001	5.54502E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.06590E+000	2.13069E-001
Bi-214	0.401	609.31*	46.30	4.86491E-001	1.15283E-001
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.783	74.82* @	6.21	2.52529E+001	9.72850E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98*	7.49	1.55966E+000	6.03235E-001
		295.21*	19.20	5.77346E-001	2.26603E-001
		351.92*	37.20	7.71139E-001	1.70072E-001
Ac-228	1.000	338.32*	11.40	6.85138E-001	3.46654E-001
		911.07*	27.70	8.80744E-001	8.21505E-001
		969.11*	16.60	1.36857E+000	3.12707E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-214-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
ANN		1.000	1.525873E-001	6.673222E-002
K-40		0.998	1.889576E+001	1.733131E+000
TL-208		0.750	3.790676E-001	1.809875E-001
Bi-212		0.998	6.585366E-001	3.313511E-001
Pb-212	@	0.596	1.065896E+000	2.130693E-001
Bi-214		0.401	4.864906E-001	1.152829E-001
PB-214	@	0.783	7.428422E-001	1.326915E-001
Ac-228		1.000	1.048539E+000	2.234403E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.84	3.2120E-001	42.32
F 3	84.90	2.9220E-001	68.93

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-214-F-G
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	1.2823E-001	1.03E-001	-5.4084E-002
	1332.49	100.00	1.0335E-001		3.7567E-002
Nb-94	702.63	100.00	1.2433E-001	1.18E-001	3.7315E-002
	871.10	100.00	1.1777E-001		-1.1690E-002
Ag-108m	79.20	7.10	9.4097E+000	1.57E-001	-8.1935E+000
	433.93	89.90	1.5748E-001		-2.7704E-002
	614.37	90.40	1.7674E-001		-1.4532E-001
	722.95	90.50	1.6209E-001		-2.2235E-002
Sb-125	176.33	6.89	3.0288E+000	4.80E-001	5.2545E-001
	427.89	29.33	4.8045E-001		5.8282E-002
	463.38	10.35	1.3938E+000		1.8673E-001
	600.56	17.80	7.7830E-001		-3.8725E-002
	606.64	5.02	3.4928E+000		8.4353E-001
	635.90	11.32	1.1781E+000		-1.5890E-001
Cs-134	563.23	8.38	1.7185E+000	1.47E-001	8.5596E-001
	569.32	15.43	9.1523E-001		3.5797E-001
	604.70	97.60	1.7675E-001		5.1495E-002
	795.84	85.40	1.4672E-001		7.3544E-002
	801.93	8.73	1.3406E+000		-6.2057E-001
Cs-137	661.65	85.12	1.4798E-001	1.48E-001	-2.3661E-002
Eu-152	121.78	28.40	1.0413E+000	4.36E-001	-9.3628E-004
	244.69	7.49	2.3507E+000		3.6034E-001
	344.27	26.50	5.8270E-001		-9.3841E-003
	778.89	12.74	9.6075E-001		-8.3830E-001
	867.32	4.16	2.8898E+000		-5.8402E+000
	964.01	14.40	1.1301E+000		8.4508E-002
	1085.78	10.00	1.2151E+000		2.2759E-001
	1112.02	13.30	8.7630E-001		-3.6332E-001
	1407.95	20.70	4.3639E-001		1.5409E-001
Eu-154	123.07	40.50	7.2443E-001	2.85E-001	8.0050E-001
	247.94	6.60	2.5122E+000		-5.1047E-001
	591.81	4.83	2.7144E+000		-1.0622E+000
	723.30	19.70	7.5099E-001		-1.6842E-001
	756.87	4.33	3.0197E+000		1.4086E+000
	873.19	11.50	1.0209E+000		-5.8881E-001
	996.32	10.30	1.1198E+000		5.9449E-001
	1004.76	17.90	6.1611E-001		-3.1043E-001
	1274.45	35.50	2.8502E-001		-6.6765E-001
Eu-155	86.54	30.90	1.8871E+000	1.74E+000	3.8031E-001
	105.31	20.70	1.7394E+000		8.0135E-001
Am-241	59.54	35.90	4.7605E+000	4.76E+000	5.1266E-001
Cm-243	228.19	10.56	1.7148E+000	1.15E+000	-1.6922E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.1547E+000	1.15E+000	1.6053E-001

+ = 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

Report Generated On 5/24/2006 1:32:07 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: RED6264

Spectrum File: RED6264
Sample ID: NOL-05-01-215
Sample Title: NOL-05-01-215-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/24/2006 1:21:57 PM
Live Time: 600.0 seconds
Real Time: 601.1 seconds

Energy Calibration Date: 3/22/2006
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number: NOL-05-01-215
Title: NOL-05-01-215-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	295-	307	300.33	74.98	0.80	3.61E+002	140.30	1.79E+003
2	335-	348	339.72	84.83	0.99	2.16E+002	126.64	1.44E+003
3	948-	963	954.02	238.45	1.30	2.98E+002	76.68	4.01E+002
4	1398-	1415	1406.95	351.71	0.71	1.46E+002	51.18	1.64E+002
5	2307-	2341	2331.66	582.95	1.95	2.32E+002	65.87	1.63E+002
6	2425-	2446	2435.48	608.91	1.90	1.64E+002	45.83	1.02E+002
7	3635-	3654	3643.53	911.01	1.43	1.67E+002	35.58	4.70E+001
8	3866-	3883	3874.93	968.87	0.42	7.14E+001	33.46	6.76E+001
9	5830-	5859	5843.50	1461.15	2.17	1.12E+003	66.91	1.01E+001
10	6349-	6362	6355.97	1589.30	0.81	1.69E+001	12.94	9.07E+000
11	7054-	7068	7061.17	1765.64	1.07	4.20E+001	17.46	1.30E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
K-40	0.996	1460.81*	10.67	1.93934E+001	1.95076E+000
TL-208	0.470	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	4.05603E-001	1.26510E-001
		860.37	12.46		
Pb-212	0.521	74.81* @	10.70	5.35620E+000	2.33106E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	7.48965E-001	2.25416E-001
Bi-214	0.687	609.31*	46.30	5.28570E-001	1.61300E-001
		1120.29	15.10		
		1764.49*	15.80	5.09700E-001	2.17833E-001
Ac-228	0.633	338.32	11.40		
		911.07*	27.70	9.87494E-001	2.39085E-001
		969.11*	16.60	7.17111E-001	3.44242E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
K-40	0.996	1.939336E+001	1.950758E+000
TL-208	0.470	4.056031E-001	1.265101E-001
Pb-212 @	0.521	7.489649E-001	2.254164E-001
Bi-214	0.687	5.218876E-001	1.296303E-001
Ac-228	0.633	8.995103E-001	1.963699E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
2	84.83	3.5918E-001	58.76
4	351.71	2.4267E-001	35.15
10	1589.30	2.8221E-002	76.39

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Co-60	1173.22	100.00	1.1244E-001	8.97E-002	4.6832E-002
	1332.49	100.00	8.9659E-002		6.5198E-002
Nb-94	702.63	100.00	1.0290E-001	9.10E-002	7.0023E-002
	871.10	100.00	9.1043E-002		-2.3395E-003
Ag-108m	79.20	7.10	5.5533E+000	1.19E-001	-5.6446E+000
	433.93	89.90	1.2170E-001		-1.3234E-001
	614.37	90.40	1.4257E-001		-3.1695E-003
	722.95	90.50	1.1868E-001		1.3086E-001
Sb-125	176.33	6.89	2.3732E+000	3.72E-001	1.3376E+000
	427.89	29.33	3.7191E-001		-1.8637E-001
	463.38	10.35	1.0945E+000		1.4347E+000
	600.56	17.80	5.9269E-001		-2.7448E-001
	606.64	5.02	2.7528E+000		4.2609E+000
	635.90	11.32	9.1085E-001		-2.0212E-001
Cs-134	563.23	8.38	1.3871E+000	1.27E-001	4.7944E-001
	569.32	15.43	7.4132E-001		-2.3298E-001
	604.70	97.60	1.3735E-001		-1.4989E-002
	795.84	85.40	1.2704E-001		2.6822E-004
	801.93	8.73	1.1922E+000		-1.6828E+000
Cs-137	661.65	85.12	1.3135E-001	1.31E-001	7.5136E-002
Eu-152	121.78	28.40	7.8442E-001	3.38E-001	2.7501E-002
	244.69	7.49	2.0029E+000		1.7908E-001
	344.27	26.50	4.5967E-001		-8.9467E-001
	778.89	12.74	8.3751E-001		-1.3973E+000
	867.32	4.16	2.2334E+000		-3.8698E+000
	964.01	14.40	8.8323E-001		1.9949E-001
	1085.78	10.00	9.4913E-001		-4.4059E-001
	1112.02	13.30	7.2383E-001		-1.5190E+000
	1407.95	20.70	3.3765E-001		1.9919E-001
Eu-154	123.07	40.50	5.4550E-001	2.52E-001	-2.1523E-001
	247.94	6.60	2.1495E+000		-2.0180E-001
	591.81	4.83	2.2544E+000		4.1598E-001
	723.30	19.70	5.4527E-001		5.6410E-001
	756.87	4.33	2.4680E+000		7.4804E-001
	873.19	11.50	8.1458E-001		-5.0378E-004
	996.32	10.30	9.3235E-001		6.8313E-001
	1004.76	17.90	5.5794E-001		-6.6297E-002
	1274.45	35.50	2.5228E-001		-2.0662E-001
Eu-155	86.54	30.90	1.1355E+000	1.14E+000	2.4170E+000
	105.31	20.70	1.2559E+000		-2.6351E-004
Am-241	59.54	35.90	1.3925E+000	1.39E+000	-2.6516E-001
Cm-243	228.19	10.56	1.4048E+000	1.00E+000	6.2905E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Cm-243	277.60	14.00	1.0035E+000	1.00E+000	2.4179E-001

+ = 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

Report Generated On 5/24/2006 6:40:34 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: RED6264

Spectrum File: RED6264
Sample ID: NOL-05-01-216
Sample Title: NOL-05-01-216-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/24/2006 6:30:34 PM
Live Time: 600.0 seconds
Real Time: 601.0 seconds

Energy Calibration Date: 3/22/2006
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number: NOL-05-01-216
Title: NOL-05-01-216-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
	1	291-	309	300.74	75.09	1.60	8.33E+002	175.03	2.11E+003
	2	947-	961	954.04	238.45	1.38	2.58E+002	68.71	3.33E+002
	3	1341-	1363	1352.31	338.05	1.53	1.35E+002	55.21	1.70E+002
	4	1399-	1417	1406.23	351.53	1.07	1.68E+002	51.02	1.51E+002
	5	2321-	2339	2331.00	582.79	2.31	1.54E+002	41.62	8.79E+001
	6	2424-	2446	2434.68	608.71	0.86	1.58E+002	47.64	1.10E+002
	7	3632-	3655	3642.20	910.67	0.60	1.36E+002	37.74	5.89E+001
M	8	3851-	3882	3856.53	964.27	1.50	2.44E+001	14.82	4.05E+001
m	9	3851-	3882	3874.15	968.68	1.50	5.33E+001	19.41	5.97E+001
	10	4703-	4715	4709.31	1177.52	0.46	1.72E+001	19.55	3.08E+001
	11	5827-	5857	5842.74	1460.95	2.28	1.04E+003	66.05	1.93E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
K-40	0.999	1460.81*	10.67	1.80226E+001	1.85342E+000
TL-208	0.468	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	2.68961E-001	8.06413E-002
		860.37	12.46		
Pb-212	0.520	74.81* @	10.70	1.23355E+001	3.54414E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	6.47251E-001	2.00060E-001
Bi-214	0.391	609.31*	46.30	5.07903E-001	1.65657E-001
		1120.29	15.10		
		1764.49	15.80		
Ac-228	0.995	338.32*	11.40	1.46669E+000	6.41184E-001
		911.07*	27.70	8.04755E-001	2.41611E-001
		969.11*	16.60	5.35224E-001	2.02809E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
K-40	0.999	1.802259E+001	1.853416E+000
TL-208	0.468	2.689612E-001	8.064126E-002
Pb-212 @	0.520	6.472515E-001	2.000604E-001
Bi-214	0.391	5.079030E-001	1.656571E-001
Ac-228	0.995	6.920982E-001	1.509700E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
4	351.53	2.8060E-001	30.31
M 8	964.27	4.0668E-002	60.75
10	1177.52	2.8672E-002	113.67

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Co-60	1173.22	100.00	1.1087E-001	7.70E-002	4.1926E-002
	1332.49	100.00	7.6960E-002		3.1043E-002
Nb-94	702.63	100.00	1.0369E-001	9.71E-002	4.8952E-002
	871.10	100.00	9.7070E-002		1.0010E-001
Ag-108m	79.20	7.10	5.4595E+000	1.22E-001	-1.0100E+001
	433.93	89.90	1.2170E-001		3.7426E-002
	614.37	90.40	1.3844E-001		-5.6672E-003
	722.95	90.50	1.2257E-001		5.7619E-002
Sb-125	176.33	6.89	2.3763E+000	3.62E-001	1.3654E+000
	427.89	29.33	3.6191E-001		1.7182E-001
	463.38	10.35	1.0287E+000		8.3423E-002
	600.56	17.80	5.8872E-001		2.7231E-001
	606.64	5.02	2.7635E+000		4.7069E+000
	635.90	11.32	8.8848E-001		9.1308E-001
Cs-134	563.23	8.38	1.2597E+000	1.15E-001	-1.8278E-001
	569.32	15.43	6.7624E-001		-1.5948E-001
	604.70	97.60	1.3978E-001		3.9229E-002
	795.84	85.40	1.1540E-001		1.4442E-002
	801.93	8.73	1.1138E+000		-1.5388E-001
Cs-137	661.65	85.12	1.2683E-001	1.27E-001	1.0243E-001
Eu-152	121.78	28.40	7.7165E-001	3.29E-001	3.6988E-001
	244.69	7.49	1.9765E+000		-5.1903E-001
	344.27	26.50	4.4064E-001		2.1302E-001
	778.89	12.74	7.5404E-001		-5.8849E-001
	867.32	4.16	2.4533E+000		1.9258E-001
	964.01	14.40	8.4681E-001		-1.2550E-001
	1085.78	10.00	1.0076E+000		-5.5943E-001
	1112.02	13.30	7.5770E-001		-8.3291E-001
	1407.95	20.70	3.2943E-001		1.8607E-001
Eu-154	123.07	40.50	5.3638E-001	2.45E-001	1.2509E-001
	247.94	6.60	2.1036E+000		-6.4349E-001
	591.81	4.83	2.1882E+000		1.0360E+000
	723.30	19.70	5.6438E-001		1.1275E-001
	756.87	4.33	2.2922E+000		-1.8097E+000
	873.19	11.50	8.2285E-001		-4.8474E-002
	996.32	10.30	8.8916E-001		2.6092E-001
	1004.76	17.90	5.5252E-001		6.3769E-001
	1274.45	35.50	2.4522E-001		3.4381E-003
Eu-155	86.54	30.90	1.1105E+000	1.11E+000	1.6680E+000
	105.31	20.70	1.2268E+000		6.6962E-001
Am-241	59.54	35.90	1.3775E+000	1.38E+000	-3.5469E-001
Cm-243	228.19	10.56	1.2954E+000	9.33E-001	-7.8434E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Cm-243	277.60	14.00	9.3254E-001	9.33E-001	1.0824E-001

+ = 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

Report Generated On 5/24/2006 6:58:10 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: RED6264

Spectrum File: RED6264
Sample ID: NOL-05-01-217
Sample Title: NOL-05-01-217-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/24/2006 6:48:09 PM
Live Time: 600.0 seconds
Real Time: 601.1 seconds

Energy Calibration Date: 3/22/2006
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number: NOL-05-01-217
Title: NOL-05-01-217-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
	1	295-	308	299.90	74.88	1.29	4.38E+002	146.05	1.83E+003
	2	332-	345	339.26	84.72	0.97	1.91E+002	124.20	1.38E+003
	3	946-	963	953.51	238.32	1.47	2.81E+002	80.01	4.24E+002
	4	1345-	1357	1352.62	338.13	0.49	9.37E+001	40.68	1.28E+002
	5	1394-	1416	1405.46	351.34	1.23	1.39E+002	65.20	2.50E+002
M	6	2017-	2051	2021.01	505.27	0.97	2.09E+001	15.70	5.38E+001
m	7	2017-	2051	2041.49	510.39	1.73	1.15E+002	27.41	1.79E+002
	8	2320-	2342	2330.48	582.66	1.48	2.14E+002	45.52	8.43E+001
	9	2424-	2444	2435.67	608.96	1.66	1.73E+002	45.22	9.93E+001
	10	3631-	3652	3643.02	910.88	2.05	1.83E+002	40.15	6.32E+001
M	11	3851-	3884	3857.17	964.43	2.03	4.14E+001	17.24	3.84E+001
m	12	3851-	3884	3873.92	968.62	2.03	1.21E+002	23.01	4.49E+001
	13	4474-	4485	4479.21	1119.98	0.75	3.30E+001	20.63	3.10E+001
	14	5830-	5857	5842.45	1460.88	2.13	1.21E+003	70.08	1.57E+001
	15	7050-	7068	7057.97	1764.84	0.45	5.22E+001	16.95	6.78E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	0.988	511.00*		100.00	1.62154E-001	4.43759E-002
K-40	1.000	1460.81*		10.67	2.09923E+001	2.08775E+000
TL-208	0.746	277.35		6.80		
		510.84*		21.60	7.50713E-001	2.14397E-001
		583.14*		84.20	3.72935E-001	9.30994E-002
		860.37		12.46		
Pb-212	0.520	74.81*	@	10.70	6.51590E+000	2.51863E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	7.05077E-001	2.29173E-001
Bi-214	0.996	609.31*		46.30	5.56166E-001	1.60928E-001
		1120.29*		15.10	3.79544E-001	2.40641E-001
		1764.49*		15.80	6.33485E-001	2.15168E-001
Ac-228	0.997	338.32*		11.40	1.01568E+000	4.68887E-001
		911.07*		27.70	1.08088E+000	2.68034E-001
		969.11*		16.60	1.21727E+000	2.63906E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN	0.988	8.160013E-002	4.864896E-002
K-40	1.000	2.099234E+001	2.087747E+000
TL-208	0.746	3.729351E-001	9.230268E-002
Pb-212 @	0.520	7.050767E-001	2.291728E-001
Bi-214	0.996	5.383553E-001	1.136059E-001
Ac-228	0.997	1.131503E+000	1.745383E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
2	84.72	3.1822E-001	65.05
5	351.34	2.3239E-001	46.76
M 6	505.27	3.4845E-002	75.10
M 11	964.43	6.9015E-002	41.64

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Co-60	1173.22	100.00	1.0734E-001	8.31E-002	4.4914E-002
	1332.49	100.00	8.3113E-002		2.9043E-002
Nb-94	702.63	100.00	1.0395E-001	9.77E-002	7.2591E-002
	871.10	100.00	9.7682E-002		9.4512E-002
Ag-108m	79.20	7.10	5.5142E+000	1.24E-001	-3.4070E+000
	433.93	89.90	1.2410E-001		2.7148E-002
	614.37	90.40	1.4596E-001		6.5217E-002
	722.95	90.50	1.2606E-001		6.4772E-002
Sb-125	176.33	6.89	2.3824E+000	3.85E-001	-1.1264E+000
	427.89	29.33	3.8521E-001		2.6014E-001
	463.38	10.35	1.1103E+000		1.0876E+000
	600.56	17.80	5.8203E-001		3.7459E-003
	606.64	5.02	2.7706E+000		4.8457E+000
	635.90	11.32	9.6443E-001		5.4756E-001
Cs-134	563.23	8.38	1.3173E+000	1.16E-001	9.8513E-001
	569.32	15.43	6.8801E-001		-1.0630E-001
	604.70	97.60	1.4015E-001		-1.5362E-002
	795.84	85.40	1.1641E-001		3.3542E-002
	801.93	8.73	1.1172E+000		-1.4847E+000
Cs-137	661.65	85.12	1.3463E-001	1.35E-001	-1.2954E-002
Eu-152	121.78	28.40	7.7796E-001	3.56E-001	-1.4253E-001
	244.69	7.49	1.9702E+000		-2.9880E-001
	344.27	26.50	4.6073E-001		-3.8843E-001
	778.89	12.74	7.3281E-001		-1.2312E+000
	867.32	4.16	2.3895E+000		-2.6146E+000
	964.01	14.40	9.2465E-001		-6.4813E-002
	1085.78	10.00	1.0110E+000		-4.4517E-002
	1112.02	13.30	7.3966E-001		-1.0813E+000
	1407.95	20.70	3.5604E-001		1.9698E-001
Eu-154	123.07	40.50	5.4390E-001	2.45E-001	9.6950E-002
	247.94	6.60	2.1435E+000		-1.2338E+000
	591.81	4.83	2.1930E+000		2.3697E-002
	723.30	19.70	5.8162E-001		3.6789E-001
	756.87	4.33	2.3818E+000		-4.3802E-001
	873.19	11.50	8.0901E-001		-7.5825E-001
	996.32	10.30	9.2584E-001		2.0236E-002
	1004.76	17.90	4.8660E-001		-1.5522E-001
	1274.45	35.50	2.4522E-001		-6.4321E-002
Eu-155	86.54	30.90	1.1264E+000	1.13E+000	1.8005E+000
	105.31	20.70	1.2746E+000		6.0662E-001
Am-241	59.54	35.90	1.3722E+000	1.37E+000	1.7418E-001
Cm-243	228.19	10.56	1.4389E+000	1.00E+000	7.4924E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Cm-243	277.60	14.00	9.9967E-001	1.00E+000	4.4032E-001

+ = 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

Report Generated On 5/30/2006 10:47:34 AM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BRN7722

Spectrum File: BRN7722
Sample ID: NOL-05-01-218
Sample Title: NOL-05-01-218-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/30/2006 10:37:33 AM
Live Time: 600.0 seconds
Real Time: 600.5 seconds

Energy Calibration Date: 4/7/2006
Eff Calibration Date: 3/23/2006
Calibration Efficiency: 7722Soil2m90170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: BRN7722
Log Number: NOL-05-01-218
Title: NOL-05-01-218-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	949-	960	954.15	238.72	1.12	1.09E+002	37.95	1.06E+002
2	1403-	1413	1407.97	352.16	0.79	3.91E+001	27.05	6.29E+001
3	2035-	2052	2042.35	510.73	0.41	8.13E+001	30.98	5.17E+001
4	2323-	2338	2330.98	582.88	1.30	6.70E+001	24.09	2.80E+001
5	2430-	2444	2435.49	609.01	0.49	4.19E+001	22.77	3.21E+001
6	3637-	3650	3643.54	910.99	0.58	3.91E+001	20.60	2.59E+001
7	3867-	3880	3873.38	968.44	1.13	3.26E+001	18.23	1.94E+001
8	5829-	5854	5842.64	1460.70	2.20	3.93E+002	40.70	9.34E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: BRN7722

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
ANN	0.998	511.00*		100.00	4.26869E-001	1.73383E-001
K-40	1.000	1460.81*		10.67	2.58221E+001	3.39642E+000
TL-208	0.752	277.35		6.80		
		510.84*		21.60	1.97625E+000	8.18762E-001
		583.14*		84.20	4.34728E-001	1.66532E-001
		860.37		12.46		
Pb-212	0.403	74.81	@	10.70		
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	1.07115E+000	4.07584E-001
Bi-214	0.403	609.31*		46.30	5.00806E-001	2.79280E-001
		1120.29		15.10		
		1764.49		15.80		
Ac-228	0.632	338.32		11.40		
		911.07*		27.70	8.63693E-001	4.65646E-001
		969.11*		16.60	1.21574E+000	6.91766E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:BRN7722

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
ANN	0.998	3.329680E-001	1.770483E-001
K-40	1.000	2.582206E+001	3.396419E+000
TL-208	0.752	4.347284E-001	1.659287E-001
Pb-212 @	0.403	1.071147E+000	4.075835E-001
Bi-214	0.403	5.008060E-001	2.792801E-001
Ac-228	0.632	9.734666E-001	3.862852E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
2	352.16	6.5208E-002	69.13

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:BRN7722
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	2.5652E-001	1.91E-001	1.0475E-001
	1332.49	100.00	1.9076E-001		-1.0969E-002
Nb-94	702.63	100.00	2.4746E-001	2.36E-001	-3.4433E-001
	871.10	100.00	2.3648E-001		2.4226E-002
Ag-108m	79.20	7.10	1.5979E+001	3.07E-001	-2.8154E+001
	433.93	89.90	3.0692E-001		-2.0595E-001
	614.37	90.40	3.4477E-001		-1.5232E-001
	722.95	90.50	3.0919E-001		2.7250E-001
Sb-125	176.33	6.89	5.4787E+000	9.54E-001	3.3173E+000
	427.89	29.33	9.5429E-001		1.5395E-001
	463.38	10.35	2.5611E+000		-2.7663E+000
	600.56	17.80	1.4199E+000		3.4198E-001
	606.64	5.02	6.2518E+000		6.9730E+000
	635.90	11.32	2.1952E+000		-4.6743E-001
Cs-134	563.23	8.38	3.2070E+000	3.13E-001	5.6624E-002
	569.32	15.43	1.7473E+000		1.0885E+000
	604.70	97.60	3.1553E-001		-8.1689E-002
	795.84	85.40	3.1302E-001		-2.8016E-002
	801.93	8.73	2.6763E+000		-1.1981E+000
Cs-137	661.65	85.12	3.0728E-001	3.07E-001	-1.6389E-001
Eu-152	121.78	28.40	1.8544E+000	9.64E-001	3.6806E-001
	244.69	7.49	4.5623E+000		-2.1313E+000
	344.27	26.50	1.1070E+000		-1.6711E+000
	778.89	12.74	1.9781E+000		-8.9769E-002
	867.32	4.16	5.6353E+000		-6.9139E+000
	964.01	14.40	2.0226E+000		-8.4662E-001
	1085.78	10.00	2.2742E+000		-2.0557E+000
	1112.02	13.30	1.8666E+000		-1.4689E+000
	1407.95	20.70	9.6398E-001		-4.8882E-001
Eu-154	123.07	40.50	1.2872E+000	6.16E-001	-2.1977E-001
	247.94	6.60	5.4815E+000		-6.5773E-001
	591.81	4.83	5.3783E+000		3.5545E+000
	723.30	19.70	1.3994E+000		4.6660E-001
	756.87	4.33	5.2820E+000		1.2846E+000
	873.19	11.50	1.9937E+000		-1.5878E-001
	996.32	10.30	2.3049E+000		1.8781E+000
	1004.76	17.90	1.1692E+000		-7.0888E-001
	1274.45	35.50	6.1579E-001		-4.7899E-001
Eu-155	86.54	30.90	2.9370E+000	2.94E+000	3.7813E+000
	105.31	20.70	3.0603E+000		-1.9932E+000
Am-241	59.54	35.90	5.5131E+000	5.51E+000	3.4634E+000
Cm-243	228.19	10.56	3.3818E+000	2.43E+000	1.2623E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	2.4328E+000	2.43E+000	1.2414E+000

+ = 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

Report Generated On 5/31/2006 4:13:27 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-219-F-G
Sample ID: NOL-05-01-219
Sample Title: NOL-05-01-219-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/31/2006 8:36:09 AM
Live Time: 600.0 seconds
Real Time: 600.5 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-219-F-G
Log Number: NOL-05-01-219
Title: NOL-05-01-219-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	287-	308	291.41	72.68	0.84	1.64E+002	39.81	4.00E+002
m	2	287-	308	300.37	74.92	0.84	3.65E+002	51.23	5.03E+002
	3	331-	344	339.63	84.74	0.67	1.11E+002	79.05	5.51E+002
	4	950-	960	954.07	238.40	0.90	1.14E+002	39.44	1.20E+002
	5	1174-	1187	1179.76	294.84	0.81	4.64E+001	32.12	8.06E+001
	6	1401-	1413	1407.02	351.67	1.06	6.20E+001	29.05	6.00E+001
	7	2324-	2338	2332.47	583.10	0.38	7.49E+001	28.05	4.51E+001
	8	2432-	2442	2436.74	609.17	1.25	5.39E+001	24.06	4.01E+001
	9	3637-	3652	3644.59	911.23	0.39	5.44E+001	23.93	3.06E+001
	10	5833-	5856	5844.48	1461.37	1.38	5.04E+002	44.47	2.81E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-219-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.989	1460.81*	10.67	2.70139E+001	3.05837E+000
TL-208	0.474	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	4.00399E-001	1.54230E-001
		860.37	12.46		
Pb-212	0.523	74.81* @	10.70	1.73628E+001	4.00739E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	9.19645E-001	3.49109E-001
Bi-214	0.400	609.31*	46.30	5.29557E-001	2.40595E-001
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.583	74.82* @	6.21	2.99166E+001	7.23832E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	9.14932E-001	6.50738E-001
		351.92*	37.20	6.61014E-001	3.24187E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-219-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40		0.989	2.701392E+001	3.058372E+000
TL-208		0.474	4.003987E-001	1.542301E-001
Pb-212	@	0.523	9.196451E-001	3.491089E-001
Bi-214		0.400	5.295566E-001	2.405946E-001
PB-214	@	0.583	7.115021E-001	2.901719E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.68	2.7290E-001	24.31
3	84.74	1.8461E-001	71.37
9	911.23	9.0686E-002	43.98

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-219-F-G
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	2.2015E-001	2.01E-001	-1.2687E-003
	1332.49	100.00	2.0069E-001		1.7002E-001
Nb-94	702.63	100.00	2.3725E-001	2.33E-001	-3.9388E-002
	871.10	100.00	2.3312E-001		3.8567E-002
Ag-108m	79.20	7.10	9.6464E+000	2.64E-001	-1.3054E-001
	433.93	89.90	2.8158E-001		1.0640E-001
	614.37	90.40	2.6518E-001		-2.3190E-001
	722.95	90.50	2.6406E-001		1.4879E-001
Sb-125	176.33	6.89	4.6303E+000	8.05E-001	-1.6473E-002
	427.89	29.33	8.0488E-001		-7.9120E-001
	463.38	10.35	2.4547E+000		1.6553E+000
	600.56	17.80	1.2114E+000		-1.1719E+000
	606.64	5.02	5.9255E+000		1.0351E+001
	635.90	11.32	1.7674E+000		-1.6784E+000
Cs-134	563.23	8.38	2.7309E+000	2.72E-001	-2.3524E-001
	569.32	15.43	1.4001E+000		-3.7509E-001
	604.70	97.60	2.8972E-001		-2.1592E-001
	795.84	85.40	2.7215E-001		-1.0517E-001
	801.93	8.73	2.6676E+000		5.0641E-001
Cs-137	661.65	85.12	2.6708E-001	2.67E-001	-1.3851E-001
Eu-152	121.78	28.40	1.5744E+000	7.48E-001	1.4425E-001
	244.69	7.49	3.8399E+000		-1.2311E+000
	344.27	26.50	9.2229E-001		-6.5572E-002
	778.89	12.74	1.5151E+000		-1.6289E+000
	867.32	4.16	5.2955E+000		-3.3126E+000
	964.01	14.40	1.8831E+000		1.8492E+000
	1085.78	10.00	2.0939E+000		-7.1317E-001
	1112.02	13.30	1.5847E+000		-1.8756E+000
	1407.95	20.70	7.4784E-001		-1.8815E-001
Eu-154	123.07	40.50	1.0828E+000	5.38E-001	-3.5559E-001
	247.94	6.60	4.1589E+000		-2.4740E+000
	591.81	4.83	4.7326E+000		7.8494E-001
	723.30	19.70	1.2241E+000		8.0005E-001
	756.87	4.33	5.1916E+000		-3.6454E+000
	873.19	11.50	2.0068E+000		-1.8398E+000
	996.32	10.30	2.0993E+000		1.1094E+000
	1004.76	17.90	1.2187E+000		4.9172E-001
	1274.45	35.50	5.3804E-001		1.3729E-002
Eu-155	86.54	30.90	2.1895E+000	2.19E+000	-7.6806E-001
	105.31	20.70	2.4692E+000		1.5772E+000
Am-241	59.54	35.90	2.5394E+000	2.54E+000	-1.1203E+000
Cm-243	228.19	10.56	2.6875E+000	1.96E+000	-9.5725E-002

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.9589E+000	1.96E+000	-5.8162E-001

+ = 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

Report Generated On 5/30/2006 1:21:22 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BRN7722

Spectrum File: BRN7722
Sample ID: NOL-05-01-220
Sample Title: NOL-05-01-220-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/30/2006 1:11:19 PM
Live Time: 600.0 seconds
Real Time: 600.5 seconds

Energy Calibration Date: 4/7/2006
Eff Calibration Date: 3/23/2006
Calibration Efficiency: 7722Soil2m90170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: BRN7722
Log Number: NOL-05-01-220
Title: NOL-05-01-220-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	295-	305	299.41	75.05	0.72	5.24E+001	57.40	3.37E+002
2	943-	957	951.65	238.09	0.76	9.95E+001	39.64	1.06E+002
3	1172-	1183	1177.79	294.62	0.70	2.54E+001	25.11	5.46E+001
4	1397-	1409	1403.86	351.13	0.51	4.81E+001	25.06	4.39E+001
5	2320-	2332	2325.71	581.57	0.30	2.70E+001	21.15	3.40E+001
6	2423-	2437	2430.13	607.67	1.23	3.65E+001	22.03	3.05E+001
7	3629-	3641	3635.13	908.89	1.59	2.79E+001	17.90	2.11E+001
8	3859-	3871	3865.03	966.36	0.29	2.58E+001	17.74	2.12E+001
9	5817-	5841	5829.84	1457.50	1.78	3.43E+002	37.61	6.19E+000
10	7039-	7052	7045.15	1761.30	0.37	1.30E+001	7.07	0.00E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: BRN7722

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
TL-208	0.421	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	1.74965E-001	1.39063E-001
		860.37	12.46		
Pb-212	0.561	74.81* @	10.70	4.63690E+000	5.15674E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	9.73615E-001	4.16712E-001
Bi-214	0.354	609.31*	46.30	4.36240E-001	2.68799E-001
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.601	74.82* @	6.21	7.98951E+000	8.90412E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	6.04524E-001	6.06000E-001
		351.92*	37.20	6.13080E-001	3.35647E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:BRN7722

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
TL-208		0.421	1.749649E-001	1.390627E-001
Pb-212	@	0.561	9.736148E-001	4.167124E-001
Bi-214		0.354	4.362400E-001	2.687992E-001
PB-214	@	0.601	6.110714E-001	2.936181E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
7	908.89	4.6446E-002	64.24
8	966.36	4.2943E-002	68.85
9	1457.50	5.7135E-001	10.97
10	1761.30	2.1667E-002	54.36

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:BRN7722
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	2.7452E-001	2.21E-001	1.5810E-001
	1332.49	100.00	2.2146E-001		2.3021E-001
Nb-94	702.63	100.00	2.4119E-001	2.16E-001	7.3476E-002
	871.10	100.00	2.1565E-001		-3.2209E-001
Ag-108m	79.20	7.10	1.5905E+001	2.79E-001	-1.5838E+000
	433.93	89.90	3.0807E-001		5.6087E-002
	614.37	90.40	2.9206E-001		-4.4958E-002
	722.95	90.50	2.7871E-001		2.3158E-001
Sb-125	176.33	6.89	5.4930E+000	8.90E-001	1.6703E+000
	427.89	29.33	8.9009E-001		-5.0505E-001
	463.38	10.35	2.6147E+000		1.9162E+000
	600.56	17.80	1.3148E+000		-1.0441E+000
	606.64	5.02	5.9579E+000		8.3809E+000
	635.90	11.32	2.2586E+000		-5.1073E-001
Cs-134	563.23	8.38	2.8935E+000	2.73E-001	-1.9375E+000
	569.32	15.43	1.6034E+000		-5.8407E-001
	604.70	97.60	3.0013E-001		2.1646E-001
	795.84	85.40	2.7309E-001		4.6378E-002
	801.93	8.73	2.6763E+000		-1.2066E+000
Cs-137	661.65	85.12	3.0562E-001	3.06E-001	-2.3027E-001
Eu-152	121.78	28.40	1.8658E+000	8.78E-001	1.9256E+000
	244.69	7.49	4.4512E+000		-6.4444E-001
	344.27	26.50	1.0940E+000		-3.5203E-001
	778.89	12.74	1.8075E+000		3.6351E-001
	867.32	4.16	5.5026E+000		-1.1610E+000
	964.01	14.40	2.1146E+000		1.5570E+000
	1085.78	10.00	2.2535E+000		-4.1170E-001
	1112.02	13.30	1.9088E+000		1.9414E+000
	1407.95	20.70	8.7778E-001		2.0725E-001
Eu-154	123.07	40.50	1.2902E+000	5.68E-001	5.4800E-002
	247.94	6.60	5.0362E+000		-1.2074E+000
	591.81	4.83	5.4058E+000		-1.9527E+000
	723.30	19.70	1.2883E+000		1.1127E+000
	756.87	4.33	5.8892E+000		1.6861E+000
	873.19	11.50	1.8589E+000		-1.5615E+000
	996.32	10.30	2.3049E+000		1.2258E+000
	1004.76	17.90	1.1934E+000		-2.3469E+000
	1274.45	35.50	5.6771E-001		3.1799E-002
Eu-155	86.54	30.90	2.9102E+000	2.91E+000	8.1672E-001
	105.31	20.70	3.1067E+000		-2.7816E+000
Am-241	59.54	35.90	5.6756E+000	5.68E+000	2.7004E-001
Cm-243	228.19	10.56	3.4639E+000	2.38E+000	7.5176E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	2.3844E+000	2.38E+000	1.9162E+000

+ = 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

Report Generated On 6/20/2006 6:06:49 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-220-F-G
Sample ID: NOL-05-01-220
Sample Title: NOL-05-01-220-F-G-dup-06-02-2006_1229
Description:

Sample Type:
Geometry:

Acquisition Started: 6/2/2006 12:19:41 PM
Live Time: 600.0 seconds
Real Time: 600.7 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-220-F-G
Log Number: NOL-05-01-220
Title: NOL-05-01-220-F-G-dup-06-02-2006_1229
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	284-	307	291.81	72.78	0.96	1.86E+002	41.88	5.62E+002
m	2	284-	307	300.41	74.93	0.96	3.48E+002	50.69	6.76E+002
F	3	335-	345	339.92	84.81	0.98	9.48E+001	37.79	4.70E+002
F	4	1400-	1412	1406.43	351.52	1.28	5.11E+001	18.66	6.36E+001
F	5	2324-	2341	2332.00	582.98	1.45	7.90E+001	18.75	3.25E+001
F	6	2429-	2444	2436.77	609.18	1.47	5.90E+001	18.70	5.01E+001
F	7	3637-	3653	3645.39	911.43	1.64	7.17E+001	18.39	2.34E+001
F	8	3870-	3882	3876.14	969.14	1.67	3.12E+001	14.56	2.53E+001
F	9	5832-	5858	5844.92	1461.48	1.90	4.75E+002	66.46	3.18E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-220-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.985	1460.81*	10.67	8.36107E+000	1.35218E+000
TL-208	0.470	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	1.40349E-001	3.80030E-002
		860.37	12.46		
Bi-214	0.398	609.31*	46.30	1.93445E-001	6.57677E-002
		1120.29	15.10		
		1764.49	15.80		
Ac-228	0.631	338.32	11.40		
		911.07*	27.70	4.31216E-001	1.21139E-001
		969.11*	16.60	3.18195E-001	1.52308E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-220-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40	0.985	8.361072E+000	1.352181E+000
TL-208	0.470	1.403490E-001	3.800296E-002
Bi-214	0.398	1.934446E-001	6.576772E-002
Ac-228	0.631	3.874234E-001	9.480828E-002

? = 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 1.960 sigma

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

	Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M	1	72.78	3.1052E-001	22.48
m	2	74.93	5.7984E-001	14.57
F	3	84.81	1.5803E-001	39.86
F	4	351.52	8.5116E-002	36.54

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-220-F-G
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	7.6058E-002	6.93E-002	1.0202E-002
	1332.49	100.00	6.9267E-002		4.0108E-002
Nb-94	702.63	100.00	7.1999E-002	6.86E-002	-7.0444E-002
	871.10	100.00	6.8598E-002		6.1658E-002
Ag-108m	79.20	7.10	3.1780E+000	8.54E-002	-1.1219E+000
	433.93	89.90	8.5373E-002		-3.4522E-003
	614.37	90.40	9.1805E-002		-6.8239E-002
	722.95	90.50	8.5970E-002		6.5669E-002
Sb-125	176.33	6.89	1.4896E+000	2.67E-001	-1.2571E-001
	427.89	29.33	2.6686E-001		1.2309E-001
	463.38	10.35	7.8688E-001		1.9350E-001
	600.56	17.80	4.4093E-001		-8.8198E-002
	606.64	5.02	1.9615E+000		1.7530E+000
	635.90	11.32	6.2029E-001		-4.9008E-002
Cs-134	563.23	8.38	9.8414E-001	8.78E-002	2.2868E-001
	569.32	15.43	5.1226E-001		1.9632E-001
	604.70	97.60	9.5514E-002		-4.1460E-002
	795.84	85.40	8.7841E-002		6.9390E-002
	801.93	8.73	8.3723E-001		4.6281E-001
Cs-137	661.65	85.12	1.0182E-001	1.02E-001	6.0289E-002
Eu-152	121.78	28.40	4.7994E-001	2.86E-001	-3.0212E-002
	244.69	7.49	1.2752E+000		5.8896E-001
	344.27	26.50	3.1480E-001		7.5166E-003
	778.89	12.74	5.6716E-001		-9.5160E-001
	867.32	4.16	1.6910E+000		6.2996E-001
	964.01	14.40	6.2821E-001		1.6887E-001
	1085.78	10.00	7.5784E-001		4.3788E-001
	1112.02	13.30	5.2561E-001		-3.1573E-001
	1407.95	20.70	2.8628E-001		2.7947E-001
Eu-154	123.07	40.50	3.3309E-001	1.88E-001	-1.8673E-001
	247.94	6.60	1.3404E+000		1.1830E-001
	591.81	4.83	1.5895E+000		8.7942E-001
	723.30	19.70	3.9873E-001		4.0675E-001
	756.87	4.33	1.8046E+000		-3.3040E-002
	873.19	11.50	5.6816E-001		-2.7594E-001
	996.32	10.30	7.0423E-001		4.0414E-001
	1004.76	17.90	3.8478E-001		1.5308E-001
	1274.45	35.50	1.8821E-001		8.1793E-003
Eu-155	86.54	30.90	6.7845E-001	6.78E-001	7.5341E-001
	105.31	20.70	7.8959E-001		3.8230E-002
Am-241	59.54	35.90	8.8801E-001	8.88E-001	-4.5141E-001
Cm-243	228.19	10.56	8.4561E-001	6.71E-001	-1.1342E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	6.7096E-001	6.71E-001	-2.1217E-001

+ = 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

Report Generated On 5/31/2006 4:13:11 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-221-F-G
Sample ID: NOL-05-01-221
Sample Title: NOL-05-01-221-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/31/2006 10:13:47 AM
Live Time: 600.0 seconds
Real Time: 600.5 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-221-F-G
Log Number: NOL-05-01-221
Title: NOL-05-01-221-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	284-	306	292.23	72.89	0.88	1.28E+002	37.82	4.59E+002
m	2	284-	306	300.70	75.00	0.89	2.47E+002	47.40	5.67E+002
	3	333-	345	340.04	84.84	0.43	6.85E+001	71.69	4.83E+002
	4	945-	961	955.10	238.65	1.15	1.32E+002	47.54	1.46E+002
	5	1177-	1185	1180.09	294.92	0.72	3.11E+001	23.42	5.19E+001
	6	1344-	1359	1353.21	338.21	1.07	5.29E+001	30.63	6.31E+001
	7	2326-	2341	2332.51	583.11	1.01	9.10E+001	28.59	4.00E+001
	8	2430-	2444	2437.22	609.30	0.91	8.58E+001	24.90	2.63E+001
	9	3637-	3652	3645.38	911.43	0.27	6.49E+001	21.98	2.01E+001
	10	3872-	3884	3877.38	969.44	1.08	3.18E+001	16.06	1.32E+001
	11	5835-	5859	5846.24	1461.81	1.69	4.17E+002	42.25	1.19E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-221-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.966	1460.81*	10.67	2.23514E+001	2.76479E+000
TL-208	0.474	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	4.86331E-001	1.58950E-001
		860.37	12.46		
Pb-212	0.524	74.81* @	10.70	1.17130E+001	3.11276E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.06202E+000	4.17813E-001
Bi-214	0.400	609.31*	46.30	8.42257E-001	2.54929E-001
		1120.29	15.10		
		1764.49	15.80		
Ac-228	0.997	338.32*	11.40	1.82313E+000	1.08438E+000
		911.07*	27.70	1.17960E+000	4.09264E-001
		969.11*	16.60	9.81833E-001	4.99596E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-221-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40		0.966	2.235140E+001	2.764787E+000
TL-208		0.474	4.863305E-001	1.589496E-001
Pb-212	@	0.524	1.062018E+000	4.178126E-001
Bi-214		0.400	8.422574E-001	2.549289E-001
Ac-228		0.997	1.156963E+000	3.039084E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.89	2.1332E-001	29.55
3	84.84	1.1413E-001	104.70
5	294.92	5.1903E-002	75.20

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-221-F-G
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	2.2620E-001	1.64E-001	-9.9125E-002
	1332.49	100.00	1.6439E-001		-4.6077E-002
Nb-94	702.63	100.00	2.2517E-001	1.91E-001	-8.7118E-002
	871.10	100.00	1.9132E-001		-1.4533E-001
Ag-108m	79.20	7.10	9.5792E+000	2.39E-001	-1.1188E+001
	433.93	89.90	2.5783E-001		1.1701E-002
	614.37	90.40	2.9217E-001		-1.5017E-001
	722.95	90.50	2.3901E-001		-1.6175E-001
Sb-125	176.33	6.89	4.6128E+000	7.85E-001	2.7062E+000
	427.89	29.33	7.8459E-001		6.8933E-002
	463.38	10.35	2.3509E+000		6.1311E-001
	600.56	17.80	1.2114E+000		2.5223E-001
	606.64	5.02	5.5877E+000		7.2854E+000
	635.90	11.32	1.8718E+000		-8.3776E-001
Cs-134	563.23	8.38	2.4946E+000	2.34E-001	-2.0946E+000
	569.32	15.43	1.3932E+000		-2.6368E-001
	604.70	97.60	2.6309E-001		-1.8390E-001
	795.84	85.40	2.3378E-001		-1.2396E-001
	801.93	8.73	2.2598E+000		-9.0531E-001
Cs-137	661.65	85.12	2.7952E-001	2.80E-001	-2.5629E-001
Eu-152	121.78	28.40	1.4449E+000	6.58E-001	-1.2673E+000
	244.69	7.49	3.9925E+000		2.8602E+000
	344.27	26.50	9.0024E-001		-7.6387E-001
	778.89	12.74	1.6418E+000		-2.0665E+000
	867.32	4.16	4.9411E+000		-3.4580E+000
	964.01	14.40	1.8445E+000		3.3260E-001
	1085.78	10.00	1.8983E+000		-1.0845E+000
	1112.02	13.30	1.6646E+000		1.0105E+000
	1407.95	20.70	6.5757E-001		3.9910E-001
Eu-154	123.07	40.50	1.0056E+000	5.64E-001	-4.6795E-001
	247.94	6.60	4.1508E+000		-2.9976E+000
	591.81	4.83	4.0710E+000		-2.6481E+000
	723.30	19.70	1.1398E+000		8.0165E-001
	756.87	4.33	4.7355E+000		-6.1158E+000
	873.19	11.50	1.6905E+000		1.0753E+000
	996.32	10.30	1.9104E+000		-7.7638E-001
	1004.76	17.90	1.2108E+000		4.6355E-001
	1274.45	35.50	5.6376E-001		-2.6612E-001
Eu-155	86.54	30.90	2.1085E+000	2.11E+000	-3.3252E-001
	105.31	20.70	2.3278E+000		3.2335E-001
Am-241	59.54	35.90	2.4442E+000	2.44E+000	-1.6326E+000
Cm-243	228.19	10.56	2.6400E+000	1.93E+000	1.2191E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.9261E+000	1.93E+000	9.7515E-001

+ = 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

Report Generated On 5/30/2006 11:27:44 AM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-01-222
Sample Title: NOL-05-01-222-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/30/2006 11:17:42 AM
Live Time: 600.0 seconds
Real Time: 600.8 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-01-222
Title: NOL-05-01-222-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	288-	305	291.72	72.76	0.91	1.32E+002	39.74	4.23E+002
m	2	288-	305	300.00	74.83	0.91	2.09E+002	46.27	6.16E+002
	3	949-	960	953.80	238.33	0.59	1.10E+002	42.76	1.41E+002
	4	1176-	1190	1180.81	295.10	1.10	5.23E+001	33.68	8.37E+001
	5	1348-	1357	1352.08	337.93	0.61	2.48E+001	23.65	5.32E+001
	6	1398-	1412	1406.38	351.51	1.09	6.05E+001	29.98	5.95E+001
	7	2323-	2340	2331.52	582.86	1.21	9.60E+001	28.65	3.60E+001
	8	2430-	2443	2435.87	608.96	1.04	6.89E+001	26.45	4.11E+001
	9	3637-	3653	3643.58	910.98	1.76	7.35E+001	25.81	3.15E+001
	10	3866-	3879	3873.41	968.45	1.22	2.59E+001	18.33	2.21E+001
	11	4474-	4486	4479.04	1119.90	0.66	2.50E+001	17.44	1.90E+001
	12	5830-	5857	5842.82	1460.95	1.84	5.23E+002	45.61	3.82E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.999	1460.81*	10.67	2.78895E+001	3.31831E+000
TL-208	0.471	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	5.15194E-001	1.68197E-001
		860.37	12.46		
Pb-212	0.523	74.81* @	10.70	1.03488E+001	3.05795E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	8.98026E-001	3.77363E-001
Bi-214	0.697	609.31*	46.30	6.80654E-001	2.74586E-001
		1120.29*	15.10	8.83430E-001	6.23376E-001
		1764.49	15.80		
PB-214	0.585	74.82* @	6.21	1.78313E+001	5.42560E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	1.04270E+000	6.94014E-001
		351.92*	37.20	6.46667E-001	3.38278E-001
Ac-228	0.994	338.32*	11.40	8.59084E-001	8.29201E-001
		911.07*	27.70	1.32374E+000	4.89062E-001
		969.11*	16.60	7.93240E-001	5.67915E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40		0.999	2.788949E+001	3.318314E+000
TL-208		0.471	5.151939E-001	1.681974E-001
Pb-212	@	0.523	8.980257E-001	3.773631E-001
Bi-214		0.697	7.136038E-001	2.512879E-001
PB-214	@	0.585	7.226945E-001	3.040793E-001
Ac-228		0.994	1.058098E+000	3.383360E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.76	2.1929E-001	30.20

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	2.0662E-001	1.57E-001	-1.6416E-001
	1332.49	100.00	1.5721E-001		-2.5565E-001
Nb-94	702.63	100.00	2.2148E-001	2.07E-001	5.3346E-002
	871.10	100.00	2.0684E-001		-3.7222E-002
Ag-108m	79.20	7.10	1.0231E+001	2.61E-001	-6.8992E+000
	433.93	89.90	2.6126E-001		4.7744E-002
	614.37	90.40	2.6768E-001		-1.9944E-001
	722.95	90.50	2.6471E-001		8.2225E-002
Sb-125	176.33	6.89	4.7490E+000	8.04E-001	-2.2119E+000
	427.89	29.33	8.0366E-001		1.6378E-001
	463.38	10.35	2.4538E+000		4.3657E-001
	600.56	17.80	1.2597E+000		-2.0603E-001
	606.64	5.02	5.9871E+000		9.8252E+000
	635.90	11.32	1.9232E+000		6.2214E-001
Cs-134	563.23	8.38	2.3962E+000	2.59E-001	4.7216E-001
	569.32	15.43	1.4861E+000		-6.5486E-002
	604.70	97.60	2.9955E-001		-1.2304E-001
	795.84	85.40	2.5882E-001		9.0893E-002
	801.93	8.73	2.5912E+000		1.5252E+000
Cs-137	661.65	85.12	2.8266E-001	2.83E-001	7.3167E-002
Eu-152	121.78	28.40	1.5495E+000	8.45E-001	2.2287E-003
	244.69	7.49	4.0511E+000		2.9776E+000
	344.27	26.50	9.4683E-001		6.1694E-001
	778.89	12.74	1.7179E+000		8.8312E-001
	867.32	4.16	5.1286E+000		-2.7668E+000
	964.01	14.40	1.8330E+000		1.0233E+000
	1085.78	10.00	2.1396E+000		-5.5465E-001
	1112.02	13.30	1.6327E+000		-2.6950E+000
	1407.95	20.70	8.4530E-001		2.5898E-001
Eu-154	123.07	40.50	1.0807E+000	5.49E-001	8.7427E-001
	247.94	6.60	4.1399E+000		-2.2446E+000
	591.81	4.83	4.5362E+000		-6.8735E-001
	723.30	19.70	1.2486E+000		1.0423E+000
	756.87	4.33	5.3782E+000		2.6112E+000
	873.19	11.50	1.7143E+000		-3.2604E-001
	996.32	10.30	2.1037E+000		6.0394E-001
	1004.76	17.90	1.1818E+000		4.3298E-001
	1274.45	35.50	5.4855E-001		-4.2923E-002
Eu-155	86.54	30.90	2.1509E+000	2.15E+000	2.3418E+000
	105.31	20.70	2.5116E+000		-4.2339E-001
Am-241	59.54	35.90	2.6705E+000	2.67E+000	-2.9850E+000
Cm-243	228.19	10.56	2.7013E+000	1.99E+000	-1.0337E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.9886E+000	1.99E+000	-7.0958E-001

+ = 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

Report Generated On 6/20/2006 5:24:55 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-223-F-G
Sample ID: NOL-05-01-223
Sample Title: NOL-05-01-223-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/30/2006 1:29:44 PM
Live Time: 600.0 seconds
Real Time: 600.5 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-223-F-G
Log Number: NOL-05-01-223
Title: NOL-05-01-223-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	284-	306	292.00	72.83	0.97	1.63E+002	40.57	5.19E+002
m	2	284-	306	299.96	74.82	0.97	2.87E+002	48.90	5.63E+002
	3	945-	959	954.37	238.47	1.01	1.75E+002	43.85	1.13E+002
	4	1400-	1412	1407.28	351.73	1.68	6.32E+001	29.89	6.38E+001
	5	1768-	1777	1772.01	442.94	0.49	1.25E+001	15.49	2.15E+001
	6	2325-	2339	2332.27	583.05	0.88	9.23E+001	30.06	4.97E+001
	7	2429-	2442	2435.87	608.96	1.11	6.89E+001	24.80	3.31E+001
	8	3637-	3651	3643.17	910.88	0.94	6.39E+001	21.61	2.01E+001
	9	3868-	3880	3874.69	968.77	0.91	3.90E+001	16.77	1.30E+001
	10	5830-	5855	5842.81	1460.95	1.84	5.31E+002	46.88	9.67E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-223-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.999	1460.81*	10.67	2.83242E+001	3.39190E+000
TL-208	0.473	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	4.95234E-001	1.74139E-001
		860.37	12.46		
Pb-212	0.524	74.81* @	10.70	1.41747E+001	3.68370E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.42879E+000	4.23171E-001
Bi-214	0.396	609.31*	46.30	6.79740E-001	2.59036E-001
		1120.29	15.10		
		1764.49	15.80		
Ac-228	0.638	338.32	11.40		
		911.07*	27.70	1.15044E+000	4.11099E-001
		969.11*	16.60	1.19574E+000	5.29085E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-223-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40		0.999	2.832417E+001	3.391903E+000
TL-208		0.473	4.952336E-001	1.741392E-001
Pb-212	@	0.524	1.428791E+000	4.231711E-001
Bi-214		0.396	6.797403E-001	2.590355E-001
Ac-228		0.638	1.167492E+000	3.246239E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.83	2.7208E-001	24.85
4	351.73	1.0536E-001	47.28
5	442.94	2.0809E-002	124.10

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-223-F-G
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	1.9289E-001	1.42E-001	-7.4490E-002
	1332.49	100.00	1.4220E-001		-5.7568E-002
Nb-94	702.63	100.00	2.3820E-001	1.98E-001	2.0457E-001
	871.10	100.00	1.9848E-001		2.7523E-003
Ag-108m	79.20	7.10	1.0007E+001	2.58E-001	-3.0932E+000
	433.93	89.90	2.6500E-001		1.3374E-001
	614.37	90.40	2.5763E-001		-2.7031E-001
	722.95	90.50	2.6231E-001		6.8991E-003
Sb-125	176.33	6.89	4.5786E+000	8.18E-001	1.8063E-001
	427.89	29.33	8.1780E-001		-5.4088E-001
	463.38	10.35	2.3171E+000		-1.4388E-001
	600.56	17.80	1.1796E+000		-4.0371E-001
	606.64	5.02	5.5996E+000		6.3479E+000
	635.90	11.32	1.8829E+000		-6.5016E-001
Cs-134	563.23	8.38	2.6558E+000	2.79E-001	-1.6695E+000
	569.32	15.43	1.4861E+000		4.5840E-001
	604.70	97.60	2.8431E-001		-1.6733E-001
	795.84	85.40	2.7943E-001		-7.0945E-003
	801.93	8.73	2.5357E+000		-2.6856E+000
Cs-137	661.65	85.12	2.7147E-001	2.71E-001	-3.3527E-002
Eu-152	121.78	28.40	1.4717E+000	7.80E-001	-5.6560E-001
	244.69	7.49	3.9160E+000		1.2258E+000
	344.27	26.50	8.9750E-001		-6.1224E-001
	778.89	12.74	1.6289E+000		-3.5394E-001
	867.32	4.16	4.5926E+000		-1.1651E+001
	964.01	14.40	1.8485E+000		-9.9857E-001
	1085.78	10.00	2.0147E+000		6.8488E-001
	1112.02	13.30	1.5388E+000		-1.4915E+000
	1407.95	20.70	7.7998E-001		4.7531E-001
Eu-154	123.07	40.50	1.0350E+000	5.05E-001	3.9334E-001
	247.94	6.60	4.2070E+000		-4.7994E+000
	591.81	4.83	4.2834E+000		-4.2246E+000
	723.30	19.70	1.2107E+000		1.1448E+000
	756.87	4.33	4.9405E+000		-3.8110E+000
	873.19	11.50	1.7143E+000		-3.2939E-001
	996.32	10.30	2.0341E+000		6.5497E-001
	1004.76	17.90	1.0245E+000		4.4872E-001
	1274.45	35.50	5.0537E-001		-7.8606E-002
Eu-155	86.54	30.90	2.1754E+000	2.18E+000	2.3117E+000
	105.31	20.70	2.4995E+000		-2.8799E-001
Am-241	59.54	35.90	2.6275E+000	2.63E+000	-1.4687E+000
Cm-243	228.19	10.56	2.6964E+000	2.03E+000	-1.9891E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	2.0333E+000	2.03E+000	4.2967E-001

+ = 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

Report Generated On 5/31/2006 3:59:09 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: GRN7780

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-224-F-G
Sample ID: NOL-05-01-224
Sample Title: NOL-05-01-224-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/25/2006 9:41:55 AM
Live Time: 600.0 seconds
Real Time: 600.6 seconds

Energy Calibration Date: 4/19/2006
Eff Calibration Date: 9/29/2005
Calibration Efficiency: GREEN_SOIL_2M90D
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-224-F-G
Log Number: NOL-05-01-224
Title: NOL-05-01-224-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	947-	962	953.05	238.22	0.76	8.33E+001	45.00	1.47E+002
2	2323-	2340	2330.56	582.60	0.36	7.81E+001	26.93	3.39E+001
3	5828-	5853	5840.35	1460.06	2.03	3.60E+002	40.04	1.33E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-224-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.982	1460.81*		10.67	2.30568E+001	2.92267E+000
TL-208	0.466	277.35		6.80		
		510.84		21.60		
		583.14*		84.20	5.02746E-001	1.78909E-001
		860.37		12.46		
Pb-212	0.404	74.81	@	10.70		
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	7.83446E-001	4.37392E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-224-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40	0.982	2.305679E+001	2.922666E+000
TL-208	0.466	5.027462E-001	1.789090E-001
Pb-212 @	0.404	7.834462E-001	4.373917E-001

? = 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 1.960 sigma

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

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

All peaks were identified.

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-224-F-G
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	2.7314E-001	1.81E-001	1.2815E-001
	1332.49	100.00	1.8131E-001		3.6671E-002
Nb-94	702.63	100.00	2.4648E-001	2.08E-001	1.4154E-002
	871.10	100.00	2.0761E-001		-1.9511E-001
Ag-108m	79.20	7.10	1.7365E+001	3.01E-001	-1.9304E+001
	433.93	89.90	3.0722E-001		2.2117E-001
	614.37	90.40	3.1538E-001		-2.3678E-001
	722.95	90.50	3.0107E-001		-7.3984E-002
Sb-125	176.33	6.89	5.4446E+000	9.20E-001	-1.3686E+000
	427.89	29.33	9.2026E-001		-1.0482E-001
	463.38	10.35	2.4843E+000		2.8810E-001
	600.56	17.80	1.4060E+000		-1.0960E+000
	606.64	5.02	6.0098E+000		6.8030E+000
	635.90	11.32	2.1537E+000		-3.1184E-001
Cs-134	563.23	8.38	3.1716E+000	2.93E-001	2.7868E-001
	569.32	15.43	1.7983E+000		-3.1058E-001
	604.70	97.60	3.1002E-001		2.1614E-001
	795.84	85.40	2.9317E-001		-1.7019E-001
	801.93	8.73	2.5887E+000		-4.2108E+000
Cs-137	661.65	85.12	2.8562E-001	2.86E-001	-8.6507E-002
Eu-152	121.78	28.40	1.8458E+000	8.32E-001	1.1956E+000
	244.69	7.49	4.1676E+000		-4.6046E+000
	344.27	26.50	9.8660E-001		-1.5598E+000
	778.89	12.74	1.7896E+000		-5.9794E-001
	867.32	4.16	5.5711E+000		6.1401E-002
	964.01	14.40	1.9891E+000		1.4601E+000
	1085.78	10.00	2.1243E+000		-3.4761E-001
	1112.02	13.30	1.4690E+000		-1.0416E+000
	1407.95	20.70	8.3216E-001		-1.4889E-001
Eu-154	123.07	40.50	1.2638E+000	5.86E-001	1.8185E-001
	247.94	6.60	4.5049E+000		-8.6420E-001
	591.81	4.83	5.2754E+000		0.0000E+000
	723.30	19.70	1.4039E+000		1.8184E-001
	756.87	4.33	5.4242E+000		-1.4647E+000
	873.19	11.50	1.8745E+000		-1.4217E-001
	996.32	10.30	2.1387E+000		-2.9322E-001
	1004.76	17.90	1.2984E+000		2.7258E-001
	1274.45	35.50	5.8571E-001		1.2944E-001
Eu-155	86.54	30.90	3.2228E+000	3.02E+000	2.4695E+000
	105.31	20.70	3.0199E+000		-7.4740E-001
Am-241	59.54	35.90	6.4668E+000	6.47E+000	2.9372E+000
Cm-243	228.19	10.56	3.0922E+000	2.24E+000	-2.6665E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	2.2364E+000	2.24E+000	9.2084E-001

+ = 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

Report Generated On 5/31/2006 4:13:43 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-224-F-G
Sample ID: NOL-05-01-224
Sample Title: NOL-05-01-224-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/30/2006 3:15:22 PM
Live Time: 600.0 seconds
Real Time: 600.5 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-224-F-G
Log Number: NOL-05-01-224
Title: NOL-05-01-224-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	286-	305	291.45	72.69	0.78	1.07E+002	37.54	4.86E+002
m	2	286-	305	300.19	74.88	0.78	2.09E+002	45.92	4.68E+002
	3	335-	343	339.42	84.69	1.04	6.73E+001	57.18	3.67E+002
	4	950-	961	953.88	238.35	1.02	1.25E+002	43.34	1.37E+002
	5	1399-	1415	1405.73	351.34	0.51	9.18E+001	33.53	6.42E+001
	6	2035-	2050	2042.12	510.49	0.34	7.56E+001	29.23	4.84E+001
	7	2323-	2339	2330.56	582.62	1.07	8.93E+001	30.08	4.68E+001
	8	2429-	2440	2434.98	608.73	0.62	3.00E+001	21.48	3.60E+001
	9	3636-	3650	3642.66	910.75	1.23	5.17E+001	20.61	2.03E+001
	10	3867-	3880	3873.69	968.52	1.16	3.85E+001	18.26	1.75E+001
	11	5828-	5854	5841.00	1460.50	1.69	5.32E+002	45.77	3.22E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-224-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
ANN	0.991	511.00*	100.00	3.29646E-001	1.30468E-001
K-40	0.997	1460.81*	10.67	2.84889E+001	3.17789E+000
TL-208	0.746	277.35	6.80		
		510.84*	21.60	1.52614E+000	6.16744E-001
		583.14*	84.20	4.76929E-001	1.66397E-001
		860.37	12.46		
Pb-212	0.523	74.81* @	10.70	9.95093E+000	2.84558E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.00473E+000	3.83251E-001
Bi-214	0.393	609.31*	46.30	2.94761E-001	2.12449E-001
		1120.29	15.10		
		1764.49	15.80		
Ac-228	0.633	338.32	11.40		
		911.07*	27.70	9.39052E-001	3.81242E-001
		969.11*	16.60	1.18737E+000	5.68912E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-224-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
ANN	0.991	2.266298E-001	1.352867E-001
K-40	0.997	2.848888E+001	3.177892E+000
TL-208	0.746	4.769285E-001	1.656699E-001
Pb-212 @	0.523	1.004733E+000	3.832513E-001
Bi-214	0.393	2.947607E-001	2.124488E-001
Ac-228	0.633	1.016006E+000	3.167064E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.69	1.7888E-001	34.98
3	84.69	1.1216E-001	84.97
5	351.34	1.5296E-001	36.53

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-224-F-G
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	2.0585E-001	2.01E-001	-4.3130E-002
	1332.49	100.00	2.0069E-001		1.7445E-001
Nb-94	702.63	100.00	2.0249E-001	2.02E-001	1.0266E-002
	871.10	100.00	2.0719E-001		9.0819E-002
Ag-108m	79.20	7.10	9.8552E+000	2.45E-001	-1.3050E+001
	433.93	89.90	2.5590E-001		-2.3181E-002
	614.37	90.40	2.4466E-001		-2.4870E-001
	722.95	90.50	2.6047E-001		-9.9608E-002
Sb-125	176.33	6.89	4.9501E+000	8.44E-001	2.7480E+000
	427.89	29.33	8.4392E-001		7.8522E-001
	463.38	10.35	2.4781E+000		1.1454E+000
	600.56	17.80	1.1803E+000		-9.9622E-001
	606.64	5.02	5.1192E+000		6.7760E+000
	635.90	11.32	1.9510E+000		1.5292E+000
Cs-134	563.23	8.38	2.6708E+000	2.59E-001	2.2773E+000
	569.32	15.43	1.4206E+000		5.1242E-001
	604.70	97.60	2.5933E-001		4.5126E-002
	795.84	85.40	2.8022E-001		1.3404E-001
	801.93	8.73	2.4581E+000		1.5762E+000
Cs-137	661.65	85.12	2.7462E-001	2.75E-001	2.0440E-001
Eu-152	121.78	28.40	1.5679E+000	8.27E-001	4.7704E-001
	244.69	7.49	3.7991E+000		6.0774E-001
	344.27	26.50	9.5961E-001		4.3895E-001
	778.89	12.74	1.5692E+000		-8.4399E-001
	867.32	4.16	4.8736E+000		-3.9081E+000
	964.01	14.40	1.9209E+000		7.7022E-001
	1085.78	10.00	2.2140E+000		-2.5855E-002
	1112.02	13.30	1.6308E+000		-2.1942E+000
	1407.95	20.70	8.2737E-001		7.9775E-001
Eu-154	123.07	40.50	1.0889E+000	5.11E-001	5.2486E-001
	247.94	6.60	4.1181E+000		-9.3759E-001
	591.81	4.83	4.8986E+000		1.8362E+000
	723.30	19.70	1.2132E+000		-1.3130E-001
	756.87	4.33	4.9691E+000		7.3994E-001
	873.19	11.50	1.7033E+000		-1.1210E+000
	996.32	10.30	2.1130E+000		8.3464E-001
	1004.76	17.90	1.1280E+000		-8.6431E-002
	1274.45	35.50	5.1092E-001		-1.8288E-001
Eu-155	86.54	30.90	2.1705E+000	2.17E+000	2.3623E+000
	105.31	20.70	2.4706E+000		2.3186E-001
Am-241	59.54	35.90	2.6904E+000	2.69E+000	8.0562E-001
Cm-243	228.19	10.56	2.7844E+000	1.96E+000	4.8473E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.9589E+000	1.96E+000	8.1873E-001

+ = 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

Report Generated On 5/31/2006 3:59:25 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: GRN7780

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-225-F-G
Sample ID: NOL-05-01-225
Sample Title: NOL-05-01-225-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/25/2006 10:18:03 AM
Live Time: 600.0 seconds
Real Time: 600.6 seconds

Energy Calibration Date: 4/19/2006
Eff Calibration Date: 9/29/2005
Calibration Efficiency: GREEN_SOIL_2M90D
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-225-F-G
Log Number: NOL-05-01-225
Title: NOL-05-01-225-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	296-	304	299.76	74.90	0.61	7.98E+001	46.33	2.24E+002
2	948-	963	954.09	238.48	1.44	8.78E+001	47.10	1.62E+002
3	3636-	3650	3641.97	910.46	0.42	4.65E+001	20.94	2.35E+001
4	5829-	5854	5840.96	1460.21	2.22	3.84E+002	39.03	3.10E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-225-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.988	1460.81*	10.67	2.46063E+001	2.91329E+000
Pb-212	0.570	74.81* @	10.70	6.81497E+000	4.09602E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	8.26596E-001	4.58125E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-225-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40	0.988	2.460626E+001	2.913292E+000
Pb-212 @	0.570	8.265955E-001	4.581247E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
3	910.46	7.7542E-002	45.02

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-225-F-G
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	2.3585E-001	1.90E-001	-1.6620E-001
	1332.49	100.00	1.8984E-001		-5.7202E-002
Nb-94	702.63	100.00	2.3572E-001	2.17E-001	7.7849E-002
	871.10	100.00	2.1734E-001		5.9360E-002
Ag-108m	79.20	7.10	1.4434E+001	2.87E-001	-8.0293E+000
	433.93	89.90	3.0259E-001		-3.2479E-002
	614.37	90.40	3.2328E-001		-1.8087E-001
	722.95	90.50	2.8713E-001		2.7195E-001
Sb-125	176.33	6.89	5.7817E+000	8.72E-001	1.9910E+000
	427.89	29.33	8.7237E-001		-1.4108E-001
	463.38	10.35	2.6256E+000		2.2805E+000
	600.56	17.80	1.4881E+000		8.6245E-001
	606.64	5.02	6.2522E+000		9.2193E+000
	635.90	11.32	1.9938E+000		-1.3798E+000
Cs-134	563.23	8.38	2.8250E+000	2.56E-001	-6.9371E-001
	569.32	15.43	1.5565E+000		-1.6067E-001
	604.70	97.60	3.1117E-001		-3.9732E-003
	795.84	85.40	2.5583E-001		2.7515E-002
	801.93	8.73	2.1954E+000		-2.6924E+000
Cs-137	661.65	85.12	3.0574E-001	3.06E-001	2.9607E-001
Eu-152	121.78	28.40	1.7827E+000	9.20E-001	-8.6186E-002
	244.69	7.49	4.5131E+000		-2.1815E+000
	344.27	26.50	1.0788E+000		-1.8039E+000
	778.89	12.74	1.5585E+000		-1.3023E+000
	867.32	4.16	4.9856E+000		-7.2174E+000
	964.01	14.40	2.0095E+000		2.3013E+000
	1085.78	10.00	2.2094E+000		-2.0483E-001
	1112.02	13.30	1.8214E+000		-1.6361E+000
	1407.95	20.70	9.1996E-001		5.1399E-001
Eu-154	123.07	40.50	1.2628E+000	6.32E-001	2.9061E-001
	247.94	6.60	4.6768E+000		-7.6329E+000
	591.81	4.83	5.2477E+000		-2.1956E+000
	723.30	19.70	1.3264E+000		6.9603E-001
	756.87	4.33	6.1308E+000		-2.5449E-001
	873.19	11.50	1.8577E+000		-1.2116E+000
	996.32	10.30	2.1192E+000		-5.9519E-002
	1004.76	17.90	1.1399E+000		1.0381E+000
	1274.45	35.50	6.3181E-001		4.9267E-001
Eu-155	86.54	30.90	2.9471E+000	2.90E+000	3.5145E+000
	105.31	20.70	2.9045E+000		-5.6251E-001
Am-241	59.54	35.90	5.3558E+000	5.36E+000	-5.1064E+000
Cm-243	228.19	10.56	3.0753E+000	2.12E+000	6.1199E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	2.1150E+000	2.12E+000	1.6201E+000

+ = 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

Report Generated On 5/30/2006 10:45:22 AM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-01-225
Sample Title: NOL-05-01-225-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/30/2006 10:35:19 AM
Live Time: 600.0 seconds
Real Time: 600.6 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-01-225
Title: NOL-05-01-225-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	295-	308	300.65	74.99	0.92	2.27E+002	91.57	7.06E+002
2	948-	961	955.81	238.83	0.85	1.10E+002	43.62	1.40E+002
3	2327-	2341	2334.47	583.60	1.46	7.08E+001	26.99	4.13E+001
4	2432-	2447	2437.40	609.34	0.80	7.24E+001	28.55	4.56E+001
5	3639-	3655	3647.04	911.84	0.89	5.63E+001	24.91	3.37E+001
6	3872-	3888	3879.07	969.87	0.34	4.06E+001	23.71	3.04E+001
7	5834-	5863	5848.82	1462.45	2.46	5.21E+002	44.74	0.00E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.910	1460.81*	10.67	2.77794E+001	3.27848E+000
TL-208	0.468	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.79813E-001	1.53360E-001
		860.37	12.46		
Pb-212	0.524	74.81* @	10.70	1.11729E+001	5.01897E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	9.00414E-001	3.84194E-001
Bi-214	0.399	609.31*	46.30	7.14922E-001	2.95635E-001
		1120.29	15.10		
		1764.49	15.80		
Ac-228	0.624	338.32	11.40		
		911.07*	27.70	1.01452E+000	4.63689E-001
		969.11*	16.60	1.24445E+000	7.38906E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40		0.910	2.777939E+001	3.278481E+000
TL-208		0.468	3.798129E-001	1.533596E-001
Pb-212	@	0.524	9.004141E-001	3.841937E-001
Bi-214		0.399	7.149216E-001	2.956350E-001
Ac-228		0.624	1.079483E+000	3.927595E-001

? = 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 1.960 sigma

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

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

All peaks were identified.

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	2.0827E-001	1.83E-001	1.0215E-002
	1332.49	100.00	1.8325E-001		8.5642E-002
Nb-94	702.63	100.00	2.1915E-001	2.19E-001	-6.3988E-002
	871.10	100.00	2.2255E-001		3.2361E-002
Ag-108m	79.20	7.10	1.0298E+001	2.57E-001	-4.0793E+000
	433.93	89.90	2.7322E-001		-1.1080E-001
	614.37	90.40	2.8871E-001		-6.0649E-002
	722.95	90.50	2.5745E-001		3.4629E-002
Sb-125	176.33	6.89	4.8178E+000	8.82E-001	1.8038E+000
	427.89	29.33	8.8241E-001		3.6852E-001
	463.38	10.35	2.2836E+000		1.3898E+000
	600.56	17.80	1.1986E+000		7.4327E-001
	606.64	5.02	5.9401E+000		-3.9923E+000
	635.90	11.32	1.8417E+000		2.7296E-001
Cs-134	563.23	8.38	2.6310E+000	2.60E-001	9.7153E-001
	569.32	15.43	1.3634E+000		8.7315E-002
	604.70	97.60	2.8080E-001		-1.5066E-001
	795.84	85.40	2.6025E-001		1.0500E-001
	801.93	8.73	2.3609E+000		-2.1404E-001
Cs-137	661.65	85.12	2.5710E-001	2.57E-001	-6.1742E-002
Eu-152	121.78	28.40	1.4728E+000	7.91E-001	-9.1696E-001
	244.69	7.49	3.8465E+000		9.0110E-002
	344.27	26.50	1.0012E+000		-7.7594E-001
	778.89	12.74	1.5772E+000		-1.1838E+000
	867.32	4.16	5.4351E+000		-3.1025E+000
	964.01	14.40	2.0031E+000		1.1289E+000
	1085.78	10.00	2.0782E+000		-1.4394E+000
	1112.02	13.30	1.6441E+000		-2.9579E-001
	1407.95	20.70	7.9128E-001		3.0456E-001
Eu-154	123.07	40.50	1.0478E+000	5.84E-001	2.7008E-001
	247.94	6.60	4.2318E+000		2.7470E+000
	591.81	4.83	4.6680E+000		1.3744E+000
	723.30	19.70	1.2162E+000		8.3439E-001
	756.87	4.33	4.9975E+000		-2.0225E+000
	873.19	11.50	1.9361E+000		8.3128E-001
	996.32	10.30	1.7919E+000		5.8911E-002
	1004.76	17.90	1.0797E+000		-1.5106E-001
	1274.45	35.50	5.8352E-001		4.6096E-001
Eu-155	86.54	30.90	2.1365E+000	2.14E+000	1.6230E+000
	105.31	20.70	2.4735E+000		8.4194E-001
Am-241	59.54	35.90	2.6787E+000	2.68E+000	3.3912E-001
Cm-243	228.19	10.56	2.6964E+000	1.93E+000	6.5070E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.9301E+000	1.93E+000	-2.3921E-001

+ = 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

Report Generated On 5/25/2006 3:58:05 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-226-F-G
Sample ID: NOL-05-01-226
Sample Title: NOL-05-01-226-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/25/2006 9:55:38 AM
Live Time: 600.0 seconds
Real Time: 601.2 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-226-F-G
Log Number: NOL-05-01-226
Title: NOL-05-01-226-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	285-	307	292.05	72.84	0.96	4.06E+002	70.23	1.75E+003
m	2	285-	307	300.23	74.89	0.96	7.53E+002	79.76	1.79E+003
F	3	332-	356	339.94	84.82	0.98	2.61E+002	148.49	2.79E+003
F	4	945-	960	954.68	238.55	1.18	3.89E+002	123.64	3.44E+002
F	5	1174-	1190	1181.42	295.25	1.23	8.21E+001	26.11	2.09E+002
F	6	1345-	1359	1353.01	338.16	1.27	6.55E+001	26.29	2.03E+002
F	7	1398-	1412	1407.17	351.70	1.28	1.81E+002	69.88	1.62E+002
F	8	2034-	2051	2042.24	510.52	2.10	1.30E+002	28.59	1.58E+002
F	9	2325-	2337	2332.27	583.05	1.45	1.54E+002	27.98	6.40E+001
F	10	2431-	2446	2436.97	609.23	1.47	1.90E+002	29.81	7.68E+001
F	11	3635-	3652	3644.42	911.19	1.64	1.69E+002	56.64	3.14E+001
F	12	3794-	3805	3799.45	949.96	1.66	1.71E+001	13.36	2.57E+001
F	13	3869-	3884	3875.47	968.97	1.67	8.06E+001	22.19	5.94E+001
F	14	4476-	4490	4482.57	1120.79	1.75	5.21E+001	17.98	3.64E+001
F	15	5830-	5857	5845.09	1461.52	1.90	1.19E+003	99.66	1.03E+001
F	16	7054-	7071	7062.35	1765.93	2.02	4.23E+001	15.28	1.60E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-226-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
ANN	0.992	511.00*		100.00	1.85803E-001	4.80613E-002
K-40	0.983	1460.81*		10.67	2.10099E+001	2.44428E+000
TL-208	0.751	277.35		6.80		
		510.84*		21.60	8.60200E-001	2.33332E-001
		583.14*		84.20	2.74185E-001	6.12095E-002
		860.37		12.46		
Pb-212	0.520	74.81*	@	10.70	1.13133E+001	2.52075E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	9.93526E-001	3.51934E-001
Bi-214	0.984	609.31*		46.30	6.21853E-001	1.24182E-001
		1120.29*		15.10	6.10362E-001	2.20218E-001
		1764.49*		15.80	5.21987E-001	1.95606E-001
PB-214	0.582	74.82*	@	6.21	1.94930E+001	4.56802E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	5.17106E-001	1.86154E-001
		351.92*		37.20	6.20130E-001	2.60460E-001
Ac-228	0.999	338.32*		11.40	7.22169E-001	3.11330E-001
		911.07*		27.70	1.01364E+000	3.59781E-001
		969.11*		16.60	8.22414E-001	2.42324E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-226-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
ANN		0.992	1.265791E-001	4.980925E-002
K-40		0.983	2.100991E+001	2.444281E+000
TL-208		0.751	2.741855E-001	6.055376E-002
Pb-212	@	0.520	9.935263E-001	3.519344E-001
Bi-214		0.984	5.963424E-001	9.465948E-002
PB-214	@	0.582	5.519393E-001	1.514492E-001
Ac-228		0.999	8.350481E-001	1.688568E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.84	6.7628E-001	17.31
F 3	84.82	4.3419E-001	57.00
F 12	949.96	2.8430E-002	78.34

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-226-F-G
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	1.0692E-001	8.23E-002	3.6202E-002
	1332.49	100.00	8.2293E-002		3.4047E-002
Nb-94	702.63	100.00	1.0685E-001	9.15E-002	1.2284E-001
	871.10	100.00	9.1530E-002		-5.0551E-002
Ag-108m	79.20	7.10	5.4523E+000	1.18E-001	-2.4948E+000
	433.93	89.90	1.2326E-001		2.9042E-002
	614.37	90.40	1.3936E-001		-3.5448E-002
	722.95	90.50	1.1845E-001		5.4710E-002
Sb-125	176.33	6.89	2.3477E+000	3.82E-001	1.1452E+000
	427.89	29.33	3.8231E-001		-9.5154E-002
	463.38	10.35	1.1302E+000		1.1520E+000
	600.56	17.80	5.8289E-001		-3.5336E-002
	606.64	5.02	2.8493E+000		-4.1935E+000
	635.90	11.32	8.9528E-001		-7.0236E-001
Cs-134	563.23	8.38	1.3014E+000	1.26E-001	4.1249E-002
	569.32	15.43	7.2091E-001		1.9879E-001
	604.70	97.60	1.3945E-001		-1.8002E-001
	795.84	85.40	1.2602E-001		2.0899E-001
	801.93	8.73	1.1599E+000		-3.3706E-001
Cs-137	661.65	85.12	1.2971E-001	1.30E-001	1.2104E-001
Eu-152	121.78	28.40	7.8977E-001	3.85E-001	-3.6438E-001
	244.69	7.49	1.9153E+000		5.8313E-001
	344.27	26.50	4.5180E-001		-2.2354E-001
	778.89	12.74	7.9704E-001		-5.0486E-001
	867.32	4.16	2.2857E+000		-1.0170E+000
	964.01	14.40	9.1845E-001		7.3300E-002
	1085.78	10.00	1.0219E+000		-4.1718E-001
	1112.02	13.30	8.3082E-001		3.4909E-001
	1407.95	20.70	3.8514E-001		2.2624E-001
Eu-154	123.07	40.50	5.5528E-001	2.72E-001	3.9759E-001
	247.94	6.60	2.0627E+000		8.1254E-001
	591.81	4.83	2.1120E+000		-2.9986E-001
	723.30	19.70	5.4419E-001		2.9579E-001
	756.87	4.33	2.3318E+000		-2.7754E-002
	873.19	11.50	7.9629E-001		-6.7991E-001
	996.32	10.30	9.7734E-001		8.7309E-001
	1004.76	17.90	5.6191E-001		4.7218E-001
	1274.45	35.50	2.7177E-001		-8.6830E-002
Eu-155	86.54	30.90	1.1184E+000	1.12E+000	-9.9519E-002
	105.31	20.70	1.3555E+000		3.2127E-001
Am-241	59.54	35.90	1.4787E+000	1.48E+000	-7.3255E-001
Cm-243	228.19	10.56	1.3770E+000	9.56E-001	3.9279E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	9.5624E-001	9.56E-001	3.9539E-001

+ = 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

Report Generated On 5/30/2006 11:44:56 AM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-01-227
Sample Title: NOL-05-01-227-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/30/2006 11:34:57 AM
Live Time: 600.0 seconds
Real Time: 600.6 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-01-227
Title: NOL-05-01-227-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	286-	305	291.82	72.78	1.00	1.37E+002	39.77	4.84E+002
m	2	286-	305	300.35	74.92	1.01	2.68E+002	47.58	5.45E+002
	3	947-	961	954.38	238.47	1.04	1.38E+002	45.97	1.43E+002
	4	1401-	1413	1407.03	351.67	1.10	6.53E+001	28.19	5.37E+001
	5	2036-	2050	2042.20	510.51	0.74	6.49E+001	29.69	5.71E+001
	6	2324-	2339	2331.80	582.93	0.87	7.41E+001	27.71	4.19E+001
	7	2431-	2444	2435.09	608.76	1.11	7.91E+001	25.59	3.29E+001
	8	3637-	3653	3644.31	911.16	0.72	5.76E+001	23.23	2.64E+001
	9	3868-	3881	3873.99	968.60	0.63	3.92E+001	18.52	1.78E+001
	10	4475-	4487	4480.84	1120.36	0.54	3.02E+001	16.67	1.58E+001
	11	5831-	5857	5843.69	1461.17	2.05	5.20E+002	46.62	1.03E+001
	12	7054-	7067	7060.20	1765.39	0.72	2.61E+001	11.07	1.94E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
ANN	0.992	511.00*		100.00	2.83328E-001	1.35528E-001
K-40	0.995	1460.81*		10.67	2.77036E+001	3.34757E+000
TL-208	0.751	277.35		6.80		
		510.84*		21.60	1.31170E+000	6.36524E-001
		583.14*		84.20	3.97916E-001	1.57765E-001
		860.37		12.46		
Pb-212	0.524	74.81*	@	10.70	1.32290E+001	3.49907E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	1.13160E+000	4.16102E-001
Bi-214	0.988	609.31*		46.30	7.80908E-001	2.70722E-001
		1120.29*		15.10	1.06679E+000	5.99828E-001
		1764.49*		15.80	9.77122E-001	4.26408E-001
Ac-228	0.637	338.32		11.40		
		911.07*		27.70	1.03735E+000	4.34990E-001
		969.11*		16.60	1.20131E+000	5.81546E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
ANN	0.992	1.973783E-001	1.397186E-001
K-40	0.995	2.770362E+001	3.347571E+000
TL-208	0.751	3.979158E-001	1.572311E-001
Pb-212 @	0.524	1.131605E+000	4.161024E-001
Bi-214	0.988	8.663731E-001	2.135719E-001
Ac-228	0.637	1.096174E+000	3.483277E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.78	2.2831E-001	29.03
4	351.67	1.0880E-001	43.18

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	2.2705E-001	1.93E-001	7.2239E-002
	1332.49	100.00	1.9298E-001		1.0875E-001
Nb-94	702.63	100.00	2.1320E-001	2.13E-001	3.2184E-003
	871.10	100.00	2.1353E-001		1.1291E-001
Ag-108m	79.20	7.10	1.0081E+001	2.53E-001	-1.5095E+001
	433.93	89.90	2.5264E-001		1.0749E-001
	614.37	90.40	2.7310E-001		-1.5148E-001
	722.95	90.50	2.7293E-001		1.7507E-001
Sb-125	176.33	6.89	4.5606E+000	8.04E-001	2.9211E+000
	427.89	29.33	8.0366E-001		3.1166E-001
	463.38	10.35	2.3088E+000		6.5930E-001
	600.56	17.80	1.1796E+000		-1.3433E-001
	606.64	5.02	5.7644E+000		8.0047E+000
	635.90	11.32	1.6775E+000		-1.1303E+000
Cs-134	563.23	8.38	2.5681E+000	2.43E-001	-2.0500E+000
	569.32	15.43	1.4926E+000		-2.6141E-001
	604.70	97.60	2.8605E-001		-4.5554E-001
	795.84	85.40	2.4252E-001		1.4764E-003
	801.93	8.73	2.3458E+000		-1.1646E+000
Cs-137	661.65	85.12	2.5439E-001	2.54E-001	-4.2642E-002
Eu-152	121.78	28.40	1.5384E+000	7.21E-001	5.3306E-001
	244.69	7.49	3.9976E+000		1.5667E-001
	344.27	26.50	9.2797E-001		-9.4848E-002
	778.89	12.74	1.7465E+000		8.0858E-001
	867.32	4.16	4.9349E+000		-4.4026E-002
	964.01	14.40	1.7698E+000		-2.0630E+000
	1085.78	10.00	1.8808E+000		-1.0956E+000
	1112.02	13.30	1.6213E+000		3.7344E-001
	1407.95	20.70	7.2052E-001		-2.5505E-001
Eu-154	123.07	40.50	1.0683E+000	5.69E-001	1.9197E-002
	247.94	6.60	4.3379E+000		4.2338E-001
	591.81	4.83	4.4002E+000		-4.1329E+000
	723.30	19.70	1.2433E+000		3.3761E-001
	756.87	4.33	4.9118E+000		-2.0571E+000
	873.19	11.50	1.8805E+000		1.3310E+000
	996.32	10.30	1.9471E+000		-1.2342E+000
	1004.76	17.90	1.1062E+000		-2.3604E-001
	1274.45	35.50	5.6882E-001		-3.1578E-001
Eu-155	86.54	30.90	2.0991E+000	2.10E+000	1.4590E+000
	105.31	20.70	2.5132E+000		9.4946E-001
Am-241	59.54	35.90	2.6507E+000	2.65E+000	-1.7828E+000
Cm-243	228.19	10.56	2.9431E+000	1.92E+000	1.6751E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.9216E+000	1.92E+000	-1.1977E+000

+ = 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

Report Generated On 5/30/2006 9:55:18 AM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-01-228
Sample Title: NOL-05-01-228-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/30/2006 9:39:58 AM
Live Time: 900.0 seconds
Real Time: 901.0 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-01-228
Title: NOL-05-01-228-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	288-	314	292.42	72.93	0.81	1.70E+002	46.07	6.14E+002
m	2	288-	314	300.53	74.96	0.81	3.64E+002	55.32	6.78E+002
m	3	288-	314	309.88	77.30	0.81	7.89E+001	41.36	6.81E+002
	4	335-	346	339.17	84.62	0.94	1.73E+002	85.33	6.78E+002
	5	945-	960	954.71	238.56	1.31	2.26E+002	57.62	2.13E+002
	6	1402-	1414	1407.76	351.85	0.68	9.27E+001	38.26	1.09E+002
	7	2035-	2053	2042.73	510.64	1.10	1.41E+002	41.25	8.86E+001
	8	2324-	2342	2333.13	583.26	0.66	1.18E+002	34.16	5.48E+001
	9	2433-	2446	2437.42	609.34	0.87	1.17E+002	32.60	5.68E+001
	10	3636-	3655	3645.61	911.48	1.35	1.11E+002	28.11	2.59E+001
	11	3869-	3884	3876.72	969.28	1.00	4.70E+001	27.47	4.90E+001
	12	5832-	5859	5846.98	1461.99	1.86	7.77E+002	57.78	2.06E+001
	13	7058-	7072	7064.06	1766.35	1.05	3.65E+001	12.46	1.51E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
ANN	0.996	511.00*		100.00	4.11413E-001	1.33184E-001
K-40	0.952	1460.81*		10.67	2.76308E+001	3.03689E+000
TL-208	0.752	277.35		6.80		
		510.84*		21.60	1.90469E+000	6.35910E-001
		583.14*		84.20	4.23133E-001	1.34437E-001
		860.37		12.46		
Pb-212	0.845	74.81*	@	10.70	1.19686E+001	2.96904E+000
		77.11*	@	18.00	1.48118E+000	8.29277E-001
		87.30	@	8.00		
		238.63*		44.60	1.23581E+000	3.69450E-001
Bi-214	0.674	609.31*		46.30	7.71533E-001	2.35127E-001
		1120.29		15.10		
		1764.49*		15.80	9.12235E-001	3.24556E-001
PB-214	0.391	74.82*	@	6.21	2.06223E+001	5.33027E+000
		77.11*	@	10.50	2.53917E+000	1.43420E+000
		87.30	@	4.67		
		241.98		7.49		
		295.21		19.20		
		351.92*		37.20	6.60636E-001	2.94279E-001
Ac-228	0.637	338.32		11.40		
		911.07*		27.70	1.33378E+000	3.70702E-001
		969.11*		16.60	9.61480E-001	5.70529E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
ANN		0.996	3.200162E-001	1.362803E-001
K-40		0.952	2.763079E+001	3.036891E+000
TL-208		0.752	4.231331E-001	1.337276E-001
Pb-212	@	0.845	1.235807E+000	3.694497E-001
Bi-214		0.674	8.199618E-001	1.904102E-001
PB-214	@	0.391	6.606359E-001	2.918873E-001
Ac-228		0.637	1.223262E+000	3.108481E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.93	1.8835E-001	27.17
4	84.62	1.9206E-001	49.37

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	1.9076E-001	1.40E-001	-3.7907E-002
	1332.49	100.00	1.3951E-001		-1.2572E-001
Nb-94	702.63	100.00	1.8933E-001	1.62E-001	7.0410E-002
	871.10	100.00	1.6198E-001		1.5776E-002
Ag-108m	79.20	7.10	8.4261E+000	2.09E-001	-1.3732E+000
	433.93	89.90	2.0885E-001		-1.1170E-001
	614.37	90.40	2.3202E-001		-7.0108E-002
	722.95	90.50	2.1945E-001		8.9170E-002
Sb-125	176.33	6.89	3.9444E+000	6.63E-001	2.5139E+000
	427.89	29.33	6.6273E-001		-7.7065E-002
	463.38	10.35	1.8684E+000		1.1510E+000
	600.56	17.80	1.0084E+000		-2.4275E-001
	606.64	5.02	4.8175E+000		-6.8958E+000
	635.90	11.32	1.5401E+000		5.5601E-001
Cs-134	563.23	8.38	2.1333E+000	2.04E-001	-9.0782E-001
	569.32	15.43	1.1545E+000		-9.8351E-002
	604.70	97.60	2.2834E-001		-5.4132E-001
	795.84	85.40	2.0389E-001		-1.0405E-002
	801.93	8.73	1.9175E+000		-1.7470E+000
Cs-137	661.65	85.12	2.1770E-001	2.18E-001	-5.5311E-002
Eu-152	121.78	28.40	1.2445E+000	6.99E-001	-4.7864E-001
	244.69	7.49	3.3077E+000		1.6950E+000
	344.27	26.50	7.5532E-001		-4.7363E-001
	778.89	12.74	1.4081E+000		-1.4032E+000
	867.32	4.16	3.7211E+000		-3.0375E+000
	964.01	14.40	1.5362E+000		3.2501E-001
	1085.78	10.00	1.5790E+000		-9.7691E-001
	1112.02	13.30	1.2169E+000		6.3887E-002
	1407.95	20.70	6.9869E-001		9.2941E-001
Eu-154	123.07	40.50	8.6749E-001	4.14E-001	4.5083E-001
	247.94	6.60	3.4884E+000		-2.2307E+000
	591.81	4.83	3.6778E+000		-1.3064E-001
	723.30	19.70	1.0340E+000		1.0250E+000
	756.87	4.33	4.0123E+000		8.6315E-001
	873.19	11.50	1.3618E+000		-3.4209E-001
	996.32	10.30	1.5736E+000		-1.2169E+000
	1004.76	17.90	9.4441E-001		4.0038E-001
	1274.45	35.50	4.1394E-001		-5.2645E-001
Eu-155	86.54	30.90	1.7441E+000	1.74E+000	2.1648E+000
	105.31	20.70	2.0486E+000		-2.8223E-001
Am-241	59.54	35.90	2.0973E+000	2.10E+000	-8.3291E-001
Cm-243	228.19	10.56	2.3002E+000	1.66E+000	7.7828E-002

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.6579E+000	1.66E+000	-1.3365E+000

+ = 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

Report Generated On 5/30/2006 2:18:19 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-01-229
Sample Title: NOL-05-01-229-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/30/2006 2:07:49 PM
Live Time: 600.0 seconds
Real Time: 600.5 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-01-229
Title: NOL-05-01-229-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	296-	316	300.78	75.02	0.63	1.81E+002	44.28	4.74E+002
m	2	296-	316	309.22	77.14	0.63	7.84E+001	32.15	3.57E+002
	3	738-	750	741.84	185.32	0.36	3.96E+001	40.37	1.45E+002
	4	946-	962	953.89	238.35	0.91	1.17E+002	50.99	1.79E+002
	5	1176-	1188	1180.60	295.05	1.15	5.08E+001	32.00	8.13E+001
	6	1403-	1413	1407.38	351.76	0.60	3.20E+001	26.63	6.00E+001
	7	2033-	2051	2043.39	510.81	0.82	8.45E+001	35.54	7.15E+001
	8	2327-	2339	2331.26	582.80	0.52	7.79E+001	25.49	3.41E+001
	9	2428-	2442	2435.46	608.86	1.16	5.68E+001	23.56	3.02E+001
	10	3631-	3649	3643.43	910.94	1.22	7.32E+001	23.06	1.98E+001
	11	3866-	3881	3873.43	968.46	0.68	4.12E+001	20.25	2.18E+001
	12	5828-	5854	5842.34	1460.83	1.54	5.24E+002	46.12	6.75E+000
	13	7051-	7064	7057.86	1764.80	0.39	3.27E+001	13.51	5.31E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
ANN	0.999	511.00*		100.00	3.69032E-001	1.63549E-001
K-40	1.000	1460.81*		10.67	2.79460E+001	3.34136E+000
TL-208	0.750	277.35		6.80		
		510.84*		21.60	1.70848E+000	7.69918E-001
		583.14*		84.20	4.17912E-001	1.47533E-001
		860.37		12.46		
Pb-212	0.844	74.81*	@	10.70	8.90744E+000	2.79496E+000
		77.11*	@	18.00	2.21383E+000	1.00653E+000
		87.30	@	8.00		
		238.63*		44.60	9.60494E-001	4.43805E-001
Bi-214	0.693	609.31*		46.30	5.60572E-001	2.42806E-001
		1120.29		15.10		
		1764.49*		15.80	1.22554E+000	5.21039E-001
PB-214	0.764	74.82*	@	6.21	1.53478E+001	4.94299E+000
		77.11*	@	10.50	3.79515E+000	1.74859E+000
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	1.01159E+000	6.60110E-001
		351.92*		37.20	3.41978E-001	2.90465E-001
Ac-228	0.635	338.32		11.40		
		911.07*		27.70	1.31856E+000	4.42086E-001
		969.11*		16.60	1.26215E+000	6.34691E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
ANN		0.999	2.787631E-001	1.665984E-001
K-40		1.000	2.794602E+001	3.341356E+000
TL-208		0.750	4.179118E-001	1.469034E-001
Pb-212	@	0.844	9.604938E-001	4.438047E-001
Bi-214		0.693	6.792114E-001	2.200824E-001
PB-214	@	0.764	4.505982E-001	2.658646E-001
Ac-228		0.635	1.300131E+000	3.627602E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
3	185.32	6.5957E-002	102.00

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	2.4011E-001	1.83E-001	8.3496E-002
	1332.49	100.00	1.8325E-001		5.2979E-002
Nb-94	702.63	100.00	2.0955E-001	2.04E-001	-7.4405E-002
	871.10	100.00	2.0409E-001		-6.5927E-002
Ag-108m	79.20	7.10	1.0267E+001	2.56E-001	-3.2996E+000
	433.93	89.90	2.6593E-001		2.5083E-001
	614.37	90.40	2.5649E-001		7.4211E-003
	722.95	90.50	2.5989E-001		-9.6236E-003
Sb-125	176.33	6.89	4.6085E+000	8.53E-001	-2.4293E+000
	427.89	29.33	8.5343E-001		-3.8042E-002
	463.38	10.35	2.2752E+000		-1.0834E+000
	600.56	17.80	1.2949E+000		2.3039E-001
	606.64	5.02	5.4983E+000		7.9891E+000
	635.90	11.32	1.8207E+000		-8.8575E-001
Cs-134	563.23	8.38	2.6680E+000	2.66E-001	1.9860E+000
	569.32	15.43	1.2747E+000		-1.1564E+000
	604.70	97.60	2.7725E-001		-6.6695E-002
	795.84	85.40	2.6588E-001		1.0216E-001
	801.93	8.73	2.3910E+000		1.0053E+000
Cs-137	661.65	85.12	2.7400E-001	2.74E-001	1.6544E-001
Eu-152	121.78	28.40	1.4832E+000	8.24E-001	-2.3829E-001
	244.69	7.49	3.8605E+000		9.8452E-001
	344.27	26.50	9.9361E-001		5.3478E-001
	778.89	12.74	1.5344E+000		-1.3543E+000
	867.32	4.16	4.5926E+000		-1.7617E+000
	964.01	14.40	1.8638E+000		-7.7534E-001
	1085.78	10.00	1.9657E+000		5.5993E-001
	1112.02	13.30	1.6441E+000		8.9885E-001
	1407.95	20.70	8.2416E-001		4.0560E-001
Eu-154	123.07	40.50	1.0502E+000	5.27E-001	4.4914E-002
	247.94	6.60	4.0631E+000		-1.2967E+000
	591.81	4.83	4.3070E+000		-1.4559E+000
	723.30	19.70	1.1884E+000		-6.9513E-001
	756.87	4.33	4.5519E+000		-1.0642E+000
	873.19	11.50	1.6891E+000		4.1515E-001
	996.32	10.30	1.8866E+000		1.6141E-001
	1004.76	17.90	1.1979E+000		-5.0744E-001
	1274.45	35.50	5.2744E-001		-5.3650E-001
Eu-155	86.54	30.90	2.1601E+000	2.16E+000	2.4462E+000
	105.31	20.70	2.4519E+000		-1.0812E+000
Am-241	59.54	35.90	2.6573E+000	2.66E+000	5.2689E-001
Cm-243	228.19	10.56	2.7399E+000	1.91E+000	-2.3707E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.9131E+000	1.91E+000	-4.9930E-001

+ = 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

Report Generated On 5/30/2006 1:19:01 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-01-230
Sample Title: NOL-05-01-230-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/30/2006 1:09:00 PM
Live Time: 600.0 seconds
Real Time: 600.5 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-01-230
Title: NOL-05-01-230-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	284-	306	291.96	72.82	0.83	1.42E+002	38.19	4.18E+002
m	2	284-	306	300.34	74.91	0.83	2.52E+002	47.05	5.18E+002
	3	332-	346	338.91	84.56	1.09	1.27E+002	82.16	5.61E+002
	4	947-	960	954.10	238.40	0.98	8.20E+001	46.81	1.73E+002
	5	1174-	1186	1179.65	294.81	0.79	6.03E+001	30.07	6.57E+001
	6	1348-	1359	1354.01	338.41	0.75	3.89E+001	25.29	5.01E+001
	7	2038-	2048	2042.31	510.54	0.95	3.12E+001	26.82	6.38E+001
	8	2325-	2337	2331.04	582.74	0.43	8.41E+001	24.62	2.79E+001
	9	2429-	2443	2435.23	608.80	0.57	6.77E+001	27.26	4.33E+001
	10	3634-	3651	3642.69	910.75	1.13	7.05E+001	25.78	3.15E+001
	11	3866-	3878	3872.50	968.22	1.08	3.30E+001	20.54	2.80E+001
	12	5828-	5853	5841.57	1460.64	1.78	5.96E+002	50.02	1.30E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.999	1460.81*	10.67	3.17699E+001	3.70475E+000
TL-208	0.749	277.35	6.80		
		510.84*	21.60	6.30987E-001	5.51478E-001
		583.14*	84.20	4.51345E-001	1.44971E-001
		860.37	12.46		
Pb-212	0.524	74.81* @	10.70	1.24523E+001	3.36994E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	6.71753E-001	3.97456E-001
Bi-214	0.393	609.31*	46.30	6.68205E-001	2.81653E-001
		1120.29	15.10		
		1764.49	15.80		
Ac-228	0.990	338.32*	11.40	1.34485E+000	9.00200E-001
		911.07*	27.70	1.26953E+000	4.86608E-001
		969.11*	16.60	1.01121E+000	6.38471E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
X	ANN		0.993		
	K-40		0.999	3.176988E+001	3.704750E+000
	TL-208		0.749	4.629565E-001	1.402072E-001
	Pb-212	@	0.524	6.717531E-001	3.974562E-001
	Bi-214		0.393	6.682051E-001	2.816532E-001
	Ac-228		0.990	1.201172E+000	3.555516E-001

? = 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 1.960 sigma

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

	Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M	1	72.82	2.3706E-001	26.85
	3	84.56	2.1216E-001	64.54
	5	294.81	1.0057E-001	49.83

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	1.9642E-001	1.96E-001	-3.9407E-002
	1332.49	100.00	2.0220E-001		-8.4830E-002
Nb-94	702.63	100.00	2.2607E-001	2.01E-001	-1.7554E-002
	871.10	100.00	2.0131E-001		4.2796E-002
Ag-108m	79.20	7.10	1.0007E+001	2.64E-001	-3.7844E-001
	433.93	89.90	2.7232E-001		1.0290E-001
	614.37	90.40	2.6438E-001		-5.2012E-002
	722.95	90.50	2.7750E-001		1.4725E-001
Sb-125	176.33	6.89	4.7548E+000	7.53E-001	6.7215E-002
	427.89	29.33	7.5347E-001		-1.4576E+000
	463.38	10.35	2.3581E+000		2.0858E+000
	600.56	17.80	1.1472E+000		-7.9222E-001
	606.64	5.02	5.7806E+000		8.4629E+000
	635.90	11.32	1.8207E+000		6.8445E-002
Cs-134	563.23	8.38	2.5165E+000	2.44E-001	-1.4778E+000
	569.32	15.43	1.3125E+000		-8.8428E-001
	604.70	97.60	2.8691E-001		-1.3017E-001
	795.84	85.40	2.4405E-001		1.4111E-001
	801.93	8.73	2.2839E+000		-2.3783E+000
Cs-137	661.65	85.12	2.7775E-001	2.78E-001	3.1420E-001
Eu-152	121.78	28.40	1.4901E+000	8.24E-001	-6.9031E-001
	244.69	7.49	3.7686E+000		-7.7121E-001
	344.27	26.50	9.1425E-001		-6.5159E-001
	778.89	12.74	1.7465E+000		-1.0966E+000
	867.32	4.16	4.8349E+000		-4.7921E+000
	964.01	14.40	1.8865E+000		2.0587E-001
	1085.78	10.00	2.0937E+000		4.4397E-001
	1112.02	13.30	1.6098E+000		-2.2694E+000
	1407.95	20.70	8.2416E-001		4.4202E-002
Eu-154	123.07	40.50	1.0510E+000	4.64E-001	-7.0105E-002
	247.94	6.60	4.1060E+000		-2.4069E+000
	591.81	4.83	4.5138E+000		4.0790E+000
	723.30	19.70	1.2697E+000		3.3191E-001
	756.87	4.33	4.9405E+000		1.1472E+000
	873.19	11.50	1.7267E+000		2.7115E-001
	996.32	10.30	1.9471E+000		-8.3037E-001
	1004.76	17.90	1.2450E+000		4.2441E-001
	1274.45	35.50	4.6397E-001		-6.5999E-001
Eu-155	86.54	30.90	2.2095E+000	2.21E+000	3.5045E-001
	105.31	20.70	2.4750E+000		-1.2697E+000
Am-241	59.54	35.90	2.6358E+000	2.64E+000	6.7666E-001
Cm-243	228.19	10.56	2.7303E+000	2.04E+000	-6.5533E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	2.0373E+000	2.04E+000	1.4145E+000

+ = 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

Report Generated On 5/31/2006 4:13:58 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-231-F-G
Sample ID: NOL-05-01-231
Sample Title: NOL-05-01-231-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/31/2006 10:00:09 AM
Live Time: 600.0 seconds
Real Time: 600.5 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-231-F-G
Log Number: NOL-05-01-231
Title: NOL-05-01-231-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	284-	306	292.00	72.83	0.80	1.53E+002	37.35	3.69E+002
m	2	284-	306	300.78	75.02	0.80	2.07E+002	43.03	4.21E+002
	3	948-	960	955.04	238.64	0.96	1.03E+002	41.67	1.32E+002
	4	1403-	1414	1407.06	351.68	0.90	4.24E+001	26.81	5.56E+001
	5	2328-	2339	2333.25	583.30	1.17	6.16E+001	24.95	3.94E+001
	6	2432-	2441	2436.74	609.18	0.97	4.54E+001	22.23	3.66E+001
	7	3638-	3654	3644.64	911.24	0.67	6.96E+001	22.60	2.04E+001
	8	3871-	3882	3876.17	969.14	0.64	3.35E+001	19.14	2.45E+001
	9	5833-	5859	5846.11	1461.78	1.58	4.74E+002	44.13	7.18E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-231-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.968	1460.81*	10.67	2.53909E+001	2.97325E+000
TL-208	0.473	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.29132E-001	1.36644E-001
		860.37	12.46		
Pb-212	0.524	74.81* @	10.70	9.83198E+000	2.72620E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	8.26722E-001	3.59858E-001
Bi-214	0.400	609.31*	46.30	4.46284E-001	2.21643E-001
		1120.29	15.10		
		1764.49	15.80		
Ac-228	0.638	338.32	11.40		
		911.07*	27.70	1.26595E+000	4.21823E-001
		969.11*	16.60	1.03367E+000	5.94403E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-231-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40	0.968	2.539085E+001	2.973248E+000
TL-208	0.473	3.291316E-001	1.366437E-001
Pb-212 @	0.524	8.267224E-001	3.598584E-001
Bi-214	0.400	4.462839E-001	2.216429E-001
Ac-228	0.638	1.188154E+000	3.440026E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.83	2.5485E-001	24.42
4	351.68	7.0748E-002	63.17

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-231-F-G
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	2.2168E-001	2.15E-001	1.6509E-001
	1332.49	100.00	2.1472E-001		2.1301E-001
Nb-94	702.63	100.00	2.1355E-001	1.99E-001	-2.0661E-001
	871.10	100.00	1.9870E-001		-5.3244E-002
Ag-108m	79.20	7.10	9.2520E+000	2.57E-001	-4.2008E-001
	433.93	89.90	2.5687E-001		-1.0243E-002
	614.37	90.40	2.8415E-001		-4.0542E-001
	722.95	90.50	2.6994E-001		1.5366E-002
Sb-125	176.33	6.89	4.7166E+000	7.88E-001	-2.3339E+000
	427.89	29.33	7.8752E-001		1.8342E-003
	463.38	10.35	2.2591E+000		-1.1167E+000
	600.56	17.80	1.2175E+000		9.2640E-002
	606.64	5.02	5.4703E+000		5.5884E+000
	635.90	11.32	1.7994E+000		-1.2981E+000
Cs-134	563.23	8.38	2.9582E+000	2.49E-001	5.9124E-001
	569.32	15.43	1.5561E+000		-1.3358E+000
	604.70	97.60	2.6680E-001		-3.7930E-001
	795.84	85.40	2.4928E-001		-3.4314E-002
	801.93	8.73	2.5300E+000		-1.6464E+000
Cs-137	661.65	85.12	2.6962E-001	2.70E-001	1.1838E-001
Eu-152	121.78	28.40	1.4589E+000	8.27E-001	-1.3298E-001
	244.69	7.49	3.8870E+000		-3.2024E-001
	344.27	26.50	9.2229E-001		-5.5076E-001
	778.89	12.74	1.6916E+000		-2.4711E-002
	867.32	4.16	5.1377E+000		-2.3191E+000
	964.01	14.40	1.9284E+000		-1.6446E+000
	1085.78	10.00	2.2430E+000		-8.5844E-001
	1112.02	13.30	1.5964E+000		7.9899E-001
	1407.95	20.70	8.2737E-001		-7.4693E-001
Eu-154	123.07	40.50	1.0155E+000	5.54E-001	-1.7682E-001
	247.94	6.60	4.3493E+000		1.9564E+000
	591.81	4.83	4.7956E+000		3.1400E-001
	723.30	19.70	1.2295E+000		-3.5602E-001
	756.87	4.33	5.0816E+000		-1.6900E+000
	873.19	11.50	1.6775E+000		-3.7198E-001
	996.32	10.30	2.0854E+000		1.9883E+000
	1004.76	17.90	1.2028E+000		7.8352E-001
	1274.45	35.50	5.5363E-001		-2.3929E-001
Eu-155	86.54	30.90	2.0961E+000	2.10E+000	2.7415E+000
	105.31	20.70	2.3494E+000		-4.0544E-001
Am-241	59.54	35.90	2.5669E+000	2.57E+000	-2.2498E+000
Cm-243	228.19	10.56	2.6828E+000	1.87E+000	-1.0837E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.8673E+000	1.87E+000	-3.1158E-001

+ = 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

Report Generated On 5/30/2006 3:34:43 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: ORG7829

Spectrum File: ORG7829
Sample ID: NOL-05-01-232
Sample Title: NOL-05-01-232-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/30/2006 3:19:41 PM
Live Time: 900.0 seconds
Real Time: 900.6 seconds

Energy Calibration Date: 5/10/2006
Eff Calibration Date: 4/26/2006
Calibration Efficiency: 7829Soil2m90170
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: ORG7829
Log Number: NOL-05-01-232
Title: NOL-05-01-232-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	944-	964	954.82	238.72	1.19	1.68E+002	63.03	2.37E+002
2	1400-	1412	1406.37	351.61	0.36	5.60E+001	31.26	7.50E+001
3	2319-	2339	2330.84	582.75	1.26	1.14E+002	32.64	4.48E+001
4	2425-	2442	2434.77	608.73	0.91	8.47E+001	28.37	3.83E+001
5	3633-	3651	3641.08	910.33	1.33	6.80E+001	28.01	4.00E+001
6	4471-	4483	4476.93	1119.31	1.45	3.57E+001	17.78	1.63E+001
7	5826-	5851	5839.78	1460.05	2.06	5.30E+002	45.73	3.36E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: ORG7829

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Gram)	Activity Uncertainty
K-40	0.981	1460.81*	10.67	2.48001E+001	2.93528E+000
TL-208	0.469	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	5.18798E-001	1.63350E-001
		860.37	12.46		
Pb-212	0.421	74.81 @	10.70		
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.14449E+000	4.65380E-001
Bi-214	0.695	609.31*	46.30	7.08835E-001	2.53386E-001
		1120.29*	15.10	1.07442E+000	5.47027E-001
		1764.49	15.80		

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:ORG7829

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Gram)	Wt mean Activity Uncertainty
K-40	0.981	2.480010E+001	2.935277E+000
TL-208	0.469	5.187977E-001	1.633505E-001
Pb-212 @	0.421	1.144490E+000	4.653802E-001
Bi-214	0.695	7.734188E-001	2.299180E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
2	351.61	6.2193E-002	55.85
5	910.33	7.5509E-002	41.22

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:ORG7829
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Co-60	1173.22	100.00	2.0974E-001	1.86E-001	-3.0437E-001
	1332.49	100.00	1.8605E-001		5.3050E-002
Nb-94	702.63	100.00	2.1320E-001	2.02E-001	1.9577E-001
	871.10	100.00	2.0248E-001		1.6135E-001
Ag-108m	79.20	7.10	1.4216E+001	2.34E-001	-1.0539E+001
	433.93	89.90	2.4251E-001		1.0290E-001
	614.37	90.40	2.6389E-001		7.3595E-002
	722.95	90.50	2.3431E-001		-7.7710E-002
Sb-125	176.33	6.89	4.7178E+000	7.44E-001	8.7654E-001
	427.89	29.33	7.4446E-001		1.6767E-001
	463.38	10.35	2.0735E+000		6.7574E-001
	600.56	17.80	1.1406E+000		-8.6662E-001
	606.64	5.02	5.0630E+000		3.7020E+000
	635.90	11.32	1.9064E+000		-3.3424E-001
Cs-134	563.23	8.38	2.4042E+000	2.48E-001	-2.0872E-001
	569.32	15.43	1.2888E+000		-9.6582E-001
	604.70	97.60	2.6016E-001		-1.5648E-001
	795.84	85.40	2.4776E-001		1.7192E-001
	801.93	8.73	2.1903E+000		-6.7943E-001
Cs-137	661.65	85.12	2.5375E-001	2.54E-001	1.2835E-001
Eu-152	121.78	28.40	1.6167E+000	6.82E-001	2.5985E-001
	244.69	7.49	3.7257E+000		-3.9631E-001
	344.27	26.50	8.7867E-001		-1.2145E+000
	778.89	12.74	1.4655E+000		-9.2443E-001
	867.32	4.16	4.5295E+000		-7.5222E+000
	964.01	14.40	1.6411E+000		8.8410E-001
	1085.78	10.00	1.8889E+000		-5.2766E-001
	1112.02	13.30	1.3006E+000		-1.5784E+000
	1407.95	20.70	6.8188E-001		-2.7984E-001
Eu-154	123.07	40.50	1.1195E+000	4.72E-001	4.1188E-001
	247.94	6.60	4.0901E+000		-4.2711E+000
	591.81	4.83	4.3366E+000		-4.3879E-001
	723.30	19.70	1.0765E+000		7.8255E-002
	756.87	4.33	5.0556E+000		-1.5626E+000
	873.19	11.50	1.7347E+000		1.3318E+000
	996.32	10.30	1.7450E+000		-1.1089E+000
	1004.76	17.90	1.1125E+000		9.6626E-001
	1274.45	35.50	4.7241E-001		-8.0352E-002
Eu-155	86.54	30.90	2.5462E+000	2.55E+000	1.6087E+000
	105.31	20.70	2.6429E+000		-1.9743E+000
Am-241	59.54	35.90	5.1484E+000	5.15E+000	1.5515E+000
Cm-243	228.19	10.56	2.7117E+000	1.75E+000	-2.0946E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.7529E+000	1.75E+000	1.1174E+000

+ = 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

Report Generated On 5/31/2006 4:14:14 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: ORG7829

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-233-F-G
Sample ID: NOL-05-01-233
Sample Title: NOL-05-01-233-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/30/2006 4:04:51 PM
Live Time: 600.0 seconds
Real Time: 600.4 seconds

Energy Calibration Date: 5/10/2006
Eff Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-233-F-G
Log Number: NOL-05-01-233
Title: NOL-05-01-233-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	946-	960	953.75	238.45	1.61	1.12E+002	40.60	1.10E+002
2	2322-	2339	2330.14	582.58	0.37	8.41E+001	25.24	2.49E+001
3	2427-	2440	2434.45	608.65	0.74	4.40E+001	21.72	2.80E+001
4	3631-	3649	3640.98	910.31	0.85	5.39E+001	23.53	2.61E+001
5	5829-	5850	5839.20	1459.91	1.55	2.98E+002	37.94	2.09E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-233-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/Gram)	Activity Uncertainty
K-40	0.973	1460.81*		10.67	1.59671E+001	2.32664E+000
TL-208	0.467	277.35		6.80		
		510.84		21.60		
		583.14*		84.20	4.49324E-001	1.40806E-001
		860.37		12.46		
Pb-212	0.335	74.81	@	10.70		
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	8.98096E-001	3.56272E-001
Bi-214	0.391	609.31*		46.30	4.32111E-001	2.16432E-001
		1120.29		15.10		
		1764.49		15.80		

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-233-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Gram)	Wt mean Activity Uncertainty
K-40	0.973	1.596708E+001	2.326639E+000
TL-208	0.467	4.493242E-001	1.408060E-001
Pb-212 @	0.335	8.980962E-001	3.562715E-001
Bi-214	0.391	4.321114E-001	2.164323E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
4	910.31	8.9766E-002	43.68

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-233-F-G
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Co-60	1173.22	100.00	2.2470E-001	1.45E-001	2.5629E-001
	1332.49	100.00	1.4504E-001		-1.3963E-002
Nb-94	702.63	100.00	2.1474E-001	1.85E-001	-1.0147E-001
	871.10	100.00	1.8518E-001		2.9338E-002
Ag-108m	79.20	7.10	8.6172E+000	2.34E-001	-6.8266E+000
	433.93	89.90	2.4605E-001		-2.1670E-001
	614.37	90.40	2.5853E-001		-1.0305E-001
	722.95	90.50	2.3366E-001		1.1662E-001
Sb-125	176.33	6.89	4.5541E+000	7.42E-001	-1.9041E+000
	427.89	29.33	7.4227E-001		-2.9824E-001
	463.38	10.35	2.1363E+000		7.3253E-001
	600.56	17.80	1.1351E+000		6.3020E-001
	606.64	5.02	5.0274E+000		5.9046E+000
	635.90	11.32	1.8919E+000		2.4165E-001
Cs-134	563.23	8.38	2.3740E+000	2.46E-001	-5.3334E-001
	569.32	15.43	1.2389E+000		2.6837E-002
	604.70	97.60	2.5742E-001		5.1100E-002
	795.84	85.40	2.4627E-001		1.3130E-001
	801.93	8.73	2.2757E+000		1.6258E-001
Cs-137	661.65	85.12	2.5800E-001	2.58E-001	7.2221E-002
Eu-152	121.78	28.40	1.4283E+000	6.29E-001	9.4172E-001
	244.69	7.49	3.4694E+000		-3.0875E+000
	344.27	26.50	8.6896E-001		-1.1866E+000
	778.89	12.74	1.6007E+000		-1.8182E-001
	867.32	4.16	4.2933E+000		-1.2253E+000
	964.01	14.40	1.7232E+000		1.5499E+000
	1085.78	10.00	1.8635E+000		-8.4146E-001
	1112.02	13.30	1.4236E+000		-1.3827E+000
	1407.95	20.70	6.2909E-001		3.6513E-001
Eu-154	123.07	40.50	9.7793E-001	4.94E-001	-2.4854E-001
	247.94	6.60	3.9506E+000		-1.7497E+000
	591.81	4.83	4.1447E+000		5.9615E-002
	723.30	19.70	1.0673E+000		6.5168E-001
	756.87	4.33	4.4249E+000		-2.7320E+000
	873.19	11.50	1.5698E+000		-1.6527E-001
	996.32	10.30	1.7669E+000		2.2514E-001
	1004.76	17.90	9.7986E-001		-1.5462E+000
	1274.45	35.50	4.9387E-001		1.7881E-001
Eu-155	86.54	30.90	1.8344E+000	1.83E+000	-9.6361E-003
	105.31	20.70	2.1148E+000		3.3153E-001
Am-241	59.54	35.90	1.8199E+000	1.82E+000	-4.1233E-001
Cm-243	228.19	10.56	2.5965E+000	1.79E+000	5.6230E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.7886E+000	1.79E+000	5.8811E-001

+ = 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

Report Generated On 5/31/2006 4:14:31 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-234-F-G
Sample ID: NOL-05-01-234
Sample Title: NOL-05-01-234-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/30/2006 3:34:05 PM
Live Time: 600.0 seconds
Real Time: 600.5 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-234-F-G
Log Number: NOL-05-01-234
Title: NOL-05-01-234-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	285-	306	291.51	72.71	0.81	1.13E+002	37.22	4.52E+002
m	2	285-	306	300.19	74.88	0.81	2.35E+002	46.63	5.33E+002
	3	331-	345	338.90	84.56	0.96	1.60E+002	82.65	5.60E+002
	4	944-	959	953.90	238.35	1.07	1.41E+002	47.79	1.51E+002
	5	1176-	1185	1179.87	294.86	0.38	2.34E+001	23.62	5.26E+001
	6	1400-	1411	1406.68	351.58	0.50	4.65E+001	28.38	6.45E+001
	7	2323-	2341	2330.02	582.49	0.91	1.13E+002	29.88	3.56E+001
	8	2427-	2444	2434.53	608.62	1.08	7.29E+001	28.65	4.31E+001
	9	3434-	3445	3439.71	859.99	0.70	1.55E+001	13.87	1.35E+001
	10	3633-	3648	3641.46	910.45	1.44	7.01E+001	22.87	2.19E+001
	11	3865-	3881	3873.07	968.37	0.65	6.30E+001	21.15	1.70E+001
	12	5829-	5852	5840.56	1460.39	1.67	4.67E+002	43.43	6.00E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-234-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.994	1460.81*	10.67	2.50191E+001	2.92655E+000
TL-208	0.614	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	6.05946E-001	1.68728E-001
		860.37*	12.46	6.16937E-001	5.54637E-001
Pb-212	0.523	74.81* @	10.70	1.11857E+001	3.02026E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.13266E+000	4.24267E-001
Bi-214	0.390	609.31*	46.30	7.15729E-001	2.87919E-001
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.583	74.82* @	6.21	1.92733E+001	5.38878E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	4.61738E-001	4.71787E-001
		351.92*	37.20	4.96357E-001	3.11054E-001
Ac-228	0.626	338.32	11.40		
		911.07*	27.70	1.27376E+000	4.26707E-001
		969.11*	16.60	1.94287E+000	6.65321E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-234-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40		0.994	2.501910E+001	2.926551E+000
TL-208		0.614	6.068766E-001	1.614238E-001
Pb-212	@	0.523	1.132657E+000	4.242666E-001
Bi-214		0.390	7.157291E-001	2.879193E-001
PB-214	@	0.583	4.858677E-001	2.596912E-001
Ac-228		0.626	1.468774E+000	3.591821E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.71	1.8793E-001	33.01
3	84.56	2.6603E-001	51.78

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-234-F-G
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	2.0419E-001	1.99E-001	6.9050E-002
	1332.49	100.00	1.9886E-001		8.7211E-002
Nb-94	702.63	100.00	1.9736E-001	1.97E-001	-1.1453E-001
	871.10	100.00	2.0157E-001		6.3619E-002
Ag-108m	79.20	7.10	9.8904E+000	2.73E-001	-5.5321E+000
	433.93	89.90	2.9851E-001		2.9695E-001
	614.37	90.40	2.7589E-001		7.1410E-002
	722.95	90.50	2.7341E-001		1.2552E-001
Sb-125	176.33	6.89	4.8014E+000	7.85E-001	4.8447E+000
	427.89	29.33	7.8459E-001		-1.9971E-001
	463.38	10.35	2.3994E+000		1.4568E+000
	600.56	17.80	1.2829E+000		-1.3968E-001
	606.64	5.02	5.9255E+000		6.9799E+000
	635.90	11.32	1.9019E+000		-1.3422E+000
Cs-134	563.23	8.38	2.8241E+000	2.58E-001	1.8579E+000
	569.32	15.43	1.5187E+000		2.6780E-001
	604.70	97.60	3.0212E-001		-2.2721E-004
	795.84	85.40	2.5811E-001		-2.9847E-002
	801.93	8.73	2.2437E+000		-4.0404E-001
Cs-137	661.65	85.12	2.6063E-001	2.61E-001	-6.9452E-002
Eu-152	121.78	28.40	1.5483E+000	7.48E-001	6.8908E-001
	244.69	7.49	3.6310E+000		-4.4822E+000
	344.27	26.50	9.6482E-001		6.2686E-001
	778.89	12.74	1.4702E+000		-2.2515E+000
	867.32	4.16	4.6651E+000		-4.5745E+000
	964.01	14.40	2.0648E+000		-1.2184E+000
	1085.78	10.00	2.1093E+000		-1.8638E+000
	1112.02	13.30	1.4752E+000		-1.4412E+000
	1407.95	20.70	7.4784E-001		-3.9389E-001
Eu-154	123.07	40.50	1.0942E+000	5.88E-001	9.0717E-001
	247.94	6.60	4.0935E+000		5.8328E-001
	591.81	4.83	4.5822E+000		2.8203E+000
	723.30	19.70	1.2771E+000		1.2144E+000
	756.87	4.33	5.3782E+000		-4.6814E-001
	873.19	11.50	1.7412E+000		1.5310E+000
	996.32	10.30	1.9256E+000		-2.8950E-001
	1004.76	17.90	1.0840E+000		7.2068E-001
	1274.45	35.50	5.8826E-001		4.0920E-004
Eu-155	86.54	30.90	2.1755E+000	2.18E+000	-1.9224E-001
	105.31	20.70	2.4353E+000		3.0472E-001
Am-241	59.54	35.90	2.6625E+000	2.66E+000	-1.4754E+000
Cm-243	228.19	10.56	2.5720E+000	1.94E+000	-2.8326E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.9385E+000	1.94E+000	1.3040E+000

+ = 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

Report Generated On 5/31/2006 8:23:09 AM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-01-235
Sample Title: NOL-05-01-235-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/31/2006 8:13:07 AM
Live Time: 600.0 seconds
Real Time: 600.5 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-01-235
Title: NOL-05-01-235-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	284-	304	291.51	72.71	0.99	1.96E+002	40.02	4.69E+002
m	2	284-	304	300.34	74.91	0.99	3.74E+002	50.02	4.32E+002
	3	334-	345	338.35	84.42	1.15	8.91E+001	67.31	4.28E+002
	4	949-	960	954.35	238.47	0.85	1.22E+002	41.37	1.27E+002
	5	1402-	1415	1407.57	351.81	0.75	5.00E+001	31.59	7.50E+001
	6	2035-	2054	2043.81	510.91	0.40	1.04E+002	29.14	3.35E+001
	7	2325-	2342	2331.69	582.91	1.48	1.13E+002	26.98	2.35E+001
	8	3637-	3653	3644.40	911.18	0.71	6.30E+001	21.67	1.90E+001
	9	3852-	3863	3857.74	964.53	0.80	2.01E+001	15.82	1.69E+001
	10	4477-	4488	4482.70	1120.82	0.42	1.88E+001	15.81	1.82E+001
	11	5831-	5855	5844.30	1461.32	1.58	5.15E+002	45.07	3.28E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
ANN	1.000	511.00*	100.00	4.56001E-001	1.42394E-001
K-40	0.991	1460.81*	10.67	2.74403E+001	3.27236E+000
TL-208	0.752	277.35	6.80		
		510.84*	21.60	2.11112E+000	6.81403E-001
		583.14*	84.20	6.08876E-001	1.65712E-001
		860.37	12.46		
Pb-212	0.524	74.81* @	10.70	1.84856E+001	4.38514E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	9.95797E-001	3.72976E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
ANN	1.000	3.244838E-001	1.467612E-001
K-40	0.991	2.744025E+001	3.272362E+000
TL-208	0.752	6.088760E-001	1.645201E-001
Pb-212 @	0.524	9.957974E-001	3.729755E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.71	3.2620E-001	20.45
3	84.42	1.4852E-001	75.53
5	351.81	8.3323E-002	63.18
8	911.18	1.0508E-001	34.37
9	964.53	3.3435E-002	78.85
10	1120.82	3.1329E-002	84.10

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	2.3727E-001	1.85E-001	2.5170E-001
	1332.49	100.00	1.8524E-001		9.7592E-003
Nb-94	702.63	100.00	2.3277E-001	2.19E-001	1.5862E-002
	871.10	100.00	2.1873E-001		-1.1289E-002
Ag-108m	79.20	7.10	9.8582E+000	2.66E-001	-2.7868E+001
	433.93	89.90	2.7501E-001		3.7002E-002
	614.37	90.40	2.8871E-001		-3.8141E-001
	722.95	90.50	2.6590E-001		2.2042E-001
Sb-125	176.33	6.89	4.8855E+000	7.75E-001	1.5457E+000
	427.89	29.33	7.7455E-001		2.3775E-001
	463.38	10.35	2.3663E+000		7.0972E-001
	600.56	17.80	1.2656E+000		-9.3204E-001
	606.64	5.02	5.7155E+000		6.9758E+000
	635.90	11.32	1.7779E+000		6.3581E-001
Cs-134	563.23	8.38	2.9796E+000	2.50E-001	8.1804E-001
	569.32	15.43	1.3776E+000		-1.3016E+000
	604.70	97.60	2.7992E-001		-2.8196E-001
	795.84	85.40	2.5007E-001		2.8575E-002
	801.93	8.73	2.5075E+000		-1.1891E-001
Cs-137	661.65	85.12	2.7400E-001	2.74E-001	-2.2898E-002
Eu-152	121.78	28.40	1.5495E+000	8.02E-001	4.2934E-001
	244.69	7.49	3.9228E+000		-9.8049E-001
	344.27	26.50	1.0162E+000		8.5722E-001
	778.89	12.74	1.6888E+000		1.3691E-001
	867.32	4.16	5.4053E+000		-3.0375E+000
	964.01	14.40	1.9675E+000		1.1292E+000
	1085.78	10.00	2.0147E+000		-1.6507E+000
	1112.02	13.30	1.7741E+000		1.4989E+000
	1407.95	20.70	8.0240E-001		5.8198E-001
Eu-154	123.07	40.50	1.0722E+000	5.59E-001	4.5310E-001
	247.94	6.60	4.2565E+000		4.1576E-002
	591.81	4.83	4.4232E+000		1.9080E+000
	723.30	19.70	1.2486E+000		1.6918E+000
	756.87	4.33	5.0257E+000		2.9896E+000
	873.19	11.50	1.8462E+000		2.6849E-001
	996.32	10.30	2.0055E+000		-1.0347E+000
	1004.76	17.90	1.1405E+000		6.5802E-001
	1274.45	35.50	5.5879E-001		-4.1926E-001
Eu-155	86.54	30.90	2.1127E+000	2.11E+000	9.9876E-001
	105.31	20.70	2.4457E+000		-1.1465E+000
Am-241	59.54	35.90	2.6424E+000	2.64E+000	9.6473E-001
Cm-243	228.19	10.56	2.9028E+000	2.03E+000	1.6947E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	2.0252E+000	2.03E+000	7.3231E-001

+ = 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

Report Generated On 5/31/2006 4:14:48 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-236-F-G
Sample ID: NOL-05-01-236
Sample Title: NOL-05-01-236-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/31/2006 10:54:49 AM
Live Time: 600.0 seconds
Real Time: 600.5 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-236-F-G
Log Number: NOL-05-01-236
Title: NOL-05-01-236-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	285-	305	291.88	72.80	0.87	1.07E+002	35.97	4.41E+002
m	2	285-	305	300.52	74.96	0.87	2.22E+002	45.23	4.98E+002
	3	332-	345	340.50	84.96	0.95	9.73E+001	72.02	4.53E+002
	4	950-	962	954.89	238.60	0.42	1.13E+002	40.63	1.17E+002
	5	1404-	1413	1408.48	352.03	0.67	3.91E+001	25.75	5.89E+001
	6	2037-	2054	2043.94	510.95	0.40	7.80E+001	32.85	6.20E+001
	7	2326-	2340	2332.16	583.02	1.74	6.78E+001	26.36	3.92E+001
	8	2430-	2445	2437.66	609.41	0.80	6.89E+001	23.80	2.61E+001
	9	3869-	3885	3877.07	969.37	0.47	5.36E+001	23.15	2.74E+001
	10	5834-	5860	5846.75	1461.94	1.86	4.81E+002	42.99	0.00E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-236-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
ANN	1.000	511.00*	100.00	3.40002E-001	1.46055E-001
K-40	0.957	1460.81*	10.67	2.57742E+001	2.94158E+000
TL-208	0.753	277.35	6.80		
		510.84*	21.60	1.57409E+000	6.88291E-001
		583.14*	84.20	3.62369E-001	1.44614E-001
		860.37	12.46		
Pb-212	0.524	74.81* @	10.70	1.05503E+001	2.89214E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	9.06274E-001	3.57022E-001
Bi-214	0.400	609.31*	46.30	6.77026E-001	2.40806E-001
		1120.29	15.10		
		1764.49	15.80		

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-236-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
ANN	1.000	2.617307E-001	1.493361E-001
K-40	0.957	2.577420E+001	2.941579E+000
TL-208	0.753	3.623688E-001	1.441308E-001
Pb-212 @	0.524	9.062744E-001	3.570218E-001
Bi-214	0.400	6.770259E-001	2.408057E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.80	1.7800E-001	33.68
3	84.96	1.6211E-001	74.04
5	352.03	6.5136E-002	65.90
9	969.37	8.9275E-002	43.22

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-236-F-G
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	2.1550E-001	1.71E-001	3.2277E-002
	1332.49	100.00	1.7103E-001		-7.3071E-002
Nb-94	702.63	100.00	2.2630E-001	1.97E-001	-1.0997E-001
	871.10	100.00	1.9725E-001		2.9108E-002
Ag-108m	79.20	7.10	9.3694E+000	2.37E-001	-1.0249E+001
	433.93	89.90	2.3681E-001		-2.5173E-001
	614.37	90.40	2.7379E-001		-1.4840E-001
	722.95	90.50	2.5187E-001		-7.8728E-002
Sb-125	176.33	6.89	4.5304E+000	7.58E-001	-3.0955E+000
	427.89	29.33	7.5767E-001		5.8086E-001
	463.38	10.35	2.2761E+000		-4.8257E-001
	600.56	17.80	1.2712E+000		3.5536E-002
	606.64	5.02	5.2449E+000		3.2919E+000
	635.90	11.32	1.7566E+000		-6.7175E-002
Cs-134	563.23	8.38	2.3463E+000	2.58E-001	9.6392E-002
	569.32	15.43	1.3510E+000		-6.8857E-001
	604.70	97.60	2.6309E-001		5.9511E-002
	795.84	85.40	2.5811E-001		1.4561E-001
	801.93	8.73	2.3989E+000		-6.1275E-001
Cs-137	661.65	85.12	2.5400E-001	2.54E-001	2.7068E-001
Eu-152	121.78	28.40	1.4809E+000	8.38E-001	6.5908E-001
	244.69	7.49	3.8467E+000		2.1623E+000
	344.27	26.50	9.2501E-001		7.3645E-002
	778.89	12.74	1.6418E+000		1.8173E-001
	867.32	4.16	4.8052E+000		-3.8836E+000
	964.01	14.40	1.9059E+000		-4.0880E-001
	1085.78	10.00	2.0939E+000		-1.2033E+000
	1112.02	13.30	1.3835E+000		-9.7209E-001
	1407.95	20.70	8.3805E-001		6.0892E-001
Eu-154	123.07	40.50	1.0196E+000	5.83E-001	2.2793E-001
	247.94	6.60	4.2234E+000		-4.1296E-002
	591.81	4.83	4.6257E+000		9.1685E-001
	723.30	19.70	1.1572E+000		-6.4117E-001
	756.87	4.33	4.9691E+000		1.4934E+000
	873.19	11.50	1.7287E+000		-1.4341E-001
	996.32	10.30	2.2587E+000		7.9116E-001
	1004.76	17.90	1.1018E+000		1.2983E+000
	1274.45	35.50	5.8345E-001		-1.4757E-001
Eu-155	86.54	30.90	2.0573E+000	2.06E+000	4.9546E-001
	105.31	20.70	2.2824E+000		-1.4430E+000
Am-241	59.54	35.90	2.5116E+000	2.51E+000	-2.0607E+000
Cm-243	228.19	10.56	2.5373E+000	1.85E+000	-5.1142E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.8501E+000	1.85E+000	-1.4577E+000

+ = 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

Report Generated On 5/31/2006 4:15:04 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-237-F-G
Sample ID: NOL-05-01-237
Sample Title: NOL-05-01-237-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/31/2006 11:37:22 AM
Live Time: 600.0 seconds
Real Time: 600.5 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-237-F-G
Log Number: NOL-05-01-237
Title: NOL-05-01-237-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	288-	306	291.94	72.81	0.92	1.13E+002	36.53	3.60E+002
m	2	288-	306	300.68	75.00	0.92	2.82E+002	48.00	5.28E+002
	3	336-	345	339.91	84.81	0.97	1.20E+002	60.03	3.58E+002
	4	945-	961	955.09	238.65	0.90	9.75E+001	50.94	1.85E+002
	5	2033-	2050	2043.69	510.88	1.26	7.12E+001	34.58	7.38E+001
	6	2329-	2340	2333.54	583.37	0.91	4.90E+001	23.22	3.60E+001
	7	2430-	2446	2437.08	609.26	1.35	6.30E+001	25.06	3.20E+001
	8	3639-	3652	3646.06	911.60	0.94	4.72E+001	20.57	2.28E+001
	9	3870-	3882	3876.18	969.15	0.41	3.28E+001	20.54	2.93E+001
	10	5836-	5861	5847.08	1462.02	2.15	4.37E+002	42.73	9.28E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-237-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
ANN	1.000	511.00*	100.00	3.10163E-001	1.53025E-001
K-40	0.950	1460.81*	10.67	2.34021E+001	2.82898E+000
TL-208	0.752	277.35	6.80		
		510.84*	21.60	1.43594E+000	7.18090E-001
		583.14*	84.20	2.61930E-001	1.26369E-001
		860.37	12.46		
Pb-212	0.524	74.81* @	10.70	1.33798E+001	3.35034E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	7.83703E-001	4.28076E-001
Bi-214	0.400	609.31*	46.30	6.18944E-001	2.51783E-001
		1120.29	15.10		
		1764.49	15.80		
Ac-228	0.633	338.32	11.40		
		911.07*	27.70	8.57864E-001	3.79485E-001
		969.11*	16.60	1.01019E+000	6.37096E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-237-F-G

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
ANN		1.000	2.535864E-001	1.554296E-001
K-40		0.950	2.340208E+001	2.828975E+000
TL-208		0.752	2.619297E-001	1.260800E-001
Pb-212	@	0.524	7.837032E-001	4.280762E-001
Bi-214		0.400	6.189442E-001	2.517826E-001
Ac-228		0.633	8.977544E-001	3.260298E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.81	1.8774E-001	32.43
3	84.81	1.9938E-001	50.18

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-05-01-237-F-G
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	2.4061E-001	1.79E-001	1.9718E-001
	1332.49	100.00	1.7946E-001		1.0880E-001
Nb-94	702.63	100.00	2.2060E-001	1.96E-001	7.4992E-002
	871.10	100.00	1.9578E-001		-1.8746E-001
Ag-108m	79.20	7.10	9.4592E+000	2.48E-001	-8.4844E+000
	433.93	89.90	2.6163E-001		-1.3208E-001
	614.37	90.40	2.6952E-001		-5.7063E-002
	722.95	90.50	2.4808E-001		-2.2053E-001
Sb-125	176.33	6.89	4.6187E+000	7.64E-001	-1.3453E+000
	427.89	29.33	7.6374E-001		1.1339E-001
	463.38	10.35	2.1898E+000		-4.2205E-001
	600.56	17.80	1.1739E+000		-7.8839E-001
	606.64	5.02	5.3848E+000		-5.2205E-001
	635.90	11.32	1.7348E+000		-1.3720E+000
Cs-134	563.23	8.38	2.5717E+000	2.40E-001	-8.8752E-002
	569.32	15.43	1.4070E+000		8.7993E-001
	604.70	97.60	2.5837E-001		5.8266E-002
	795.84	85.40	2.4011E-001		-6.9012E-002
	801.93	8.73	2.1107E+000		-1.1951E+000
Cs-137	661.65	85.12	2.4579E-001	2.46E-001	1.0950E-001
Eu-152	121.78	28.40	1.4659E+000	8.06E-001	-9.6928E-001
	244.69	7.49	3.6879E+000		6.6314E-001
	344.27	26.50	9.0024E-001		-2.4398E-001
	778.89	12.74	1.6719E+000		-8.0932E-001
	867.32	4.16	4.8052E+000		-6.5323E+000
	964.01	14.40	1.8908E+000		-1.2002E+000
	1085.78	10.00	1.9823E+000		1.5593E+000
	1112.02	13.30	1.5370E+000		-4.2675E-001
	1407.95	20.70	8.0553E-001		5.2682E-001
Eu-154	123.07	40.50	1.0293E+000	5.54E-001	-2.2768E-001
	247.94	6.60	3.8464E+000		-7.9095E-001
	591.81	4.83	4.2644E+000		-1.8015E-001
	723.30	19.70	1.1572E+000		-7.6988E-001
	756.87	4.33	4.8245E+000		1.1323E+000
	873.19	11.50	1.7287E+000		-2.0125E-002
	996.32	10.30	2.0432E+000		9.7393E-001
	1004.76	17.90	1.0094E+000		-8.3087E-001
	1274.45	35.50	5.5363E-001		-6.4683E-002
Eu-155	86.54	30.90	2.1188E+000	2.12E+000	2.3307E+000
	105.31	20.70	2.3540E+000		6.5133E-001
Am-241	59.54	35.90	2.5238E+000	2.52E+000	5.1808E-001
Cm-243	228.19	10.56	2.6111E+000	1.98E+000	1.4005E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.9792E+000	1.98E+000	-1.3940E+000

+ = 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

Report Generated On 6/2/2006 8:33:33 AM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-01-238-F-
Sample Title: NOL-05-01-238-F-G-I
Description:

Sample Type:
Geometry:

Acquisition Started: 6/2/2006 8:28:34 AM
Live Time: 300.0 seconds
Real Time: 300.2 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 6/1/2006
Calibration Efficiency: 6279_SOIL_1M90
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-01-238-F-
Title: NOL-05-01-238-F-G-I
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	284-	306	291.37	72.67	0.96	1.13E+002	35.27	4.33E+002
m	2	284-	306	300.34	74.91	0.96	1.45E+002	37.15	4.12E+002
	3	946-	959	954.21	238.43	1.21	6.16E+001	31.66	7.24E+001
	4	2327-	2338	2332.80	583.18	0.43	3.05E+001	18.25	2.25E+001
	5	3638-	3651	3643.85	911.04	0.26	2.91E+001	19.65	2.59E+001
	6	3871-	3883	3876.08	969.12	0.56	2.59E+001	15.22	1.21E+001
	7	5834-	5854	5844.20	1461.30	1.56	2.53E+002	32.86	7.74E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.992	1460.81*	10.67	2.07121E+001	3.16764E+000
TL-208	0.471	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	2.71023E-001	1.65777E-001
		860.37	12.46		
Pb-212	0.518	74.81* @	10.70	1.10388E+001	3.56421E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	8.14459E-001	4.37774E-001
Ac-228	0.643	338.32	11.40		
		911.07*	27.70	8.42852E-001	5.76696E-001
		969.11*	16.60	1.26595E+000	7.56384E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40	0.992	2.071210E+001	3.167635E+000
TL-208	0.471	2.710229E-001	1.657774E-001
Pb-212 @	0.518	8.144589E-001	4.377745E-001
Ac-228	0.643	9.983878E-001	4.586042E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.67	3.7547E-001	31.31

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	2.5916E-001	2.59E-001	-7.4051E-003
	1332.49	100.00	2.7680E-001		1.8176E-001
Nb-94	702.63	100.00	3.3454E-001	2.65E-001	6.8723E-003
	871.10	100.00	2.6451E-001		-3.0325E-002
Ag-108m	79.20	7.10	1.2239E+001	3.28E-001	-6.3114E+000
	433.93	89.90	3.2817E-001		1.0970E-001
	614.37	90.40	3.7800E-001		-1.2139E-001
	722.95	90.50	3.4179E-001		2.5223E-001
Sb-125	176.33	6.89	6.0330E+000	1.09E+000	-3.5860E+000
	427.89	29.33	1.0929E+000		4.3215E-002
	463.38	10.35	3.0091E+000		1.5293E+000
	600.56	17.80	1.7139E+000		8.5107E-001
	606.64	5.02	7.7149E+000		8.0454E+000
	635.90	11.32	2.2915E+000		-7.5105E-001
Cs-134	563.23	8.38	3.6536E+000	3.26E-001	5.3104E-001
	569.32	15.43	1.8499E+000		-6.9793E-001
	604.70	97.60	3.6594E-001		-1.0408E-001
	795.84	85.40	3.2572E-001		-6.6945E-002
	801.93	8.73	3.1890E+000		3.6161E-001
Cs-137	661.65	85.12	3.4356E-001	3.44E-001	-1.5282E-001
Eu-152	121.78	28.40	1.9844E+000	9.86E-001	4.4593E-001
	244.69	7.49	5.2456E+000		7.8187E-001
	344.27	26.50	1.1835E+000		-4.3500E-001
	778.89	12.74	2.1783E+000		1.2603E-002
	867.32	4.16	6.2870E+000		-3.0864E+000
	964.01	14.40	2.4073E+000		1.4755E-001
	1085.78	10.00	2.5162E+000		-9.8389E-001
	1112.02	13.30	1.9743E+000		-4.7093E-001
	1407.95	20.70	9.8609E-001		5.3417E-001
Eu-154	123.07	40.50	1.3542E+000	7.38E-001	-9.3081E-001
	247.94	6.60	5.5080E+000		1.5924E+000
	591.81	4.83	5.9714E+000		1.2946E+000
	723.30	19.70	1.5702E+000		9.3413E-001
	756.87	4.33	6.3289E+000		-4.1405E+000
	873.19	11.50	2.1477E+000		-2.5786E+000
	996.32	10.30	2.3981E+000		-3.0539E+000
	1004.76	17.90	1.4003E+000		2.1022E-001
	1274.45	35.50	7.3847E-001		5.8111E-002
Eu-155	86.54	30.90	2.6073E+000	2.61E+000	-7.7930E-002
	105.31	20.70	3.1317E+000		-1.9081E+000
Am-241	59.54	35.90	3.4014E+000	3.40E+000	-2.3155E-001
Cm-243	228.19	10.56	3.5285E+000	2.69E+000	9.9388E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	2.6909E+000	2.69E+000	3.3290E+000

+ = 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

Report Generated On 6/2/2006 8:43:52 AM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-01-239-F-
Sample Title: NOL-05-01-239-F-G-I
Description:

Sample Type:
Geometry:

Acquisition Started: 6/2/2006 8:38:50 AM
Live Time: 300.0 seconds
Real Time: 300.3 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 6/1/2006
Calibration Efficiency: 6279_SOIL_1M90
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-01-239-F-
Title: NOL-05-01-239-F-G-I
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	284-	307	291.56	72.72	0.91	1.30E+002	33.38	3.17E+002
m	2	284-	307	300.27	74.90	0.91	2.04E+002	39.02	3.47E+002
	3	680-	687	683.73	170.79	0.39	1.83E+001	21.82	5.17E+001
	4	946-	959	954.60	238.53	0.70	5.99E+001	30.86	6.81E+001
	5	1176-	1185	1180.42	295.00	0.60	2.77E+001	19.65	3.23E+001
	6	2327-	2338	2331.99	582.98	0.33	4.54E+001	17.22	1.26E+001
	7	2431-	2443	2435.98	608.99	0.74	4.13E+001	18.37	1.77E+001
	8	3641-	3652	3646.23	911.64	0.41	2.78E+001	15.36	1.32E+001
	9	5833-	5855	5844.18	1461.29	1.07	2.67E+002	33.35	5.75E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.992	1460.81*	10.67	2.18566E+001	3.25130E+000
TL-208	0.471	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	4.02934E-001	1.61606E-001
		860.37	12.46		
Pb-212	0.518	74.81* @	10.70	1.55702E+001	4.26229E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	7.92305E-001	4.26606E-001
Bi-214	0.383	609.31*	46.30	6.74220E-001	3.11280E-001
		1120.29	15.10		
		1764.49	15.80		

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40	0.992	2.185659E+001	3.251302E+000
TL-208	0.471	4.029343E-001	1.616059E-001
Pb-212 @	0.518	7.923046E-001	4.266061E-001
Bi-214	0.383	6.742203E-001	3.112801E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.72	4.3195E-001	25.76
3	170.79	6.1000E-002	119.24
5	295.00	9.2417E-002	70.88
8	911.64	9.2825E-002	55.15

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	2.8996E-001	2.54E-001	1.1655E-001
	1332.49	100.00	2.5355E-001		1.5492E-001
Nb-94	702.63	100.00	2.8458E-001	2.44E-001	1.6918E-002
	871.10	100.00	2.4385E-001		-4.3797E-002
Ag-108m	79.20	7.10	1.2311E+001	3.04E-001	-1.0121E+001
	433.93	89.90	3.5216E-001		1.7615E-001
	614.37	90.40	3.8226E-001		-1.1496E-001
	722.95	90.50	3.0419E-001		1.3560E-001
Sb-125	176.33	6.89	6.0562E+000	1.06E+000	2.9584E+000
	427.89	29.33	1.0576E+000		-1.0822E-001
	463.38	10.35	2.9913E+000		-1.9328E+000
	600.56	17.80	1.7260E+000		2.3272E-001
	606.64	5.02	7.4763E+000		4.2765E+000
	635.90	11.32	2.5351E+000		7.5945E-001
Cs-134	563.23	8.38	3.4757E+000	3.41E-001	9.6398E-001
	569.32	15.43	1.9764E+000		-1.7457E+000
	604.70	97.60	3.7519E-001		-2.6769E-001
	795.84	85.40	3.4070E-001		1.3004E-001
	801.93	8.73	2.9049E+000		-2.4250E+000
Cs-137	661.65	85.12	3.7041E-001	3.70E-001	1.4743E-001
Eu-152	121.78	28.40	1.8711E+000	9.18E-001	-4.0096E-001
	244.69	7.49	4.6104E+000		8.8861E-001
	344.27	26.50	1.1893E+000		8.0595E-002
	778.89	12.74	2.2190E+000		5.1975E-001
	867.32	4.16	6.1480E+000		-2.3163E+000
	964.01	14.40	2.2657E+000		1.5915E+000
	1085.78	10.00	2.9907E+000		4.7449E-001
	1112.02	13.30	2.0669E+000		7.6380E-002
	1407.95	20.70	9.1799E-001		4.4712E-001
Eu-154	123.07	40.50	1.3313E+000	6.37E-001	4.7232E-001
	247.94	6.60	4.9598E+000		-1.7176E+000
	591.81	4.83	5.7799E+000		-4.1832E+000
	723.30	19.70	1.3975E+000		3.7474E-001
	756.87	4.33	6.5086E+000		-2.9886E+000
	873.19	11.50	2.2759E+000		-2.9684E-001
	996.32	10.30	2.6904E+000		1.9879E+000
	1004.76	17.90	1.4179E+000		-1.6375E-001
	1274.45	35.50	6.3738E-001		-3.1025E-001
Eu-155	86.54	30.90	2.7865E+000	2.79E+000	1.6106E+000
	105.31	20.70	3.1376E+000		-1.7215E+000
Am-241	59.54	35.90	3.3148E+000	3.31E+000	3.5091E-001
Cm-243	228.19	10.56	3.3787E+000	2.41E+000	9.9720E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	2.4085E+000	2.41E+000	-4.1043E-001

+ = 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

Report Generated On 6/2/2006 9:36:24 AM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-01-240-F-
Sample Title: NOL-05-01-240-F-G-I
Description:

Sample Type:
Geometry:

Acquisition Started: 6/2/2006 9:31:22 AM
Live Time: 300.0 seconds
Real Time: 300.3 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 6/1/2006
Calibration Efficiency: 6279_SOIL_1M90
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-01-240-F-
Title: NOL-05-01-240-F-G-I
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	287-	306	291.90	72.80	0.79	5.68E+001	28.06	2.55E+002
m	2	287-	306	300.27	74.90	0.79	1.39E+002	36.01	3.05E+002
	3	946-	960	954.93	238.61	0.69	7.57E+001	32.68	7.03E+001
	4	1402-	1412	1406.73	351.60	0.40	4.15E+001	21.02	3.05E+001
	5	2033-	2048	2041.73	510.39	0.99	4.90E+001	24.64	3.60E+001
	6	2327-	2336	2331.34	582.82	0.38	2.15E+001	17.59	2.55E+001
	7	5835-	5858	5844.62	1461.40	2.31	2.47E+002	33.81	1.35E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
ANN	0.987	511.00*	100.00	3.53077E-001	1.83989E-001
K-40	0.988	1460.81*	10.67	2.01624E+001	3.21104E+000
TL-208	0.747	277.35	6.80		
		510.84*	21.60	1.63462E+000	8.62198E-001
		583.14*	84.20	1.90875E-001	1.58042E-001
		860.37	12.46		
Pb-212	0.519	74.81* @	10.70	1.06288E+001	3.44686E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.00161E+000	4.59948E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
ANN	0.987	3.118481E-001	1.871243E-001
K-40	0.988	2.016239E+001	3.211042E+000
TL-208	0.747	1.908752E-001	1.579193E-001
Pb-212 @	0.519	1.001611E+000	4.599484E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.80	1.8937E-001	49.40
4	351.60	1.3817E-001	50.72

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	3.0956E-001	2.77E-001	-3.0578E-002
	1332.49	100.00	2.7680E-001		-6.5737E-002
Nb-94	702.63	100.00	2.8951E-001	2.84E-001	1.2883E-001
	871.10	100.00	2.8354E-001		6.9399E-002
Ag-108m	79.20	7.10	1.2556E+001	3.22E-001	-5.6657E+000
	433.93	89.90	3.2188E-001		-8.7266E-002
	614.37	90.40	3.3953E-001		-2.9542E-001
	722.95	90.50	3.6141E-001		2.6264E-002
Sb-125	176.33	6.89	5.9391E+000	9.89E-001	4.2312E+000
	427.89	29.33	9.8935E-001		3.4364E-001
	463.38	10.35	2.9375E+000		-1.0617E+000
	600.56	17.80	1.7017E+000		-7.3560E-002
	606.64	5.02	7.1934E+000		3.3473E+000
	635.90	11.32	2.3606E+000		8.2339E-002
Cs-134	563.23	8.38	3.3965E+000	3.35E-001	-2.5044E+000
	569.32	15.43	1.9900E+000		1.3231E+000
	604.70	97.60	3.6027E-001		1.8974E-001
	795.84	85.40	3.3479E-001		1.1480E-001
	801.93	8.73	2.9706E+000		-3.1587E+000
Cs-137	661.65	85.12	3.8803E-001	3.88E-001	2.8248E-001
Eu-152	121.78	28.40	1.8326E+000	7.89E-001	-8.2569E-001
	244.69	7.49	4.8953E+000		4.6537E-002
	344.27	26.50	1.2291E+000		9.6007E-001
	778.89	12.74	2.2979E+000		-1.5068E+000
	867.32	4.16	6.7493E+000		-3.2605E+000
	964.01	14.40	2.2819E+000		2.6760E-001
	1085.78	10.00	2.7646E+000		-1.9065E-001
	1112.02	13.30	2.0893E+000		6.4437E-001
	1407.95	20.70	7.8940E-001		-7.3389E-002
Eu-154	123.07	40.50	1.2825E+000	6.90E-001	4.3488E-001
	247.94	6.60	5.2326E+000		-1.4215E-001
	591.81	4.83	6.2018E+000		1.2286E+000
	723.30	19.70	1.6713E+000		8.4157E-001
	756.87	4.33	6.8528E+000		-5.1042E+000
	873.19	11.50	2.4433E+000		-2.3818E-001
	996.32	10.30	2.1676E+000		-4.0894E+000
	1004.76	17.90	1.3643E+000		-1.2366E+000
	1274.45	35.50	6.8998E-001		-2.1101E-001
Eu-155	86.54	30.90	2.6776E+000	2.68E+000	2.1120E+000
	105.31	20.70	3.1257E+000		2.1763E+000
Am-241	59.54	35.90	3.3769E+000	3.38E+000	9.0852E-001
Cm-243	228.19	10.56	3.3581E+000	2.44E+000	1.2661E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	2.4445E+000	2.44E+000	-7.0917E-001

+ = 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

Report Generated On 6/2/2006 10:00:43 AM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-01-241-F-
Sample Title: NOL-05-01-241-F-G-I
Description:

Sample Type:
Geometry:

Acquisition Started: 6/2/2006 9:55:42 AM
Live Time: 300.0 seconds
Real Time: 300.4 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 6/1/2006
Calibration Efficiency: 6279_SOIL_1M90
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-01-241-F-
Title: NOL-05-01-241-F-G-I
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	296-	305	300.49	74.95	1.05	1.41E+002	62.84	3.92E+002
2	949-	961	954.37	238.47	0.31	7.52E+001	33.95	8.48E+001
3	1400-	1414	1407.55	351.80	0.80	3.91E+001	25.86	4.69E+001
4	1659-	1668	1663.82	415.89	0.78	2.18E+001	13.27	1.02E+001
5	3637-	3653	3644.57	911.22	0.82	3.44E+001	17.54	1.46E+001
6	5834-	5855	5844.86	1461.46	1.84	2.48E+002	35.02	1.91E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.985	1460.81*	10.67	2.02782E+001	3.30103E+000
Pb-212	0.518	74.81* @	10.70	1.07256E+001	5.22898E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	9.94588E-001	4.75354E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40	0.985	2.027822E+001	3.301027E+000
Pb-212 @	0.518	9.945877E-001	4.753541E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
3	351.80	1.3033E-001	66.13
4	415.89	7.2552E-002	60.96
5	911.22	1.1459E-001	51.03

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	3.3544E-001	3.15E-001	3.1736E-001
	1332.49	100.00	3.1509E-001		2.8252E-001
Nb-94	702.63	100.00	2.8208E-001	2.78E-001	-7.9408E-002
	871.10	100.00	2.7824E-001		-3.3470E-002
Ag-108m	79.20	7.10	1.3931E+001	3.36E-001	-1.6648E+001
	433.93	89.90	3.3637E-001		-2.6105E-001
	614.37	90.40	3.8855E-001		-2.0161E-001
	722.95	90.50	3.3670E-001		1.3730E-001
Sb-125	176.33	6.89	6.3723E+000	1.15E+000	-1.6961E+000
	427.89	29.33	1.1492E+000		4.6804E-001
	463.38	10.35	3.0091E+000		1.4597E+000
	600.56	17.80	1.6395E+000		6.0490E-001
	606.64	5.02	7.4416E+000		3.2936E+000
	635.90	11.32	2.7939E+000		1.2063E+000
Cs-134	563.23	8.38	3.2597E+000	3.38E-001	-2.0991E+000
	569.32	15.43	1.7601E+000		7.9215E-001
	604.70	97.60	3.4863E-001		-3.0401E-001
	795.84	85.40	3.3776E-001		7.3870E-002
	801.93	8.73	3.0974E+000		-1.8169E+000
Cs-137	661.65	85.12	4.1410E-001	4.14E-001	-1.6522E-001
Eu-152	121.78	28.40	2.1112E+000	8.94E-001	2.1750E+000
	244.69	7.49	4.9243E+000		-1.3024E+000
	344.27	26.50	1.2235E+000		-1.6507E+000
	778.89	12.74	2.0945E+000		-6.9472E-001
	867.32	4.16	7.1796E+000		-1.4299E+000
	964.01	14.40	2.1314E+000		1.5851E+000
	1085.78	10.00	2.7646E+000		8.4100E-001
	1112.02	13.30	1.7732E+000		-5.4829E-001
	1407.95	20.70	8.9397E-001		-2.9814E-001
Eu-154	123.07	40.50	1.4621E+000	6.80E-001	-1.6569E-001
	247.94	6.60	5.6405E+000		-2.5617E+000
	591.81	4.83	6.0647E+000		-1.1522E-001
	723.30	19.70	1.5350E+000		7.5849E-001
	756.87	4.33	7.1793E+000		6.3165E+000
	873.19	11.50	2.4433E+000		-1.1026E+000
	996.32	10.30	2.6348E+000		-1.4343E-001
	1004.76	17.90	1.4693E+000		-9.9913E-001
	1274.45	35.50	6.7982E-001		-2.6949E-001
Eu-155	86.54	30.90	3.0149E+000	3.01E+000	3.4574E+000
	105.31	20.70	3.4741E+000		-2.6010E+000
Am-241	59.54	35.90	3.5476E+000	3.55E+000	-2.6379E+000
Cm-243	228.19	10.56	3.7092E+000	2.72E+000	5.5273E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	2.7231E+000	2.72E+000	-2.2460E-002

+ = 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

Report Generated On 6/2/2006 9:49:52 AM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-01-242-F-
Sample Title: NOL-05-01-242-F-G-I
Description:

Sample Type:
Geometry:

Acquisition Started: 6/2/2006 9:44:50 AM
Live Time: 300.0 seconds
Real Time: 300.3 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 6/1/2006
Calibration Efficiency: 6279_SOIL_1M90
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-01-242-F-
Title: NOL-05-01-242-F-G-I
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	296-	308	300.65	74.99	0.74	1.63E+002	70.77	4.32E+002
2	1402-	1412	1407.32	351.74	0.61	2.13E+001	19.30	3.17E+001
3	2327-	2338	2332.60	583.13	0.56	2.80E+001	17.61	2.10E+001
4	2432-	2443	2437.31	609.32	1.05	4.64E+001	17.84	1.46E+001
5	3640-	3651	3645.11	911.36	0.54	2.65E+001	15.99	1.45E+001
6	5833-	5856	5844.85	1461.46	2.12	2.54E+002	31.24	0.00E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.985	1460.81*	10.67	2.07733E+001	3.05863E+000
TL-208	0.471	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	2.48495E-001	1.59568E-001
		860.37	12.46		
Bi-214	0.386	609.31*	46.30	7.58424E-001	3.06000E-001
		1120.29	15.10		
		1764.49	15.80		

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40	0.985	2.077329E+001	3.058634E+000
TL-208	0.471	2.484946E-001	1.595682E-001
Bi-214	0.386	7.584244E-001	3.060001E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
1	74.99	5.4284E-001	43.46
2	351.74	7.0943E-002	90.69
5	911.36	8.8415E-002	60.27

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	3.0956E-001	2.83E-001	1.6926E-002
	1332.49	100.00	2.8306E-001		2.4335E-001
Nb-94	702.63	100.00	2.8706E-001	2.76E-001	-2.4842E-001
	871.10	100.00	2.7556E-001		1.8713E-001
Ag-108m	79.20	7.10	1.2972E+001	3.34E-001	-7.3788E+000
	433.93	89.90	3.5216E-001		-1.3440E-002
	614.37	90.40	3.7800E-001		-5.6001E-002
	722.95	90.50	3.3412E-001		-4.1679E-001
Sb-125	176.33	6.89	5.8317E+000	1.06E+000	1.5570E+000
	427.89	29.33	1.0635E+000		-9.6601E-002
	463.38	10.35	2.8826E+000		1.5043E+000
	600.56	17.80	1.6395E+000		-4.5486E-001
	606.64	5.02	7.5795E+000		5.2940E+000
	635.90	11.32	2.6580E+000		7.2627E-001
Cs-134	563.23	8.38	3.6287E+000	3.41E-001	2.4568E+000
	569.32	15.43	1.7906E+000		-5.5228E-001
	604.70	97.60	3.7702E-001		-9.6639E-002
	795.84	85.40	3.4070E-001		-1.4774E-001
	801.93	8.73	2.9379E+000		-9.0292E-001
Cs-137	661.65	85.12	3.8556E-001	3.86E-001	1.0514E-001
Eu-152	121.78	28.40	1.8868E+000	9.18E-001	6.1060E-001
	244.69	7.49	5.1362E+000		2.5224E+000
	344.27	26.50	1.1659E+000		-4.4172E-001
	778.89	12.74	2.0730E+000		9.8944E-001
	867.32	4.16	7.3557E+000		5.3727E+000
	964.01	14.40	2.5115E+000		6.9759E-001
	1085.78	10.00	2.9635E+000		1.3824E+000
	1112.02	13.30	2.0212E+000		-2.5082E-001
	1407.95	20.70	9.1799E-001		1.3629E-001
Eu-154	123.07	40.50	1.3374E+000	7.38E-001	3.3757E-001
	247.94	6.60	5.3203E+000		-1.3787E+000
	591.81	4.83	6.2915E+000		1.5121E+000
	723.30	19.70	1.5818E+000		-6.8694E-001
	756.87	4.33	7.0180E+000		-1.7811E-001
	873.19	11.50	2.3731E+000		1.8821E-002
	996.32	10.30	2.8244E+000		2.3797E-001
	1004.76	17.90	1.5509E+000		3.7724E-001
	1274.45	35.50	7.3847E-001		8.0050E-002
Eu-155	86.54	30.90	2.6215E+000	2.62E+000	1.0343E+000
	105.31	20.70	3.1494E+000		7.1758E-001
Am-241	59.54	35.90	3.3522E+000	3.35E+000	-2.6781E-001
Cm-243	228.19	10.56	3.3990E+000	2.40E+000	-1.0353E-002

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	2.3994E+000	2.40E+000	-7.8919E-002

+ = 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

Report Generated On 6/2/2006 10:12:14 AM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-01-243-F-
Sample Title: NOL-05-01-243-F-G-I
Description:

Sample Type:
Geometry:

Acquisition Started: 6/2/2006 10:07:12 AM
Live Time: 300.0 seconds
Real Time: 300.3 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 6/1/2006
Calibration Efficiency: 6279_SOIL_1M90
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-01-243-F-
Title: NOL-05-01-243-F-G-I
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	285-	304	292.15	72.87	0.85	8.75E+001	32.62	3.73E+002
m	2	285-	304	300.53	74.96	0.85	2.01E+002	41.09	3.56E+002
	3	666-	673	669.08	167.13	0.32	2.57E+001	25.09	6.83E+001
	4	947-	959	954.18	238.42	0.62	7.17E+001	29.77	6.03E+001
	5	2324-	2338	2331.35	582.82	1.15	4.17E+001	21.90	2.83E+001
	6	3639-	3651	3644.35	911.17	0.69	3.69E+001	19.45	2.21E+001
	7	5831-	5856	5844.64	1461.41	1.85	2.98E+002	33.83	0.00E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.988	1460.81*	10.67	2.43717E+001	3.39862E+000
TL-208	0.469	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.70153E-001	2.00201E-001
		860.37	12.46		
Pb-212	0.518	74.81* @	10.70	1.53320E+001	4.33934E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	9.48042E-001	4.20788E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40	0.988	2.437169E+001	3.398617E+000
TL-208	0.469	3.701533E-001	2.002007E-001
Pb-212 @	0.518	9.480417E-001	4.207883E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.87	2.9155E-001	37.29
3	167.13	8.5780E-002	97.48
6	911.17	1.2305E-001	52.68

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	3.4279E-001	3.26E-001	3.4269E-001
	1332.49	100.00	3.2590E-001		3.6867E-001
Nb-94	702.63	100.00	3.0377E-001	2.78E-001	-2.6739E-001
	871.10	100.00	2.7824E-001		-3.5627E-002
Ag-108m	79.20	7.10	1.3949E+001	3.64E-001	-2.8268E+001
	433.93	89.90	3.6723E-001		4.2547E-001
	614.37	90.40	3.6713E-001		-2.9389E-001
	722.95	90.50	3.6378E-001		-1.0959E-002
Sb-125	176.33	6.89	5.9980E+000	1.18E+000	-4.3112E-001
	427.89	29.33	1.1816E+000		-5.7179E-001
	463.38	10.35	3.5712E+000		2.8450E+000
	600.56	17.80	1.5066E+000		-6.8103E-001
	606.64	5.02	7.2652E+000		6.7322E+000
	635.90	11.32	2.3832E+000		-3.2432E+000
Cs-134	563.23	8.38	3.5785E+000	3.41E-001	-3.9910E+000
	569.32	15.43	1.7133E+000		-2.9569E-001
	604.70	97.60	3.4863E-001		-9.4101E-002
	795.84	85.40	3.4070E-001		8.3104E-002
	801.93	8.73	3.3356E+000		-1.2204E+000
Cs-137	661.65	85.12	4.1639E-001	4.16E-001	-1.4112E-001
Eu-152	121.78	28.40	1.9780E+000	1.05E+000	-9.4365E-001
	244.69	7.49	5.1638E+000		1.6676E+000
	344.27	26.50	1.3309E+000		3.0783E-001
	778.89	12.74	1.9148E+000		-3.4919E+000
	867.32	4.16	6.9372E+000		4.4981E+000
	964.01	14.40	2.3298E+000		1.4311E+000
	1085.78	10.00	2.6436E+000		-4.5563E-001
	1112.02	13.30	2.3798E+000		1.1794E+000
	1407.95	20.70	1.0493E+000		6.5184E-001
Eu-154	123.07	40.50	1.3828E+000	6.80E-001	-6.4404E-001
	247.94	6.60	5.7377E+000		3.6604E+000
	591.81	4.83	6.7206E+000		4.4794E+000
	723.30	19.70	1.7035E+000		1.1556E+000
	756.87	4.33	7.1793E+000		6.2532E-002
	873.19	11.50	2.4201E+000		5.0324E-001
	996.32	10.30	2.7449E+000		-2.0042E-001
	1004.76	17.90	1.4524E+000		1.0077E+000
	1274.45	35.50	6.7982E-001		-8.5107E-001
Eu-155	86.54	30.90	2.9600E+000	2.96E+000	3.6238E+000
	105.31	20.70	3.3186E+000		-6.6611E-001
Am-241	59.54	35.90	3.6626E+000	3.66E+000	8.6349E-001
Cm-243	228.19	10.56	3.4394E+000	2.41E+000	-1.2147E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	2.4085E+000	2.41E+000	-1.3811E+000

+ = 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

Report Generated On 6/2/2006 10:35:13 AM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-01-244-F-
Sample Title: NOL-05-01-244-F-G-I
Description:

Sample Type:
Geometry:

Acquisition Started: 6/2/2006 10:30:11 AM
Live Time: 300.0 seconds
Real Time: 300.4 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 6/1/2006
Calibration Efficiency: 6279_SOIL_1M90
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-01-244-F-
Title: NOL-05-01-244-F-G-I
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	287-	306	290.77	72.52	0.78	7.83E+001	31.93	2.85E+002
m	2	287-	306	300.75	75.02	0.79	1.70E+002	40.04	3.80E+002
	3	949-	962	954.41	238.48	0.70	6.28E+001	35.56	9.22E+001
	4	1401-	1414	1407.09	351.69	1.06	4.66E+001	25.15	4.24E+001
	5	2324-	2338	2331.75	582.92	1.50	4.90E+001	22.80	3.00E+001
	6	2427-	2442	2437.05	609.25	0.78	5.68E+001	21.17	2.02E+001
	7	5834-	5856	5844.92	1461.48	1.38	3.03E+002	34.12	0.00E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.985	1460.81*	10.67	2.47808E+001	3.43671E+000
TL-208	0.470	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	4.34823E-001	2.10103E-001
		860.37	12.46		
Pb-212	0.518	74.81* @	10.70	1.29147E+001	3.96112E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	8.30198E-001	4.87934E-001
Bi-214	0.386	609.31*	46.30	9.27834E-001	3.64114E-001
		1120.29	15.10		
		1764.49	15.80		

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40	0.985	2.478078E+001	3.436711E+000
TL-208	0.470	4.348235E-001	2.101026E-001
Pb-212 @	0.518	8.301982E-001	4.879337E-001
Bi-214	0.386	9.278338E-001	3.641137E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.52	2.6090E-001	40.80
4	351.69	1.5549E-001	53.92

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	3.3544E-001	2.70E-001	9.5074E-002
	1332.49	100.00	2.7038E-001		1.5386E-001
Nb-94	702.63	100.00	3.3662E-001	3.27E-001	6.6437E-002
	871.10	100.00	3.2708E-001		-2.4007E-001
Ag-108m	79.20	7.10	1.3638E+001	3.59E-001	6.0388E-001
	433.93	89.90	3.8694E-001		6.4677E-002
	614.37	90.40	4.0878E-001		-4.4575E-001
	722.95	90.50	3.5902E-001		8.1798E-002
Sb-125	176.33	6.89	6.5136E+000	1.22E+000	1.7570E+000
	427.89	29.33	1.2183E+000		1.1517E-003
	463.38	10.35	3.2948E+000		-1.5878E+000
	600.56	17.80	1.6895E+000		9.5997E-001
	606.64	5.02	7.8806E+000		5.9549E+000
	635.90	11.32	2.7939E+000		-1.2756E+000
Cs-134	563.23	8.38	3.7751E+000	3.81E-001	-1.4094E+000
	569.32	15.43	2.1699E+000		-1.7581E-001
	604.70	97.60	3.8063E-001		-1.6641E-002
	795.84	85.40	3.9705E-001		2.2537E-001
	801.93	8.73	3.5566E+000		-2.0541E+000
Cs-137	661.65	85.12	3.8556E-001	3.86E-001	1.4084E-001
Eu-152	121.78	28.40	2.1192E+000	1.01E+000	6.9639E-002
	244.69	7.49	5.2321E+000		-2.7201E+000
	344.27	26.50	1.3049E+000		6.2960E-001
	778.89	12.74	2.1577E+000		-1.5133E+000
	867.32	4.16	8.0189E+000		-2.1525E+000
	964.01	14.40	2.4822E+000		-4.4677E-001
	1085.78	10.00	3.1744E+000		1.6624E+000
	1112.02	13.30	2.1552E+000		-7.8900E-001
	1407.95	20.70	1.0076E+000		1.8872E-001
Eu-154	123.07	40.50	1.4537E+000	7.75E-001	5.3028E-002
	247.94	6.60	5.7216E+000		-3.9910E+000
	591.81	4.83	6.0182E+000		-4.7245E+000
	723.30	19.70	1.6383E+000		3.5569E-001
	756.87	4.33	7.5913E+000		4.7093E+000
	873.19	11.50	2.8253E+000		2.8770E+000
	996.32	10.30	2.8760E+000		5.9683E-001
	1004.76	17.90	1.6726E+000		1.2849E+000
	1274.45	35.50	7.7489E-001		1.0792E-001
Eu-155	86.54	30.90	2.8745E+000	2.87E+000	2.4645E+000
	105.31	20.70	3.4821E+000		-2.5123E-002
Am-241	59.54	35.90	3.6795E+000	3.68E+000	1.2426E-001
Cm-243	228.19	10.56	4.0201E+000	2.89E+000	-7.7411E-002

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	2.8933E+000	2.89E+000	1.6574E+000

+ = 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

Report Generated On 6/2/2006 10:54:34 AM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-01-245-F-
Sample Title: NOL-05-01-245-F-G-I
Description:

Sample Type:
Geometry:

Acquisition Started: 6/2/2006 10:49:33 AM
Live Time: 300.0 seconds
Real Time: 300.3 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 6/1/2006
Calibration Efficiency: 6279_SOIL_1M90
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-01-245-F-
Title: NOL-05-01-245-F-G-I
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	288-	307	292.22	72.88	1.07	1.14E+002	34.06	2.91E+002
m	2	288-	307	300.32	74.91	1.08	2.18E+002	40.41	4.19E+002
	3	950-	959	954.49	238.50	0.76	5.22E+001	26.18	5.58E+001
	4	1402-	1412	1407.54	351.80	0.38	2.61E+001	18.40	2.59E+001
	5	2324-	2339	2332.39	583.08	0.91	6.24E+001	19.98	1.36E+001
	6	5832-	5855	5844.94	1461.48	1.08	2.57E+002	32.86	6.00E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.984	1460.81*	10.67	2.10187E+001	3.18088E+000
TL-208	0.471	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	5.53582E-001	1.91393E-001
		860.37	12.46		
Pb-212	0.518	74.81* @	10.70	1.65836E+001	4.47860E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	6.90221E-001	3.62729E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40	0.984	2.101869E+001	3.180878E+000
TL-208	0.471	5.535822E-001	1.913928E-001
Pb-212 @	0.518	6.902213E-001	3.627287E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.88	3.8060E-001	29.83
4	351.80	8.6875E-002	70.60

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	3.0133E-001	2.95E-001	2.5799E-001
	1332.49	100.00	2.9514E-001		3.4143E-001
Nb-94	702.63	100.00	3.1289E-001	2.59E-001	1.1529E-001
	871.10	100.00	2.5879E-001		4.5788E-002
Ag-108m	79.20	7.10	1.3176E+001	3.36E-001	-9.1518E-001
	433.93	89.90	3.3637E-001		-1.3866E-001
	614.37	90.40	3.6492E-001		-1.6525E-001
	722.95	90.50	3.7080E-001		3.3544E-002
Sb-125	176.33	6.89	5.9154E+000	9.83E-001	-1.1687E+000
	427.89	29.33	9.8290E-001		4.2940E-003
	463.38	10.35	3.0091E+000		4.2156E-001
	600.56	17.80	1.5066E+000		1.0579E-003
	606.64	5.02	7.0475E+000		6.9478E+000
	635.90	11.32	2.6177E+000		-1.8672E+000
Cs-134	563.23	8.38	3.4757E+000	3.41E-001	2.3469E+000
	569.32	15.43	1.7601E+000		5.7539E-001
	604.70	97.60	3.4064E-001		-1.5829E-001
	795.84	85.40	3.4070E-001		-2.0468E-001
	801.93	8.73	3.3068E+000		6.1107E-001
Cs-137	661.65	85.12	4.0010E-001	4.00E-001	1.5779E-001
Eu-152	121.78	28.40	1.9524E+000	9.86E-001	-5.6309E-001
	244.69	7.49	4.9387E+000		4.6843E+000
	344.27	26.50	1.3206E+000		1.2244E+000
	778.89	12.74	2.4295E+000		3.8496E-001
	867.32	4.16	6.1480E+000		-9.1002E+000
	964.01	14.40	2.1828E+000		1.1225E+000
	1085.78	10.00	2.6436E+000		-1.0318E+000
	1112.02	13.30	2.0212E+000		4.4738E-001
	1407.95	20.70	9.8609E-001		-7.6535E-002
Eu-154	123.07	40.50	1.3558E+000	6.48E-001	4.9704E-002
	247.94	6.60	5.3549E+000		-1.4214E-001
	591.81	4.83	5.6317E+000		-2.9004E+000
	723.30	19.70	1.7247E+000		7.6377E-001
	756.87	4.33	6.5086E+000		2.2002E+000
	873.19	11.50	2.2759E+000		4.0238E-001
	996.32	10.30	2.9765E+000		4.6814E-001
	1004.76	17.90	1.5350E+000		6.7863E-001
	1274.45	35.50	6.4828E-001		-1.2571E-001
Eu-155	86.54	30.90	2.7827E+000	2.78E+000	2.6282E+000
	105.31	20.70	3.2366E+000		1.3890E+000
Am-241	59.54	35.90	3.3522E+000	3.35E+000	-6.8685E-001
Cm-243	228.19	10.56	3.2748E+000	2.43E+000	1.0592E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	2.4266E+000	2.43E+000	4.7312E-001

+ = 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

Report Generated On 6/2/2006 10:43:47 AM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-01-246-F-
Sample Title: NOL-05-01-246-F-G-I
Description:

Sample Type:
Geometry:

Acquisition Started: 6/2/2006 10:38:45 AM
Live Time: 300.0 seconds
Real Time: 300.4 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 6/1/2006
Calibration Efficiency: 6279_SOIL_1M90
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-01-246-F-
Title: NOL-05-01-246-F-G-I
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	284-	305	291.69	72.75	0.94	1.15E+002	34.55	3.87E+002
m	2	284-	305	300.34	74.91	0.95	2.22E+002	42.59	4.34E+002
	3	948-	962	954.36	238.47	0.38	5.83E+001	35.43	9.27E+001
	4	1177-	1187	1180.96	295.14	0.78	3.12E+001	24.44	5.18E+001
	5	1347-	1359	1352.28	337.98	0.98	3.40E+001	24.63	4.70E+001
	6	1400-	1412	1406.60	351.56	0.33	3.24E+001	23.18	4.06E+001
	7	2430-	2442	2436.57	609.13	1.23	3.20E+001	18.36	2.00E+001
	8	3636-	3652	3644.15	911.12	0.65	4.36E+001	20.92	2.14E+001
	9	5836-	5857	5844.49	1461.37	1.77	2.76E+002	34.64	1.10E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.989	1460.81*	10.67	2.25690E+001	3.37132E+000
Pb-212	0.518	74.81* @	10.70	1.68964E+001	4.63787E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	7.70768E-001	4.83915E-001
Bi-214	0.385	609.31*	46.30	5.22215E-001	3.06693E-001
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.580	74.82* @	6.21	2.91130E+001	8.26591E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	1.01276E+000	8.12184E-001
		351.92*	37.20	5.69063E-001	4.17938E-001
Ac-228	0.535	338.32*	11.40	1.92984E+000	1.42861E+000
		911.07*	27.70	1.26014E+000	6.22278E-001
		969.11	16.60		

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40		0.989	2.256901E+001	3.371317E+000
Pb-212	@	0.518	7.707682E-001	4.839151E-001
Bi-214		0.385	5.222146E-001	3.066926E-001
PB-214	@	0.580	6.619563E-001	3.716217E-001
Ac-228		0.535	1.366938E+000	5.705056E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.75	3.8443E-001	29.96

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	2.8704E-001	2.80E-001	-1.5971E-001
	1332.49	100.00	2.7994E-001		1.1629E-001
Nb-94	702.63	100.00	2.9673E-001	2.89E-001	-6.7538E-002
	871.10	100.00	2.8872E-001		2.2236E-001
Ag-108m	79.20	7.10	1.3922E+001	3.69E-001	-1.8258E+001
	433.93	89.90	3.7990E-001		2.8621E-001
	614.37	90.40	3.6933E-001		-1.6776E-001
	722.95	90.50	4.0396E-001		2.8907E-001
Sb-125	176.33	6.89	6.4704E+000	1.17E+000	-1.2942E+000
	427.89	29.33	1.1655E+000		2.1435E-001
	463.38	10.35	3.0960E+000		-2.4361E-001
	600.56	17.80	1.7139E+000		-1.9252E+000
	606.64	5.02	7.1934E+000		3.0316E+000
	635.90	11.32	2.4928E+000		-1.8917E+000
Cs-134	563.23	8.38	3.7989E+000	3.32E-001	-1.6756E-001
	569.32	15.43	2.0948E+000		-2.2950E-001
	604.70	97.60	3.6027E-001		-7.4350E-002
	795.84	85.40	3.3180E-001		-2.2772E-001
	801.93	8.73	3.2778E+000		-1.5195E+000
Cs-137	661.65	85.12	3.7553E-001	3.76E-001	-2.8591E-002
Eu-152	121.78	28.40	2.0220E+000	1.05E+000	1.6999E-001
	244.69	7.49	5.0526E+000		1.4013E-001
	344.27	26.50	1.2235E+000		-2.1360E-001
	778.89	12.74	2.2190E+000		-3.5871E-001
	867.32	4.16	6.6854E+000		-8.5342E+000
	964.01	14.40	2.5548E+000		1.4882E+000
	1085.78	10.00	2.6436E+000		-4.1615E+000
	1112.02	13.30	2.1978E+000		-5.6939E-001
	1407.95	20.70	1.0493E+000		1.3037E-001
Eu-154	123.07	40.50	1.3843E+000	8.26E-001	-1.2208E+000
	247.94	6.60	5.6076E+000		-9.2545E-001
	591.81	4.83	7.0832E+000		-3.5875E+000
	723.30	19.70	1.8363E+000		1.4350E-001
	756.87	4.33	7.1260E+000		2.1305E+000
	873.19	11.50	2.4662E+000		-1.9567E-001
	996.32	10.30	3.0734E+000		1.3237E+000
	1004.76	17.90	1.7016E+000		-8.5634E-002
	1274.45	35.50	8.2625E-001		4.1153E-001
Eu-155	86.54	30.90	3.0827E+000	3.08E+000	4.1086E+000
	105.31	20.70	3.4204E+000		-7.1707E-001
Am-241	59.54	35.90	3.6682E+000	3.67E+000	1.7577E-001
Cm-243	228.19	10.56	3.7552E+000	2.72E+000	1.2742E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	2.7231E+000	2.72E+000	1.0220E+000

+ = 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

Report Generated On 6/2/2006 10:22:50 AM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-01-247-F-
Sample Title: NOL-05-01-247-F-G-I
Description:

Sample Type:
Geometry:

Acquisition Started: 6/2/2006 10:17:48 AM
Live Time: 300.0 seconds
Real Time: 300.4 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 6/1/2006
Calibration Efficiency: 6279_SOIL_1M90
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-01-247-F-
Title: NOL-05-01-247-F-G-I
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	296-	306	300.62	74.98	0.66	8.73E+001	66.40	4.42E+002
2	949-	962	955.22	238.68	1.16	7.04E+001	33.23	7.86E+001
3	2327-	2337	2331.67	582.90	1.65	2.64E+001	17.65	2.16E+001
4	2428-	2441	2435.62	608.90	0.66	5.66E+001	19.55	1.54E+001
5	3639-	3650	3644.61	911.23	0.50	2.86E+001	15.45	1.34E+001
6	5834-	5855	5845.36	1461.59	1.49	2.57E+002	34.43	1.36E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.979	1460.81*	10.67	2.10552E+001	3.29151E+000
TL-208	0.470	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	2.34372E-001	1.59530E-001
		860.37	12.46		
Pb-212	0.518	74.81* @	10.70	6.65078E+000	5.22122E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	9.31340E-001	4.63154E-001
Bi-214	0.382	609.31*	46.30	9.24364E-001	3.38851E-001
		1120.29	15.10		
		1764.49	15.80		

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40		0.979	2.105519E+001	3.291513E+000
TL-208		0.470	2.343717E-001	1.595299E-001
Pb-212	@	0.518	9.313401E-001	4.631536E-001
Bi-214		0.382	9.243638E-001	3.388514E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
5	911.23	9.5198E-002	54.11

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	3.0685E-001	2.89E-001	-5.9403E-003
	1332.49	100.00	2.8917E-001		1.5163E-001
Nb-94	702.63	100.00	3.1955E-001	2.44E-001	6.8761E-002
	871.10	100.00	2.4385E-001		5.9724E-003
Ag-108m	79.20	7.10	1.3684E+001	3.44E-001	-2.1831E+000
	433.93	89.90	3.5789E-001		9.6001E-003
	614.37	90.40	3.8646E-001		-2.3118E-001
	722.95	90.50	3.4431E-001		-6.5348E-002
Sb-125	176.33	6.89	6.3942E+000	1.15E+000	5.4169E+000
	427.89	29.33	1.1546E+000		1.3356E+000
	463.38	10.35	2.9556E+000		-3.4345E+000
	600.56	17.80	1.8195E+000		1.4386E+000
	606.64	5.02	7.8147E+000		2.9712E+000
	635.90	11.32	2.5973E+000		-1.1520E+000
Cs-134	563.23	8.38	3.6287E+000	3.58E-001	-2.1723E+000
	569.32	15.43	2.0820E+000		-4.1313E-002
	604.70	97.60	4.0330E-001		-6.8017E-002
	795.84	85.40	3.5777E-001		1.3289E-001
	801.93	8.73	3.2778E+000		-3.9151E+000
Cs-137	661.65	85.12	3.8058E-001	3.81E-001	5.6211E-002
Eu-152	121.78	28.40	2.1013E+000	9.86E-001	1.3088E+000
	244.69	7.49	4.9960E+000		-3.7188E+000
	344.27	26.50	1.2513E+000		-2.2465E-002
	778.89	12.74	2.2979E+000		1.2575E-001
	867.32	4.16	6.6854E+000		2.4395E+000
	964.01	14.40	2.7073E+000		1.6345E+000
	1085.78	10.00	2.7349E+000		9.8240E-001
	1112.02	13.30	2.0893E+000		-2.1072E+000
	1407.95	20.70	9.8609E-001		1.4154E-002
Eu-154	123.07	40.50	1.4438E+000	7.00E-001	-6.9828E-001
	247.94	6.60	5.6893E+000		-1.5962E+000
	591.81	4.83	5.9242E+000		-4.4053E+000
	723.30	19.70	1.5818E+000		1.6961E-001
	756.87	4.33	7.5411E+000		1.3468E+000
	873.19	11.50	2.0940E+000		-7.5694E-002
	996.32	10.30	2.7449E+000		-1.6708E+000
	1004.76	17.90	1.7016E+000		-3.8140E-001
	1274.45	35.50	6.9997E-001		1.4884E-002
Eu-155	86.54	30.90	2.9743E+000	2.97E+000	4.5618E+000
	105.31	20.70	3.3492E+000		1.2676E+000
Am-241	59.54	35.90	3.6626E+000	3.66E+000	-1.1412E+000
Cm-243	228.19	10.56	3.5285E+000	2.62E+000	-2.4166E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	2.6171E+000	2.62E+000	1.4190E+000

+ = 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

Report Generated On 6/2/2006 11:46:44 AM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-01-248-F-
Sample Title: NOL-05-01-248-F-G-I
Description:

Sample Type:
Geometry:

Acquisition Started: 6/2/2006 11:41:42 AM
Live Time: 300.0 seconds
Real Time: 300.3 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 6/1/2006
Calibration Efficiency: 6279_SOIL_1M90
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-01-248-F-
Title: NOL-05-01-248-F-G-I
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	296-	307	300.56	74.97	1.10	8.46E+001	66.65	4.18E+002
2	948-	959	954.86	238.59	0.71	3.41E+001	28.12	6.79E+001
3	5325-	5337	5331.51	1333.09	0.30	2.58E+001	11.48	3.25E+000
4	5834-	5856	5845.15	1461.53	1.82	2.02E+002	30.13	8.71E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.982	1460.81*		10.67	1.65445E+001	2.80482E+000
Pb-212	0.518	74.81*	@	10.70	6.44346E+000	5.23085E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	4.51344E-001	3.78643E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40	0.982	1.654454E+001	2.804823E+000
Pb-212 @	0.518	4.513441E-001	3.786428E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
3	1333.09	8.5833E-002	44.58

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	3.0956E-001	2.70E-001	2.8902E-001
	1332.49	100.00	2.7038E-001		1.4774E-001
Nb-94	702.63	100.00	2.9434E-001	2.65E-001	-1.1172E-001
	871.10	100.00	2.6451E-001		1.5528E-001
Ag-108m	79.20	7.10	1.2535E+001	3.09E-001	9.2888E-001
	433.93	89.90	3.0887E-001		-1.4279E-001
	614.37	90.40	3.4192E-001		-1.4710E-001
	722.95	90.50	3.2358E-001		-1.3324E-001
Sb-125	176.33	6.89	6.2050E+000	1.00E+000	-2.1506E-001
	427.89	29.33	1.0021E+000		5.8757E-001
	463.38	10.35	3.1804E+000		1.2334E-001
	600.56	17.80	1.4785E+000		-2.7173E-001
	606.64	5.02	6.5492E+000		6.3424E+000
	635.90	11.32	2.4496E+000		5.0670E-002
Cs-134	563.23	8.38	3.3425E+000	2.97E-001	5.0799E-001
	569.32	15.43	1.7601E+000		-9.0223E-001
	604.70	97.60	3.1755E-001		5.3095E-002
	795.84	85.40	2.9671E-001		-4.6169E-002
	801.93	8.73	2.6973E+000		6.1088E-001
Cs-137	661.65	85.12	3.6258E-001	3.63E-001	1.4189E-002
Eu-152	121.78	28.40	1.8957E+000	9.41E-001	-6.2645E-001
	244.69	7.49	5.0666E+000		-7.6799E-001
	344.27	26.50	1.1893E+000		1.4161E-001
	778.89	12.74	2.0291E+000		-1.2560E+000
	867.32	4.16	6.0772E+000		-7.0314E+000
	964.01	14.40	2.2329E+000		1.7616E+000
	1085.78	10.00	2.9359E+000		1.2935E+000
	1112.02	13.30	1.8514E+000		-1.0107E+000
	1407.95	20.70	9.4131E-001		-1.8522E-001
Eu-154	123.07	40.50	1.3000E+000	6.37E-001	-5.9140E-001
	247.94	6.60	5.2678E+000		8.0233E-001
	591.81	4.83	5.6317E+000		9.5211E-001
	723.30	19.70	1.4988E+000		7.1240E-002
	756.87	4.33	6.6254E+000		-5.8867E-001
	873.19	11.50	2.2759E+000		1.5238E+000
	996.32	10.30	2.3667E+000		1.1933E+000
	1004.76	17.90	1.4352E+000		6.1550E-001
	1274.45	35.50	6.3738E-001		3.0747E-001
Eu-155	86.54	30.90	2.6994E+000	2.70E+000	1.3673E+000
	105.31	20.70	3.1405E+000		-1.3542E+000
Am-241	59.54	35.90	3.3086E+000	3.31E+000	-5.8367E-001
Cm-243	228.19	10.56	3.2748E+000	2.35E+000	-5.8032E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	2.3533E+000	2.35E+000	1.2619E+000

+ = 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

Report Generated On 6/2/2006 11:38:19 AM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-01-249-F-
Sample Title: NOL-05-01-249-F-G-I
Description:

Sample Type:
Geometry:

Acquisition Started: 6/2/2006 11:33:18 AM
Live Time: 300.0 seconds
Real Time: 300.3 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 6/1/2006
Calibration Efficiency: 6279_SOIL_1M90
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-01-249-F-
Title: NOL-05-01-249-F-G-I
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	287-	304	292.10	72.85	0.92	8.72E+001	31.15	2.82E+002
m	2	287-	304	300.06	74.84	0.92	1.78E+002	38.26	3.27E+002
	3	948-	959	954.76	238.57	0.51	3.08E+001	28.77	7.32E+001
	4	5833-	5856	5844.94	1461.48	1.83	2.18E+002	31.29	9.14E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.984	1460.81*	10.67	1.78179E+001	2.93792E+000
Pb-212	0.519	74.81* @	10.70	1.35636E+001	3.94894E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	4.07709E-001	3.85881E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40	0.984	1.781791E+001	2.937920E+000
Pb-212 @	0.519	4.077092E-001	3.858814E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.85	2.9072E-001	35.71

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	3.2278E-001	2.74E-001	1.7218E-002
	1332.49	100.00	2.7361E-001		9.6744E-002
Nb-94	702.63	100.00	2.7956E-001	2.80E-001	5.5261E-002
	871.10	100.00	2.9632E-001		-8.5133E-002
Ag-108m	79.20	7.10	1.2835E+001	3.26E-001	-2.1607E+001
	433.93	89.90	3.4436E-001		-5.5259E-003
	614.37	90.40	3.5131E-001		-4.9548E-001
	722.95	90.50	3.2625E-001		-6.5469E-002
Sb-125	176.33	6.89	6.1139E+000	1.05E+000	1.9366E+000
	427.89	29.33	1.0455E+000		-1.5830E-001
	463.38	10.35	2.8266E+000		2.9097E-002
	600.56	17.80	1.4498E+000		-1.0638E+000
	606.64	5.02	6.9733E+000		4.2884E+000
	635.90	11.32	2.0157E+000		-7.2826E-001
Cs-134	563.23	8.38	3.2875E+000	3.16E-001	3.4656E-001
	569.32	15.43	1.8056E+000		4.8635E-001
	604.70	97.60	3.3036E-001		2.5857E-002
	795.84	85.40	3.1637E-001		2.5107E-001
	801.93	8.73	2.5485E+000		-3.6056E+000
Cs-137	661.65	85.12	3.4356E-001	3.44E-001	3.2659E-003
Eu-152	121.78	28.40	1.9308E+000	8.17E-001	-2.1459E-001
	244.69	7.49	4.9531E+000		6.5410E-001
	344.27	26.50	1.1718E+000		-4.7058E-002
	778.89	12.74	2.5013E+000		-7.7097E-001
	867.32	4.16	7.1796E+000		1.7784E+000
	964.01	14.40	2.2819E+000		2.0497E+000
	1085.78	10.00	2.4158E+000		-9.1032E-003
	1112.02	13.30	2.0669E+000		3.4483E-001
	1407.95	20.70	8.1700E-001		-3.9679E-001
Eu-154	123.07	40.50	1.3328E+000	6.80E-001	-8.1066E-002
	247.94	6.60	5.3203E+000		-2.8407E+000
	591.81	4.83	5.9714E+000		2.0107E+000
	723.30	19.70	1.4866E+000		7.5501E-001
	756.87	4.33	6.0803E+000		3.7255E+000
	873.19	11.50	2.5556E+000		-7.8113E-001
	996.32	10.30	2.7981E+000		4.7472E-001
	1004.76	17.90	1.5350E+000		-5.1964E-004
	1274.45	35.50	6.7982E-001		2.3573E-001
Eu-155	86.54	30.90	2.6356E+000	2.64E+000	1.3283E+000
	105.31	20.70	3.2136E+000		9.1526E-001
Am-241	59.54	35.90	3.3117E+000	3.31E+000	-1.2171E-001
Cm-243	228.19	10.56	3.4092E+000	2.38E+000	1.6881E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	2.3811E+000	2.38E+000	-9.2508E-001

+ = 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

Report Generated On 6/2/2006 11:28:19 AM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-01-250-F-
Sample Title: NOL-05-01-250-F-G-I
Description:

Sample Type:
Geometry:

Acquisition Started: 6/2/2006 11:23:18 AM
Live Time: 300.0 seconds
Real Time: 300.3 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 6/1/2006
Calibration Efficiency: 6279_SOIL_1M90
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-01-250-F-
Title: NOL-05-01-250-F-G-I
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	296-	305	300.55	74.97	0.70	6.80E+001	56.31	3.34E+002
2	950-	962	954.77	238.57	0.88	6.16E+001	29.13	5.84E+001
3	1400-	1412	1407.06	351.68	0.35	2.33E+001	23.14	4.18E+001
4	2327-	2339	2331.54	582.87	0.97	3.74E+001	17.98	1.76E+001
5	2430-	2441	2435.91	608.97	0.76	3.65E+001	15.55	1.05E+001
6	2640-	2650	2645.56	661.40	1.00	1.80E+001	13.05	1.10E+001
7	3639-	3653	3645.28	911.40	0.32	3.98E+001	15.93	9.15E+000
8	5834-	5856	5844.51	1461.38	1.80	2.06E+002	29.46	5.42E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.989	1460.81*	10.67	1.68132E+001	2.76709E+000
Cs-137	0.998	661.65*	85.12	1.63828E-001	1.20047E-001
TL-208	0.469	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.32200E-001	1.65333E-001
		860.37	12.46		
Pb-212	0.518	74.81* @	10.70	5.17730E+000	4.40755E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	8.14302E-001	4.05843E-001
Bi-214	0.383	609.31*	46.30	5.95184E-001	2.64321E-001
		1120.29	15.10		
		1764.49	15.80		

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40	0.989	1.681319E+001	2.767092E+000
Cs-137	0.998	1.638278E-001	1.200466E-001
TL-208	0.469	3.322003E-001	1.653335E-001
Pb-212 @	0.518	8.143019E-001	4.058431E-001
Bi-214	0.383	5.951838E-001	2.643211E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
3	351.68	7.7500E-002	99.54
7	911.40	1.3282E-001	39.99

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
	Co-60	1173.22	100.00	2.4910E-001	2.49E-001	1.7541E-001
		1332.49	100.00	2.7680E-001		2.9154E-001
	Nb-94	702.63	100.00	2.6656E-001	2.41E-001	-7.0950E-002
		871.10	100.00	2.4074E-001		2.0192E-002
	Ag-108m	79.20	7.10	1.2321E+001	3.04E-001	-1.0129E+001
		433.93	89.90	3.3637E-001		1.5153E-001
		614.37	90.40	3.0392E-001		-2.5007E-001
		722.95	90.50	3.3925E-001		4.9584E-002
	Sb-125	176.33	6.89	5.4576E+000	1.00E+000	-3.1674E+000
		427.89	29.33	1.0021E+000		3.4972E-001
		463.38	10.35	2.9193E+000		7.8822E-001
		600.56	17.80	1.5745E+000		6.4412E-001
		606.64	5.02	6.5492E+000		5.1818E+000
		635.90	11.32	2.4713E+000		1.1450E+000
	Cs-134	563.23	8.38	3.3965E+000	3.16E-001	2.5531E-001
		569.32	15.43	1.7447E+000		3.4239E-002
		604.70	97.60	3.3657E-001		1.7892E-002
		795.84	85.40	3.1637E-001		1.5978E-001
		801.93	8.73	2.9379E+000		-1.9084E+000
+	Cs-137	661.65*	85.12	1.7772E-001	1.78E-001	1.6383E-001
	Eu-152	121.78	28.40	1.8846E+000	8.94E-001	4.5167E-001
		244.69	7.49	4.9674E+000		1.2108E-001
		344.27	26.50	1.1893E+000		3.4070E-001
		778.89	12.74	2.1988E+000		6.6631E-001
		867.32	4.16	6.1480E+000		-4.4604E+000
		964.01	14.40	2.0786E+000		7.1072E-001
		1085.78	10.00	2.3813E+000		-5.7321E-001
		1112.02	13.30	1.9262E+000		-1.4100E+000
		1407.95	20.70	8.9397E-001		6.7099E-001
	Eu-154	123.07	40.50	1.3047E+000	6.59E-001	1.0646E-001
		247.94	6.60	5.5581E+000		1.5281E+000
		591.81	4.83	5.7799E+000		-1.5885E-001
		723.30	19.70	1.6160E+000		1.3172E+000
		756.87	4.33	5.8202E+000		5.0716E-001
		873.19	11.50	1.9817E+000		-9.6354E-001
		996.32	10.30	2.3348E+000		-1.3701E+000
		1004.76	17.90	1.4179E+000		-1.1252E+000
		1274.45	35.50	6.5898E-001		-2.3125E-001
	Eu-155	86.54	30.90	2.7151E+000	2.72E+000	3.9328E+000
		105.31	20.70	3.0657E+000		1.0563E-001
	Am-241	59.54	35.90	3.1377E+000	3.14E+000	-6.8485E-001
	Cm-243	228.19	10.56	3.2853E+000	2.19E+000	1.3786E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	2.1890E+000	2.19E+000	-1.7724E+000

+ = 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

Report Generated On 6/2/2006 12:07:49 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-01-251-F-
Sample Title: NOL-05-01-251-F-G-I
Description:

Sample Type:
Geometry:

Acquisition Started: 6/2/2006 12:02:48 PM
Live Time: 300.0 seconds
Real Time: 300.3 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 6/1/2006
Calibration Efficiency: 6279_SOIL_1M90
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-01-251-F-
Title: NOL-05-01-251-F-G-I
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	285-	305	291.27	72.65	0.94	8.86E+001	31.78	3.13E+002
m	2	285-	305	300.71	75.01	0.95	1.42E+002	35.53	3.05E+002
	3	946-	961	955.77	238.82	0.55	7.01E+001	33.24	7.19E+001
	4	1402-	1414	1407.54	351.80	0.67	3.70E+001	18.82	2.10E+001
	5	2432-	2443	2436.71	609.17	0.82	3.42E+001	16.84	1.58E+001
	6	2637-	2654	2645.56	661.40	1.73	9.51E+001	24.28	1.79E+001
	7	5836-	5856	5845.05	1461.51	1.86	1.86E+002	28.35	6.88E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.983	1460.81*	10.67	1.52216E+001	2.62584E+000
Cs-137	0.998	661.65*	85.12	8.63104E-001	2.42754E-001
Pb-212	0.518	74.81* @	10.70	1.07752E+001	3.43111E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	9.27436E-001	4.63201E-001
Bi-214	0.385	609.31*	46.30	5.58787E-001	2.83515E-001
		1120.29	15.10		
		1764.49	15.80		

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40	0.983	1.522165E+001	2.625842E+000
Cs-137	0.998	8.631036E-001	2.427542E-001
Pb-212 @	0.518	9.274362E-001	4.632014E-001
Bi-214	0.385	5.587872E-001	2.835150E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.65	2.9537E-001	35.87
4	351.80	1.2328E-001	50.89

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
	Co-60	1173.22	100.00	2.9571E-001	2.39E-001	-3.9758E-002
		1332.49	100.00	2.3915E-001		1.8907E-001
	Nb-94	702.63	100.00	2.9910E-001	2.38E-001	1.5847E-001
		871.10	100.00	2.3759E-001		7.0146E-002
	Ag-108m	79.20	7.10	1.2301E+001	3.10E-001	-1.0011E+001
		433.93	89.90	3.3637E-001		4.6154E-002
		614.37	90.40	3.1714E-001		-2.9108E-001
		722.95	90.50	3.0986E-001		-2.0290E-002
	Sb-125	176.33	6.89	5.6229E+000	9.70E-001	-2.8875E+000
		427.89	29.33	9.6986E-001		-5.4093E-001
		463.38	10.35	2.6508E+000		-1.8264E+000
		600.56	17.80	1.4352E+000		-4.1843E-002
		606.64	5.02	6.8604E+000		6.7322E+000
		635.90	11.32	2.4056E+000		-8.2829E-001
	Cs-134	563.23	8.38	3.1746E+000	2.60E-001	-4.0276E-001
		569.32	15.43	1.8499E+000		1.3396E+000
		604.70	97.60	3.4064E-001		-2.8914E-001
		795.84	85.40	2.6030E-001		-1.3374E-001
		801.93	8.73	2.8032E+000		1.2296E+000
+	Cs-137	661.65*	85.12	2.5284E-001	2.53E-001	8.6310E-001
	Eu-152	121.78	28.40	1.9759E+000	7.61E-001	1.8468E+000
		244.69	7.49	4.7626E+000		1.7883E+000
		344.27	26.50	1.0338E+000		-7.2602E-001
		778.89	12.74	2.0291E+000		-1.9507E+000
		867.32	4.16	6.1480E+000		-1.0404E+000
		964.01	14.40	2.1828E+000		1.5894E+000
		1085.78	10.00	2.4158E+000		1.1034E+000
		1112.02	13.30	1.9504E+000		6.5154E-001
		1407.95	20.70	7.6063E-001		4.6130E-001
	Eu-154	123.07	40.50	1.3079E+000	6.69E-001	-4.2498E-001
		247.94	6.60	5.1971E+000		-2.6958E+000
		591.81	4.83	5.7799E+000		-7.1944E-001
		723.30	19.70	1.3843E+000		-4.0854E-001
		756.87	4.33	6.2677E+000		-7.5631E-001
		873.19	11.50	1.8927E+000		-2.8447E-001
		996.32	10.30	2.0965E+000		-1.7695E-001
		1004.76	17.90	1.1441E+000		-4.1800E-001
		1274.45	35.50	6.6949E-001		-3.0518E-001
	Eu-155	86.54	30.90	2.6377E+000	2.64E+000	2.4946E+000
		105.31	20.70	3.2193E+000		1.9273E+000
	Am-241	59.54	35.90	3.3800E+000	3.38E+000	-1.8734E-001
	Cm-243	228.19	10.56	3.4494E+000	2.54E+000	2.2114E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	2.5409E+000	2.54E+000	1.1517E+000

+ = 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

Report Generated On 6/2/2006 11:58:56 AM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-01-252-F-
Sample Title: NOL-05-01-252-F-G-I
Description:

Sample Type:
Geometry:

Acquisition Started: 6/2/2006 11:53:55 AM
Live Time: 300.0 seconds
Real Time: 300.3 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 6/1/2006
Calibration Efficiency: 6279_SOIL_1M90
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-01-252-F-
Title: NOL-05-01-252-F-G-I
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	285-	308	291.85	72.79	1.06	1.18E+002	32.74	3.19E+002
m	2	285-	308	300.25	74.89	1.06	1.93E+002	37.86	3.68E+002
	3	1176-	1186	1181.00	295.15	1.37	2.19E+001	18.95	3.01E+001
	4	2325-	2339	2332.04	582.99	1.05	3.65E+001	17.97	1.65E+001
	5	5833-	5855	5844.79	1461.44	2.22	1.92E+002	28.71	5.75E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.986	1460.81*	10.67	1.57231E+001	2.67076E+000
TL-208	0.471	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.24161E-001	1.64963E-001
		860.37	12.46		

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40	0.986	1.572307E+001	2.670759E+000
TL-208	0.471	3.241608E-001	1.649635E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.79	3.9218E-001	27.83
m 2	74.89	6.4319E-001	19.62
3	295.15	7.3077E-002	86.44

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	3.4521E-001	3.45E-001	2.9567E-001
	1332.49	100.00	3.7501E-001		4.8536E-001
Nb-94	702.63	100.00	2.7701E-001	2.77E-001	-9.9506E-002
	871.10	100.00	2.8354E-001		-1.4772E-002
Ag-108m	79.20	7.10	1.2546E+001	3.29E-001	-1.2682E+001
	433.93	89.90	3.7453E-001		2.3107E-001
	614.37	90.40	3.5362E-001		-3.9816E-001
	722.95	90.50	3.2889E-001		1.7165E-001
Sb-125	176.33	6.89	5.7466E+000	9.89E-001	1.0381E+000
	427.89	29.33	9.8935E-001		-6.3484E-001
	463.38	10.35	3.0616E+000		2.2879E+000
	600.56	17.80	1.6895E+000		-2.8958E-001
	606.64	5.02	7.6136E+000		5.4137E+000
	635.90	11.32	2.2441E+000		-2.1839E-001
Cs-134	563.23	8.38	3.5017E+000	3.00E-001	-6.8714E-001
	569.32	15.43	1.9764E+000		3.1277E-001
	604.70	97.60	3.7883E-001		3.0325E-001
	795.84	85.40	3.0008E-001		-1.0636E-001
	801.93	8.73	3.0662E+000		4.1033E-001
Cs-137	661.65	85.12	3.8308E-001	3.83E-001	-1.4290E-001
Eu-152	121.78	28.40	1.9780E+000	9.86E-001	3.4241E-001
	244.69	7.49	5.0946E+000		-2.8406E+000
	344.27	26.50	1.2403E+000		-4.0436E-001
	778.89	12.74	2.0291E+000		5.4033E-001
	867.32	4.16	6.9372E+000		-3.5856E+000
	964.01	14.40	2.3611E+000		7.0083E-001
	1085.78	10.00	2.7349E+000		3.6661E-001
	1112.02	13.30	1.7997E+000		-4.5603E-001
	1407.95	20.70	9.8609E-001		2.6211E-001
Eu-154	123.07	40.50	1.3663E+000	5.79E-001	4.9518E-001
	247.94	6.60	5.6731E+000		2.4037E+000
	591.81	4.83	5.2683E+000		-4.9859E+000
	723.30	19.70	1.5350E+000		8.3591E-001
	756.87	4.33	6.6831E+000		5.1320E-001
	873.19	11.50	2.4433E+000		9.5236E-001
	996.32	10.30	2.4596E+000		1.0912E+000
	1004.76	17.90	1.4524E+000		-3.2976E-001
	1274.45	35.50	5.7944E-001		2.1359E-001
Eu-155	86.54	30.90	2.6895E+000	2.69E+000	4.7136E-001
	105.31	20.70	3.2509E+000		3.0186E+000
Am-241	59.54	35.90	3.1968E+000	3.20E+000	-5.8199E-001
Cm-243	228.19	10.56	3.2430E+000	2.50E+000	-1.9528E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	2.4976E+000	2.50E+000	1.9161E+000

+ = 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

Report Generated On 6/6/2006 1:17:34 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: RED6264

Spectrum File: RED6264
Sample ID: NOL-05-01-253-F-
Sample Title: NOL-05-01-253-F-G-I
Description:

Sample Type:
Geometry:

Acquisition Started: 6/6/2006 1:07:30 PM
Live Time: 600.0 seconds
Real Time: 601.1 seconds

Energy Calibration Date: 3/22/2006
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number: NOL-05-01-253-F-
Title: NOL-05-01-253-F-G-I
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	291-	309	300.52	75.03	1.18	1.07E+003	190.23	2.47E+003
2	331-	346	339.07	84.67	0.80	1.79E+002	153.04	1.96E+003
3	948-	963	953.47	238.31	1.11	2.14E+002	74.05	4.00E+002
4	1174-	1187	1180.68	295.13	1.25	7.90E+001	48.00	1.88E+002
5	1400-	1415	1407.41	351.83	1.06	1.26E+002	50.84	1.82E+002
6	2031-	2053	2041.59	510.41	1.25	1.60E+002	53.68	1.52E+002
7	2322-	2344	2332.39	583.13	0.85	1.63E+002	45.99	9.99E+001
8	2426-	2448	2436.38	609.14	0.88	1.85E+002	46.97	1.00E+002
9	3635-	3654	3644.61	911.28	0.42	1.20E+002	35.95	6.18E+001
10	5831-	5861	5846.37	1461.86	2.75	9.94E+002	64.67	1.95E+001
11	7057-	7071	7063.01	1766.10	0.83	4.10E+001	18.28	1.60E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	0.989	511.00*		100.00	2.25394E-001	8.14426E-002
K-40	0.966	1460.81*		10.67	1.71919E+001	1.78599E+000
TL-208	0.751	277.35		6.80		
		510.84*		21.60	1.04349E+000	3.86559E-001
		583.14*		84.20	2.84607E-001	8.84117E-002
		860.37		12.46		
Pb-212	0.519	74.81*	@	10.70	1.58958E+001	4.20190E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	5.36532E-001	2.03938E-001
Bi-214	0.681	609.31*		46.30	5.94276E-001	1.68043E-001
		1120.29		15.10		
		1764.49*		15.80	4.97003E-001	2.27349E-001
PB-214	0.583	74.82*	@	6.21	2.73889E+001	7.50803E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	4.89543E-001	3.08448E-001
		351.92*		37.20	4.23762E-001	1.84930E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN		0.989	1.639185E-001	8.362757E-002
K-40		0.966	1.719193E+001	1.785986E+000
TL-208		0.751	2.846075E-001	8.792382E-002
Pb-212	@	0.519	5.365320E-001	2.039384E-001
Bi-214		0.681	5.599089E-001	1.351353E-001
PB-214	@	0.583	4.411551E-001	1.586079E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
2	84.67	2.9766E-001	85.69
9	911.28	2.0027E-001	29.92

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Co-60	1173.22	100.00	1.1275E-001	8.31E-002	1.4918E-001
	1332.49	100.00	8.3113E-002		1.1657E-001
Nb-94	702.63	100.00	1.0264E-001	9.61E-002	-6.1627E-002
	871.10	100.00	9.6145E-002		1.2563E-002
Ag-108m	79.20	7.10	6.0537E+000	1.23E-001	-6.1487E+000
	433.93	89.90	1.2895E-001		8.3133E-002
	614.37	90.40	1.4279E-001		-3.8812E-002
	722.95	90.50	1.2311E-001		5.1726E-002
Sb-125	176.33	6.89	2.4958E+000	3.95E-001	-3.8003E-001
	427.89	29.33	3.9459E-001		-1.1051E-001
	463.38	10.35	1.1138E+000		9.8144E-001
	600.56	17.80	5.5304E-001		-8.7993E-001
	606.64	5.02	2.7741E+000		-4.1449E-001
	635.90	11.32	8.9974E-001		-2.4149E-001
Cs-134	563.23	8.38	1.3122E+000	1.17E-001	1.8297E+000
	569.32	15.43	6.9238E-001		1.0219E-001
	604.70	97.60	1.3716E-001		-3.7690E-002
	795.84	85.40	1.1709E-001		2.7349E-002
	801.93	8.73	1.1339E+000		-7.1964E-003
Cs-137	661.65	85.12	1.4995E-001	1.50E-001	8.5413E-002
Eu-152	121.78	28.40	8.4987E-001	3.71E-001	3.8268E-001
	244.69	7.49	2.0898E+000		-1.6858E+000
	344.27	26.50	4.8200E-001		-4.2312E-001
	778.89	12.74	7.8140E-001		-1.6084E+000
	867.32	4.16	2.3823E+000		-3.6819E+000
	964.01	14.40	8.0682E-001		8.1913E-001
	1085.78	10.00	1.0110E+000		-6.8446E-001
	1112.02	13.30	6.7399E-001		-8.9079E-001
	1407.95	20.70	3.7103E-001		4.8753E-002
Eu-154	123.07	40.50	5.8996E-001	2.45E-001	2.6881E-001
	247.94	6.60	2.2630E+000		-1.0934E+000
	591.81	4.83	2.0490E+000		-3.6020E-003
	723.30	19.70	5.5935E-001		5.6065E-002
	756.87	4.33	2.1575E+000		-1.0662E+000
	873.19	11.50	8.2285E-001		3.9842E-001
	996.32	10.30	8.2542E-001		-3.5681E-001
	1004.76	17.90	4.9688E-001		8.5153E-003
	1274.45	35.50	2.4522E-001		-1.3043E-001
Eu-155	86.54	30.90	1.2346E+000	1.23E+000	3.1391E-001
	105.31	20.70	1.3796E+000		6.4466E-001
Am-241	59.54	35.90	1.5187E+000	1.52E+000	-1.0681E-001
Cm-243	228.19	10.56	1.4083E+000	9.95E-001	-1.3909E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Cm-243	277.60	14.00	9.9503E-001	9.95E-001	6.6059E-001

+ = 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

Report Generated On 6/6/2006 1:49:19 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: RED6264

Spectrum File: RED6264
Sample ID: NOL-05-01-254-F-
Sample Title: NOL-05-01-254-F-G-I
Description:

Sample Type:
Geometry:

Acquisition Started: 6/6/2006 1:39:17 PM
Live Time: 600.0 seconds
Real Time: 601.2 seconds

Energy Calibration Date: 3/22/2006
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number: NOL-05-01-254-F-
Title: NOL-05-01-254-F-G-I
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	291-	309	300.36	74.99	1.85	8.33E+002	195.79	2.71E+003
2	331-	348	339.02	84.66	1.26	2.65E+002	170.10	2.23E+003
3	948-	963	953.81	238.40	1.83	1.83E+002	77.12	4.42E+002
4	2324-	2344	2332.99	583.28	2.25	1.54E+002	45.84	1.08E+002
5	2428-	2447	2436.50	609.17	1.69	1.63E+002	43.94	9.58E+001
6	2635-	2659	2646.33	661.64	2.06	6.35E+002	60.79	7.98E+001
7	3637-	3658	3644.64	911.28	1.39	1.01E+002	40.89	8.87E+001
8	5830-	5862	5846.48	1461.89	2.20	9.49E+002	62.35	1.23E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
K-40	0.964	1460.81*	10.67	1.64154E+001	1.71180E+000
Cs-137	1.000	661.65*	85.12	1.14348E+000	1.73494E-001
TL-208	0.471	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	2.68290E-001	8.73037E-002
		860.37	12.46		
Pb-212	0.520	74.81* @	10.70	1.23548E+001	3.78108E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	4.58981E-001	2.06450E-001
Bi-214	0.398	609.31*	46.30	5.25557E-001	1.55607E-001
		1120.29	15.10		
		1764.49	15.80		

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
K-40	0.964	1.641543E+001	1.711804E+000
Cs-137	1.000	1.143477E+000	1.734940E-001
TL-208	0.471	2.682899E-001	8.730375E-002
Pb-212 @	0.520	4.589807E-001	2.064504E-001
Bi-214	0.398	5.255574E-001	1.556073E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
2	84.66	4.4184E-001	64.16
7	911.28	1.6890E-001	40.35

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
	Co-60	1173.22	100.00	1.0668E-001	8.80E-002	-7.7332E-003
		1332.49	100.00	8.7964E-002		2.2816E-002
	Nb-94	702.63	100.00	1.0627E-001	9.36E-002	9.3249E-002
		871.10	100.00	9.3630E-002		-5.1828E-002
	Ag-108m	79.20	7.10	6.2059E+000	1.18E-001	-4.8236E+000
		433.93	89.90	1.3707E-001		4.4721E-003
		614.37	90.40	1.4680E-001		-9.0973E-002
		722.95	90.50	1.1783E-001		-2.3218E-002
	Sb-125	176.33	6.89	2.5938E+000	4.11E-001	-1.9141E+000
		427.89	29.33	4.1104E-001		-2.6145E-001
		463.38	10.35	1.1780E+000		-2.7639E-001
		600.56	17.80	6.0703E-001		4.3965E-001
		606.64	5.02	2.7635E+000		1.7513E+000
		635.90	11.32	9.9111E-001		6.8583E-001
	Cs-134	563.23	8.38	1.1906E+000	1.23E-001	-8.6458E-001
		569.32	15.43	6.5816E-001		-5.4669E-001
		604.70	97.60	1.4052E-001		2.6980E-002
		795.84	85.40	1.2265E-001		1.8458E-001
		801.93	8.73	1.1070E+000		-1.4941E-001
+	Cs-137	661.65*	85.12	1.1195E-001	1.12E-001	1.1435E+000
	Eu-152	121.78	28.40	8.8185E-001	3.48E-001	-4.5365E-002
		244.69	7.49	2.1289E+000		4.9764E-001
		344.27	26.50	4.9696E-001		-7.7897E-001
		778.89	12.74	7.4232E-001		-8.9852E-001
		867.32	4.16	2.3017E+000		-1.2492E+000
		964.01	14.40	8.3430E-001		5.2333E-002
		1085.78	10.00	8.9793E-001		6.8563E-001
		1112.02	13.30	7.1036E-001		-7.3525E-001
		1407.95	20.70	3.4829E-001		2.9050E-001
	Eu-154	123.07	40.50	6.1487E-001	2.50E-001	2.6757E-001
		247.94	6.60	2.3169E+000		-2.1653E+000
		591.81	4.83	2.2025E+000		1.8056E+000
		723.30	19.70	5.4657E-001		5.1305E-002
		756.87	4.33	2.2987E+000		5.3332E-001
		873.19	11.50	8.1180E-001		2.9827E-001
		996.32	10.30	9.2584E-001		4.3477E-001
		1004.76	17.90	5.2066E-001		-4.2629E-001
		1274.45	35.50	2.4995E-001		-1.4521E-001
	Eu-155	86.54	30.90	1.2581E+000	1.26E+000	-9.9475E-002
		105.31	20.70	1.3938E+000		-1.1191E+000
	Am-241	59.54	35.90	1.5590E+000	1.56E+000	7.6615E-001
	Cm-243	228.19	10.56	1.4811E+000	1.05E+000	-1.0586E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Cm-243	277.60	14.00	1.0537E+000	1.05E+000	-4.5302E-001

+ = 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

Report Generated On 6/6/2006 2:17:42 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: RED6264

Spectrum File: RED6264
Sample ID: NOL-05-01-255-F-
Sample Title: NOL-05-01-255-F-G-I
Description:

Sample Type:
Geometry:

Acquisition Started: 6/6/2006 2:07:40 PM
Live Time: 600.0 seconds
Real Time: 601.1 seconds

Energy Calibration Date: 3/22/2006
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number: NOL-05-01-255-F-
Title: NOL-05-01-255-F-G-I
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	295-	308	299.97	74.89	1.43	4.74E+002	145.41	1.82E+003
2	944-	965	954.80	238.65	1.50	2.73E+002	87.53	4.57E+002
3	1558-	1568	1562.61	390.64	0.96	2.47E+001	27.99	7.53E+001
4	2031-	2054	2042.81	510.72	0.46	1.48E+002	51.47	1.35E+002
5	2166-	2176	2171.03	542.78	0.95	1.87E+001	23.32	5.03E+001
6	2324-	2342	2331.75	582.97	1.61	1.62E+002	39.95	7.53E+001
7	2426-	2447	2438.27	609.61	1.12	1.50E+002	44.27	9.61E+001
8	3634-	3654	3646.00	911.62	0.87	1.28E+002	36.37	5.97E+001
9	5832-	5861	5846.06	1461.79	2.62	9.87E+002	66.36	3.36E+001
10	7054-	7067	7060.76	1765.54	0.86	2.35E+001	16.77	1.75E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	0.998	511.00*	100.00	2.08015E-001	7.76959E-002
K-40	0.970	1460.81*	10.67	1.70863E+001	1.79786E+000
TL-208	0.751	277.35	6.80		
		510.84*	21.60	9.63031E-001	3.68201E-001
		583.14*	84.20	2.82307E-001	7.88291E-002
		860.37	12.46		
Pb-212	0.521	74.81* @	10.70	7.04816E+000	2.56447E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	6.84095E-001	2.44471E-001
Bi-214	0.690	609.31*	46.30	4.82871E-001	1.54508E-001
		1120.29	15.10		
		1764.49*	15.80	2.84532E-001	2.05412E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN	0.998	1.470365E-001	7.951491E-002
K-40	0.970	1.708625E+001	1.797864E+000
TL-208	0.751	2.823069E-001	7.829037E-002
Pb-212 @	0.521	6.840953E-001	2.444707E-001
Bi-214	0.690	4.112030E-001	1.234766E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
3	390.64	4.1087E-002	113.53
5	542.78	3.1111E-002	124.94
8	911.62	2.1383E-001	28.35

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Co-60	1173.22	100.00	1.0635E-001	8.62E-002	-1.0377E-001
	1332.49	100.00	8.6234E-002		7.8276E-002
Nb-94	702.63	100.00	1.0237E-001	9.52E-002	1.1399E-001
	871.10	100.00	9.5210E-002		-3.7061E-003
Ag-108m	79.20	7.10	5.7500E+000	1.22E-001	-9.5519E+000
	433.93	89.90	1.2230E-001		-1.0372E-001
	614.37	90.40	1.4279E-001		-1.1578E-002
	722.95	90.50	1.2257E-001		-4.7068E-002
Sb-125	176.33	6.89	2.2590E+000	3.72E-001	-2.1619E+000
	427.89	29.33	3.7191E-001		5.5431E-002
	463.38	10.35	1.1138E+000		3.1566E-002
	600.56	17.80	5.9925E-001		-2.5439E-001
	606.64	5.02	2.6879E+000		3.1577E+000
	635.90	11.32	8.6083E-001		-2.9271E-001
Cs-134	563.23	8.38	1.2435E+000	1.12E-001	-6.6642E-001
	569.32	15.43	6.8509E-001		-1.9369E-001
	604.70	97.60	1.3255E-001		-2.7785E-003
	795.84	85.40	1.1158E-001		3.5788E-002
	801.93	8.73	1.0967E+000		1.9110E-001
Cs-137	661.65	85.12	1.3023E-001	1.30E-001	-5.8347E-003
Eu-152	121.78	28.40	7.7376E-001	3.15E-001	-2.0573E-002
	244.69	7.49	1.9239E+000		-7.1376E-001
	344.27	26.50	4.5539E-001		-2.8743E-001
	778.89	12.74	7.6557E-001		-6.0005E-001
	867.32	4.16	2.3606E+000		-1.0113E+000
	964.01	14.40	8.2342E-001		4.2787E-001
	1085.78	10.00	9.1656E-001		-4.7197E-001
	1112.02	13.30	7.7777E-001		1.9806E-001
	1407.95	20.70	3.1522E-001		-5.1347E-003
Eu-154	123.07	40.50	5.3326E-001	2.61E-001	-5.6600E-001
	247.94	6.60	2.0567E+000		-1.3121E+000
	591.81	4.83	2.1542E+000		-1.0855E+000
	723.30	19.70	5.6812E-001		3.3352E-002
	756.87	4.33	2.2393E+000		6.9115E-001
	873.19	11.50	8.3914E-001		-2.9579E-002
	996.32	10.30	8.8574E-001		-2.7382E-001
	1004.76	17.90	5.0092E-001		3.0574E-002
	1274.45	35.50	2.6137E-001		3.6247E-002
Eu-155	86.54	30.90	1.1452E+000	1.15E+000	1.7639E+000
	105.31	20.70	1.2761E+000		-6.4609E-001
Am-241	59.54	35.90	1.4373E+000	1.44E+000	-8.8323E-001
Cm-243	228.19	10.56	1.3459E+000	9.60E-001	-3.8908E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Cm-243	277.60	14.00	9.6029E-001	9.60E-001	1.0755E+000

+ = 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

Report Generated On 6/6/2006 2:37:55 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: RED6264

Spectrum File: RED6264
Sample ID: NOL-05-01-256-F-
Sample Title: NOL-05-01-256-F-G-I
Description:

Sample Type:
Geometry:

Acquisition Started: 6/6/2006 2:27:53 PM
Live Time: 600.0 seconds
Real Time: 601.2 seconds

Energy Calibration Date: 3/22/2006
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number: NOL-05-01-256-F-
Title: NOL-05-01-256-F-G-I
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	291-	309	300.50	75.03	1.16	7.38E+002	199.37	2.84E+003
2	944-	964	954.19	238.49	1.34	2.90E+002	87.70	4.72E+002
3	1398-	1413	1407.71	351.90	0.55	1.06E+002	50.95	1.90E+002
4	2324-	2344	2332.12	583.07	1.37	1.79E+002	44.81	9.45E+001
5	2425-	2448	2437.47	609.41	0.73	1.50E+002	49.61	1.23E+002
6	2634-	2656	2647.40	661.91	1.19	2.45E+002	45.19	7.42E+001
7	3632-	3659	3646.44	911.73	1.21	1.81E+002	37.34	4.08E+001
8	4309-	4320	4314.85	1078.88	0.86	1.85E+001	16.06	1.85E+001
9	4862-	4873	4867.61	1217.11	0.32	2.12E+001	17.46	2.28E+001
10	5831-	5862	5846.40	1461.87	2.39	1.02E+003	66.18	2.38E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
K-40	0.965	1460.81*	10.67	1.76887E+001	1.83370E+000
Cs-137	0.998	661.65*	85.12	4.40770E-001	9.64969E-002
TL-208	0.471	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.11560E-001	8.81083E-002
		860.37	12.46		
Pb-212	0.521	74.81* @	10.70	1.09440E+001	3.65151E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	7.26589E-001	2.47825E-001
Bi-214	0.398	609.31*	46.30	4.84519E-001	1.70564E-001
		1120.29	15.10		
		1764.49	15.80		

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
K-40		0.965	1.768868E+001	1.833697E+000
Cs-137		0.998	4.407702E-001	9.649689E-002
TL-208		0.471	3.115596E-001	8.810830E-002
Pb-212	@	0.521	7.265890E-001	2.478251E-001
Bi-214		0.398	4.845194E-001	1.705635E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
3	351.90	1.7706E-001	47.96
7	911.73	3.0195E-001	20.61
8	1078.88	3.0766E-002	87.02
9	1217.11	3.5350E-002	82.32

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
	Co-60	1173.22	100.00	1.0023E-001	8.58E-002	-1.4132E-001
		1332.49	100.00	8.5795E-002		4.0073E-002
	Nb-94	702.63	100.00	1.0077E-001	9.65E-002	-2.5127E-002
		871.10	100.00	9.6454E-002		4.3437E-003
	Ag-108m	79.20	7.10	6.2089E+000	1.21E-001	-8.8970E+000
		433.93	89.90	1.2800E-001		-2.1900E-002
		614.37	90.40	1.4236E-001		-6.5550E-002
		722.95	90.50	1.2147E-001		3.2274E-002
	Sb-125	176.33	6.89	2.6125E+000	3.91E-001	3.2763E-001
		427.89	29.33	3.9052E-001		2.3331E-001
		463.38	10.35	1.0927E+000		-3.3412E-001
		600.56	17.80	6.2228E-001		1.6046E-001
		606.64	5.02	2.7670E+000		3.0893E-001
		635.90	11.32	8.9300E-001		-3.0563E-001
	Cs-134	563.23	8.38	1.2677E+000	1.23E-001	-1.1950E+000
		569.32	15.43	7.0955E-001		2.1209E-001
		604.70	97.60	1.3792E-001		-3.0996E-002
		795.84	85.40	1.2265E-001		5.5901E-002
		801.93	8.73	1.0793E+000		-1.1194E+000
+	Cs-137	661.65*	85.12	1.0517E-001	1.05E-001	4.4077E-001
	Eu-152	121.78	28.40	8.3812E-001	3.48E-001	-3.0337E-001
		244.69	7.49	2.0705E+000		-1.9505E+000
		344.27	26.50	4.6285E-001		-5.9286E-001
		778.89	12.74	7.8140E-001		-3.6065E-001
		867.32	4.16	2.3751E+000		-2.0482E+000
		964.01	14.40	8.3069E-001		1.0883E+000
		1085.78	10.00	9.8399E-001		3.6714E-001
		1112.02	13.30	7.3966E-001		-1.6789E-001
		1407.95	20.70	3.4829E-001		-1.6992E-002
	Eu-154	123.07	40.50	5.8453E-001	2.46E-001	-5.2795E-002
		247.94	6.60	2.1840E+000		-2.3901E+000
		591.81	4.83	2.1395E+000		-3.7515E+000
		723.30	19.70	5.6061E-001		2.4809E-001
		756.87	4.33	2.3438E+000		-1.4913E+000
		873.19	11.50	8.4717E-001		1.5987E-001
		996.32	10.30	8.9594E-001		-2.0193E-002
		1004.76	17.90	5.0494E-001		1.1612E-001
		1274.45	35.50	2.4641E-001		-3.6423E-001
	Eu-155	86.54	30.90	1.2376E+000	1.24E+000	2.8965E+000
		105.31	20.70	1.3926E+000		-3.9102E-002
	Am-241	59.54	35.90	1.5120E+000	1.51E+000	-7.3407E-001
	Cm-243	228.19	10.56	1.4664E+000	9.85E-001	-2.0428E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Cm-243	277.60	14.00	9.8490E-001	9.85E-001	-1.9348E-001

+ = 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

Report Generated On 6/6/2006 3:12:47 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: RED6264

Spectrum File: RED6264
Sample ID: NOL-05-01-257-F-
Sample Title: NOL-05-01-257-F-G-I
Description:

Sample Type:
Geometry:

Acquisition Started: 6/6/2006 3:02:44 PM
Live Time: 600.0 seconds
Real Time: 601.2 seconds

Energy Calibration Date: 3/22/2006
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number: NOL-05-01-257-F-
Title: NOL-05-01-257-F-G-I
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	291-	308	299.90	74.88	2.63	1.09E+003	187.26	2.47E+003
2	945-	965	955.79	238.89	0.60	2.63E+002	94.63	5.70E+002
3	1404-	1416	1408.19	352.02	0.92	1.02E+002	46.48	1.73E+002
4	2031-	2055	2043.65	510.93	1.53	1.58E+002	59.73	1.87E+002
5	2324-	2345	2333.39	583.39	1.14	1.71E+002	45.40	9.77E+001
6	2425-	2448	2438.20	609.59	1.60	1.50E+002	50.58	1.29E+002
7	2634-	2659	2647.04	661.82	1.79	5.99E+002	67.35	1.37E+002
8	3634-	3655	3647.56	912.01	0.50	1.36E+002	38.95	6.89E+001
9	3721-	3732	3726.90	931.85	0.43	1.95E+001	17.11	2.25E+001
10	3867-	3886	3878.15	969.68	0.78	8.34E+001	33.10	5.76E+001
11	5832-	5863	5848.11	1462.30	2.44	9.63E+002	63.23	1.57E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	1.000	511.00*	100.00	2.22568E-001	8.92780E-002
K-40	0.932	1460.81*	10.67	1.66700E+001	1.73746E+000
Cs-137	0.999	661.65*	85.12	1.07912E+000	1.75622E-001
TL-208	0.751	277.35	6.80		
		510.84*	21.60	1.03041E+000	4.21803E-001
		583.14*	84.20	2.99063E-001	8.82949E-002
		860.37	12.46		
Pb-212	0.520	74.81* @	10.70	1.61693E+001	4.21793E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	6.61007E-001	2.59206E-001
Bi-214	0.396	609.31*	46.30	4.83242E-001	1.73449E-001
		1120.29	15.10		
		1764.49	15.80		
Ac-228	0.616	338.32	11.40		
		911.07*	27.70	8.05266E-001	2.48257E-001
		969.11*	16.60	8.37943E-001	3.43775E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN	1.000	1.579705E-001	9.126805E-002
K-40	0.932	1.667002E+001	1.737464E+000
Cs-137	0.999	1.079120E+000	1.756216E-001
TL-208	0.751	2.990629E-001	8.775531E-002
Pb-212 @	0.520	6.610072E-001	2.592061E-001
Bi-214	0.396	4.832418E-001	1.734489E-001
Ac-228	0.616	8.164663E-001	2.012639E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
3	352.02	1.6946E-001	45.71
9	931.85	3.2560E-002	87.59

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
	Co-60	1173.22	100.00	1.0831E-001	9.42E-002	8.7974E-002
		1332.49	100.00	9.4156E-002		6.6017E-002
	Nb-94	702.63	100.00	1.0551E-001	9.98E-002	-1.1816E-002
		871.10	100.00	9.9792E-002		-7.4780E-002
	Ag-108m	79.20	7.10	6.2855E+000	1.22E-001	-1.2073E+001
		433.93	89.90	1.4387E-001		5.5259E-002
		614.37	90.40	1.4491E-001		1.9463E-002
		722.95	90.50	1.2175E-001		-1.4073E-002
	Sb-125	176.33	6.89	2.6854E+000	4.31E-001	1.0378E-001
		427.89	29.33	4.3109E-001		9.6572E-002
		463.38	10.35	1.1747E+000		-5.1010E-001
		600.56	17.80	6.1088E-001		1.3510E-001
		606.64	5.02	2.8022E+000		-6.8762E-002
		635.90	11.32	9.4763E-001		3.2218E-001
	Cs-134	563.23	8.38	1.3774E+000	1.26E-001	-1.2337E+000
		569.32	15.43	7.4266E-001		8.5990E-002
		604.70	97.60	1.3885E-001		6.5423E-002
		795.84	85.40	1.2580E-001		1.2281E-001
		801.93	8.73	1.2110E+000		-7.3349E-001
+	Cs-137	661.65*	85.12	1.4769E-001	1.48E-001	1.0791E+000
	Eu-152	121.78	28.40	8.8219E-001	3.66E-001	-2.7573E-001
		244.69	7.49	2.1788E+000		-9.7225E-001
		344.27	26.50	4.8754E-001		-3.9662E-001
		778.89	12.74	7.7466E-001		-6.8695E-001
		867.32	4.16	2.2791E+000		-3.0843E+000
		964.01	14.40	8.3430E-001		3.0628E-001
		1085.78	10.00	8.9793E-001		1.0168E-002
		1112.02	13.30	7.7280E-001		-1.7727E-001
		1407.95	20.70	3.6611E-001		3.5100E-001
	Eu-154	123.07	40.50	6.1522E-001	2.44E-001	5.2153E-001
		247.94	6.60	2.3544E+000		-5.0775E-001
		591.81	4.83	2.1048E+000		-4.5866E-002
		723.30	19.70	5.6312E-001		4.8079E-002
		756.87	4.33	2.3117E+000		2.7282E-001
		873.19	11.50	9.1608E-001		7.5781E-001
		996.32	10.30	8.8231E-001		-6.5479E-001
		1004.76	17.90	5.1872E-001		-1.9350E-001
		1274.45	35.50	2.4403E-001		-2.0441E-001
	Eu-155	86.54	30.90	1.2644E+000	1.26E+000	2.5387E+000
		105.31	20.70	1.4260E+000		-8.7832E-002
	Am-241	59.54	35.90	1.5381E+000	1.54E+000	-4.9290E-002
	Cm-243	228.19	10.56	1.4990E+000	1.04E+000	4.4547E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Cm-243	277.60	14.00	1.0412E+000	1.04E+000	4.1389E-001

+ = 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

Report Generated On 6/6/2006 4:10:13 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: RED6264

Spectrum File: RED6264
Sample ID: NOL-05-01-258-F-
Sample Title: NOL-05-01-258-F-G-I-R
Description:

Sample Type:
Geometry:

Acquisition Started: 6/6/2006 4:00:10 PM
Live Time: 600.0 seconds
Real Time: 601.1 seconds

Energy Calibration Date: 3/22/2006
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number: NOL-05-01-258-F-
Title: NOL-05-01-258-F-G-I-R
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	294-	309	300.27	74.97	1.64	5.57E+002	169.43	2.29E+003
2	945-	964	953.80	238.40	1.21	2.64E+002	89.88	5.25E+002
3	1395-	1417	1405.97	351.47	1.29	1.79E+002	61.75	2.10E+002
4	2321-	2342	2331.74	582.97	1.22	1.68E+002	48.14	1.16E+002
5	2423-	2444	2435.43	608.90	1.67	2.16E+002	47.41	9.85E+001
6	2636-	2654	2644.52	661.19	0.64	5.44E+001	35.14	7.86E+001
7	3634-	3652	3642.38	910.72	1.59	1.55E+002	34.56	4.56E+001
8	3867-	3882	3873.18	968.43	0.40	5.66E+001	28.89	5.14E+001
9	5827-	5858	5842.77	1460.96	2.32	1.00E+003	65.63	2.38E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
K-40	0.999	1460.81*	10.67	1.73574E+001	1.80675E+000
Cs-137	0.993	661.65*	85.12	9.79509E-002	6.42821E-002
TL-208	0.470	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	2.92940E-001	9.22716E-002
		860.37	12.46		
Pb-212	0.520	74.81* @	10.70	8.26605E+000	2.99079E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	6.61903E-001	2.48269E-001
Bi-214	0.395	609.31*	46.30	6.94042E-001	1.74966E-001
		1120.29	15.10		
		1764.49	15.80		
Ac-228	0.627	338.32	11.40		
		911.07*	27.70	9.18984E-001	2.30111E-001
		969.11*	16.60	5.68589E-001	2.96100E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
K-40		0.999	1.735740E+001	1.806750E+000
Cs-137		0.993	9.795093E-002	6.428214E-002
TL-208		0.470	2.929401E-001	9.227159E-002
Pb-212	@	0.520	6.619031E-001	2.482693E-001
Bi-214		0.395	6.940422E-001	1.749655E-001
Ac-228		0.627	7.870469E-001	1.816947E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
3	351.47	2.9862E-001	34.47

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
	Co-60	1173.22	100.00	1.1275E-001	8.13E-002	6.4221E-002
		1332.49	100.00	8.1272E-002		-5.7427E-002
	Nb-94	702.63	100.00	1.0421E-001	9.07E-002	2.3892E-002
		871.10	100.00	9.0714E-002		-2.8155E-002
	Ag-108m	79.20	7.10	6.0498E+000	1.24E-001	-7.6764E+000
		433.93	89.90	1.2410E-001		-8.6763E-002
		614.37	90.40	1.4193E-001		-3.1352E-002
		722.95	90.50	1.2606E-001		1.6055E-001
	Sb-125	176.33	6.89	2.4967E+000	3.89E-001	-8.4354E-001
		427.89	29.33	3.8934E-001		2.1930E-001
		463.38	10.35	1.1086E+000		2.8087E-001
		600.56	17.80	6.2228E-001		-9.3102E-003
		606.64	5.02	2.9587E+000		7.3185E+000
		635.90	11.32	9.3911E-001		3.5224E-001
	Cs-134	563.23	8.38	1.3096E+000	1.26E-001	1.1265E+000
		569.32	15.43	6.7624E-001		-4.5239E-001
		604.70	97.60	1.5116E-001		-1.8669E-002
		795.84	85.40	1.2580E-001		7.5916E-002
		801.93	8.73	1.1406E+000		-1.1011E+000
+	Cs-137	661.65*	85.12	1.0162E-001	1.02E-001	9.7951E-002
	Eu-152	121.78	28.40	8.3865E-001	3.24E-001	-9.2245E-003
		244.69	7.49	2.1100E+000		-1.4172E+000
		344.27	26.50	4.4835E-001		-3.1738E-001
		778.89	12.74	8.1426E-001		-5.5690E-001
		867.32	4.16	2.2023E+000		-2.9339E+000
		964.01	14.40	8.1240E-001		2.6229E-001
		1085.78	10.00	8.8273E-001		-2.8492E-001
		1112.02	13.30	7.2650E-001		-2.3021E-001
		1407.95	20.70	3.2383E-001		2.9607E-002
	Eu-154	123.07	40.50	5.8292E-001	2.52E-001	2.4742E-001
		247.94	6.60	2.2644E+000		3.5795E-002
		591.81	4.83	2.1591E+000		6.4776E-001
		723.30	19.70	5.8040E-001		6.6390E-001
		756.87	4.33	2.2725E+000		-1.5721E+000
		873.19	11.50	8.1458E-001		-1.8939E-001
		996.32	10.30	8.9594E-001		2.0122E-001
		1004.76	17.90	5.2451E-001		1.9933E-001
		1274.45	35.50	2.5228E-001		-1.0498E-001
	Eu-155	86.54	30.90	1.2006E+000	1.20E+000	1.4064E+000
		105.31	20.70	1.3465E+000		-4.6528E-001
	Am-241	59.54	35.90	1.5197E+000	1.52E+000	-3.0466E-001
	Cm-243	228.19	10.56	1.3805E+000	9.79E-001	-6.3728E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Cm-243	277.60	14.00	9.7940E-001	9.79E-001	5.1798E-001

+ = 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

Report Generated On 6/6/2006 4:32:22 PM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: RED6264

Spectrum File: RED6264
Sample ID: NOL-05-01-259-F-
Sample Title: NOL-05-01-259-F-G-I
Description:

Sample Type:
Geometry:

Acquisition Started: 6/6/2006 4:22:19 PM
Live Time: 600.0 seconds
Real Time: 601.3 seconds

Energy Calibration Date: 3/22/2006
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number: NOL-05-01-259-F-
Title: NOL-05-01-259-F-G-I
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	943-	964	953.87	238.41	1.85	3.05E+002	99.75	6.07E+002
2	2324-	2341	2331.48	582.91	0.36	1.32E+002	46.47	1.32E+002
3	2425-	2447	2434.88	608.76	1.15	1.90E+002	48.09	1.06E+002
4	2631-	2657	2644.31	661.13	2.34	8.89E+002	73.20	1.15E+002
5	4752-	4763	4757.35	1189.54	0.60	1.20E+001	15.78	2.10E+001
6	5827-	5858	5842.85	1460.98	2.86	9.41E+002	66.75	4.38E+001
7	7053-	7066	7059.04	1765.11	0.72	1.74E+001	17.50	2.26E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/gram)	Activity Uncertainty
K-40	0.999	1460.81*		10.67	1.62841E+001	1.75265E+000
Cs-137	0.992	661.65*		85.12	1.59963E+000	2.29900E-001
TL-208	0.470	277.35		6.80		
		510.84		21.60		
		583.14*		84.20	2.30098E-001	8.64545E-002
		860.37		12.46		
Pb-212	0.333	74.81	@	10.70		
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	7.66057E-001	2.77630E-001
Bi-214	0.690	609.31*		46.30	6.10434E-001	1.72149E-001
		1120.29		15.10		
		1764.49*		15.80	2.10800E-001	2.13304E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
K-40	0.999	1.628410E+001	1.752650E+000
Cs-137	0.992	1.599632E+000	2.299000E-001
TL-208	0.470	2.300985E-001	8.645449E-002
Pb-212 @	0.333	7.660572E-001	2.776300E-001
Bi-214	0.690	4.528057E-001	1.339632E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
5	1189.54	2.0000E-002	131.47

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
	Co-60	1173.22	100.00	1.1150E-001	7.94E-002	3.0599E-002
		1332.49	100.00	7.9387E-002		3.9098E-002
	Nb-94	702.63	100.00	9.9682E-002	9.39E-002	-3.8922E-002
		871.10	100.00	9.3948E-002		5.2590E-002
	Ag-108m	79.20	7.10	6.2840E+000	1.24E-001	-2.6820E+001
		433.93	89.90	1.3814E-001		-2.4732E-003
		614.37	90.40	1.4617E-001		-1.5968E-001
		722.95	90.50	1.2419E-001		7.8882E-002
	Sb-125	176.33	6.89	2.6808E+000	4.33E-001	-2.5806E-001
		427.89	29.33	4.3267E-001		-5.5560E-002
		463.38	10.35	1.2183E+000		-5.3615E-001
		600.56	17.80	6.0960E-001		8.0044E-002
		606.64	5.02	2.8748E+000		5.6075E+000
		635.90	11.32	8.9974E-001		9.4335E-002
	Cs-134	563.23	8.38	1.3250E+000	1.18E-001	-7.9232E-001
		569.32	15.43	7.0814E-001		-8.6165E-003
		604.70	97.60	1.4199E-001		-1.2130E-002
		795.84	85.40	1.1809E-001		-5.0779E-003
		801.93	8.73	1.0688E+000		-1.2734E+000
+	Cs-137	661.65*	85.12	1.3808E-001	1.38E-001	1.5996E+000
	Eu-152	121.78	28.40	8.8537E-001	3.32E-001	-9.8253E-002
		244.69	7.49	2.1788E+000		-1.2247E+000
		344.27	26.50	4.9647E-001		-7.2761E-001
		778.89	12.74	7.6785E-001		-6.5929E-001
		867.32	4.16	2.3017E+000		-3.6366E+000
		964.01	14.40	8.2525E-001		1.3237E+000
		1085.78	10.00	8.9036E-001		-1.1248E+000
		1112.02	13.30	7.3443E-001		-4.9205E-001
		1407.95	20.70	3.3220E-001		1.2805E-001
	Eu-154	123.07	40.50	6.1393E-001	2.51E-001	-2.5682E-001
		247.94	6.60	2.3253E+000		-2.2122E+000
		591.81	4.83	2.2683E+000		-2.9865E-001
		723.30	19.70	5.7059E-001		4.5549E-001
		756.87	4.33	2.1505E+000		-3.1570E-001
		873.19	11.50	8.3104E-001		-2.0648E-002
		996.32	10.30	8.6496E-001		-6.2416E-002
		1004.76	17.90	4.6968E-001		-3.5042E-001
		1274.45	35.50	2.5112E-001		-3.9483E-002
	Eu-155	86.54	30.90	1.2622E+000	1.26E+000	2.7045E+000
		105.31	20.70	1.4108E+000		-1.8445E-001
	Am-241	59.54	35.90	1.5598E+000	1.56E+000	-7.3904E-001
	Cm-243	228.19	10.56	1.5261E+000	1.08E+000	-9.8050E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Cm-243	277.60	14.00	1.0776E+000	1.08E+000	1.1155E+000

+ = 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

Report Generated On 6/7/2006 8:35:41 AM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-01-260-F-
Sample Title: NOL-05-01-260-F-G-I
Description:

Sample Type:
Geometry:

Acquisition Started: 6/7/2006 8:30:39 AM
Live Time: 300.0 seconds
Real Time: 300.3 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 6/1/2006
Calibration Efficiency: 6279_SOIL_1M90
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-01-260-F-
Title: NOL-05-01-260-F-G-I
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	283-	308	291.51	72.71	0.88	1.02E+002	31.08	2.74E+002
m	2	283-	308	301.11	75.11	0.88	1.62E+002	36.38	3.04E+002
	3	2328-	2341	2332.31	583.06	0.78	3.76E+001	20.99	2.74E+001
	4	2429-	2445	2437.21	609.29	1.51	4.51E+001	18.78	1.49E+001
	5	2639-	2657	2646.84	661.72	1.44	3.10E+002	39.10	2.57E+001
	6	3640-	3652	3646.03	911.59	0.68	2.16E+001	13.93	1.04E+001
	7	5835-	5856	5845.71	1461.68	1.71	1.95E+002	29.51	8.41E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.974	1460.81*	10.67	1.59147E+001	2.73597E+000
Cs-137	1.000	661.65*	85.12	2.81777E+000	4.85941E-001
TL-208	0.471	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.33477E-001	1.91280E-001
		860.37	12.46		
Bi-214	0.386	609.31*	46.30	7.36355E-001	3.19866E-001
		1120.29	15.10		
		1764.49	15.80		

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40	0.974	1.591469E+001	2.735971E+000
Cs-137	1.000	2.817767E+000	4.859410E-001
TL-208	0.471	3.334770E-001	1.912802E-001
Bi-214	0.386	7.363547E-001	3.198664E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.71	3.3990E-001	30.48
m 2	75.11	5.4041E-001	22.44
6	911.59	7.2005E-002	64.49

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
	Co-60	1173.22	100.00	2.7503E-001	2.39E-001	7.5031E-002
		1332.49	100.00	2.3915E-001		-1.2149E-001
	Nb-94	702.63	100.00	2.7444E-001	2.44E-001	1.1638E-001
		871.10	100.00	2.4385E-001		1.3681E-001
	Ag-108m	79.20	7.10	1.2485E+001	3.18E-001	-5.0008E+000
		433.93	89.90	3.6538E-001		-2.5518E-001
		614.37	90.40	3.6269E-001		-2.1687E-001
		722.95	90.50	3.1817E-001		3.5188E-001
	Sb-125	176.33	6.89	6.1254E+000	1.08E+000	-4.0569E+000
		427.89	29.33	1.0812E+000		4.3973E-001
		463.38	10.35	3.0788E+000		-6.3891E-001
		600.56	17.80	1.5878E+000		-4.3182E-001
		606.64	5.02	7.0105E+000		2.9217E+000
		635.90	11.32	2.7171E+000		2.6559E+000
	Cs-134	563.23	8.38	3.3696E+000	3.00E-001	-2.6283E+000
		569.32	15.43	1.9073E+000		-6.9658E-001
		604.70	97.60	3.3036E-001		4.6387E-002
		795.84	85.40	3.0008E-001		1.0793E-001
		801.93	8.73	2.9706E+000		-1.2699E-001
+	Cs-137	661.65*	85.12	3.0441E-001	3.04E-001	2.8178E+000
	Eu-152	121.78	28.40	1.9567E+000	9.41E-001	4.6663E-001
		244.69	7.49	5.5476E+000		2.7063E+000
		344.27	26.50	1.2347E+000		-4.9632E-001
		778.89	12.74	1.9614E+000		-3.3330E-001
		867.32	4.16	5.7844E+000		-3.0449E+000
		964.01	14.40	2.2657E+000		1.4249E+000
		1085.78	10.00	2.5162E+000		3.2341E-001
		1112.02	13.30	1.7732E+000		-1.3104E-001
		1407.95	20.70	9.4131E-001		-2.9123E-002
	Eu-154	123.07	40.50	1.3359E+000	5.41E-001	-1.0527E+000
		247.94	6.60	5.7857E+000		-4.5800E+000
		591.81	4.83	6.2018E+000		-5.4121E-001
		723.30	19.70	1.4364E+000		1.1119E+000
		756.87	4.33	6.0803E+000		-3.2274E+000
		873.19	11.50	2.0104E+000		-9.7617E-001
		996.32	10.30	2.6904E+000		1.6327E+000
		1004.76	17.90	1.4003E+000		-8.6373E-002
		1274.45	35.50	5.4129E-001		1.1455E-001
	Eu-155	86.54	30.90	2.6717E+000	2.67E+000	3.5624E+000
		105.31	20.70	3.1287E+000		-4.9974E-001
	Am-241	59.54	35.90	3.2356E+000	3.24E+000	-3.4076E-001
	Cm-243	228.19	10.56	3.6248E+000	2.86E+000	2.1413E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	2.8555E+000	2.86E+000	4.4002E-001

+ = 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

Report Generated On 6/7/2006 8:57:31 AM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-01-261-F-
Sample Title: NOL-05-01-261-F-G-I
Description:

Sample Type:
Geometry:

Acquisition Started: 6/7/2006 8:47:27 AM
Live Time: 600.0 seconds
Real Time: 600.6 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-01-261-F-
Title: NOL-05-01-261-F-G-I
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	284-	314	291.94	72.81	1.13	2.15E+002	46.05	7.00E+002
m	2	284-	314	300.18	74.87	1.14	3.77E+002	53.56	7.92E+002
	3	331-	345	339.60	84.73	1.02	1.38E+002	91.99	7.12E+002
	4	948-	959	954.48	238.50	0.91	1.24E+002	42.62	1.39E+002
	5	1402-	1414	1408.54	352.05	1.40	5.24E+001	31.39	7.76E+001
	6	1848-	1857	1852.79	463.14	0.56	1.68E+001	20.75	4.22E+001
	7	2328-	2339	2333.73	583.41	0.61	4.03E+001	23.92	4.27E+001
	8	2637-	2657	2646.55	661.64	1.32	5.99E+002	59.34	8.69E+001
	9	3636-	3654	3645.29	911.40	1.06	7.65E+001	22.52	1.65E+001
	10	5835-	5858	5845.49	1461.62	2.12	4.31E+002	42.92	1.20E+001
	11	7055-	7068	7061.24	1765.65	0.98	2.51E+001	11.26	2.95E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.977	1460.81*	10.67	2.29778E+001	2.94883E+000
Cs-137	1.000	661.65*	85.12	3.28810E+000	5.05884E-001
TL-208	0.471	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	2.16399E-001	1.31535E-001
		860.37	12.46		
Pb-212	0.524	74.81* @	10.70	1.86156E+001	4.50773E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.01269E+000	3.83433E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40	0.977	2.297783E+001	2.948827E+000
Cs-137	1.000	3.288104E+000	5.058837E-001
TL-208	0.471	2.163989E-001	1.315350E-001
Pb-212 @	0.524	1.012688E+000	3.834334E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.81	3.5904E-001	21.37
3	84.73	2.3007E-001	66.64
5	352.05	8.7397E-002	59.86
6	463.14	2.8065E-002	123.23
9	911.40	1.2754E-001	29.43
11	1765.65	4.1756E-002	44.94

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
	Co-60	1173.22	100.00	2.2555E-001	1.85E-001	3.2311E-002
		1332.49	100.00	1.8524E-001		9.7592E-003
	Nb-94	702.63	100.00	2.5477E-001	1.74E-001	4.2063E-002
		871.10	100.00	1.7409E-001		-1.3725E-001
	Ag-108m	79.20	7.10	1.1479E+001	2.64E-001	1.5882E+000
		433.93	89.90	2.9810E-001		3.3887E-002
		614.37	90.40	3.0443E-001		-4.5739E-001
		722.95	90.50	2.6351E-001		1.0495E-001
	Sb-125	176.33	6.89	5.3451E+000	9.62E-001	-7.9304E-001
		427.89	29.33	9.6154E-001		7.0660E-001
		463.38	10.35	2.7198E+000		-9.7550E-001
		600.56	17.80	1.2949E+000		-4.6851E-001
		606.64	5.02	6.0953E+000		7.8834E+000
		635.90	11.32	2.1125E+000		-5.3304E-001
	Cs-134	563.23	8.38	2.9245E+000	2.78E-001	-4.2944E-001
		569.32	15.43	1.5373E+000		-6.4664E-001
		604.70	97.60	2.9456E-001		-8.6203E-002
		795.84	85.40	2.7811E-001		1.5019E-001
		801.93	8.73	2.7116E+000		7.8939E-001
+	Cs-137	661.65*	85.12	3.3660E-001	3.37E-001	3.2881E+000
	Eu-152	121.78	28.40	1.7811E+000	7.45E-001	-3.3892E-002
		244.69	7.49	4.3579E+000		-1.0437E+000
		344.27	26.50	1.0211E+000		-8.0299E-001
		778.89	12.74	1.6986E+000		1.2312E-001
		867.32	4.16	4.3357E+000		-1.8724E+000
		964.01	14.40	1.7779E+000		-5.9384E-001
		1085.78	10.00	2.1992E+000		-7.3104E-001
		1112.02	13.30	1.6441E+000		-9.1298E-001
		1407.95	20.70	7.4494E-001		-2.9354E-001
	Eu-154	123.07	40.50	1.2452E+000	5.98E-001	3.4352E-001
		247.94	6.60	4.7375E+000		-7.7150E-001
		591.81	4.83	4.6895E+000		-1.8786E+000
		723.30	19.70	1.2052E+000		6.2280E-001
		756.87	4.33	5.1369E+000		-1.3664E-001
		873.19	11.50	1.5567E+000		-7.9430E-001
		996.32	10.30	2.0341E+000		-2.8860E-001
		1004.76	17.90	1.1149E+000		3.1651E-001
		1274.45	35.50	5.9784E-001		-1.5155E-002
	Eu-155	86.54	30.90	2.4441E+000	2.44E+000	2.2301E-001
		105.31	20.70	2.9444E+000		2.0935E+000
	Am-241	59.54	35.90	3.0053E+000	3.01E+000	6.4777E-001
	Cm-243	228.19	10.56	3.0780E+000	2.23E+000	-1.2810E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	2.2321E+000	2.23E+000	1.3963E+000

+ = 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

Report Generated On 6/7/2006 9:36:45 AM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-01-262-F-
Sample Title: NOL-05-01-262-F-G-I
Description:

Sample Type:
Geometry:

Acquisition Started: 6/7/2006 9:31:44 AM
Live Time: 300.0 seconds
Real Time: 300.3 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 6/1/2006
Calibration Efficiency: 6279_SOIL_1M90
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-01-262-F-
Title: NOL-05-01-262-F-G-I
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	288-	304	291.69	72.75	0.65	7.16E+001	28.20	2.18E+002
m	2	288-	304	300.62	74.98	0.65	1.56E+002	35.60	2.45E+002
	3	946-	962	954.95	238.62	0.95	5.98E+001	35.45	8.52E+001
	4	2328-	2337	2332.24	583.04	1.35	2.95E+001	16.30	1.75E+001
	5	2637-	2657	2646.79	661.70	1.40	3.73E+002	41.47	2.07E+001
	6	5834-	5858	5845.91	1461.72	1.04	1.92E+002	28.91	6.25E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.971	1460.81*	10.67	1.56826E+001	2.68395E+000
Cs-137	1.000	661.65*	85.12	3.39022E+000	5.48741E-001
TL-208	0.471	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	2.61796E-001	1.48640E-001
		860.37	12.46		
Pb-212	0.518	74.81* @	10.70	1.18870E+001	3.57430E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	7.90797E-001	4.85051E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40	0.971	1.568260E+001	2.683955E+000
Cs-137	1.000	3.390220E+000	5.487406E-001
TL-208	0.471	2.617960E-001	1.486396E-001
Pb-212 @	0.518	7.907969E-001	4.850507E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.75	2.3875E-001	39.37

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
	Co-60	1173.22	100.00	2.5585E-001	2.43E-001	1.8830E-001
		1332.49	100.00	2.4284E-001		7.7025E-002
	Nb-94	702.63	100.00	2.8951E-001	2.21E-001	-4.0375E-001
		871.10	100.00	2.2107E-001		-2.5187E-001
	Ag-108m	79.20	7.10	1.2434E+001	3.17E-001	-3.0354E+001
		433.93	89.90	3.3230E-001		-6.3178E-001
		614.37	90.40	3.1714E-001		-3.3449E-001
		722.95	90.50	3.3152E-001		2.7105E-001
	Sb-125	176.33	6.89	5.8437E+000	1.06E+000	-5.5838E+000
		427.89	29.33	1.0635E+000		4.1460E-002
		463.38	10.35	3.4206E+000		1.7135E-001
		600.56	17.80	1.7379E+000		4.1068E-002
		606.64	5.02	6.9359E+000		3.5414E+000
		635.90	11.32	2.6778E+000		1.2252E+000
	Cs-134	563.23	8.38	3.2316E+000	3.13E-001	-1.6565E+000
		569.32	15.43	1.6651E+000		-7.3791E-001
		604.70	97.60	3.5256E-001		7.1672E-002
		795.84	85.40	3.1319E-001		-4.9708E-002
		801.93	8.73	3.1588E+000		7.7548E-001
+	Cs-137	661.65*	85.12	2.8214E-001	2.82E-001	3.3902E+000
	Eu-152	121.78	28.40	1.9801E+000	9.64E-001	4.9413E-001
		244.69	7.49	4.9531E+000		1.6495E+000
		344.27	26.50	1.2730E+000		-5.7963E-001
		778.89	12.74	1.9614E+000		5.5419E-003
		867.32	4.16	4.8789E+000		-5.7320E+000
		964.01	14.40	2.1140E+000		1.6825E-001
		1085.78	10.00	2.0824E+000		-1.2864E+000
		1112.02	13.30	1.9016E+000		9.0353E-001
		1407.95	20.70	9.6400E-001		-7.7804E-002
	Eu-154	123.07	40.50	1.3648E+000	6.37E-001	4.3827E-002
		247.94	6.60	5.7697E+000		4.8260E+000
		591.81	4.83	6.0182E+000		4.7633E-001
		723.30	19.70	1.5110E+000		3.9753E-001
		756.87	4.33	6.3289E+000		3.5584E+000
		873.19	11.50	1.8927E+000		-3.9950E-001
		996.32	10.30	2.5195E+000		-8.4661E-001
		1004.76	17.90	1.4003E+000		-3.1342E-001
		1274.45	35.50	6.3738E-001		-5.3541E-001
	Eu-155	86.54	30.90	2.6757E+000	2.68E+000	2.7194E-001
		105.31	20.70	3.0989E+000		-1.9710E+000
	Am-241	59.54	35.90	3.2992E+000	3.30E+000	1.3119E+000
	Cm-243	228.19	10.56	3.5382E+000	2.75E+000	-1.6195E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	2.7548E+000	2.75E+000	-1.9959E-001

+ = 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

Report Generated On 6/7/2006 10:04:12 AM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-01-263-F-
Sample Title: NOL-05-01-263-F-G-I
Description:

Sample Type:
Geometry:

Acquisition Started: 6/7/2006 9:59:11 AM
Live Time: 300.0 seconds
Real Time: 300.3 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 6/1/2006
Calibration Efficiency: 6279_SOIL_1M90
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-01-263-F-
Title: NOL-05-01-263-F-G-I
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	288-	305	292.00	72.83	0.94	9.13E+001	31.27	2.44E+002
m	2	288-	305	300.21	74.88	0.94	2.08E+002	38.14	3.04E+002
	3	334-	345	338.72	84.51	0.84	5.39E+001	52.56	2.63E+002
	4	949-	959	954.96	238.62	0.79	3.93E+001	26.73	6.17E+001
	5	2327-	2340	2332.98	583.23	1.06	4.20E+001	17.63	1.40E+001
	6	2638-	2657	2646.93	661.74	1.03	3.10E+002	37.92	1.88E+001
	7	3639-	3651	3644.86	911.30	0.62	1.84E+001	14.76	1.46E+001
	8	5835-	5857	5845.98	1461.74	1.84	2.18E+002	31.73	1.15E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.970	1460.81*	10.67	1.77886E+001	2.96813E+000
Cs-137	1.000	661.65*	85.12	2.81661E+000	4.78032E-001
TL-208	0.471	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.72758E-001	1.63798E-001
		860.37	12.46		
Pb-212	0.519	74.81* @	10.70	1.58390E+001	4.25462E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	5.19834E-001	3.62824E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40	0.970	1.778863E+001	2.968125E+000
Cs-137	1.000	2.816614E+000	4.780319E-001
TL-208	0.471	3.727584E-001	1.637977E-001
Pb-212 @	0.519	5.198343E-001	3.628237E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.83	3.0442E-001	34.24
3	84.51	1.7962E-001	97.54
7	911.30	6.1414E-002	80.12

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
	Co-60	1173.22	100.00	2.6242E-001	2.46E-001	-7.8911E-003
		1332.49	100.00	2.4646E-001		3.0150E-002
	Nb-94	702.63	100.00	2.3824E-001	2.38E-001	-1.5754E-001
		871.10	100.00	2.3759E-001		3.7825E-002
	Ag-108m	79.20	7.10	1.2280E+001	2.95E-001	-1.0573E+001
		433.93	89.90	3.0887E-001		-1.7510E-001
		614.37	90.40	3.6713E-001		-1.8893E-001
		722.95	90.50	2.9545E-001		2.1558E-003
	Sb-125	176.33	6.89	6.1482E+000	1.01E+000	1.1986E+000
		427.89	29.33	1.0084E+000		7.0356E-002
		463.38	10.35	3.2136E+000		4.1989E-001
		600.56	17.80	1.7139E+000		-1.0226E-001
		606.64	5.02	7.2652E+000		7.0413E+000
		635.90	11.32	2.3606E+000		8.2515E-001
	Cs-134	563.23	8.38	3.7027E+000	3.44E-001	2.1651E+000
		569.32	15.43	1.7447E+000		-1.2182E+000
		604.70	97.60	3.5644E-001		-1.4396E-002
		795.84	85.40	3.4361E-001		3.5508E-002
		801.93	8.73	3.0028E+000		-5.3406E+000
+	Cs-137	661.65*	85.12	2.6372E-001	2.64E-001	2.8166E+000
	Eu-152	121.78	28.40	1.9045E+000	7.31E-001	1.7653E-001
		244.69	7.49	5.6362E+000		6.1347E+000
		344.27	26.50	1.2730E+000		-3.1728E-001
		778.89	12.74	1.9614E+000		-2.0260E+000
		867.32	4.16	5.7086E+000		-2.4873E+000
		964.01	14.40	1.9873E+000		3.8343E-001
		1085.78	10.00	2.3463E+000		-2.0502E+000
		1112.02	13.30	1.8514E+000		-3.7455E-001
		1407.95	20.70	7.3051E-001		9.4358E-002
	Eu-154	123.07	40.50	1.2937E+000	6.37E-001	-8.3780E-001
		247.94	6.60	5.6405E+000		4.5349E-001
		591.81	4.83	6.1565E+000		-3.5651E+000
		723.30	19.70	1.3709E+000		5.0616E-001
		756.87	4.33	5.9518E+000		2.5541E+000
		873.19	11.50	2.0940E+000		3.5027E-001
		996.32	10.30	2.4596E+000		5.1292E-001
		1004.76	17.90	1.4179E+000		1.1432E-002
		1274.45	35.50	6.3738E-001		-3.3159E-001
	Eu-155	86.54	30.90	2.6032E+000	2.60E+000	7.9383E-001
		105.31	20.70	3.1875E+000		1.1259E+000
	Am-241	59.54	35.90	3.3305E+000	3.33E+000	1.3558E-002
	Cm-243	228.19	10.56	3.6248E+000	2.62E+000	1.5875E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	2.6171E+000	2.62E+000	2.0393E+000

+ = 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

Report Generated On 6/7/2006 10:16:46 AM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-01-264-F-
Sample Title: NOL-05-01-264-F-G-I
Description:

Sample Type:
Geometry:

Acquisition Started: 6/7/2006 10:11:46 AM
Live Time: 300.0 seconds
Real Time: 300.3 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 6/1/2006
Calibration Efficiency: 6279_SOIL_1M90
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-01-264-F-
Title: NOL-05-01-264-F-G-I
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	296-	305	300.84	75.04	0.85	8.07E+001	56.72	3.29E+002
2	948-	961	954.63	238.54	0.92	7.17E+001	33.86	8.23E+001
3	2040-	2050	2044.51	511.09	0.46	2.96E+001	20.53	3.34E+001
4	2326-	2338	2333.04	583.24	1.21	3.33E+001	18.97	2.27E+001
5	2433-	2444	2437.96	609.48	0.93	2.19E+001	15.48	1.61E+001
6	2635-	2656	2646.59	661.65	1.21	2.47E+002	37.74	3.30E+001
7	3640-	3651	3645.71	911.51	0.31	2.50E+001	12.41	6.00E+000
8	5835-	5856	5846.47	1461.87	2.09	1.85E+002	28.81	8.31E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
ANN	1.000	511.00*	100.00	2.13427E-001	1.50864E-001
K-40	0.962	1460.81*	10.67	1.51056E+001	2.65474E+000
Cs-137	1.000	661.65*	85.12	2.24294E+000	4.32662E-001
TL-208	0.750	277.35	6.80		
		510.84*	21.60	9.88090E-001	7.03091E-001
		583.14*	84.20	2.95419E-001	1.72735E-001
		860.37	12.46		
Pb-212	0.518	74.81* @	10.70	6.13635E+000	4.47933E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	9.48062E-001	4.71864E-001
Bi-214	0.385	609.31*	46.30	3.58219E-001	2.56706E-001
		1120.29	15.10		
		1764.49	15.80		

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
ANN	1.000	1.496169E-001	1.553955E-001
K-40	0.962	1.510563E+001	2.654742E+000
Cs-137	1.000	2.242942E+000	4.326621E-001
TL-208	0.750	2.954194E-001	1.724668E-001
Pb-212 @	0.518	9.480624E-001	4.718641E-001
Bi-214	0.385	3.582187E-001	2.567064E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
7	911.51	8.3333E-002	49.62

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
	Co-60	1173.22	100.00	2.8111E-001	2.70E-001	-1.0283E-002
		1332.49	100.00	2.7038E-001		1.5420E-001
	Nb-94	702.63	100.00	2.4124E-001	2.10E-001	-1.6979E-002
		871.10	100.00	2.1047E-001		6.9907E-002
	Ag-108m	79.20	7.10	1.1913E+001	3.21E-001	-1.9121E+001
		433.93	89.90	3.3637E-001		-1.9134E-001
		614.37	90.40	3.4665E-001		-2.6351E-001
		722.95	90.50	3.2089E-001		-1.0309E-002
	Sb-125	176.33	6.89	6.0446E+000	9.89E-001	-3.0450E+000
		427.89	29.33	9.8935E-001		-4.9469E-001
		463.38	10.35	3.2626E+000		1.6473E-001
		600.56	17.80	1.7017E+000		-7.0516E-001
		606.64	5.02	6.8982E+000		8.3118E+000
		635.90	11.32	2.6177E+000		5.6019E-001
	Cs-134	563.23	8.38	3.7511E+000	3.20E-001	1.0157E+000
		569.32	15.43	1.9352E+000		-4.7231E-001
		604.70	97.60	3.3451E-001		-1.9061E-001
		795.84	85.40	3.1952E-001		1.5963E-001
		801.93	8.73	2.8714E+000		-4.8157E-001
+	Cs-137	661.65*	85.12	3.5702E-001	3.57E-001	2.2429E+000
	Eu-152	121.78	28.40	1.9438E+000	7.89E-001	8.2501E-001
		244.69	7.49	5.0806E+000		5.4543E-001
		344.27	26.50	1.2622E+000		-6.5389E-002
		778.89	12.74	1.9843E+000		-1.1216E+000
		867.32	4.16	4.8789E+000		-3.0314E+000
		964.01	14.40	1.9302E+000		-1.9656E+000
		1085.78	10.00	2.3463E+000		-1.8727E-002
		1112.02	13.30	1.8767E+000		-2.8213E+000
		1407.95	20.70	7.8940E-001		2.3415E-001
	Eu-154	123.07	40.50	1.3588E+000	7.10E-001	6.7273E-001
		247.94	6.60	5.4744E+000		1.5243E+000
		591.81	4.83	6.2468E+000		1.4188E+000
		723.30	19.70	1.5110E+000		3.7089E-001
		756.87	4.33	5.8864E+000		1.1619E+000
		873.19	11.50	1.8620E+000		7.2213E-001
		996.32	10.30	2.5195E+000		-3.1882E-001
		1004.76	17.90	1.5977E+000		1.3818E+000
		1274.45	35.50	7.0981E-001		3.2172E-001
	Eu-155	86.54	30.90	2.6134E+000	2.61E+000	1.1823E+000
		105.31	20.70	3.1227E+000		-8.7301E-001
	Am-241	59.54	35.90	3.2452E+000	3.25E+000	2.4313E+000
	Cm-243	228.19	10.56	3.5673E+000	2.65E+000	-1.3150E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	2.6501E+000	2.65E+000	1.6865E+000

+ = 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

Report Generated On 6/7/2006 10:25:09 AM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-01-265-F-
Sample Title: NOL-05-01-265-F-G-I
Description:

Sample Type:
Geometry:

Acquisition Started: 6/7/2006 10:20:10 AM
Live Time: 300.0 seconds
Real Time: 300.3 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 6/1/2006
Calibration Efficiency: 6279_SOIL_1M90
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-01-265-F-
Title: NOL-05-01-265-F-G-I
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	297-	307	301.29	75.15	1.26	1.44E+002	56.39	2.85E+002
2	331-	346	339.49	84.70	0.75	8.37E+001	68.92	3.81E+002
3	2429-	2440	2435.54	608.87	0.69	4.06E+001	17.73	1.64E+001
4	2636-	2657	2646.67	661.67	1.97	2.85E+002	36.48	1.65E+001
5	5835-	5856	5846.02	1461.75	2.15	1.95E+002	28.75	5.50E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.969	1460.81*	10.67	1.59076E+001	2.68085E+000
Cs-137	1.000	661.65*	85.12	2.58348E+000	4.49708E-001
Bi-214	0.382	609.31*	46.30	6.62969E-001	3.00808E-001
		1120.29	15.10		
		1764.49	15.80		

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40	0.969	1.590755E+001	2.680845E+000
Cs-137	1.000	2.583478E+000	4.497079E-001
Bi-214	0.382	6.629688E-001	3.008084E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
1	75.15	4.8062E-001	39.11
2	84.70	2.7915E-001	82.30

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
	Co-60	1173.22	100.00	2.8704E-001	2.54E-001	1.5182E-001
		1332.49	100.00	2.5355E-001		4.7378E-002
	Nb-94	702.63	100.00	2.9673E-001	2.67E-001	1.1482E-001
		871.10	100.00	2.6731E-001		-2.3708E-002
	Ag-108m	79.20	7.10	1.2019E+001	3.07E-001	-6.7426E+000
		433.93	89.90	3.4039E-001		-1.7774E-001
		614.37	90.40	3.5818E-001		-5.6255E-001
		722.95	90.50	3.0704E-001		-3.1992E-002
	Sb-125	176.33	6.89	5.8075E+000	1.12E+000	-2.0132E+000
		427.89	29.33	1.1158E+000		3.6231E-001
		463.38	10.35	3.3740E+000		-3.9870E-001
		600.56	17.80	1.4204E+000		-7.6933E-002
		606.64	5.02	7.0843E+000		5.1744E+000
		635.90	11.32	2.1709E+000		-4.3112E-001
	Cs-134	563.23	8.38	3.0571E+000	2.72E-001	1.3670E+000
		569.32	15.43	1.5103E+000		8.9147E-001
		604.70	97.60	3.4863E-001		-1.6203E-001
		795.84	85.40	2.7179E-001		9.4646E-002
		801.93	8.73	2.6973E+000		-4.8392E-001
+	Cs-137	661.65*	85.12	2.5960E-001	2.60E-001	2.5835E+000
	Eu-152	121.78	28.40	1.8935E+000	8.94E-001	-2.5967E-001
		244.69	7.49	4.8220E+000		-1.8807E+000
		344.27	26.50	1.1777E+000		-9.9995E-001
		778.89	12.74	2.0945E+000		-2.3744E+000
		867.32	4.16	6.5555E+000		-4.1802E+000
		964.01	14.40	2.1828E+000		1.2723E+000
		1085.78	10.00	2.0416E+000		-2.9319E-001
		1112.02	13.30	1.7188E+000		5.3410E-001
		1407.95	20.70	8.9397E-001		-4.3903E-001
	Eu-154	123.07	40.50	1.3173E+000	6.59E-001	-9.1630E-002
		247.94	6.60	5.2854E+000		-1.1643E+000
		591.81	4.83	5.8765E+000		9.1015E-001
		723.30	19.70	1.4364E+000		8.4375E-002
		756.87	4.33	5.4759E+000		-4.1401E-002
		873.19	11.50	2.3251E+000		9.2796E-001
		996.32	10.30	2.4897E+000		6.0901E-001
		1004.76	17.90	1.4352E+000		5.7158E-002
		1274.45	35.50	6.5898E-001		1.9852E-001
	Eu-155	86.54	30.90	2.6915E+000	2.69E+000	-9.7460E-001
		105.31	20.70	3.2566E+000		2.3255E+000
	Am-241	59.54	35.90	3.5300E+000	3.53E+000	3.1378E+000
	Cm-243	228.19	10.56	3.6999E+000	2.56E+000	2.1929E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	2.5581E+000	2.56E+000	-1.6165E+000

+ = 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

Report Generated On 6/7/2006 10:34:01 AM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-01-266-F-
Sample Title: NOL-05-01-266-F-G-I
Description:

Sample Type:
Geometry:

Acquisition Started: 6/7/2006 10:29:00 AM
Live Time: 300.0 seconds
Real Time: 300.3 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 6/1/2006
Calibration Efficiency: 6279_SOIL_1M90
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-01-266-F-
Title: NOL-05-01-266-F-G-I
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	297-	308	300.58	74.98	0.90	1.73E+002	60.68	3.08E+002
2	2637-	2655	2646.56	661.65	1.30	1.19E+002	26.53	1.90E+001
3	5835-	5856	5846.73	1461.93	1.86	1.83E+002	28.63	8.19E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.957	1460.81*	10.67	1.49514E+001	2.63627E+000
Cs-137	1.000	661.65*	85.12	1.08061E+000	2.72403E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40	0.957	1.495141E+001	2.636274E+000
Cs-137	1.000	1.080606E+000	2.724034E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
1	74.98	5.7693E-001	35.06

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
	Co-60	1173.22	100.00	2.8111E-001	2.35E-001	4.0199E-002
		1332.49	100.00	2.3539E-001		6.7067E-002
	Nb-94	702.63	100.00	2.4999E-001	2.24E-001	2.5771E-003
		871.10	100.00	2.2448E-001		5.1761E-002
	Ag-108m	79.20	7.10	1.2040E+001	3.04E-001	-1.4739E+001
		433.93	89.90	3.3434E-001		2.0347E-002
		614.37	90.40	3.5591E-001		-1.6880E-001
		722.95	90.50	3.0419E-001		-5.8339E-002
	Sb-125	176.33	6.89	5.4576E+000	9.96E-001	-2.9467E+000
		427.89	29.33	9.9576E-001		-1.1726E-001
		463.38	10.35	2.8826E+000		6.5869E-001
		600.56	17.80	1.4055E+000		-1.4782E+000
		606.64	5.02	5.9186E+000		-3.5832E+000
		635.90	11.32	2.3378E+000		4.0536E-001
	Cs-134	563.23	8.38	3.3965E+000	2.90E-001	2.5808E+000
		569.32	15.43	1.6153E+000		-7.3546E-002
		604.70	97.60	2.9722E-001		-8.1668E-002
		795.84	85.40	2.8983E-001		1.4312E-001
		801.93	8.73	2.5866E+000		-1.1811E-001
+	Cs-137	661.65*	85.12	2.6386E-001	2.64E-001	1.0806E+000
	Eu-152	121.78	28.40	1.7576E+000	9.86E-001	-1.7463E+000
		244.69	7.49	4.8220E+000		4.1726E+000
		344.27	26.50	1.1237E+000		-2.1871E-001
		778.89	12.74	2.0730E+000		-1.1701E+000
		867.32	4.16	5.2284E+000		-4.7884E+000
		964.01	14.40	2.1487E+000		1.0080E+000
		1085.78	10.00	2.3106E+000		-2.3046E+000
		1112.02	13.30	1.9262E+000		2.2644E+000
		1407.95	20.70	9.8609E-001		6.2643E-001
	Eu-154	123.07	40.50	1.2400E+000	5.00E-001	3.2137E-001
		247.94	6.60	5.3376E+000		4.2898E+000
		591.81	4.83	5.9714E+000		3.6284E+000
		723.30	19.70	1.4236E+000		4.8045E-001
		756.87	4.33	5.8864E+000		2.9820E-001
		873.19	11.50	2.0104E+000		9.6481E-001
		996.32	10.30	2.1676E+000		1.2054E+000
		1004.76	17.90	1.3083E+000		-1.2169E-002
		1274.45	35.50	4.9982E-001		-1.2359E+000
	Eu-155	86.54	30.90	2.5744E+000	2.57E+000	1.2200E+000
		105.31	20.70	2.9828E+000		-1.6419E+000
	Am-241	59.54	35.90	3.0944E+000	3.09E+000	1.0887E+000
	Cm-243	228.19	10.56	3.4193E+000	2.35E+000	2.9228E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	2.3533E+000	2.35E+000	2.3656E+000

+ = 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

Report Generated On 6/7/2006 10:43:20 AM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-01-267-F-
Sample Title: NOL-05-01-267-F-G-I
Description:

Sample Type:
Geometry:

Acquisition Started: 6/7/2006 10:38:19 AM
Live Time: 300.0 seconds
Real Time: 300.3 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 6/1/2006
Calibration Efficiency: 6279_SOIL_1M90
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-01-267-F-
Title: NOL-05-01-267-F-G-I
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	284-	306	292.11	72.86	1.06	7.69E+001	30.64	3.59E+002
m	2	284-	306	300.82	75.03	1.06	1.73E+002	37.80	3.85E+002
	3	947-	962	956.18	238.92	1.20	6.72E+001	34.36	7.98E+001
	4	2429-	2443	2435.84	608.95	1.11	5.78E+001	19.18	1.32E+001
	5	2637-	2655	2646.72	661.69	1.24	1.61E+002	29.44	1.91E+001
	6	3639-	3653	3646.00	911.58	0.36	3.18E+001	14.95	9.19E+000
	7	5836-	5857	5846.42	1461.85	1.92	2.16E+002	29.43	2.54E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.963	1460.81*	10.67	1.77037E+001	2.80164E+000
Cs-137	1.000	661.65*	85.12	1.46145E+000	3.17896E-001
Pb-212	0.517	74.81* @	10.70	1.31572E+001	3.86297E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	8.89240E-001	4.75532E-001
Bi-214	0.383	609.31*	46.30	9.44477E-001	3.34118E-001
		1120.29	15.10		
		1764.49	15.80		

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40	0.963	1.770367E+001	2.801639E+000
Cs-137	1.000	1.461452E+000	3.178963E-001
Pb-212 @	0.517	8.892400E-001	4.755316E-001
Bi-214	0.383	9.444771E-001	3.341180E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.86	2.5645E-001	39.83
6	911.58	1.0604E-001	46.99

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
	Co-60	1173.22	100.00	2.8996E-001	2.07E-001	1.4332E-001
		1332.49	100.00	2.0698E-001		-4.7275E-002
	Nb-94	702.63	100.00	2.7184E-001	2.65E-001	5.1097E-002
		871.10	100.00	2.6451E-001		-7.8752E-002
	Ag-108m	79.20	7.10	1.2756E+001	3.15E-001	-6.6795E+000
		433.93	89.90	3.4039E-001		9.1920E-002
		614.37	90.40	3.7585E-001		-2.6037E-001
		722.95	90.50	3.1543E-001		-2.8026E-002
	Sb-125	176.33	6.89	5.5852E+000	1.06E+000	3.0218E+000
		427.89	29.33	1.0635E+000		-3.2638E-001
		463.38	10.35	3.2463E+000		1.2170E-001
		600.56	17.80	1.4055E+000		-5.0480E-001
		606.64	5.02	7.1208E+000		7.1569E+000
		635.90	11.32	2.5140E+000		1.5993E+000
	Cs-134	563.23	8.38	3.5531E+000	3.07E-001	3.1146E+000
		569.32	15.43	1.7754E+000		-8.5412E-001
		604.70	97.60	3.3451E-001		-1.8252E-001
		795.84	85.40	3.0671E-001		6.8180E-003
		801.93	8.73	2.5097E+000		2.8835E-001
+	Cs-137	661.65*	85.12	2.6474E-001	2.65E-001	1.4615E+000
	Eu-152	121.78	28.40	1.9067E+000	9.41E-001	-5.9334E-001
		244.69	7.49	4.7326E+000		-3.3795E+000
		344.27	26.50	1.3102E+000		-9.1901E-002
		778.89	12.74	2.0512E+000		-1.2350E-001
		867.32	4.16	5.9328E+000		-5.5435E+000
		964.01	14.40	2.1487E+000		7.7219E-001
		1085.78	10.00	2.3813E+000		-1.6471E+000
		1112.02	13.30	2.1552E+000		9.0831E-001
		1407.95	20.70	9.4131E-001		7.5486E-001
	Eu-154	123.07	40.50	1.2984E+000	6.37E-001	-9.6201E-001
		247.94	6.60	5.3722E+000		3.4066E+000
		591.81	4.83	6.2018E+000		1.1807E+000
		723.30	19.70	1.4742E+000		8.4185E-001
		756.87	4.33	6.2677E+000		-2.3306E+000
		873.19	11.50	2.2256E+000		-1.2640E+000
		996.32	10.30	2.5488E+000		2.5780E-001
		1004.76	17.90	1.2292E+000		-2.6183E+000
		1274.45	35.50	6.3738E-001		-1.2058E-002
	Eu-155	86.54	30.90	2.6154E+000	2.62E+000	2.8092E+000
		105.31	20.70	3.1049E+000		3.6973E-001
	Am-241	59.54	35.90	3.2580E+000	3.26E+000	2.6546E-001
	Cm-243	228.19	10.56	3.4092E+000	2.33E+000	1.1618E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	2.3252E+000	2.33E+000	7.3185E-001

+ = 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

Report Generated On 6/7/2006 10:51:30 AM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-01-268-F-
Sample Title: NOL-05-01-268-F-G-I
Description:

Sample Type:
Geometry:

Acquisition Started: 6/7/2006 10:46:29 AM
Live Time: 300.0 seconds
Real Time: 300.3 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 6/1/2006
Calibration Efficiency: 6279_SOIL_1M90
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-01-268-F-
Title: NOL-05-01-268-F-G-I
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	296-	308	300.76	75.02	0.85	1.39E+002	66.18	3.76E+002
2	949-	962	954.49	238.50	0.44	8.00E+001	31.43	6.40E+001
3	1400-	1414	1408.05	351.93	0.81	5.46E+001	24.53	3.54E+001
4	2326-	2337	2332.17	583.03	0.93	3.58E+001	16.86	1.42E+001
5	2433-	2442	2437.58	609.38	0.97	3.35E+001	16.75	1.75E+001
6	2637-	2656	2646.53	661.64	1.24	1.85E+002	32.73	2.58E+001
7	5326-	5337	5331.45	1333.07	0.59	1.17E+001	11.79	9.31E+000
8	5835-	5857	5846.53	1461.88	1.53	2.12E+002	30.69	8.51E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.961	1460.81*	10.67	1.73790E+001	2.87775E+000
Cs-137	1.000	661.65*	85.12	1.68197E+000	3.57126E-001
TL-208	0.471	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.17924E-001	1.55227E-001
		860.37	12.46		
Pb-212	0.518	74.81* @	10.70	1.06084E+001	5.44851E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.05761E+000	4.47565E-001
Bi-214	0.386	609.31*	46.30	5.47082E-001	2.81724E-001
		1120.29	15.10		
		1764.49	15.80		

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40	0.961	1.737901E+001	2.877749E+000
Cs-137	1.000	1.681972E+000	3.571260E-001
TL-208	0.471	3.179244E-001	1.552274E-001
Pb-212 @	0.518	1.057605E+000	4.475645E-001
Bi-214	0.386	5.470824E-001	2.817236E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
3	351.93	1.8186E-001	44.96
7	1333.07	3.8968E-002	100.84

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
	Co-60	1173.22	100.00	2.8704E-001	2.64E-001	1.7001E-001
		1332.49	100.00	2.6379E-001		2.4706E-001
	Nb-94	702.63	100.00	2.6117E-001	2.41E-001	-3.1986E-001
		871.10	100.00	2.4074E-001		5.1761E-003
	Ag-108m	79.20	7.10	1.2393E+001	3.13E-001	-1.1761E-001
		433.93	89.90	3.4436E-001		-4.4160E-002
		614.37	90.40	3.4899E-001		-3.8238E-001
		722.95	90.50	3.1266E-001		-2.2487E-001
	Sb-125	176.33	6.89	5.8075E+000	1.06E+000	-3.7777E+000
		427.89	29.33	1.0576E+000		-2.6108E-001
		463.38	10.35	3.1971E+000		5.7428E-001
		600.56	17.80	1.5745E+000		1.0240E+000
		606.64	5.02	7.0843E+000		7.7592E+000
		635.90	11.32	2.4713E+000		2.4889E-001
	Cs-134	563.23	8.38	3.4231E+000	3.26E-001	-1.4956E+000
		569.32	15.43	1.9900E+000		8.5412E-001
		604.70	97.60	3.3451E-001		-2.6623E-001
		795.84	85.40	3.2572E-001		2.3890E-001
		801.93	8.73	2.8714E+000		-2.6524E+000
+	Cs-137	661.65*	85.12	3.1362E-001	3.14E-001	1.6820E+000
	Eu-152	121.78	28.40	1.9907E+000	8.94E-001	1.5804E+000
		244.69	7.49	4.5949E+000		-1.5122E+000
		344.27	26.50	1.2347E+000		-9.0880E-001
		778.89	12.74	1.9148E+000		-2.2932E+000
		867.32	4.16	6.2870E+000		-4.8562E+000
		964.01	14.40	2.1828E+000		2.1032E-001
		1085.78	10.00	2.8229E+000		4.8088E-002
		1112.02	13.30	1.9979E+000		1.1564E+000
		1407.95	20.70	8.9397E-001		1.3105E-001
	Eu-154	123.07	40.50	1.3753E+000	7.48E-001	5.1225E-001
		247.94	6.60	5.1253E+000		-2.3289E+000
		591.81	4.83	5.7799E+000		-2.3299E-001
		723.30	19.70	1.4491E+000		-1.9135E-001
		756.87	4.33	5.6852E+000		-1.2679E+000
		873.19	11.50	1.9229E+000		-1.3058E+000
		996.32	10.30	2.5778E+000		2.2805E+000
		1004.76	17.90	1.4003E+000		-3.5851E-001
		1274.45	35.50	7.4776E-001		5.7274E-001
	Eu-155	86.54	30.90	2.6697E+000	2.67E+000	2.1488E+000
		105.31	20.70	3.0597E+000		5.7113E-001
	Am-241	59.54	35.90	3.2163E+000	3.22E+000	-1.0835E+000
	Cm-243	228.19	10.56	3.5866E+000	2.53E+000	3.4648E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	2.5323E+000	2.53E+000	-5.6386E-001

+ = 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

Report Generated On 6/7/2006 11:00:36 AM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-01-269-F-
Sample Title: NOL-05-01-269-F-G-I
Description:

Sample Type:
Geometry:

Acquisition Started: 6/7/2006 10:55:35 AM
Live Time: 300.0 seconds
Real Time: 300.3 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 6/1/2006
Calibration Efficiency: 6279_SOIL_1M90
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-01-269-F-
Title: NOL-05-01-269-F-G-I
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	296-	315	300.20	74.88	1.10	1.62E+002	88.52	5.32E+002
2	951-	960	954.88	238.60	0.76	3.42E+001	26.28	6.18E+001
3	1403-	1414	1407.35	351.75	0.50	2.80E+001	21.34	3.60E+001
4	2637-	2657	2647.03	661.77	1.35	1.13E+002	28.45	2.65E+001
5	4477-	4488	4482.44	1120.75	0.50	1.73E+001	10.68	4.72E+000
6	5835-	5857	5846.36	1461.84	1.38	1.90E+002	29.99	1.15E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.964	1460.81*	10.67	1.54987E+001	2.75491E+000
Cs-137	1.000	661.65*	85.12	1.03065E+000	2.85394E-001
Pb-212	0.519	74.81* @	10.70	1.23564E+001	7.17387E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	4.51723E-001	3.54756E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40	0.964	1.549874E+001	2.754909E+000
Cs-137	1.000	1.030650E+000	2.853938E-001
Pb-212 @	0.519	4.517226E-001	3.547564E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
3	351.75	9.3333E-002	76.22
5	1120.75	5.7614E-002	61.79

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
	Co-60	1173.22	100.00	2.6880E-001	1.93E-001	-3.8637E-001
		1332.49	100.00	1.9335E-001		-1.7408E-001
	Nb-94	702.63	100.00	2.5842E-001	2.31E-001	1.9179E-002
		871.10	100.00	2.3114E-001		-1.2175E-001
	Ag-108m	79.20	7.10	1.2393E+001	3.13E-001	-3.7725E+000
		433.93	89.90	3.1327E-001		-4.8946E-002
		614.37	90.40	3.7152E-001		-2.5514E-001
		722.95	90.50	3.1817E-001		-6.7309E-002
	Sb-125	176.33	6.89	5.8196E+000	9.96E-001	6.9245E-001
		427.89	29.33	9.9576E-001		2.2031E-001
		463.38	10.35	2.9913E+000		1.6322E+000
		600.56	17.80	1.4055E+000		-7.3088E-001
		606.64	5.02	7.5453E+000		8.8766E+000
		635.90	11.32	2.3148E+000		-7.2370E-001
	Cs-134	563.23	8.38	3.2032E+000	3.03E-001	-1.5299E+000
		569.32	15.43	1.8499E+000		-1.3626E+000
		604.70	97.60	3.6027E-001		1.6809E-001
		795.84	85.40	3.0342E-001		7.3760E-002
		801.93	8.73	2.7331E+000		-7.4001E-001
+	Cs-137	661.65*	85.12	3.1903E-001	3.19E-001	1.0307E+000
	Eu-152	121.78	28.40	1.8599E+000	9.18E-001	1.3640E+000
		244.69	7.49	4.8073E+000		-3.3457E+000
		344.27	26.50	1.0405E+000		2.8796E-001
		778.89	12.74	2.0068E+000		-2.4061E-001
		867.32	4.16	6.2870E+000		-9.5666E-001
		964.01	14.40	2.1314E+000		1.2774E+000
		1085.78	10.00	2.5487E+000		1.8264E+000
		1112.02	13.30	1.9016E+000		1.8232E+000
		1407.95	20.70	9.1799E-001		5.0016E-001
	Eu-154	123.07	40.50	1.2776E+000	5.92E-001	-8.5347E-002
		247.94	6.60	5.4744E+000		3.5240E+000
		591.81	4.83	5.4791E+000		-2.5866E+000
		723.30	19.70	1.4364E+000		3.0665E-002
		756.87	4.33	5.8202E+000		-2.9433E+000
		873.19	11.50	2.0940E+000		4.4130E-001
		996.32	10.30	2.1324E+000		-9.7831E-001
		1004.76	17.90	1.3273E+000		-7.6306E-001
		1274.45	35.50	5.9154E-001		-2.8199E-001
	Eu-155	86.54	30.90	2.6316E+000	2.63E+000	3.2756E+000
		105.31	20.70	3.0808E+000		-1.2040E+000
	Am-241	59.54	35.90	3.4408E+000	3.44E+000	5.0978E-001
	Cm-243	228.19	10.56	3.2642E+000	2.39E+000	-8.8204E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	2.3902E+000	2.39E+000	-1.2817E-001

+ = 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

Report Generated On 6/7/2006 11:10:45 AM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-01-270-F-
Sample Title: NOL-05-01-270-F-G-I
Description:

Sample Type:
Geometry:

Acquisition Started: 6/7/2006 11:05:44 AM
Live Time: 300.0 seconds
Real Time: 300.3 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 6/1/2006
Calibration Efficiency: 6279_SOIL_1M90
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-01-270-F-
Title: NOL-05-01-270-F-G-I
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	293-	305	300.70	75.00	0.83	1.51E+002	65.23	3.64E+002
2	1349-	1359	1354.07	338.43	0.54	2.54E+001	19.57	3.06E+001
3	2639-	2654	2646.87	661.72	1.60	8.12E+001	25.14	2.78E+001
4	5836-	5856	5845.57	1461.64	2.42	2.04E+002	29.97	8.06E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.976	1460.81*	10.67	1.66796E+001	2.79834E+000
Cs-137	1.000	661.65*	85.12	7.37298E-001	2.44250E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40	0.976	1.667962E+001	2.798339E+000
Cs-137	1.000	7.372976E-001	2.442504E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
1	75.00	5.0362E-001	43.18
2	338.43	8.4524E-002	77.19

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
	Co-60	1173.22	100.00	2.4565E-001	2.46E-001	-1.0255E-001
		1332.49	100.00	2.6379E-001		1.3693E-001
	Nb-94	702.63	100.00	2.8208E-001	2.53E-001	-2.0811E-001
		871.10	100.00	2.5293E-001		1.2726E-001
	Ag-108m	79.20	7.10	1.2414E+001	3.34E-001	-1.3470E+001
		433.93	89.90	3.3434E-001		6.9270E-002
		614.37	90.40	3.7585E-001		-2.4728E-001
		722.95	90.50	3.4929E-001		1.6717E-001
	Sb-125	176.33	6.89	5.4962E+000	1.03E+000	-1.2287E+000
		427.89	29.33	1.0272E+000		-1.9348E-001
		463.38	10.35	2.8641E+000		-1.4750E+000
		600.56	17.80	1.5342E+000		2.3882E-001
		606.64	5.02	7.6813E+000		1.2804E+001
		635.90	11.32	2.2679E+000		1.2268E+000
	Cs-134	563.23	8.38	3.0270E+000	3.00E-001	-1.3694E+000
		569.32	15.43	1.7133E+000		9.2629E-001
		604.70	97.60	3.6406E-001		1.9281E-001
		795.84	85.40	3.0008E-001		1.2556E-001
		801.93	8.73	2.8032E+000		-2.9075E-001
+	Cs-137	661.65*	85.12	2.9732E-001	2.97E-001	7.3730E-001
	Eu-152	121.78	28.40	1.9416E+000	7.89E-001	-1.1373E-001
		244.69	7.49	4.7924E+000		-4.3182E-001
		344.27	26.50	1.1835E+000		-1.0958E-001
		778.89	12.74	1.8425E+000		-2.0687E+000
		867.32	4.16	6.0054E+000		-2.9090E+000
		964.01	14.40	1.9873E+000		-2.4230E-001
		1085.78	10.00	2.4498E+000		2.1375E-001
		1112.02	13.30	1.9504E+000		-4.6751E-002
		1407.95	20.70	7.8940E-001		-3.9054E-001
	Eu-154	123.07	40.50	1.3359E+000	6.59E-001	1.6260E-001
		247.94	6.60	5.1072E+000		5.3347E-001
		591.81	4.83	5.6816E+000		-1.4448E+000
		723.30	19.70	1.6160E+000		9.1487E-001
		756.87	4.33	6.3289E+000		1.6622E+000
		873.19	11.50	2.0665E+000		-9.0042E-001
		996.32	10.30	2.2021E+000		-6.1475E-001
		1004.76	17.90	1.3643E+000		1.7248E-001
		1274.45	35.50	6.5898E-001		1.7613E-001
	Eu-155	86.54	30.90	2.6954E+000	2.70E+000	1.6272E+000
		105.31	20.70	3.1227E+000		1.0495E+000
	Am-241	59.54	35.90	3.2452E+000	3.25E+000	4.8067E-001
	Cm-243	228.19	10.56	3.1122E+000	2.26E+000	1.2724E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	2.2582E+000	2.26E+000	-1.1049E+000

+ = 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

Report Generated On 6/7/2006 11:22:24 AM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-01-271-F-
Sample Title: NOL-05-01-271-F-G-I
Description:

Sample Type:
Geometry:

Acquisition Started: 6/7/2006 11:17:23 AM
Live Time: 300.0 seconds
Real Time: 300.3 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 6/1/2006
Calibration Efficiency: 6279_SOIL_1M90
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-01-271-F-
Title: NOL-05-01-271-F-G-I
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	297-	306	300.73	75.01	0.65	9.64E+001	55.17	3.06E+002
2	2638-	2655	2646.47	661.62	1.07	7.17E+001	25.81	3.13E+001
3	3640-	3653	3645.59	911.48	0.56	3.27E+001	16.72	1.43E+001
4	5834-	5858	5846.00	1461.75	1.55	2.01E+002	30.99	1.20E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.970	1460.81*	10.67	1.64372E+001	2.86269E+000
Cs-137	1.000	661.65*	85.12	6.50941E-001	2.46579E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40	0.970	1.643724E+001	2.862694E+000
Cs-137	1.000	6.509406E-001	2.465789E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
1	75.01	3.2122E-001	57.25
3	911.48	1.0887E-001	51.21

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
	Co-60	1173.22	100.00	2.5916E-001	2.59E-001	5.1013E-002
		1332.49	100.00	2.6042E-001		1.2650E-001
	Nb-94	702.63	100.00	2.5842E-001	2.31E-001	-4.5318E-001
		871.10	100.00	2.3114E-001		-2.6210E-001
	Ag-108m	79.20	7.10	1.2393E+001	3.28E-001	-4.5665E+000
		433.93	89.90	3.2817E-001		4.3174E-002
		614.37	90.40	3.7585E-001		-5.0826E-001
		722.95	90.50	3.5175E-001		4.2119E-002
	Sb-125	176.33	6.89	5.5978E+000	9.76E-001	6.8065E-001
		427.89	29.33	9.7640E-001		-6.6755E-001
		463.38	10.35	3.0091E+000		2.2846E+000
		600.56	17.80	1.6647E+000		3.5454E-001
		606.64	5.02	7.6813E+000		1.1970E+001
		635.90	11.32	2.3148E+000		-6.8148E-001
	Cs-134	563.23	8.38	3.0870E+000	2.86E-001	-1.6455E+000
		569.32	15.43	1.9900E+000		1.6978E+000
		604.70	97.60	3.4863E-001		-2.9860E-001
		795.84	85.40	2.8632E-001		-8.5412E-002
		801.93	8.73	2.6240E+000		-2.2318E-001
+	Cs-137	661.65*	85.12	3.2588E-001	3.26E-001	6.5094E-001
	Eu-152	121.78	28.40	1.8257E+000	8.94E-001	-7.5500E-001
		244.69	7.49	4.9531E+000		-2.6964E+000
		344.27	26.50	1.1237E+000		-7.8458E-001
		778.89	12.74	1.9383E+000		-4.3227E-001
		867.32	4.16	6.2180E+000		-7.6813E+000
		964.01	14.40	2.2164E+000		8.9911E-001
		1085.78	10.00	2.0416E+000		-2.4137E+000
		1112.02	13.30	1.9979E+000		-4.8144E-001
		1407.95	20.70	8.9397E-001		6.7099E-001
	Eu-154	123.07	40.50	1.2631E+000	6.26E-001	-1.6303E+000
		247.94	6.60	5.8174E+000		5.5271E+000
		591.81	4.83	5.7310E+000		-1.7201E+000
		723.30	19.70	1.6047E+000		1.2290E-001
		756.87	4.33	6.1435E+000		-4.0754E+000
		873.19	11.50	2.1740E+000		5.3588E-001
		996.32	10.30	2.3348E+000		6.2917E-001
		1004.76	17.90	1.2695E+000		5.2389E-001
		1274.45	35.50	6.2627E-001		1.3770E-001
	Eu-155	86.54	30.90	2.6154E+000	2.62E+000	2.4700E+000
		105.31	20.70	3.0261E+000		-6.0377E-001
	Am-241	59.54	35.90	3.1609E+000	3.16E+000	3.4887E-001
	Cm-243	228.19	10.56	3.3478E+000	2.43E+000	3.2898E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	2.4266E+000	2.43E+000	1.7248E+000

+ = 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

Report Generated On 6/7/2006 11:33:28 AM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-01-272-F-
Sample Title: NOL-05-01-272-F-G-I
Description:

Sample Type:
Geometry:

Acquisition Started: 6/7/2006 11:28:27 AM
Live Time: 300.0 seconds
Real Time: 300.3 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 6/1/2006
Calibration Efficiency: 6279_SOIL_1M90
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-01-272-F-
Title: NOL-05-01-272-F-G-I
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	296-	306	301.10	75.10	0.84	6.01E+001	58.78	3.48E+002
2	950-	958	954.39	238.48	0.60	3.84E+001	23.38	4.86E+001
3	2429-	2443	2436.71	609.17	0.97	4.44E+001	19.97	2.06E+001
4	2639-	2656	2646.10	661.53	0.76	4.44E+001	25.27	3.66E+001
5	5834-	5856	5845.42	1461.60	0.78	1.94E+002	29.57	8.59E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
K-40	0.978	1460.81*	10.67	1.58999E+001	2.73985E+000
Cs-137	1.000	661.65*	85.12	4.03401E-001	2.34340E-001
Pb-212	0.518	74.81* @	10.70	4.56400E+000	4.55505E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	5.08153E-001	3.19270E-001
Bi-214	0.385	609.31*	46.30	7.24392E-001	3.38042E-001
		1120.29	15.10		
		1764.49	15.80		

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
K-40	0.978	1.589987E+001	2.739853E+000
Cs-137	1.000	4.034006E-001	2.343402E-001
Pb-212 @	0.518	5.081530E-001	3.192704E-001
Bi-214	0.385	7.243917E-001	3.380423E-001

? = 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 1.960 sigma

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

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

All peaks were identified.

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
	Co-60	1173.22	100.00	2.7194E-001	2.11E-001	1.3128E-001
		1332.49	100.00	2.1130E-001		1.8951E-001
	Nb-94	702.63	100.00	2.5842E-001	2.18E-001	-1.8278E-001
		871.10	100.00	2.1760E-001		-1.0039E-001
	Ag-108m	79.20	7.10	1.2062E+001	2.83E-001	-8.1331E+000
		433.93	89.90	3.1975E-001		-2.2108E-001
		614.37	90.40	3.7369E-001		-4.7797E-002
		722.95	90.50	2.8335E-001		1.2160E-001
	Sb-125	176.33	6.89	5.6727E+000	9.70E-001	3.9923E+000
		427.89	29.33	9.6986E-001		7.0356E-001
		463.38	10.35	3.0960E+000		2.1406E+000
		600.56	17.80	1.4352E+000		-2.6446E-001
		606.64	5.02	7.2294E+000		9.6657E+000
		635.90	11.32	2.1459E+000		1.5448E+000
	Cs-134	563.23	8.38	3.2032E+000	3.35E-001	1.7465E+000
		569.32	15.43	1.8353E+000		5.5379E-002
		604.70	97.60	3.4863E-001		2.3534E-002
		795.84	85.40	3.3479E-001		6.5702E-003
		801.93	8.73	3.1890E+000		-3.1641E-001
+	Cs-137	661.65*	85.12	3.5431E-001	3.54E-001	4.0340E-001
	Eu-152	121.78	28.40	1.8957E+000	7.61E-001	7.6381E-001
		244.69	7.49	4.6259E+000		-3.4209E-001
		344.27	26.50	1.1718E+000		2.6123E-001
		778.89	12.74	2.1158E+000		4.6952E-001
		867.32	4.16	5.3937E+000		-3.2526E+000
		964.01	14.40	2.0243E+000		1.7508E+000
		1085.78	10.00	2.4498E+000		-1.8897E+000
		1112.02	13.30	1.6335E+000		-1.1863E+000
		1407.95	20.70	7.6063E-001		1.6393E-001
	Eu-154	123.07	40.50	1.3079E+000	6.26E-001	3.5543E-001
		247.94	6.60	4.6702E+000		-2.1834E+000
		591.81	4.83	5.2141E+000		2.3828E+000
		723.30	19.70	1.3299E+000		6.2779E-001
		756.87	4.33	6.3289E+000		2.9056E-001
		873.19	11.50	2.0387E+000		-5.0163E-001
		996.32	10.30	2.2021E+000		-9.1768E-001
		1004.76	17.90	1.2086E+000		8.5166E-001
		1274.45	35.50	6.2627E-001		-1.9003E-001
	Eu-155	86.54	30.90	2.6296E+000	2.63E+000	3.1202E+000
		105.31	20.70	3.0566E+000		2.9789E+000
	Am-241	59.54	35.90	3.0126E+000	3.01E+000	-1.8216E+000
	Cm-243	228.19	10.56	3.2108E+000	2.39E+000	-1.1498E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	2.3902E+000	2.39E+000	1.0808E+000

+ = 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

Report Generated On 6/15/2006 11:32:55 AM

Y A N K E E R O W E P O R T A B L E I S O C S

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

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-01-273-F-
Sample Title: NOL-05-01-273-F-G-I
Description:

Sample Type:
Geometry:

Acquisition Started: 6/15/2006 11:22:53 AM
Live Time: 600.0 seconds
Real Time: 601.3 seconds

Energy Calibration Date: 3/28/2006
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-01-273-F-
Title: NOL-05-01-273-F-G-I
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	287-	306	291.83	72.79	0.94	4.19E+002	69.10	1.34E+003
m	2	287-	306	300.32	74.91	0.94	7.18E+002	80.38	1.66E+003
	3	334-	345	339.89	84.80	1.17	2.78E+002	121.58	1.42E+003
	4	947-	962	954.99	238.63	0.95	3.15E+002	76.36	3.99E+002
	5	1177-	1190	1180.53	295.03	1.07	1.12E+002	51.98	2.11E+002
	6	1346-	1362	1352.80	338.11	1.01	1.45E+002	52.38	1.82E+002
	7	1401-	1418	1407.81	351.86	1.06	1.59E+002	58.70	2.23E+002
	8	2032-	2053	2043.63	510.87	1.27	1.63E+002	55.88	1.73E+002
	9	2325-	2342	2333.09	583.25	1.03	2.00E+002	45.12	1.01E+002
	10	2430-	2446	2437.93	609.47	1.24	1.90E+002	42.28	8.83E+001
	11	3637-	3655	3646.40	911.68	1.33	1.88E+002	38.21	5.68E+001
	12	3869-	3885	3877.34	969.43	1.15	7.37E+001	32.98	6.63E+001
	13	4476-	4491	4484.05	1121.16	1.41	5.95E+001	27.83	4.65E+001
	14	5832-	5860	5847.40	1462.10	1.87	1.23E+003	70.58	1.45E+001
	15	7057-	7070	7063.83	1766.30	0.51	4.07E+001	17.70	1.43E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/Grams)	Activity Uncertainty
ANN	0.999	511.00*		100.00	2.22367E-001	8.19628E-002
K-40	0.944	1460.81*		10.67	2.06252E+001	2.04701E+000
TL-208	0.751	277.35		6.80		
		510.84*		21.60	1.02948E+000	3.88660E-001
		583.14*		84.20	3.38441E-001	8.81619E-002
		860.37		12.46		
Pb-212	0.521	74.81*	@	10.70	1.02699E+001	2.31832E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	7.65404E-001	2.21054E-001
Bi-214	0.971	609.31*		46.30	5.92410E-001	1.50846E-001
		1120.29*		15.10	6.62968E-001	3.18193E-001
		1764.49*		15.80	4.78796E-001	2.13378E-001
PB-214	0.582	74.82*	@	6.21	1.76953E+001	4.19599E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	6.71499E-001	3.31753E-001
		351.92*		37.20	5.17657E-001	2.09846E-001
Ac-228	0.992	338.32*		11.40	1.52676E+000	6.00147E-001
		911.07*		27.70	1.07715E+000	2.51330E-001
		969.11*		16.60	7.16261E-001	3.29383E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Grams)	Wt mean Activity Uncertainty
ANN		0.999	1.492637E-001	8.411215E-002
K-40		0.944	2.062516E+001	2.047010E+000
TL-208		0.751	3.384409E-001	8.746927E-002
Pb-212	@	0.521	7.654037E-001	2.210544E-001
Bi-214		0.971	5.686798E-001	1.148685E-001
PB-214	@	0.582	5.616200E-001	1.773457E-001
Ac-228		0.992	1.002462E+000	1.895767E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.79	6.9795E-001	16.50
3	84.80	4.6314E-001	43.75

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Grams)	Nuclide MDA (pCi/Grams)	Activity (pCi/Grams)
Co-60	1173.22	100.00	1.0841E-001	8.41E-002	7.4575E-002
	1332.49	100.00	8.4063E-002		7.6540E-003
Nb-94	702.63	100.00	1.0593E-001	9.63E-002	3.1201E-002
	871.10	100.00	9.6310E-002		3.4907E-002
Ag-108m	79.20	7.10	5.1148E+000	1.23E-001	-4.5115E+000
	433.93	89.90	1.2464E-001		5.4604E-002
	614.37	90.40	1.4294E-001		4.0734E-002
	722.95	90.50	1.2319E-001		-3.9851E-002
Sb-125	176.33	6.89	2.3185E+000	3.91E-001	1.3164E-001
	427.89	29.33	3.9141E-001		-1.5161E-001
	463.38	10.35	1.1452E+000		1.4344E+000
	600.56	17.80	6.2133E-001		-6.5277E-002
	606.64	5.02	2.8751E+000		4.2380E-001
	635.90	11.32	9.1058E-001		-2.3772E-001
Cs-134	563.23	8.38	1.2265E+000	1.23E-001	1.4551E-001
	569.32	15.43	7.1350E-001		3.6407E-001
	604.70	97.60	1.3535E-001		-1.6527E-002
	795.84	85.40	1.2334E-001		5.3693E-002
	801.93	8.73	1.1848E+000		-1.9698E-001
Cs-137	661.65	85.12	1.3416E-001	1.34E-001	9.1560E-002
Eu-152	121.78	28.40	7.8022E-001	3.64E-001	-4.5272E-002
	244.69	7.49	1.8585E+000		-7.6800E-001
	344.27	26.50	4.5318E-001		-4.4524E-001
	778.89	12.74	7.8249E-001		-1.8331E-001
	867.32	4.16	2.4018E+000		-1.2287E+000
	964.01	14.40	8.2167E-001		-7.8778E-002
	1085.78	10.00	9.6674E-001		-2.8979E-001
	1112.02	13.30	7.0929E-001		2.2398E-001
	1407.95	20.70	3.6447E-001		1.4984E-001
Eu-154	123.07	40.50	5.4378E-001	2.58E-001	-1.0847E-001
	247.94	6.60	2.1200E+000		1.0646E+000
	591.81	4.83	2.2526E+000		3.7077E-001
	723.30	19.70	5.6949E-001		1.3610E-001
	756.87	4.33	2.2892E+000		3.1389E-001
	873.19	11.50	8.3282E-001		-4.7116E-001
	996.32	10.30	8.7100E-001		-2.5778E-002
	1004.76	17.90	5.0617E-001		2.0418E-001
	1274.45	35.50	2.5777E-001		-8.5758E-002
Eu-155	86.54	30.90	1.0833E+000	1.08E+000	1.4085E-001
	105.31	20.70	1.2672E+000		-4.7186E-001
Am-241	59.54	35.90	1.3058E+000	1.31E+000	-7.2015E-001
Cm-243	228.19	10.56	1.3414E+000	9.69E-001	3.5607E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	9.6930E-001	9.69E-001	1.5795E-001

+ = 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

Report Generated On 12/8/2005 3:32:38 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Detector ID: RED6264

Spectrum File: RED6264
Sample ID:
Sample Title: NOL-05-02-101-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/8/2005 3:22:36 PM
Live Time: 600.0 seconds
Real Time: 601.0 seconds

Energy Calibration Date: 6/13/2005
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number:
Title: NOL-05-02-101-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	286-	313	291.96	72.95	1.06	3.79E+002	63.64	1.22E+003
m	2	286-	313	300.68	75.13	1.06	7.27E+002	74.32	1.50E+003
m	3	286-	313	308.49	77.08	1.07	1.02E+002	55.72	1.32E+003
M	4	334-	356	339.66	84.88	0.98	2.64E+002	61.10	1.06E+003
m	5	334-	356	349.90	87.44	0.98	9.49E+001	53.23	1.19E+003
F	6	739-	753	743.01	185.72	0.70	5.89E+001	31.79	4.11E+002
F	7	938-	961	955.16	238.76	0.99	2.29E+002	41.05	5.16E+002
F	8	1176-	1187	1181.50	295.35	1.48	7.87E+001	27.95	1.49E+002
F	9	1349-	1364	1353.51	338.36	1.11	7.23E+001	26.40	1.57E+002
F	10	1399-	1417	1408.46	352.10	1.39	1.56E+002	30.85	1.81E+002
F	11	2325-	2344	2334.00	583.50	1.35	1.88E+002	30.26	9.43E+001
F	12	2431-	2447	2438.67	609.67	1.40	1.50E+002	27.11	6.07E+001
F	13	2905-	2916	2910.53	727.64	1.10	3.98E+001	17.11	3.71E+001
F	14	3639-	3658	3647.56	911.92	1.57	1.44E+002	26.05	4.86E+001
F	15	3733-	3744	3738.24	934.59	0.50	1.69E+001	10.89	3.18E+001
F	16	3871-	3888	3879.60	969.93	1.23	8.31E+001	21.42	5.12E+001
F	17	4477-	4494	4485.29	1121.37	2.00	6.48E+001	17.60	1.98E+001
F	18	5836-	5865	5849.80	1462.52	1.97	9.42E+002	60.02	2.53E+001
F	19	6523-	6536	6529.53	1632.47	1.09	1.26E+001	7.97	1.79E+000
F	20	7059-	7076	7067.23	1766.90	2.02	5.58E+001	15.12	2.30E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
K-40	0.916	1460.81*	10.67	1.63037E+001	1.67967E+000
TL-208	0.468	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.28896E-001	6.79952E-002
		860.37	12.46		
Bi-212	0.993	727.17*	11.80	5.27014E-001	2.34945E-001
Pb-212	0.999	74.81* @	10.70	1.07563E+001	2.37776E+000
		77.11* @	18.00	8.62757E-001	5.02149E-001
		87.30* @	8.00	1.52049E+000	9.03493E-001
		238.63*	44.60	5.75051E-001	1.36934E-001
Bi-214	0.956	609.31*	46.30	4.83809E-001	1.05711E-001
		1120.29*	15.10	7.45586E-001	2.17337E-001
		1764.49*	15.80	6.77176E-001	1.95606E-001
PB-214	0.849	74.82* @	6.21	1.85334E+001	4.31219E+000
		77.11* @	10.50	1.47901E+000	8.67881E-001
		87.30* @	4.67	2.60469E+000	1.56020E+000
		241.98	7.49		
		295.21*	19.20	4.87699E-001	1.91615E-001
		351.92*	37.20	5.23562E-001	1.35689E-001
Ac-228	0.983	338.32*	11.40	7.84122E-001	3.11540E-001
		911.07*	27.70	8.49148E-001	1.82359E-001
		969.11*	16.60	8.34723E-001	2.32217E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
	K-40		0.916	1.630371E+001	1.679674E+000
X	Eu-155		0.319		
	TL-208		0.468	3.288961E-001	6.799521E-002
	Bi-212		0.993	5.270140E-001	2.349446E-001
	Pb-212	@	0.999	5.750506E-001	1.369338E-001
	Bi-214		0.956	5.612675E-001	8.550043E-002
	PB-214	@	0.849	5.115845E-001	1.107358E-001
	Ac-228		0.983	8.332364E-001	1.302791E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.95	6.3096E-001	16.81
M 4	84.88	4.4011E-001	23.14
F 6	185.72	9.8207E-002	53.95
F 15	934.59	2.8228E-002	64.32
F 19	1632.47	2.1042E-002	63.11

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Co-60	1173.22	100.00	1.1181E-001	7.84E-002	8.7063E-002
	1332.49	100.00	7.8425E-002		5.8908E-003
Nb-94	702.63	100.00	1.0211E-001	9.23E-002	-1.3370E-001
	871.10	100.00	9.2346E-002		2.2319E-003
Ag-108m	79.20	7.10	5.6154E+000	1.25E-001	1.0409E-001
	433.93	89.90	1.2509E-001		-4.1394E-002
	614.37	90.40	1.4386E-001		9.2065E-003
	722.95	90.50	1.2817E-001		-1.6310E-002
Sb-125	176.33	6.89	2.3179E+000	3.61E-001	2.3860E+000
	427.89	29.33	3.6128E-001		-1.4688E-001
	463.38	10.35	1.0730E+000		-5.1659E-001
	600.56	17.80	5.6704E-001		-1.2956E-001
	606.64	5.02	2.6138E+000		4.4857E+000
	635.90	11.32	9.1964E-001		1.8281E-001
Cs-134	563.23	8.38	1.2462E+000	1.19E-001	5.3085E-001
	569.32	15.43	6.4269E-001		1.5410E-001
	604.70	97.60	1.3018E-001		-5.1817E-002
	795.84	85.40	1.1941E-001		3.1887E-003
	801.93	8.73	1.1602E+000		-9.4777E-001
Cs-137	661.65	85.12	1.2063E-001	1.21E-001	-1.3938E-002
Eu-152	121.78	28.40	7.7567E-001	3.21E-001	-2.7776E-001
	244.69	7.49	1.9523E+000		-2.5037E+000
	344.27	26.50	4.3109E-001		-1.4012E-001
	778.89	12.74	8.2703E-001		-4.6717E-001
	867.32	4.16	2.3387E+000		-1.5661E+000
	964.01	14.40	8.4325E-001		-1.8499E-001
	1085.78	10.00	1.0275E+000		1.1619E+000
	1112.02	13.30	7.8516E-001		6.3936E-001
	1407.95	20.70	3.2098E-001		2.6601E-001
Eu-154	123.07	40.50	5.3800E-001	2.35E-001	1.5194E-001
	247.94	6.60	2.0959E+000		-1.5091E+000
	591.81	4.83	2.1395E+000		-9.6481E-001
	723.30	19.70	5.8404E-001		7.5201E-001
	756.87	4.33	2.2056E+000		-6.3905E-001
	873.19	11.50	8.1734E-001		-1.7599E-001
	996.32	10.30	9.3235E-001		-1.3244E-001
	1004.76	17.90	5.2451E-001		4.1481E-001
	1274.45	35.50	2.3547E-001		-1.2750E-001
Eu-155	86.54*	30.90	6.7665E-001	6.77E-001	3.9365E-001
	105.31	20.70	1.2383E+000		-4.8324E-001
Am-241	59.54	35.90	1.3997E+000	1.40E+000	-1.3247E+000
Cm-243	228.19	10.56	1.3377E+000	9.65E-001	-1.3711E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	9.6510E-001	9.65E-001	1.0450E-001

+ = 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

Report Generated On 12/8/2005 3:04:22 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Detector ID: RED6264

Spectrum File: RED6264
Sample ID:
Sample Title: NOL-05-02-102-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/8/2005 2:54:19 PM
Live Time: 600.0 seconds
Real Time: 601.1 seconds

Energy Calibration Date: 6/13/2005
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number:
Title: NOL-05-02-102-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	284-	309	291.63	72.87	0.98	3.71E+002	63.92	1.40E+003
m	2	284-	309	300.64	75.12	0.99	7.57E+002	76.78	1.41E+003
F	3	331-	344	339.51	84.84	1.07	2.86E+002	65.43	1.35E+003
F	4	948-	960	955.26	238.79	1.14	3.34E+002	44.99	2.66E+002
F	5	1173-	1186	1181.08	295.25	1.05	7.58E+001	28.52	1.95E+002
F	6	1349-	1362	1354.12	338.51	1.18	6.40E+001	26.68	1.67E+002
F	7	1397-	1413	1408.33	352.06	1.24	1.52E+002	29.60	1.46E+002
F	8	2030-	2053	2042.79	510.69	2.24	1.31E+002	27.13	1.46E+002
F	9	2325-	2344	2334.22	583.56	1.37	1.53E+002	28.51	1.04E+002
F	10	2432-	2446	2438.76	609.69	1.06	1.66E+002	29.58	7.91E+001
F	11	3223-	3235	3228.66	807.18	0.69	2.03E+001	11.53	2.42E+001
F	12	3640-	3656	3647.97	912.02	1.42	1.06E+002	24.51	6.01E+001
M	13	3856-	3888	3862.64	965.69	1.66	2.66E+001	15.18	4.01E+001
m	14	3856-	3888	3879.16	969.82	1.66	1.03E+002	22.36	4.48E+001
F	15	4481-	4494	4488.24	1122.10	1.07	2.71E+001	16.04	4.99E+001
F	16	5327-	5342	5335.36	1333.90	1.73	3.86E+001	14.53	1.60E+001
F	17	5837-	5864	5850.43	1462.68	1.88	9.27E+002	60.14	3.07E+001
F	18	7063-	7077	7069.19	1767.39	1.84	4.06E+001	14.10	9.06E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	0.997	511.00*		100.00	1.83951E-001	4.55823E-002
K-40	0.901	1460.81*		10.67	1.60508E+001	1.66495E+000
TL-208	0.748	277.35		6.80		
		510.84*		21.60	8.51623E-001	2.22195E-001
		583.14*		84.20	2.67959E-001	6.07783E-002
		860.37		12.46		
Pb-212	0.520	74.81*	@	10.70	1.12074E+001	2.47307E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	8.39562E-001	1.73446E-001
Bi-214	0.678	609.31*		46.30	5.35382E-001	1.15849E-001
		1120.29*		15.10	3.12233E-001	1.87502E-001
		1764.49		15.80		
PB-214	0.582	74.82*	@	6.21	1.93106E+001	4.48582E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	4.69555E-001	1.93539E-001
		351.92*		37.20	5.12436E-001	1.31283E-001
Ac-228	0.982	338.32*		11.40	6.94113E-001	3.09137E-001
		911.07*		27.70	6.24698E-001	1.61776E-001
		969.11*		16.60	1.03692E+000	2.49426E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		0.997	1.260715E-001	4.739764E-002
K-40		0.901	1.605082E+001	1.664955E+000
TL-208		0.748	2.679586E-001	6.014773E-002
Pb-212	@	0.520	8.395625E-001	1.734465E-001
Bi-214		0.678	4.737309E-001	9.855510E-002
PB-214	@	0.582	4.989225E-001	1.086460E-001
Ac-228		0.982	7.382506E-001	1.242763E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.87	6.1877E-001	17.22
F 3	84.84	4.7714E-001	22.85
F 11	807.18	3.3862E-002	56.77
M 13	965.69	4.4306E-002	57.09
F 16	1333.90	6.4260E-002	37.68
F 18	1767.39	6.7707E-002	34.72

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Co-60	1173.22	100.00	1.0864E-001	9.21E-002	2.9966E-002
	1332.49	100.00	9.2141E-002		6.4430E-002
Nb-94	702.63	100.00	1.0343E-001	9.07E-002	-3.0156E-002
	871.10	100.00	9.0714E-002		-5.0829E-002
Ag-108m	79.20	7.10	5.6703E+000	1.21E-001	-2.1745E+000
	433.93	89.90	1.2088E-001		1.5876E-002
	614.37	90.40	1.5646E-001		-3.6028E-003
	722.95	90.50	1.2633E-001		2.7831E-002
Sb-125	176.33	6.89	2.3326E+000	3.54E-001	1.5508E+000
	427.89	29.33	3.5358E-001		-3.0128E-001
	463.38	10.35	1.0998E+000		7.1439E-001
	600.56	17.80	5.9925E-001		-6.9963E-002
	606.64	5.02	2.8162E+000		5.2196E+000
	635.90	11.32	8.1256E-001		-4.7500E-001
Cs-134	563.23	8.38	1.2809E+000	1.27E-001	2.6057E-001
	569.32	15.43	7.0102E-001		-1.5973E-001
	604.70	97.60	1.4290E-001		4.4197E-002
	795.84	85.40	1.2735E-001		1.3093E-001
	801.93	8.73	1.1859E+000		-7.2752E-001
Cs-137	661.65	85.12	1.2421E-001	1.24E-001	5.8507E-003
Eu-152	121.78	28.40	7.9400E-001	3.59E-001	-3.0143E-001
	244.69	7.49	1.9600E+000		-4.5013E+000
	344.27	26.50	4.6915E-001		-1.5300E-001
	778.89	12.74	7.7466E-001		-5.2930E-002
	867.32	4.16	2.2716E+000		-7.4988E-001
	964.01	14.40	8.7126E-001		1.6099E-001
	1085.78	10.00	9.0169E-001		-2.3328E-002
	1112.02	13.30	7.2383E-001		-6.7104E-001
	1407.95	20.70	3.5859E-001		4.6484E-001
Eu-154	123.07	40.50	5.5395E-001	2.55E-001	2.2226E-001
	247.94	6.60	2.0834E+000		-1.3680E+000
	591.81	4.83	2.1737E+000		2.5773E-001
	723.30	19.70	5.9361E-001		7.1759E-001
	756.87	4.33	2.3438E+000		1.3181E-001
	873.19	11.50	8.1734E-001		4.6411E-001
	996.32	10.30	9.4841E-001		-1.3717E-001
	1004.76	17.90	5.4335E-001		5.2816E-002
	1274.45	35.50	2.5458E-001		1.3849E-001
Eu-155	86.54	30.90	1.1254E+000	1.13E+000	-4.0559E-001
	105.31	20.70	1.2654E+000		-3.7750E-001
Am-241	59.54	35.90	1.4541E+000	1.45E+000	2.6484E-001
Cm-243	228.19	10.56	1.3770E+000	9.86E-001	-7.4132E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	9.8568E-001	9.86E-001	5.6636E-001

+ = 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

Report Generated On 12/8/2005 2:47:52 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Detector ID: RED6264

Spectrum File: RED6264
Sample ID:
Sample Title: NOL-05-02-103-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/8/2005 2:37:50 PM
Live Time: 600.0 seconds
Real Time: 601.1 seconds

Energy Calibration Date: 6/13/2005
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number:
Title: NOL-05-02-103-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	282-	306	292.07	72.98	0.96	3.56E+002	63.80	1.35E+003
m	2	282-	306	300.52	75.09	0.96	7.38E+002	79.14	1.60E+003
F	3	330-	345	339.68	84.88	1.05	2.75E+002	65.41	1.58E+003
F	4	946-	961	954.78	238.67	1.06	3.16E+002	43.88	3.23E+002
F	5	1175-	1191	1182.56	295.62	1.02	5.70E+001	27.18	2.45E+002
F	6	1349-	1362	1354.50	338.61	1.08	7.07E+001	26.97	1.65E+002
F	7	1400-	1415	1408.78	352.18	1.13	1.26E+002	30.74	1.83E+002
F	8	1849-	1858	1853.14	463.28	0.51	2.28E+001	15.20	7.13E+001
F	9	2325-	2343	2334.33	583.58	1.31	1.67E+002	29.30	9.89E+001
F	10	2430-	2452	2439.33	609.83	1.72	1.63E+002	27.41	7.89E+001
F	11	2904-	2918	2911.08	727.78	0.88	2.93E+001	16.20	5.92E+001
F	12	3439-	3452	3445.15	861.31	1.15	2.81E+001	16.12	4.55E+001
F	13	3637-	3659	3647.79	911.98	1.79	1.59E+002	26.48	4.91E+001
M	14	3855-	3888	3861.60	965.43	1.36	2.89E+001	15.05	4.02E+001
m	15	3855-	3888	3879.22	969.84	1.36	7.98E+001	21.77	5.70E+001
F	16	4479-	4494	4486.69	1121.72	1.32	3.67E+001	18.24	5.67E+001
F	17	4619-	4632	4625.87	1156.52	0.76	1.68E+001	11.52	2.97E+001
F	18	5330-	5344	5337.29	1334.38	1.62	3.70E+001	14.52	1.59E+001
F	19	5837-	5864	5850.79	1462.77	2.11	1.01E+003	61.68	1.74E+001
F	20	6354-	6367	6360.03	1590.09	0.86	1.39E+001	8.64	7.02E+000
F	21	7061-	7076	7069.27	1767.42	2.00	4.30E+001	14.33	7.91E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
K-40	0.892	1460.81*	10.67	1.74991E+001	1.77384E+000
TL-208	0.616	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	2.91829E-001	6.37182E-002
		860.37*	12.46	3.64833E-001	2.13903E-001
Bi-212	0.989	727.17*	11.80	3.87947E-001	2.19260E-001
Pb-212	0.521	74.81* @	10.70	1.09332E+001	2.44233E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	7.93394E-001	1.66151E-001
Bi-214	0.683	609.31*	46.30	5.26200E-001	1.09514E-001
		1120.29*	15.10	4.22393E-001	2.14638E-001
		1764.49	15.80		
PB-214	0.581	74.82* @	6.21	1.88381E+001	4.42481E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	3.52960E-001	1.78574E-001
		351.92*	37.20	4.24306E-001	1.25332E-001
Ac-228	0.983	338.32*	11.40	7.66498E-001	3.16257E-001
		911.07*	27.70	9.37765E-001	1.90072E-001
		969.11*	16.60	8.01613E-001	2.34130E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
K-40		0.892	1.749912E+001	1.773838E+000
TL-208		0.616	2.977787E-001	6.106638E-002
Bi-212		0.989	3.879473E-001	2.192605E-001
Pb-212	@	0.521	7.933939E-001	1.661511E-001
Bi-214		0.683	5.047581E-001	9.755017E-002
PB-214	@	0.581	4.007600E-001	1.025866E-001
Ac-228		0.983	8.627283E-001	1.337255E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.98	5.9344E-001	17.92
F 3	84.88	4.5827E-001	23.79
F 8	463.28	3.7937E-002	66.78
M 14	965.43	4.8088E-002	52.15
F 17	1156.52	2.7959E-002	68.67
F 18	1334.38	6.1629E-002	39.28
F 20	1590.09	2.3101E-002	62.32
F 21	1767.42	7.1615E-002	33.34

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Co-60	1173.22	100.00	1.1641E-001	8.75E-002	1.1491E-001
	1332.49	100.00	8.7535E-002		2.4913E-002
Nb-94	702.63	100.00	1.1198E-001	9.04E-002	8.1329E-002
	871.10	100.00	9.0384E-002		-6.8665E-002
Ag-108m	79.20	7.10	5.8359E+000	1.26E-001	-4.4330E+000
	433.93	89.90	1.2665E-001		-9.7559E-002
	614.37	90.40	1.4845E-001		-2.5686E-002
	722.95	90.50	1.2580E-001		2.9591E-003
Sb-125	176.33	6.89	2.4080E+000	3.73E-001	4.0999E-001
	427.89	29.33	3.7252E-001		-2.6937E-001
	463.38	10.35	1.1413E+000		-7.7677E-002
	600.56	17.80	6.2603E-001		3.5584E-001
	606.64	5.02	2.8197E+000		-9.4620E-001
	635.90	11.32	8.9750E-001		6.4992E-002
Cs-134	563.23	8.38	1.3096E+000	1.21E-001	-1.4798E-001
	569.32	15.43	6.7475E-001		-3.6592E-001
	604.70	97.60	1.4126E-001		-5.5808E-002
	795.84	85.40	1.2072E-001		1.2035E-001
	801.93	8.73	1.1239E+000		-1.4209E-001
Cs-137	661.65	85.12	1.2596E-001	1.26E-001	1.8418E-002
Eu-152	121.78	28.40	7.9846E-001	3.92E-001	5.4153E-001
	244.69	7.49	1.9702E+000		-1.0349E+000
	344.27	26.50	4.7226E-001		1.8027E-001
	778.89	12.74	8.4991E-001		-8.1621E-001
	867.32	4.16	2.3751E+000		-1.3961E+000
	964.01	14.40	8.8830E-001		-1.2406E-001
	1085.78	10.00	9.6673E-001		-5.9568E-001
	1112.02	13.30	6.4151E-001		-1.1894E+000
	1407.95	20.70	3.9237E-001		4.1000E-002
Eu-154	123.07	40.50	5.5316E-001	2.50E-001	-2.0389E-001
	247.94	6.60	2.1313E+000		-2.4838E+000
	591.81	4.83	2.2025E+000		-1.0978E+000
	723.30	19.70	5.8162E-001		2.9290E-002
	756.87	4.33	2.4619E+000		1.3641E-001
	873.19	11.50	8.0621E-001		1.4165E-001
	996.32	10.30	9.0268E-001		-8.3985E-001
	1004.76	17.90	5.7215E-001		9.1713E-001
	1274.45	35.50	2.4995E-001		7.9535E-002
Eu-155	86.54	30.90	1.1409E+000	1.14E+000	2.4661E-001
	105.31	20.70	1.2738E+000		-2.4355E-001
Am-241	59.54	35.90	1.5154E+000	1.52E+000	-1.1595E-001
Cm-243	228.19	10.56	1.3962E+000	9.28E-001	-3.7320E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	9.2755E-001	9.28E-001	3.5946E-001

+ = 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

Report Generated On 12/8/2005 2:02:53 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Detector ID: RED6264

Spectrum File: RED6264
Sample ID:
Sample Title: NOL-05-02-104-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/8/2005 1:52:51 PM
Live Time: 600.0 seconds
Real Time: 601.1 seconds

Energy Calibration Date: 6/13/2005
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number:
Title: NOL-05-02-104-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	287-	314	292.05	72.97	1.04	4.30E+002	66.45	1.20E+003
m	2	287-	314	300.70	75.13	1.04	8.05E+002	77.13	1.40E+003
m	3	287-	314	309.65	77.37	1.05	1.19E+002	56.98	1.29E+003
M	4	330-	355	339.98	84.96	1.35	4.34E+002	66.75	1.67E+003
m	5	330-	355	350.57	87.60	1.35	1.64E+002	57.98	1.56E+003
F	6	578-	585	581.52	145.34	0.44	5.41E+001	30.52	3.08E+002
F	7	944-	964	955.32	238.80	1.20	3.04E+002	44.23	4.74E+002
F	8	1177-	1191	1182.59	295.62	1.19	6.05E+001	27.48	1.99E+002
F	9	1346-	1362	1353.87	338.45	1.26	8.03E+001	27.51	1.95E+002
F	10	1401-	1417	1409.02	352.24	1.14	1.76E+002	32.17	1.64E+002
F	11	2326-	2344	2334.84	583.71	1.34	1.72E+002	29.54	9.81E+001
F	12	2429-	2447	2439.21	609.80	1.45	1.76E+002	30.25	9.95E+001
F	13	3640-	3659	3648.81	912.23	1.70	1.42E+002	26.65	5.73E+001
M	14	3858-	3888	3863.76	965.97	1.26	1.91E+001	13.75	3.96E+001
m	15	3858-	3888	3880.10	970.06	1.26	7.03E+001	20.71	4.91E+001
F	16	5837-	5866	5852.16	1463.11	2.05	9.68E+002	60.37	1.50E+001
F	17	7064-	7077	7070.73	1767.78	1.52	3.78E+001	14.17	1.14E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
K-40	0.854	1460.81*	10.67	1.67542E+001	1.71221E+000
Eu-155	0.313	86.54*	30.90	6.77425E-001	2.74197E-001
		105.31	20.70		
TL-208	0.465	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.00314E-001	6.47107E-002
		860.37	12.46		
Pb-212	0.998	74.81* @	10.70	1.19122E+001	2.59866E+000
		77.11* @	18.00	1.00180E+000	5.19549E-001
		87.30* @	8.00	2.61655E+000	1.05909E+000
		238.63*	44.60	7.62774E-001	1.63189E-001
Bi-214	0.394	609.31*	46.30	5.66934E-001	1.19851E-001
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.847	74.82* @	6.21	2.05251E+001	4.71896E+000
		77.11* @	10.50	1.71738E+000	8.99840E-001
		87.30* @	4.67	4.48232E+000	1.84561E+000
		241.98	7.49		
		295.21*	19.20	3.75117E-001	1.81597E-001
		351.92*	37.20	5.92498E-001	1.46641E-001
Ac-228	0.972	338.32*	11.40	8.71148E-001	3.28127E-001
		911.07*	27.70	8.40331E-001	1.84835E-001
		969.11*	16.60	7.06353E-001	2.20700E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
K-40		0.854	1.675417E+001	1.712209E+000
Eu-155		0.313	4.030497E-001	2.779473E-001
TL-208		0.465	3.003140E-001	6.471069E-002
Pb-212	@	0.998	7.627737E-001	1.631891E-001
Bi-214		0.394	5.669345E-001	1.198514E-001
PB-214	@	0.847	5.087796E-001	1.117904E-001
Ac-228		0.972	7.986246E-001	1.300910E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.97	7.1742E-001	15.44
M 4	84.96	7.2271E-001	15.39
F 6	145.34	9.0226E-002	56.37
M 14	965.97	3.1781E-002	72.13
F 17	1767.78	6.2925E-002	37.54

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
	Co-60	1173.22	100.00	1.0469E-001	8.54E-002	5.0251E-002
		1332.49	100.00	8.5354E-002		2.4788E-002
	Nb-94	702.63	100.00	1.0979E-001	9.20E-002	5.7761E-002
		871.10	100.00	9.2022E-002		1.3488E-002
	Ag-108m	79.20	7.10	5.7980E+000	1.22E-001	3.8829E-001
		433.93	89.90	1.3885E-001		-5.5120E-002
		614.37	90.40	1.5548E-001		2.6339E-002
		722.95	90.50	1.2229E-001		-6.1148E-004
	Sb-125	176.33	6.89	2.4090E+000	4.02E-001	1.9274E+000
		427.89	29.33	4.0205E-001		2.2582E-001
		463.38	10.35	1.1714E+000		1.5677E-001
		600.56	17.80	5.7391E-001		-2.3095E-001
		606.64	5.02	2.8577E+000		4.5205E+000
		635.90	11.32	9.2835E-001		-7.8063E-001
	Cs-134	563.23	8.38	1.2243E+000	1.25E-001	5.5635E-001
		569.32	15.43	7.0245E-001		1.6816E-001
		604.70	97.60	1.4199E-001		3.5358E-002
		795.84	85.40	1.2518E-001		-2.6302E-003
		801.93	8.73	1.1306E+000		-9.2233E-001
	Cs-137	661.65	85.12	1.3355E-001	1.34E-001	1.0719E-001
	Eu-152	121.78	28.40	7.9958E-001	3.48E-001	-6.7509E-001
		244.69	7.49	2.0523E+000		-1.4562E+000
		344.27	26.50	4.7945E-001		1.8962E-001
		778.89	12.74	8.0780E-001		-3.6154E-001
		867.32	4.16	2.2716E+000		-1.9413E+000
		964.01	14.40	8.4147E-001		1.8203E-001
		1085.78	10.00	9.0543E-001		-2.7852E-001
		1112.02	13.30	7.9731E-001		9.8376E-001
		1407.95	20.70	3.4829E-001		8.2567E-002
	Eu-154	123.07	40.50	5.5721E-001	2.50E-001	-9.8816E-002
		247.94	6.60	2.2224E+000		-6.2682E-001
		591.81	4.83	2.0948E+000		1.2995E-001
		723.30	19.70	5.7552E-001		6.1841E-001
		756.87	4.33	2.4437E+000		-6.7458E-001
		873.19	11.50	8.3104E-001		7.0992E-001
		996.32	10.30	9.0602E-001		-8.8389E-001
		1004.76	17.90	5.7390E-001		1.6945E-001
		1274.45	35.50	2.4995E-001		1.7753E-001
+	Eu-155	86.54*	30.90	7.7159E-001	7.72E-001	6.7742E-001
		105.31	20.70	1.2821E+000		4.1370E-001
	Am-241	59.54	35.90	1.4653E+000	1.47E+000	-5.5146E-001
	Cm-243	228.19	10.56	1.4005E+000	9.64E-001	-1.2398E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	9.6430E-001	9.64E-001	-1.8142E-001

+ = 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

Report Generated On 12/8/2005 1:49:43 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Detector ID: RED6264

Spectrum File: RED6264
Sample ID:
Sample Title: NOL-05-02-105-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/8/2005 1:39:40 PM
Live Time: 600.0 seconds
Real Time: 601.2 seconds

Energy Calibration Date: 6/13/2005
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number:
Title: NOL-05-02-105-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	289-	307	292.27	73.02	0.96	3.07E+002	66.01	1.15E+003
m	2	289-	307	300.75	75.15	0.96	7.77E+002	80.15	1.49E+003
F	3	333-	345	339.69	84.88	0.98	2.67E+002	65.86	1.35E+003
F	4	949-	960	955.41	238.83	1.02	2.91E+002	44.07	2.92E+002
F	5	1308-	1318	1313.67	328.40	0.67	3.24E+001	22.08	1.51E+002
F	6	1402-	1415	1408.39	352.08	1.11	1.10E+002	29.99	1.73E+002
F	7	2036-	2055	2045.01	511.25	1.95	1.52E+002	28.89	1.37E+002
F	8	2326-	2344	2334.47	583.62	1.28	1.59E+002	30.09	1.29E+002
F	9	2430-	2450	2439.56	609.89	1.54	2.08E+002	31.24	9.98E+001
F	10	2643-	2657	2648.72	662.19	1.44	1.13E+002	24.84	5.73E+001
F	11	3639-	3659	3649.38	912.37	1.70	1.63E+002	27.52	5.78E+001
M	12	3857-	3890	3863.40	965.88	1.64	4.18E+001	15.63	2.88E+001
m	13	3857-	3890	3880.76	970.22	1.64	9.92E+001	22.22	4.69E+001
F	14	4039-	4052	4045.94	1011.52	1.45	2.82E+001	13.57	1.92E+001
F	15	4294-	4305	4298.71	1074.72	1.06	1.27E+001	11.54	2.15E+001
F	16	4478-	4495	4486.21	1121.60	1.62	4.33E+001	18.34	4.75E+001
F	17	4690-	4709	4699.02	1174.80	2.05	7.57E+001	20.86	4.80E+001
F	18	4954-	4968	4960.27	1240.12	1.52	2.99E+001	15.24	2.93E+001
F	19	5326-	5348	5336.68	1334.23	2.28	7.31E+001	18.65	2.35E+001
F	20	5838-	5866	5852.51	1463.20	2.05	1.02E+003	62.35	1.81E+001
F	21	7065-	7079	7072.84	1768.31	2.30	3.38E+001	13.34	8.70E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	0.998	511.00*	100.00	2.14472E-001	4.99713E-002
K-40	0.843	1460.81*	10.67	1.76720E+001	1.79202E+000
Co-60	0.920	1173.22*	100.00	1.33294E-001	3.81754E-002
		1332.49*	100.00	1.32564E-001	3.53826E-002
Cs-137	0.991	661.65*	85.12	2.03819E-001	5.07515E-002
TL-208	0.746	277.35	6.80		
		510.84*	21.60	9.92926E-001	2.45148E-001
		583.14*	84.20	2.78352E-001	6.38158E-002
		860.37	12.46		
Pb-212	0.520	74.81* @	10.70	1.14948E+001	2.54578E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	7.30358E-001	1.59235E-001
Bi-214	0.684	609.31*	46.30	6.69542E-001	1.30082E-001
		1120.29*	15.10	4.98528E-001	2.17558E-001
		1764.49	15.80		
Ac-228	0.598	338.32	11.40		
		911.07*	27.70	9.62811E-001	1.96773E-001
		969.11*	16.60	9.96600E-001	2.46284E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		0.998	1.543479E-001	5.180057E-002
K-40		0.843	1.767202E+001	1.792016E+000
Co-60		0.920	1.329012E-001	2.595048E-002
Cs-137		0.991	2.038190E-001	5.075146E-002
TL-208		0.746	2.783522E-001	6.316775E-002
Pb-212	@	0.520	7.303583E-001	1.592355E-001
Bi-214		0.684	6.245041E-001	1.116471E-001
Ac-228		0.598	9.759765E-001	1.537315E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	73.02	5.1165E-001	21.50
F 3	84.88	4.4443E-001	24.70
F 5	328.40	5.3943E-002	68.21
F 6	352.08	1.8258E-001	27.38
M 12	965.88	6.9736E-002	37.35
F 14	1011.52	4.7007E-002	48.11
F 15	1074.72	2.1210E-002	90.67
F 18	1240.12	4.9798E-002	51.00
F 21	1768.31	5.6382E-002	39.44

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
+	Co-60	1173.22*	100.00	8.0336E-002	6.28E-002	1.3329E-001
		1332.49*	100.00	6.2785E-002		1.3256E-001
	Nb-94	702.63	100.00	1.1247E-001	9.46E-002	-1.2790E-002
		871.10	100.00	9.4581E-002		-7.6190E-002
	Ag-108m	79.20	7.10	5.9284E+000	1.27E-001	-3.2274E+000
		433.93	89.90	1.3271E-001		4.5395E-002
		614.37	90.40	1.6332E-001		7.1714E-004
		722.95	90.50	1.2738E-001		4.4763E-003
	Sb-125	176.33	6.89	2.4830E+000	3.95E-001	-1.2733E+000
		427.89	29.33	3.9459E-001		7.8055E-002
		463.38	10.35	1.1943E+000		8.8028E-001
		600.56	17.80	6.1343E-001		-1.2406E-001
		606.64	5.02	2.9752E+000		-4.7916E-001
		635.90	11.32	9.3697E-001		5.1095E-001
	Cs-134	563.23	8.38	1.3173E+000	1.27E-001	4.1293E-001
		569.32	15.43	7.2906E-001		2.4477E-001
		604.70	97.60	1.4630E-001		-5.5059E-002
		795.84	85.40	1.2704E-001		3.6337E-002
		801.93	8.73	1.2203E+000		1.6684E-001
+	Cs-137	661.65*	85.12	8.1874E-002	8.19E-002	2.0382E-001
	Eu-152	121.78	28.40	8.5318E-001	3.76E-001	7.9827E-001
		244.69	7.49	2.0693E+000		-6.0089E+000
		344.27	26.50	4.8402E-001		-1.1556E+000
		778.89	12.74	8.3542E-001		1.7618E-002
		867.32	4.16	2.3679E+000		-2.6019E+000
		964.01	14.40	8.6087E-001		1.3411E-001
		1085.78	10.00	9.5621E-001		9.5036E-001
		1112.02	13.30	7.3966E-001		-1.8199E-001
		1407.95	20.70	3.7589E-001		3.7149E-001
	Eu-154	123.07	40.50	5.8478E-001	2.57E-001	-2.5200E-001
		247.94	6.60	2.2872E+000		-9.9043E-001
		591.81	4.83	2.2404E+000		-1.1161E+000
		723.30	19.70	5.9242E-001		5.7431E-002
		756.87	4.33	2.5217E+000		3.0686E+000
		873.19	11.50	8.4982E-001		-1.4124E-001
		996.32	10.30	9.1929E-001		1.1426E-001
		1004.76	17.90	5.2643E-001		1.6933E-001
		1274.45	35.50	2.5687E-001		-1.4392E-001
	Eu-155	86.54	30.90	1.1517E+000	1.15E+000	2.0314E+000
		105.31	20.70	1.3174E+000		1.2842E-001
	Am-241	59.54	35.90	1.4919E+000	1.49E+000	-1.6960E+000
	Cm-243	228.19	10.56	1.4664E+000	1.02E+000	4.7489E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	1.0210E+000	1.02E+000	2.8767E-001

+ = 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

Report Generated On 12/7/2005 12:17:26 AM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-02-106
Sample Title: NOL-05-02-106-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/7/2005 12:07:23 AM
Live Time: 600.0 seconds
Real Time: 601.3 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-02-106
Title: NOL-05-02-106-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	286-	313	291.62	72.75	0.86	4.00E+002	66.90	1.27E+003
m	2	286-	313	300.18	74.90	0.86	9.13E+002	83.25	1.35E+003
m	3	286-	313	308.58	77.01	0.87	1.37E+002	56.97	1.22E+003
F	4	334-	344	339.55	84.78	0.85	2.25E+002	67.09	1.23E+003
F	5	943-	959	953.88	238.79	0.96	3.27E+002	47.02	4.00E+002
F	6	1172-	1183	1178.78	295.13	0.96	7.93E+001	30.37	2.04E+002
F	7	1346-	1359	1351.81	338.46	1.10	7.85E+001	28.07	1.72E+002
F	8	1401-	1414	1406.28	352.09	1.07	1.87E+002	34.56	1.67E+002
F	9	2032-	2052	2040.75	510.86	1.77	1.50E+002	30.83	1.83E+002
F	10	2320-	2340	2330.56	583.33	1.32	1.81E+002	30.96	1.29E+002
F	11	2424-	2444	2434.73	609.37	1.62	1.95E+002	30.72	1.02E+002
F	12	2637-	2655	2644.09	661.70	1.61	7.44E+001	22.52	8.37E+001
F	13	2900-	2913	2906.59	727.29	1.32	5.38E+001	20.18	5.61E+001
F	14	3633-	3652	3642.28	911.03	1.52	1.47E+002	27.48	7.28E+001
F	15	3865-	3880	3872.94	968.61	1.11	6.92E+001	21.28	6.40E+001
F	16	4681-	4698	4690.07	1172.52	1.53	8.43E+001	22.78	5.83E+001
F	17	5317-	5338	5327.53	1331.55	1.89	1.00E+002	21.34	2.66E+001
F	18	5827-	5854	5840.71	1459.55	2.00	1.10E+003	63.80	7.00E+000
F	19	7050-	7066	7057.62	1763.11	1.76	4.84E+001	15.37	9.79E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gm)	Activity Uncertainty
ANN	0.999	511.00*	100.00	2.04696E-001	5.03761E-002
K-40	0.953	1460.81*	10.67	1.83699E+001	1.83216E+000
Co-60	0.980	1173.22*	100.00	1.43795E-001	4.04543E-002
		1332.49*	100.00	1.75863E-001	3.99630E-002
Cs-137	1.000	661.65*	85.12	1.29818E-001	4.21706E-002
TL-208	0.751	277.35	6.80		
		510.84*	21.60	9.47668E-001	2.45728E-001
		583.14*	84.20	3.05814E-001	6.58106E-002
		860.37	12.46		
Bi-212	1.000	727.17*	11.80	6.90012E-001	2.71362E-001
Pb-212	0.843	74.81* @	10.70	1.30737E+001	2.82586E+000
		77.11* @	18.00	1.12463E+000	5.15970E-001
		87.30 @	8.00		
		238.63*	44.60	7.95297E-001	1.69188E-001
Bi-214	0.687	609.31*	46.30	6.07779E-001	1.21670E-001
		1120.29	15.10		
		1764.49*	15.80	5.67978E-001	1.89221E-001
PB-214	0.762	74.82* @	6.21	2.25263E+001	5.13629E+000
		77.11* @	10.50	1.92794E+000	8.96157E-001
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	4.75804E-001	1.99065E-001
		351.92*	37.20	6.07732E-001	1.51627E-001
Ac-228	0.998	338.32*	11.40	8.25180E-001	3.22108E-001
		911.07*	27.70	8.43918E-001	1.84849E-001
		969.11*	16.60	6.72852E-001	2.18587E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
ANN		0.999	1.386405E-001	5.229901E-002
K-40		0.953	1.836991E+001	1.832158E+000
Co-60		0.980	1.600250E-001	2.843022E-002
Cs-137		1.000	1.298180E-001	4.217057E-002
TL-208		0.751	3.058138E-001	6.505163E-002
Bi-212		1.000	6.900120E-001	2.713621E-001
Pb-212	@	0.843	7.952969E-001	1.691882E-001
Bi-214		0.687	5.961364E-001	1.023391E-001
PB-214	@	0.762	5.592931E-001	1.206210E-001
Ac-228		0.998	7.810625E-001	1.292788E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.75	6.6612E-001	16.74
F 4	84.78	3.7576E-001	29.76

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
+	Co-60	1173.22*	100.00	8.1934E-002	6.26E-002	1.4379E-001
		1332.49*	100.00	6.2568E-002		1.7586E-001
	Nb-94	702.63	100.00	1.0924E-001	1.01E-001	-1.3335E-001
		871.10	100.00	1.0055E-001		-1.7403E-002
	Ag-108m	79.20	7.10	5.6017E+000	1.27E-001	2.6688E-001
		433.93	89.90	1.2954E-001		8.0145E-002
		614.37	90.40	1.5745E-001		3.5633E-002
		722.95	90.50	1.2720E-001		8.2223E-002
	Sb-125	176.33	6.89	2.4837E+000	4.00E-001	-2.0593E-001
		427.89	29.33	3.9955E-001		4.7745E-002
		463.38	10.35	1.1641E+000		-4.7639E-001
		600.56	17.80	5.9847E-001		8.1605E-002
		606.64	5.02	2.8975E+000		4.4874E+000
		635.90	11.32	9.3109E-001		-2.0686E-001
	Cs-134	563.23	8.38	1.3307E+000	1.21E-001	1.5983E+000
		569.32	15.43	7.0018E-001		1.4907E-001
		604.70	97.60	1.4822E-001		3.3967E-002
		795.84	85.40	1.2094E-001		4.4038E-002
		801.93	8.73	1.1608E+000		-5.9590E-001
+	Cs-137	661.65*	85.12	1.0137E-001	1.01E-001	1.2982E-001
	Eu-152	121.78	28.40	8.2377E-001	3.38E-001	-2.9975E-001
		244.69	7.49	2.1061E+000		-2.0344E+000
		344.27	26.50	4.9757E-001		1.0948E-002
		778.89	12.74	8.1529E-001		-5.9601E-001
		867.32	4.16	2.4546E+000		-4.1907E+000
		964.01	14.40	9.1853E-001		1.9944E+000
		1085.78	10.00	9.6674E-001		5.9691E-001
		1112.02	13.30	8.7551E-001		-3.3924E-001
		1407.95	20.70	3.3771E-001		1.8456E-001
	Eu-154	123.07	40.50	5.7389E-001	2.62E-001	4.1746E-001
		247.94	6.60	2.2914E+000		5.4817E-001
		591.81	4.83	2.1309E+000		-5.9362E-001
		723.30	19.70	5.8891E-001		6.3496E-001
		756.87	4.33	2.5053E+000		2.6556E+000
		873.19	11.50	8.9620E-001		2.3242E-001
		996.32	10.30	9.7530E-001		9.7029E-001
		1004.76	17.90	5.5076E-001		-2.9566E-001
		1274.45	35.50	2.6199E-001		1.9681E-001
	Eu-155	86.54	30.90	1.1444E+000	1.14E+000	2.3764E+000
		105.31	20.70	1.3204E+000		1.3593E+000
	Am-241	59.54	35.90	1.4760E+000	1.48E+000	-1.0653E-001
	Cm-243	228.19	10.56	1.4751E+000	1.01E+000	5.8841E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
Cm-243	277.60	14.00	1.0095E+000	1.01E+000	9.5754E-001

+ = 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

Report Generated On 12/7/2005 12:02:35 AM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-02-107
Sample Title: NOL-05-02-107-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/6/2005 11:52:33 PM
Live Time: 600.0 seconds
Real Time: 601.3 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-02-107
Title: NOL-05-02-107-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	285-	318	291.58	72.74	0.99	4.44E+002	69.82	1.45E+003
m	2	285-	318	300.37	74.95	1.00	9.14E+002	83.43	1.54E+003
m	3	285-	318	308.93	77.10	1.00	1.43E+002	58.88	1.42E+003
F	4	330-	345	339.40	84.74	0.96	2.54E+002	71.44	1.87E+003
F	5	948-	961	953.84	238.78	0.95	2.64E+002	45.05	3.97E+002
F	6	1173-	1189	1180.28	295.50	1.03	5.66E+001	29.48	2.91E+002
F	7	1402-	1415	1406.24	352.08	0.89	1.51E+002	32.41	1.72E+002
F	8	2029-	2052	2040.64	510.83	1.59	1.50E+002	29.61	1.74E+002
F	9	2320-	2337	2330.59	583.34	1.28	1.68E+002	29.35	9.03E+001
F	10	2426-	2446	2435.59	609.58	1.46	1.85E+002	29.87	9.41E+001
F	11	2636-	2653	2644.13	661.71	1.33	9.50E+001	25.65	1.09E+002
F	12	3632-	3652	3642.05	910.97	1.71	1.67E+002	27.63	5.52E+001
F	13	3864-	3880	3872.63	968.53	1.36	7.85E+001	23.35	7.21E+001
F	14	4469-	4485	4478.63	1119.77	1.48	6.40E+001	20.05	4.66E+001
F	15	4680-	4701	4690.36	1172.60	1.89	2.03E+002	29.99	5.38E+001
F	16	5318-	5336	5326.82	1331.37	1.77	2.03E+002	29.54	3.15E+001
F	17	5827-	5855	5840.68	1459.55	2.04	1.07E+003	63.24	6.80E+000
F	18	7049-	7066	7056.88	1762.93	1.45	3.87E+001	13.92	1.08E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gm)	Activity Uncertainty
ANN	0.999	511.00*	100.00	2.04013E-001	4.89463E-002
K-40	0.953	1460.81*	10.67	1.79123E+001	1.79659E+000
Co-60	0.976	1173.22*	100.00	3.46623E-001	5.79387E-002
		1332.49*	100.00	3.55942E-001	5.89398E-002
Cs-137	1.000	661.65*	85.12	1.65824E-001	4.88476E-002
TL-208	0.751	277.35	6.80		
		510.84*	21.60	9.44503E-001	2.39372E-001
		583.14*	84.20	2.83888E-001	6.19113E-002
		860.37	12.46		
Pb-212	0.843	74.81* @	10.70	1.30640E+001	2.82479E+000
		77.11* @	18.00	1.16592E+000	5.32880E-001
		87.30 @	8.00		
		238.63*	44.60	6.41716E-001	1.48745E-001
Bi-214	0.982	609.31*	46.30	5.76411E-001	1.17224E-001
		1120.29*	15.10	7.13549E-001	2.35951E-001
		1764.49*	15.80	4.54936E-001	1.69667E-001
PB-214	0.762	74.82* @	6.21	2.25096E+001	5.13416E+000
		77.11* @	10.50	1.99872E+000	9.25618E-001
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	3.39625E-001	1.85993E-001
		351.92*	37.20	4.92072E-001	1.33840E-001
Ac-228	0.630	338.32	11.40		
		911.07*	27.70	9.57716E-001	1.92722E-001
		969.11*	16.60	7.62626E-001	2.40627E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
ANN		0.999	1.426929E-001	5.070093E-002
K-40		0.953	1.791231E+001	1.796586E+000
Co-60		0.976	3.512026E-001	4.131823E-002
Cs-137		1.000	1.658241E-001	4.884758E-002
TL-208		0.751	2.838880E-001	6.121616E-002
Pb-212	@	0.843	6.417159E-001	1.487449E-001
Bi-214		0.982	5.624119E-001	8.927430E-002
PB-214	@	0.762	4.400635E-001	1.086365E-001
Ac-228		0.630	8.814768E-001	1.504233E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.74	7.3937E-001	15.74
F 4	84.74	4.2304E-001	28.14

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
+	Co-60	1173.22*	100.00	8.4052E-002	6.51E-002	3.4662E-001
		1332.49*	100.00	6.5143E-002		3.5594E-001
	Nb-94	702.63	100.00	1.0424E-001	9.75E-002	4.0342E-003
		871.10	100.00	9.7461E-002		-4.9764E-002
	Ag-108m	79.20	7.10	5.7012E+000	1.34E-001	-1.3185E-001
		433.93	89.90	1.3443E-001		1.3260E-002
		614.37	90.40	1.5432E-001		3.8591E-002
		722.95	90.50	1.3783E-001		-8.3803E-003
	Sb-125	176.33	6.89	2.5094E+000	3.84E-001	8.4344E-001
		427.89	29.33	3.8365E-001		-1.8459E-001
		463.38	10.35	1.2084E+000		-4.6375E-001
		600.56	17.80	6.1301E-001		-5.8582E-001
		606.64	5.02	2.8719E+000		6.8229E+000
		635.90	11.32	9.8425E-001		6.3429E-001
	Cs-134	563.23	8.38	1.4002E+000	1.27E-001	8.9700E-001
		569.32	15.43	7.9803E-001		7.5728E-002
		604.70	97.60	1.4673E-001		-1.7669E-002
		795.84	85.40	1.2744E-001		-8.4779E-002
		801.93	8.73	1.2792E+000		-4.5210E-001
+	Cs-137	661.65*	85.12	1.1364E-001	1.14E-001	1.6582E-001
	Eu-152	121.78	28.40	8.2023E-001	3.38E-001	7.0665E-002
		244.69	7.49	2.0508E+000		-2.2527E+000
		344.27	26.50	5.0032E-001		-7.9858E-001
		778.89	12.74	8.8079E-001		-7.1030E-001
		867.32	4.16	2.5318E+000		-1.8593E+000
		964.01	14.40	9.2764E-001		1.5837E+000
		1085.78	10.00	1.0630E+000		6.4096E-001
		1112.02	13.30	9.4260E-001		1.0079E-001
		1407.95	20.70	3.3771E-001		-1.6856E-002
	Eu-154	123.07	40.50	5.7152E-001	2.56E-001	5.3320E-002
		247.94	6.60	2.2430E+000		9.5806E-002
		591.81	4.83	2.4171E+000		2.0132E+000
		723.30	19.70	6.3841E-001		4.2323E-001
		756.87	4.33	2.6463E+000		2.9598E+000
		873.19	11.50	8.6268E-001		-3.2372E-001
		996.32	10.30	9.8967E-001		-4.1708E-001
		1004.76	17.90	6.1969E-001		5.8773E-001
		1274.45	35.50	2.5563E-001		1.7555E-001
	Eu-155	86.54	30.90	1.1746E+000	1.17E+000	6.0119E-001
		105.31	20.70	1.3365E+000		6.7019E-001
	Am-241	59.54	35.90	1.4581E+000	1.46E+000	7.6094E-001
	Cm-243	228.19	10.56	1.4369E+000	1.01E+000	1.5194E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
Cm-243	277.60	14.00	1.0124E+000	1.01E+000	1.0923E-001

+ = 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

Report Generated On 12/13/2005 8:40:29 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Detector ID: RED6264

Spectrum File: RED6264
Sample ID:
Sample Title: NOL-05-02-107-F-I-G-001
Description:

Sample Type:
Geometry:

Acquisition Started: 12/13/2005 8:30:25 PM
Live Time: 600.0 seconds
Real Time: 601.2 seconds

Energy Calibration Date: 6/13/2005
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number:
Title: NOL-05-02-107-F-I-G-001
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	284-	306	291.71	72.89	1.09	4.05E+002	68.09	1.67E+003
m	2	284-	306	300.43	75.07	1.10	6.86E+002	78.02	1.71E+003
F	3	331-	344	338.53	84.59	1.31	2.48E+002	67.58	1.48E+003
F	4	943-	963	954.32	238.55	1.34	2.90E+002	44.50	5.13E+002
F	5	1346-	1361	1352.33	338.06	1.36	1.04E+002	27.26	1.46E+002
F	6	1401-	1416	1407.55	351.87	1.18	1.48E+002	31.96	1.88E+002
F	7	2035-	2052	2042.61	510.65	1.34	1.13E+002	29.23	1.75E+002
F	8	2323-	2344	2332.09	583.02	1.66	1.98E+002	31.12	1.14E+002
F	9	2428-	2445	2437.16	609.29	1.65	1.80E+002	29.11	7.65E+001
F	10	3173-	3185	3179.64	794.93	0.64	2.66E+001	14.69	5.27E+001
F	11	3635-	3654	3644.87	911.24	1.65	1.50E+002	27.67	7.25E+001
M	12	3851-	3886	3858.42	964.64	1.84	4.56E+001	17.29	4.28E+001
m	13	3851-	3886	3874.89	968.75	1.84	7.62E+001	20.21	5.63E+001
F	14	4474-	4491	4482.56	1120.68	1.74	4.32E+001	18.61	5.26E+001
F	15	4684-	4707	4694.77	1173.74	2.12	1.58E+002	27.08	6.07E+001
F	16	5322-	5343	5332.31	1333.14	2.26	1.71E+002	26.14	1.61E+001
F	17	5832-	5861	5846.42	1461.68	2.21	9.88E+002	60.39	1.11E+001
F	18	7053-	7068	7061.88	1765.57	2.48	5.04E+001	14.39	1.98E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	0.996	511.00*	100.00	1.58806E-001	4.64076E-002
K-40	0.978	1460.81*	10.67	1.70873E+001	1.73375E+000
Co-60	0.990	1173.22*	100.00	2.77230E-001	5.23739E-002
		1332.49*	100.00	3.10225E-001	5.32576E-002
TL-208	0.751	277.35	6.80		
		510.84*	21.60	7.35214E-001	2.23082E-001
		583.14*	84.20	3.45616E-001	7.05387E-002
		860.37	12.46		
Pb-212	0.521	74.81* @	10.70	1.01591E+001	2.30223E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	7.28568E-001	1.59754E-001
Bi-214	0.992	609.31*	46.30	5.81179E-001	1.17952E-001
		1120.29*	15.10	4.97437E-001	2.20488E-001
		1764.49*	15.80	6.10991E-001	1.84976E-001
Ac-228	0.998	338.32*	11.40	1.12470E+000	3.44169E-001
		911.07*	27.70	8.85852E-001	1.92775E-001
		969.11*	16.60	7.64894E-001	2.18132E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		0.996	8.415326E-002	4.878416E-002
K-40		0.978	1.708735E+001	1.733755E+000
Co-60		0.990	2.934513E-001	3.734247E-002
TL-208		0.751	3.456158E-001	6.963368E-002
Pb-212	@	0.521	7.285684E-001	1.597538E-001
Bi-214		0.992	5.741823E-001	9.065764E-002
Ac-228		0.998	8.765264E-001	1.331940E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.89	6.7489E-001	16.81
F 3	84.59	4.1309E-001	27.27
F 6	351.87	2.4638E-001	21.62
F 10	794.93	4.4358E-002	55.20
M 12	964.64	7.6066E-002	37.89

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
+	Co-60	1173.22*	100.00	9.5645E-002	5.11E-002	2.7723E-001
		1332.49*	100.00	5.1083E-002		3.1022E-001
	Nb-94	702.63	100.00	1.0653E-001	1.06E-001	-6.8889E-002
		871.10	100.00	1.0558E-001		-7.9644E-002
	Ag-108m	79.20	7.10	5.8141E+000	1.24E-001	-6.6171E+000
		433.93	89.90	1.3796E-001		1.7317E-002
		614.37	90.40	1.5587E-001		2.6821E-002
		722.95	90.50	1.2393E-001		-1.9282E-002
	Sb-125	176.33	6.89	2.5104E+000	4.02E-001	-1.5010E+000
		427.89	29.33	4.0205E-001		-2.5672E-001
		463.38	10.35	1.2023E+000		-6.2309E-002
		600.56	17.80	6.1470E-001		8.1702E-002
		606.64	5.02	2.8577E+000		4.9670E+000
		635.90	11.32	9.9111E-001		7.5081E-002
	Cs-134	563.23	8.38	1.3477E+000	1.31E-001	2.7551E-001
		569.32	15.43	7.2215E-001		-1.7955E-001
		604.70	97.60	1.4665E-001		-9.5569E-003
		795.84	85.40	1.3098E-001		9.6528E-002
		801.93	8.73	1.2110E+000		-2.3970E-001
	Cs-137	661.65	85.12	1.5187E-001	1.52E-001	2.2852E-001
	Eu-152	121.78	28.40	8.2115E-001	3.73E-001	-1.6447E-001
		244.69	7.49	2.1112E+000		-8.7034E-001
		344.27	26.50	4.7741E-001		-1.7418E-002
		778.89	12.74	8.8799E-001		-6.1482E-001
		867.32	4.16	2.6543E+000		-2.4967E+000
		964.01	14.40	9.0831E-001		7.4119E-003
		1085.78	10.00	1.0405E+000		9.7830E-001
		1112.02	13.30	8.1871E-001		-1.5174E-001
		1407.95	20.70	3.7347E-001		-1.8505E-001
	Eu-154	123.07	40.50	5.7502E-001	2.58E-001	3.8021E-001
		247.94	6.60	2.2587E+000		-3.0693E-001
		591.81	4.83	2.2121E+000		-1.2555E+000
		723.30	19.70	5.7429E-001		4.2640E-001
		756.87	4.33	2.5511E+000		-1.5681E+000
		873.19	11.50	9.0374E-001		2.8753E-002
		996.32	10.30	1.0336E+000		6.2461E-001
		1004.76	17.90	5.8256E-001		-1.8321E-001
		1274.45	35.50	2.5800E-001		1.1369E-001
	Eu-155	86.54	30.90	1.1653E+000	1.17E+000	-5.8463E-001
		105.31	20.70	1.3083E+000		-1.0336E-001
	Am-241	59.54	35.90	1.5227E+000	1.52E+000	-2.1911E-001
	Cm-243	228.19	10.56	1.5030E+000	1.03E+000	1.9754E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	1.0346E+000	1.03E+000	1.0677E+000

+ = 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

Report Generated On 12/13/2005 9:00:20 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Detector ID: RED6264

Spectrum File: RED6264
Sample ID:
Sample Title: NOL-05-02-107-F-I-G-002
Description:

Sample Type:
Geometry:

Acquisition Started: 12/13/2005 8:45:18 PM
Live Time: 900.0 seconds
Real Time: 900.8 seconds

Energy Calibration Date: 6/13/2005
Eff Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number:
Title: NOL-05-02-107-F-I-G-002
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	287-	309	292.16	73.00	0.87	2.49E+002	50.82	6.78E+002
m	2	287-	309	300.35	75.05	0.87	5.00E+002	61.08	7.51E+002
M	3	332-	356	339.28	84.78	1.24	1.94E+002	49.89	8.71E+002
m	4	332-	356	350.02	87.46	1.25	1.75E+002	47.75	9.58E+002
F	5	948-	960	954.62	238.63	1.03	1.92E+002	36.08	2.03E+002
F	6	1403-	1415	1407.95	351.97	1.19	7.53E+001	24.34	9.70E+001
F	7	2032-	2055	2043.13	510.78	2.41	1.31E+002	24.30	8.92E+001
F	8	2325-	2340	2332.13	583.03	1.05	8.46E+001	22.58	6.87E+001
F	9	2428-	2447	2437.06	609.27	1.54	1.10E+002	24.31	7.50E+001
F	10	2638-	2654	2645.87	661.47	1.60	6.98E+001	20.51	5.58E+001
F	11	2903-	2915	2909.59	727.41	1.15	3.45E+001	15.63	3.08E+001
F	12	3638-	3654	3645.52	911.41	1.31	7.08E+001	20.78	5.10E+001
F	13	3870-	3886	3877.25	969.35	1.85	6.28E+001	18.93	3.40E+001
F	14	4475-	4488	4481.67	1120.46	0.89	2.12E+001	14.10	4.37E+001
F	15	4685-	4705	4694.62	1173.70	1.78	1.49E+002	25.73	3.43E+001
F	16	5322-	5341	5332.34	1333.15	1.76	1.15E+002	22.44	1.75E+001
F	17	5832-	5860	5846.56	1461.71	2.06	6.49E+002	49.02	7.25E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	0.999	511.00*	100.00	3.94524E-001	9.18406E-002
K-40	0.976	1460.81*	10.67	2.39811E+001	2.65567E+000
Co-60	0.990	1173.22*	100.00	5.60398E-001	1.06444E-001
		1332.49*	100.00	4.46517E-001	9.36401E-002
Cs-137	0.999	661.65*	85.12	2.67274E-001	8.46537E-002
Eu-155	0.318	86.54*	30.90	1.67352E+000	5.62849E-001
		105.31	20.70		
TL-208	0.753	277.35	6.80		
		510.84*	21.60	1.82650E+000	4.50594E-001
		583.14*	84.20	3.15412E-001	9.39612E-002
		860.37	12.46		
Bi-212	0.998	727.17*	11.80	9.72574E-001	4.55345E-001
Pb-212	0.679	74.81* @	10.70	1.69710E+001	3.91888E+000
		77.11 @	18.00		
		87.30* @	8.00	6.46397E+000	2.17400E+000
		238.63*	44.60	1.07885E+000	2.64136E-001
Bi-214	0.700	609.31*	46.30	7.54467E-001	1.91615E-001
		1120.29*	15.10	5.20924E-001	3.51284E-001
		1764.49	15.80		
Ac-228	0.635	338.32	11.40		
		911.07*	27.70	8.93270E-001	2.81368E-001
		969.11*	16.60	1.34546E+000	4.29430E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		0.999	3.263946E-001	9.403025E-002
K-40		0.976	2.398107E+001	2.655670E+000
Co-60		0.990	4.961996E-001	7.030706E-002
Cs-137		0.999	2.672739E-001	8.465374E-002
Eu-155		0.318	1.394206E+000	5.669882E-001
TL-208		0.753	3.154124E-001	9.339727E-002
Bi-212		0.998	9.725735E-001	4.553450E-001
Pb-212	@	0.679	1.078848E+000	2.641359E-001
Bi-214		0.700	7.009132E-001	1.682169E-001
Ac-228		0.635	1.029090E+000	2.353489E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	73.00	2.7657E-001	20.42
M 3	84.78	2.1551E-001	25.72
F 6	351.97	8.3663E-002	32.33

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
+	Co-60	1173.22*	100.00	1.4904E-001	1.10E-001	5.6040E-001
		1332.49*	100.00	1.1031E-001		4.4652E-001
	Nb-94	702.63	100.00	2.0453E-001	1.79E-001	9.0827E-003
		871.10	100.00	1.7946E-001		-5.0095E-002
	Ag-108m	79.20	7.10	1.0532E+001	2.40E-001	-8.8244E+000
		433.93	89.90	2.5502E-001		1.9148E-001
		614.37	90.40	2.8224E-001		6.4055E-002
		722.95	90.50	2.4038E-001		2.5699E-002
	Sb-125	176.33	6.89	4.3339E+000	7.21E-001	-8.4818E-001
		427.89	29.33	7.2051E-001		4.8275E-001
		463.38	10.35	2.1704E+000		1.7471E+000
		600.56	17.80	1.1244E+000		1.2153E-001
		606.64	5.02	5.0454E+000		5.4426E+000
		635.90	11.32	1.7154E+000		1.8551E-001
	Cs-134	563.23	8.38	2.4462E+000	2.41E-001	-6.4871E-001
		569.32	15.43	1.2545E+000		-1.0250E+000
		604.70	97.60	2.6062E-001		1.1219E-001
		795.84	85.40	2.4069E-001		4.4722E-002
		801.93	8.73	2.1686E+000		-2.6073E+000
+	Cs-137	661.65*	85.12	1.7936E-001	1.79E-001	2.6727E-001
	Eu-152	121.78	28.40	1.4387E+000	7.38E-001	-4.0721E-001
		244.69	7.49	3.8401E+000		-4.7469E+000
		344.27	26.50	8.7605E-001		-1.7201E+000
		778.89	12.74	1.4877E+000		-1.2318E+000
		867.32	4.16	4.5407E+000		-5.9068E+000
		964.01	14.40	1.6192E+000		-3.5647E-001
		1085.78	10.00	1.9203E+000		4.9436E-002
		1112.02	13.30	1.5256E+000		4.1817E-001
		1407.95	20.70	7.3817E-001		5.7662E-001
	Eu-154	123.07	40.50	9.9232E-001	4.64E-001	-1.4325E+000
		247.94	6.60	4.1646E+000		-3.8007E+000
		591.81	4.83	4.3193E+000		3.7153E+000
		723.30	19.70	1.1015E+000		7.4665E-001
		756.87	4.33	4.3979E+000		-1.8845E+000
		873.19	11.50	1.5481E+000		-8.8463E-001
		996.32	10.30	1.9347E+000		5.8053E-001
		1004.76	17.90	1.0612E+000		7.3264E-002
		1274.45	35.50	4.6435E-001		-3.6536E-001
+	Eu-155	86.54*	30.90	1.4055E+000	1.41E+000	1.6735E+000
		105.31	20.70	2.3143E+000		-3.0493E+000
	Am-241	59.54	35.90	2.6975E+000	2.70E+000	1.2375E+000
	Cm-243	228.19	10.56	2.5820E+000	1.77E+000	6.5753E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	1.7731E+000	1.77E+000	-4.1938E-001

+ = 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

Report Generated On 12/13/2005 9:18:15 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Detector ID: RED6264

Spectrum File: RED6264
Sample ID:
Sample Title: NOL-05-02-107-F-I-G-003
Description:

Sample Type:
Geometry:

Acquisition Started: 12/13/2005 9:03:12 PM
Live Time: 900.0 seconds
Real Time: 900.8 seconds

Energy Calibration Date: 6/13/2005
Eff Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number:
Title: NOL-05-02-107-F-I-G-003
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	285-	305	291.54	72.84	0.89	1.79E+002	48.56	7.92E+002
m	2	285-	305	300.19	75.01	0.89	4.22E+002	61.72	8.59E+002
F	3	331-	346	339.20	84.76	1.13	1.63E+002	51.36	9.82E+002
F	4	943-	964	954.40	238.57	0.99	1.40E+002	31.52	2.94E+002
F	5	1176-	1187	1180.24	295.04	0.86	3.09E+001	21.22	1.17E+002
F	6	1348-	1357	1352.98	338.22	0.65	3.37E+001	18.81	8.29E+001
F	7	1401-	1417	1407.61	351.88	1.29	8.26E+001	22.71	9.11E+001
F	8	2034-	2054	2043.32	510.82	2.04	1.32E+002	25.16	8.68E+001
F	9	2324-	2339	2332.16	583.04	1.25	9.96E+001	23.15	5.60E+001
F	10	2428-	2447	2437.45	609.37	1.54	1.11E+002	22.44	4.36E+001
F	11	2640-	2652	2645.76	661.45	0.74	2.16E+001	14.27	4.95E+001
F	12	3635-	3652	3645.04	911.29	1.77	9.50E+001	21.04	2.92E+001
F	13	3868-	3883	3875.79	968.98	1.43	5.77E+001	17.56	2.43E+001
F	14	4688-	4704	4695.80	1174.00	1.93	7.01E+001	19.87	3.39E+001
F	15	5323-	5342	5332.80	1333.26	1.96	6.29E+001	17.32	1.75E+001
F	16	5832-	5859	5846.34	1461.66	2.01	6.13E+002	47.91	7.00E+000
F	17	7056-	7070	7062.64	1765.76	1.93	3.80E+001	12.64	2.04E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	0.999	511.00*	100.00	3.98832E-001	9.42811E-002
K-40	0.979	1460.81*	10.67	2.26437E+001	2.54883E+000
Co-60	0.982	1173.22*	100.00	2.64065E-001	7.76784E-002
		1332.49*	100.00	2.43583E-001	6.96937E-002
Cs-137	0.999	661.65*	85.12	8.27302E-002	5.55176E-002
TL-208	0.753	277.35	6.80		
		510.84*	21.60	1.84644E+000	4.61800E-001
		583.14*	84.20	3.71255E-001	9.93027E-002
		860.37	12.46		
Pb-212	0.525	74.81* @	10.70	1.43345E+001	3.50484E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	7.89323E-001	2.16156E-001
Bi-214	0.689	609.31*	46.30	7.61123E-001	1.80974E-001
		1120.29	15.10		
		1764.49*	15.80	9.87090E-001	3.42562E-001
PB-214	0.588	74.82* @	6.21	2.46988E+001	6.29948E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	4.22733E-001	2.98907E-001
		351.92*	37.20	6.06267E-001	1.95094E-001
Ac-228	0.999	338.32*	11.40	8.01212E-001	4.64101E-001
		911.07*	27.70	1.19719E+000	2.98894E-001
		969.11*	16.60	1.23696E+000	3.98024E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		0.999	3.186405E-001	9.665491E-002
K-40		0.979	2.264368E+001	2.548828E+000
Co-60		0.982	2.527176E-001	5.187489E-002
Cs-137		0.999	8.273025E-002	5.551760E-002
TL-208		0.753	3.712555E-001	9.856286E-002
Pb-212	@	0.525	7.893231E-001	2.161556E-001
Bi-214		0.689	8.104287E-001	1.600167E-001
PB-214	@	0.588	5.514378E-001	1.633742E-001
Ac-228		0.999	1.125520E+000	2.124848E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.84	1.9838E-001	27.20
F 3	84.76	1.8058E-001	31.60

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
+	Co-60	1173.22*	100.00	1.3834E-001	1.10E-001	2.6406E-001
		1332.49*	100.00	1.1035E-001		2.4358E-001
	Nb-94	702.63	100.00	1.9589E-001	1.79E-001	9.3460E-002
		871.10	100.00	1.7946E-001		-9.5007E-003
	Ag-108m	79.20	7.10	1.0470E+001	2.11E-001	-1.1209E+001
		433.93	89.90	2.2395E-001		1.6726E-003
		614.37	90.40	2.6277E-001		-1.4247E-001
		722.95	90.50	2.1133E-001		1.3740E-001
	Sb-125	176.33	6.89	3.9692E+000	6.76E-001	-1.6630E+000
		427.89	29.33	6.7608E-001		-1.8910E-001
		463.38	10.35	2.0023E+000		1.4419E+000
		600.56	17.80	1.1434E+000		-3.1958E-001
		606.64	5.02	4.9374E+000		8.9366E+000
		635.90	11.32	1.7314E+000		7.3907E-002
	Cs-134	563.23	8.38	2.2955E+000	2.05E-001	-1.1012E+000
		569.32	15.43	1.2654E+000		-3.9799E-001
		604.70	97.60	2.5464E-001		-3.5389E-003
		795.84	85.40	2.0533E-001		-2.8882E-001
		801.93	8.73	2.1366E+000		-6.8984E-001
+	Cs-137	661.65*	85.12	1.5441E-001	1.54E-001	8.2730E-002
	Eu-152	121.78	28.40	1.4231E+000	5.93E-001	-1.9527E-001
		244.69	7.49	3.5117E+000		-9.8329E-001
		344.27	26.50	8.3619E-001		-7.0865E-001
		778.89	12.74	1.5248E+000		1.4312E-001
		867.32	4.16	4.5061E+000		-1.9261E+000
		964.01	14.40	1.5806E+000		1.7204E-001
		1085.78	10.00	1.7952E+000		-1.9139E-001
		1112.02	13.30	1.4358E+000		-3.5354E-002
		1407.95	20.70	5.9340E-001		1.3881E-001
	Eu-154	123.07	40.50	9.8996E-001	4.50E-001	-1.1278E-002
		247.94	6.60	3.8555E+000		-3.5086E+000
		591.81	4.83	4.3416E+000		3.0903E+000
		723.30	19.70	9.6424E-001		7.5535E-002
		756.87	4.33	4.5502E+000		-6.1979E-001
		873.19	11.50	1.5613E+000		2.0241E-001
		996.32	10.30	1.7783E+000		2.6411E-001
		1004.76	17.90	9.8449E-001		1.8214E-002
		1274.45	35.50	4.4960E-001		-2.3137E-001
	Eu-155	86.54	30.90	2.0613E+000	2.06E+000	1.0331E+000
		105.31	20.70	2.2502E+000		-6.3539E-001
	Am-241	59.54	35.90	2.7727E+000	2.77E+000	1.7361E+000
	Cm-243	228.19	10.56	2.4200E+000	1.74E+000	9.4323E-002

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	1.7361E+000	1.74E+000	-1.2961E-001

+ = 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

Report Generated On 12/13/2005 9:37:11 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Detector ID: RED6264

Spectrum File: RED6264
Sample ID:
Sample Title: NOL-05-02-107-F-I-G-004
Description:

Sample Type:
Geometry:

Acquisition Started: 12/13/2005 9:22:08 PM
Live Time: 900.0 seconds
Real Time: 900.8 seconds

Energy Calibration Date: 6/13/2005
Eff Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number:
Title: NOL-05-02-107-F-I-G-004
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	287-	345	291.54	72.84	0.99	2.93E+002	53.67	6.74E+002
m	2	287-	345	300.25	75.02	0.99	5.08E+002	61.49	8.65E+002
m	3	287-	345	339.10	84.73	1.01	1.42E+002	47.70	9.52E+002
F	4	948-	960	954.60	238.62	1.19	1.71E+002	33.79	1.80E+002
F	5	1173-	1187	1180.59	295.12	1.48	6.93E+001	24.38	1.30E+002
F	6	1349-	1358	1353.34	338.32	0.94	4.07E+001	21.29	8.00E+001
F	7	1402-	1418	1407.66	351.90	1.38	9.14E+001	24.86	1.11E+002
F	8	2036-	2051	2042.99	510.74	1.62	8.23E+001	23.45	8.87E+001
F	9	2324-	2339	2332.21	583.05	1.34	1.22E+002	23.53	3.59E+001
F	10	2430-	2444	2436.69	609.18	1.24	9.33E+001	22.85	5.42E+001
F	11	3638-	3653	3645.34	911.36	1.41	7.16E+001	20.00	3.56E+001
F	12	3868-	3884	3876.56	969.17	1.61	5.52E+001	18.01	3.57E+001
F	13	4474-	4487	4480.47	1120.16	1.33	2.15E+001	14.28	2.80E+001
F	14	5325-	5339	5332.26	1333.13	1.93	3.45E+001	13.99	1.32E+001
F	15	5832-	5859	5845.81	1461.53	2.00	6.55E+002	49.73	1.75E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	0.998	511.00*		100.00	2.48334E-001	7.88490E-002
K-40	0.985	1460.81*		10.67	2.42021E+001	2.68663E+000
TL-208	0.753	277.35		6.80		
		510.84*		21.60	1.14969E+000	3.76923E-001
		583.14*		84.20	4.55972E-001	1.06471E-001
		860.37		12.46		
Pb-212	0.525	74.81*	@	10.70	1.72496E+001	3.97303E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	9.60011E-001	2.42352E-001
Bi-214	0.699	609.31*		46.30	6.41044E-001	1.76140E-001
		1120.29*		15.10	5.30057E-001	3.55874E-001
		1764.49		15.80		
PB-214	0.588	74.82*	@	6.21	2.97215E+001	7.17759E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	9.48678E-001	3.69905E-001
		351.92*		37.20	6.70903E-001	2.14213E-001
Ac-228	0.999	338.32*		11.40	9.67321E-001	5.27962E-001
		911.07*		27.70	9.02548E-001	2.72673E-001
		969.11*		16.60	1.18214E+000	4.05447E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		0.998	1.498443E-001	8.207170E-002
K-40		0.985	2.420211E+001	2.686633E+000
TL-208		0.753	4.559716E-001	1.054292E-001
Pb-212	@	0.525	9.600105E-001	2.423519E-001
Bi-214		0.699	6.192054E-001	1.578617E-001
PB-214	@	0.588	7.406629E-001	1.853732E-001
Ac-228		0.999	9.861612E-001	2.079704E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.84	3.2566E-001	18.31
m 3	84.73	1.5785E-001	33.58
F 14	1333.13	3.8375E-002	40.49

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Co-60	1173.22	100.00	2.0854E-001	1.78E-001	2.1230E-001
	1332.49	100.00	1.7839E-001		1.1611E-001
Nb-94	702.63	100.00	1.8880E-001	1.76E-001	-1.3946E-002
	871.10	100.00	1.7562E-001		6.1323E-002
Ag-108m	79.20	7.10	1.0510E+001	2.14E-001	-3.3524E+001
	433.93	89.90	2.2497E-001		2.2744E-001
	614.37	90.40	2.6699E-001		-1.7639E-002
	722.95	90.50	2.1420E-001		1.5382E-001
Sb-125	176.33	6.89	4.1340E+000	6.79E-001	-2.2773E+000
	427.89	29.33	6.7924E-001		1.0318E-001
	463.38	10.35	2.0555E+000		-6.3089E-001
	600.56	17.80	1.1339E+000		3.7258E-001
	606.64	5.02	4.8083E+000		6.3854E+000
	635.90	11.32	1.6610E+000		-2.9861E-001
Cs-134	563.23	8.38	2.4462E+000	2.07E-001	8.0856E-001
	569.32	15.43	1.3049E+000		-4.8149E-001
	604.70	97.60	2.4803E-001		-4.5855E-002
	795.84	85.40	2.0708E-001		3.7606E-002
	801.93	8.73	2.0204E+000		-2.1168E+000
Cs-137	661.65	85.12	2.2871E-001	2.29E-001	7.6084E-002
Eu-152	121.78	28.40	1.4520E+000	6.67E-001	4.3363E-001
	244.69	7.49	3.3688E+000		-4.1762E+000
	344.27	26.50	7.9722E-001		-8.4600E-001
	778.89	12.74	1.5248E+000		-5.2699E-001
	867.32	4.16	4.4181E+000		-3.8080E+000
	964.01	14.40	1.6022E+000		1.7883E-001
	1085.78	10.00	1.7514E+000		8.5698E-001
	1112.02	13.30	1.2500E+000		-6.3945E-001
	1407.95	20.70	6.6690E-001		6.0556E-001
Eu-154	123.07	40.50	1.0122E+000	4.50E-001	8.1920E-001
	247.94	6.60	3.7350E+000		5.4374E-001
	591.81	4.83	4.2293E+000		5.8757E+000
	723.30	19.70	9.7755E-001		7.2530E-001
	756.87	4.33	4.2398E+000		-1.3102E+000
	873.19	11.50	1.5212E+000		8.6867E-001
	996.32	10.30	1.6485E+000		-1.5824E+000
	1004.76	17.90	9.4120E-001		-4.0361E-001
	1274.45	35.50	4.4960E-001		1.4038E-001
Eu-155	86.54	30.90	2.0728E+000	2.07E+000	5.9756E-001
	105.31	20.70	2.3128E+000		-1.1696E-001
Am-241	59.54	35.90	2.6712E+000	2.67E+000	5.9683E-001
Cm-243	228.19	10.56	2.4377E+000	1.77E+000	-1.7032E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	1.7731E+000	1.77E+000	8.3548E-001

+ = 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

Report Generated On 12/13/2005 2:47:07 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Detector ID: RED6264

Spectrum File: RED6264
Sample ID:
Sample Title: NOL-05-02-107-F-I-G-005
Description:

Sample Type:
Geometry:

Acquisition Started: 12/13/2005 2:32:05 PM
Live Time: 900.0 seconds
Real Time: 900.9 seconds

Energy Calibration Date: 6/13/2005
Eff Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number:
Title: NOL-05-02-107-F-I-G-005
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	287-	313	292.14	72.99	1.02	2.56E+002	51.97	7.24E+002
m	2	287-	313	300.70	75.13	1.03	5.31E+002	61.00	8.16E+002
m	3	287-	313	309.20	77.26	1.03	9.07E+001	43.26	7.32E+002
F	4	331-	345	339.64	84.87	1.11	2.09E+002	52.76	8.93E+002
F	5	947-	962	955.32	238.80	1.07	1.80E+002	35.84	2.68E+002
F	6	1173-	1185	1180.05	294.99	1.10	4.49E+001	23.58	1.35E+002
F	7	1399-	1419	1408.19	352.03	1.63	1.03E+002	24.85	1.30E+002
F	8	2035-	2055	2044.66	511.16	2.40	1.29E+002	25.43	1.02E+002
F	9	2326-	2341	2333.65	583.41	1.46	1.09E+002	24.36	6.42E+001
F	10	2430-	2447	2437.65	609.41	1.24	1.04E+002	24.39	7.95E+001
F	11	2639-	2656	2647.56	661.90	1.90	6.05E+001	19.85	6.54E+001
F	12	2902-	2917	2909.48	727.38	1.12	3.01E+001	16.22	5.21E+001
F	13	3638-	3655	3646.93	911.76	1.58	8.97E+001	21.77	4.50E+001
M	14	3854-	3888	3860.00	965.03	1.67	3.47E+001	15.57	3.49E+001
m	15	3854-	3888	3879.54	969.92	1.68	7.45E+001	20.18	4.75E+001
F	16	4687-	4708	4696.96	1174.29	2.05	1.24E+002	23.96	4.04E+001
F	17	5324-	5343	5334.11	1333.59	1.98	1.24E+002	23.10	2.00E+001
F	18	5835-	5864	5849.28	1462.39	1.99	6.59E+002	49.93	1.86E+001
F	19	7061-	7075	7068.03	1767.11	1.57	2.54E+001	10.99	3.75E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	0.999	511.00*	100.00	3.89513E-001	9.41638E-002
K-40	0.928	1460.81*	10.67	2.43486E+001	2.70041E+000
Co-60	0.965	1173.22*	100.00	4.67715E-001	9.74710E-002
		1332.49*	100.00	4.78612E-001	9.69447E-002
Cs-137	0.998	661.65*	85.12	2.31754E-001	8.08102E-002
TL-208	0.751	277.35	6.80		
		510.84*	21.60	1.80330E+000	4.60147E-001
		583.14*	84.20	4.07237E-001	1.05606E-001
		860.37	12.46		
Bi-212	0.999	727.17*	11.80	8.48640E-001	4.68195E-001
Pb-212	0.844	74.81* @	10.70	1.79733E+001	4.08391E+000
		77.11* @	18.00	1.76047E+000	9.07354E-001
		87.30 @	8.00		
		238.63*	44.60	1.01244E+000	2.56535E-001
Bi-214	0.658	609.31*	46.30	7.17720E-001	1.89890E-001
		1120.29	15.10		
		1764.49*	15.80	6.59469E-001	2.92839E-001
PB-214	0.764	74.82* @	6.21	3.09685E+001	7.38707E+000
		77.11* @	10.50	3.01796E+000	1.57170E+000
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	6.14093E-001	3.38811E-001
		351.92*	37.20	7.55900E-001	2.21923E-001
Ac-228	0.624	338.32	11.40		
		911.07*	27.70	1.13107E+000	3.03783E-001
		969.11*	16.60	1.59804E+000	4.63688E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		0.999	3.015499E-001	9.684489E-002
K-40		0.928	2.434862E+001	2.700411E+000
Co-60		0.965	4.731928E-001	6.873558E-002
Cs-137		0.998	2.317541E-001	8.081017E-002
TL-208		0.751	4.072370E-001	1.047686E-001
Bi-212		0.999	8.486396E-001	4.681952E-001
Pb-212	@	0.844	1.012441E+000	2.565350E-001
Bi-214		0.658	7.004771E-001	1.593251E-001
PB-214	@	0.764	7.133257E-001	1.856442E-001
Ac-228		0.624	1.271306E+000	2.541057E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.99	2.8473E-001	20.28
F 4	84.87	2.3219E-001	25.25
M 14	965.03	3.8589E-002	44.82

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
+	Co-60	1173.22*	100.00	1.6259E-001	1.17E-001	4.6771E-001
		1332.49*	100.00	1.1701E-001		4.7861E-001
	Nb-94	702.63	100.00	2.1625E-001	1.79E-001	1.1658E-001
		871.10	100.00	1.7870E-001		-1.0192E-001
	Ag-108m	79.20	7.10	1.0341E+001	2.48E-001	-1.0734E+000
		433.93	89.90	2.4959E-001		4.9495E-002
		614.37	90.40	2.9761E-001		6.7911E-002
		722.95	90.50	2.4847E-001		7.5923E-002
	Sb-125	176.33	6.89	4.3869E+000	7.23E-001	-4.3417E-001
		427.89	29.33	7.2347E-001		-7.8107E-001
		463.38	10.35	2.2195E+000		2.2346E+000
		600.56	17.80	1.2190E+000		8.7586E-001
		606.64	5.02	5.2201E+000		5.2098E+000
		635.90	11.32	1.7836E+000		7.1170E-001
	Cs-134	563.23	8.38	2.5149E+000	2.46E-001	-3.5911E-001
		569.32	15.43	1.3534E+000		-4.5120E-001
		604.70	97.60	2.6468E-001		-1.7172E-001
		795.84	85.40	2.4582E-001		8.9256E-003
		801.93	8.73	2.3290E+000		-1.7973E-001
+	Cs-137	661.65*	85.12	1.9463E-001	1.95E-001	2.3175E-001
	Eu-152	121.78	28.40	1.4856E+000	6.41E-001	4.3833E-001
		244.69	7.49	3.8792E+000		1.7456E+000
		344.27	26.50	8.8540E-001		-1.2904E+000
		778.89	12.74	1.6111E+000		-5.8490E-001
		867.32	4.16	4.6599E+000		-6.4562E+000
		964.01	14.40	1.7219E+000		-5.9316E-001
		1085.78	10.00	1.8630E+000		-2.3862E+000
		1112.02	13.30	1.4046E+000		-2.0212E-001
		1407.95	20.70	6.4123E-001		-5.7326E-001
	Eu-154	123.07	40.50	1.0259E+000	4.87E-001	-1.0748E+000
		247.94	6.60	4.1996E+000		-1.9674E+000
		591.81	4.83	4.4831E+000		-3.0261E+000
		723.30	19.70	1.1444E+000		1.5412E-001
		756.87	4.33	4.6829E+000		4.6447E-001
		873.19	11.50	1.6386E+000		4.2055E-001
		996.32	10.30	1.8767E+000		-2.7339E+000
		1004.76	17.90	1.0911E+000		-6.0164E-001
		1274.45	35.50	4.8697E-001		-1.6751E-002
	Eu-155	86.54	30.90	2.1119E+000	2.11E+000	2.6731E-001
		105.31	20.70	2.3930E+000		-2.7598E-001
	Am-241	59.54	35.90	2.6921E+000	2.69E+000	-1.8422E+000
	Cm-243	228.19	10.56	2.5796E+000	1.82E+000	-1.9162E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	1.8198E+000	1.82E+000	2.9884E-001

+ = 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

Report Generated On 12/6/2005 11:45:17 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-02-108
Sample Title: NOL-05-02-108-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/6/2005 11:35:14 PM
Live Time: 600.0 seconds
Real Time: 601.1 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-02-108
Title: NOL-05-02-108-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	285-	313	291.45	72.71	0.97	4.53E+002	65.77	1.18E+003
m	2	285-	313	300.24	74.92	0.98	7.73E+002	76.18	1.29E+003
m	3	285-	313	309.05	77.13	0.98	1.72E+002	57.14	1.12E+003
F	4	943-	960	953.55	238.71	1.04	2.62E+002	43.74	4.14E+002
F	5	1345-	1356	1351.32	338.33	0.93	5.46E+001	25.46	1.41E+002
F	6	1395-	1415	1406.58	352.17	1.06	1.67E+002	31.79	1.97E+002
F	7	2034-	2054	2042.67	511.34	1.94	1.28E+002	27.04	1.24E+002
F	8	2321-	2338	2330.14	583.22	1.29	1.51E+002	28.44	9.00E+001
F	9	2426-	2443	2434.47	609.30	1.39	1.66E+002	29.20	8.42E+001
F	10	2636-	2653	2644.46	661.79	1.89	6.33E+001	20.03	6.14E+001
F	11	2901-	2912	2906.15	727.18	1.49	4.26E+001	17.08	2.96E+001
F	12	3172-	3185	3177.91	795.07	0.93	3.70E+001	15.00	3.02E+001
F	13	3632-	3652	3641.98	910.95	1.70	1.51E+002	25.75	3.89E+001
M	14	3851-	3883	3857.29	964.70	1.96	2.70E+001	16.10	4.67E+001
m	15	3851-	3883	3873.41	968.73	1.96	9.69E+001	22.72	7.23E+001
F	16	4472-	4487	4478.77	1119.80	1.49	5.79E+001	18.63	3.42E+001
F	17	4942-	4955	4948.82	1237.08	1.06	1.79E+001	13.23	3.32E+001
F	18	5320-	5333	5326.10	1331.19	1.55	3.01E+001	13.41	1.59E+001
F	19	5826-	5854	5840.72	1459.56	1.92	9.55E+002	60.43	3.27E+001
F	20	7049-	7063	7056.44	1762.82	1.45	2.89E+001	13.28	1.50E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gm)	Activity Uncertainty
ANN	0.997	511.00*	100.00	1.74489E-001	4.38206E-002
K-40	0.953	1460.81*	10.67	1.60162E+001	1.64575E+000
Cs-137	0.999	661.65*	85.12	1.10553E-001	3.73091E-002
TL-208	0.750	277.35	6.80		
		510.84*	21.60	8.07820E-001	2.13330E-001
		583.14*	84.20	2.55551E-001	5.85139E-002
		860.37	12.46		
Bi-212	1.000	727.17*	11.80	5.46618E-001	2.28383E-001
Pb-212	0.843	74.81* @	10.70	1.10657E+001	2.42733E+000
		77.11* @	18.00	1.40250E+000	5.41842E-001
		87.30 @	8.00		
		238.63*	44.60	6.37005E-001	1.45905E-001
Bi-214	0.981	609.31*	46.30	5.19150E-001	1.11356E-001
		1120.29*	15.10	6.45488E-001	2.18663E-001
		1764.49*	15.80	3.39325E-001	1.59648E-001
PB-214	0.389	74.82* @	6.21	1.90664E+001	4.40542E+000
		77.11* @	10.50	2.40429E+000	9.46060E-001
		87.30 @	4.67		
		241.98	7.49		
		295.21	19.20		
		351.92*	37.20	5.42872E-001	1.37697E-001
Ac-228	0.998	338.32*	11.40	5.73284E-001	2.82231E-001
		911.07*	27.70	8.66824E-001	1.77931E-001
		969.11*	16.60	9.41974E-001	2.41976E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
ANN		0.997	1.192899E-001	4.557142E-002
K-40		0.953	1.601616E+001	1.645751E+000
Cs-137		0.999	1.105534E-001	3.730907E-002
TL-208		0.750	2.555515E-001	5.791824E-002
Bi-212		1.000	5.466184E-001	2.283828E-001
Pb-212	@	0.843	6.370054E-001	1.459049E-001
Bi-214		0.981	4.878055E-001	8.427699E-002
PB-214	@	0.389	5.428724E-001	1.342159E-001
Ac-228		0.998	8.275927E-001	1.278076E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.71	7.5441E-001	14.53
F 12	795.07	6.1660E-002	40.55
M 14	964.70	4.4935E-002	59.71
F 17	1237.08	2.9787E-002	74.01
F 18	1331.19	5.0187E-002	44.53

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
	Co-60	1173.22	100.00	1.0533E-001	8.78E-002	1.2275E-001
		1332.49	100.00	8.7772E-002		6.2705E-002
	Nb-94	702.63	100.00	1.0251E-001	8.75E-002	6.6393E-002
		871.10	100.00	8.7492E-002		2.2627E-002
	Ag-108m	79.20	7.10	5.2851E+000	1.15E-001	-6.0879E+000
		433.93	89.90	1.1934E-001		1.1895E-001
		614.37	90.40	1.4474E-001		-3.9409E-002
		722.95	90.50	1.1502E-001		1.6056E-001
	Sb-125	176.33	6.89	2.2947E+000	3.52E-001	5.7298E-001
		427.89	29.33	3.5208E-001		9.1361E-002
		463.38	10.35	1.0713E+000		-7.7551E-001
		600.56	17.80	5.7976E-001		6.1192E-001
		606.64	5.02	2.7171E+000		5.9780E+000
		635.90	11.32	8.6805E-001		7.9183E-001
	Cs-134	563.23	8.38	1.2030E+000	1.12E-001	-1.7858E-001
		569.32	15.43	6.6282E-001		-3.9462E-001
		604.70	97.60	1.3767E-001		-1.0747E-001
		795.84	85.40	1.1176E-001		-3.1618E-002
		801.93	8.73	1.0351E+000		-5.7537E-001
+	Cs-137	661.65*	85.12	8.6235E-002	8.62E-002	1.1055E-001
	Eu-152	121.78	28.40	7.6767E-001	3.00E-001	-2.9465E-001
		244.69	7.49	1.9726E+000		1.3795E+000
		344.27	26.50	4.3401E-001		-3.9771E-001
		778.89	12.74	7.2363E-001		-1.4777E+000
		867.32	4.16	2.1167E+000		-2.5920E+000
		964.01	14.40	8.7792E-001		-1.4563E-001
		1085.78	10.00	9.4022E-001		-3.2077E-001
		1112.02	13.30	8.3987E-001		-1.9270E-001
		1407.95	20.70	2.9994E-001		-3.2190E-001
	Eu-154	123.07	40.50	5.3331E-001	2.50E-001	-3.5894E-001
		247.94	6.60	2.0793E+000		-3.5575E+000
		591.81	4.83	1.9866E+000		-2.4501E+000
		723.30	19.70	5.2465E-001		2.9841E-001
		756.87	4.33	2.3136E+000		1.0555E+000
		873.19	11.50	7.4993E-001		-3.6860E-001
		996.32	10.30	7.7032E-001		-7.5427E-001
		1004.76	17.90	4.7731E-001		1.4531E-001
		1274.45	35.50	2.5021E-001		-3.0945E-002
	Eu-155	86.54	30.90	1.0995E+000	1.10E+000	1.8592E+000
		105.31	20.70	1.2287E+000		3.0413E-001
	Am-241	59.54	35.90	1.4167E+000	1.42E+000	3.7301E-001
	Cm-243	228.19	10.56	1.3822E+000	9.28E-001	4.1133E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
Cm-243	277.60	14.00	9.2805E-001	9.28E-001	1.0446E+000

+ = 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

Report Generated On 12/6/2005 11:30:27 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-02-109
Sample Title: NOL-05-02-109-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/6/2005 11:20:25 PM
Live Time: 600.0 seconds
Real Time: 601.1 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-02-109
Title: NOL-05-02-109-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	282-	305	291.52	72.73	0.94	3.91E+002	65.83	1.36E+003
m	2	282-	305	300.16	74.90	0.94	7.54E+002	80.86	1.35E+003
M	3	330-	354	339.50	84.76	1.17	3.39E+002	66.01	1.47E+003
m	4	330-	354	349.47	87.27	1.17	1.68E+002	58.33	1.33E+003
F	5	948-	959	953.92	238.80	1.02	2.92E+002	44.98	2.90E+002
F	6	1174-	1189	1179.57	295.32	1.10	8.78E+001	30.50	2.33E+002
F	7	1347-	1357	1351.64	338.41	0.62	4.50E+001	21.80	1.32E+002
F	8	1399-	1415	1406.49	352.15	1.22	1.75E+002	32.44	1.63E+002
F	9	2034-	2053	2042.46	511.28	2.01	1.13E+002	26.67	1.28E+002
F	10	2322-	2339	2330.64	583.35	1.34	1.97E+002	31.17	8.79E+001
F	11	2427-	2444	2435.00	609.44	1.30	1.36E+002	27.62	9.53E+001
F	12	2636-	2649	2643.78	661.62	1.14	6.78E+001	21.07	5.80E+001
F	13	2883-	2914	2905.87	727.11	1.45	4.33E+001	19.24	1.32E+002
F	14	3634-	3650	3642.00	910.96	1.50	1.31E+002	25.33	4.48E+001
F	15	3866-	3881	3872.98	968.62	1.63	7.83E+001	21.30	4.48E+001
F	16	4469-	4489	4479.02	1119.87	1.54	6.38E+001	19.70	5.19E+001
F	17	4945-	4958	4951.02	1237.63	0.80	2.32E+001	13.32	3.75E+001
F	18	5319-	5336	5327.40	1331.52	1.97	5.51E+001	16.29	1.58E+001
F	19	5826-	5854	5840.95	1459.61	2.03	1.05E+003	63.08	2.93E+001
F	20	7052-	7067	7058.35	1763.29	1.63	3.94E+001	14.34	1.15E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gm)	Activity Uncertainty
ANN	0.998	511.00*	100.00	1.54011E-001	4.19451E-002
K-40	0.957	1460.81*	10.67	1.76755E+001	1.77960E+000
Cs-137	1.000	661.65*	85.12	1.18384E-001	3.93370E-002
Eu-155	0.323	86.54*	30.90	6.74135E-001	2.68988E-001
		105.31	20.70		
TL-208	0.750	277.35	6.80		
		510.84*	21.60	7.13015E-001	2.02733E-001
		583.14*	84.20	3.33474E-001	6.83178E-002
		860.37	12.46		
Bi-212	1.000	727.17*	11.80	5.54941E-001	2.55328E-001
Pb-212	0.676	74.81* @	10.70	1.07884E+001	2.41052E+000
		77.11 @	18.00		
		87.30* @	8.00	2.60385E+000	1.03897E+000
		238.63*	44.60	7.10214E-001	1.56098E-001
Bi-214	0.990	609.31*	46.30	4.25196E-001	1.00903E-001
		1120.29*	15.10	7.10632E-001	2.32258E-001
		1764.49*	15.80	4.62896E-001	1.74651E-001
PB-214	0.669	74.82* @	6.21	1.85886E+001	4.36710E+000
		77.11 @	10.50		
		87.30* @	4.67	4.46055E+000	1.81143E+000
		241.98	7.49		
		295.21*	19.20	5.27010E-001	2.03435E-001
		351.92*	37.20	5.70481E-001	1.42332E-001
Ac-228	0.998	338.32*	11.40	4.73419E-001	2.40829E-001
		911.07*	27.70	7.51032E-001	1.68762E-001
		969.11*	16.60	7.60891E-001	2.21903E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
ANN		0.998	8.198086E-002	4.440316E-002
K-40		0.957	1.767550E+001	1.779601E+000
Cs-137		1.000	1.183839E-001	3.933699E-002
Eu-155		0.323	4.061580E-001	2.725518E-001
TL-208		0.750	3.334739E-001	6.744784E-002
Bi-212		1.000	5.549406E-001	2.553276E-001
Pb-212	@	0.676	7.102145E-001	1.560982E-001
Bi-214		0.990	4.688459E-001	8.177528E-002
PB-214	@	0.669	5.564811E-001	1.139865E-001
Ac-228		0.998	6.879134E-001	1.173132E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.73	6.5246E-001	16.82
M 3	84.76	5.6521E-001	19.47
F 17	1237.63	3.8621E-002	57.49
F 18	1331.52	9.1804E-002	29.58

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
	Co-60	1173.22	100.00	1.0932E-001	9.32E-002	2.6022E-002
		1332.49	100.00	9.3234E-002		1.3532E-001
	Nb-94	702.63	100.00	1.1200E-001	9.49E-002	1.6471E-001
		871.10	100.00	9.4851E-002		9.2382E-002
	Ag-108m	79.20	7.10	5.3320E+000	1.22E-001	-9.3394E+000
		433.93	89.90	1.2183E-001		-3.2060E-002
		614.37	90.40	1.4865E-001		3.9814E-002
		722.95	90.50	1.2446E-001		1.2401E-002
	Sb-125	176.33	6.89	2.3723E+000	3.81E-001	-1.3921E+000
		427.89	29.33	3.8141E-001		1.5524E-001
		463.38	10.35	1.1195E+000		1.3883E+000
		600.56	17.80	5.6823E-001		1.1213E-001
		606.64	5.02	2.6898E+000		5.3773E+000
		635.90	11.32	9.3311E-001		-6.2505E-001
	Cs-134	563.23	8.38	1.2394E+000	1.22E-001	2.8805E-001
		569.32	15.43	6.8658E-001		-1.0971E-001
		604.70	97.60	1.3481E-001		2.7758E-002
		795.84	85.40	1.2245E-001		7.1306E-002
		801.93	8.73	1.1142E+000		-2.5828E+000
+	Cs-137	661.65*	85.12	7.7474E-002	7.75E-002	1.1838E-001
	Eu-152	121.78	28.40	8.1208E-001	3.19E-001	4.3143E-001
		244.69	7.49	1.9774E+000		-3.2491E+000
		344.27	26.50	4.7926E-001		-3.7730E-002
		778.89	12.74	7.4600E-001		-8.4928E-001
		867.32	4.16	2.2852E+000		-4.0003E+000
		964.01	14.40	8.3694E-001		9.7363E-001
		1085.78	10.00	9.2323E-001		-1.4765E-001
		1112.02	13.30	8.3987E-001		6.3283E-001
		1407.95	20.70	3.1943E-001		-1.2622E-001
	Eu-154	123.07	40.50	5.6025E-001	2.50E-001	-1.6992E-002
		247.94	6.60	2.1627E+000		-1.0362E+000
		591.81	4.83	1.9463E+000		-1.3928E+000
		723.30	19.70	5.7412E-001		6.0833E-001
		756.87	4.33	2.3910E+000		2.1381E+000
		873.19	11.50	8.0444E-001		-1.3353E-001
		996.32	10.30	9.1236E-001		3.0425E-001
		1004.76	17.90	5.4041E-001		2.6196E-001
		1274.45	35.50	2.5021E-001		1.2231E-001
+	Eu-155	86.54*	30.90	6.9240E-001	6.92E-001	6.7413E-001
		105.31	20.70	1.2738E+000		6.6113E-001
	Am-241	59.54	35.90	1.3978E+000	1.40E+000	4.2632E-001
	Cm-243	228.19	10.56	1.4115E+000	9.33E-001	-2.2433E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
Cm-243	277.60	14.00	9.3273E-001	9.33E-001	7.1493E-001

+ = 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

Report Generated On 12/8/2005 3:20:09 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Detector ID: RED6264

Spectrum File: RED6264
Sample ID:
Sample Title: NOL-05-02-110-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/8/2005 3:10:07 PM
Live Time: 600.0 seconds
Real Time: 601.1 seconds

Energy Calibration Date: 6/13/2005
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number:
Title: NOL-05-02-110-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	286-	313	291.78	72.90	1.09	4.69E+002	66.31	1.18E+003
m	2	286-	313	300.33	75.04	1.09	7.85E+002	74.61	1.35E+003
m	3	286-	313	309.04	77.22	1.09	1.71E+002	56.15	1.24E+003
M	4	335-	355	339.69	84.88	0.98	2.38E+002	61.45	1.02E+003
m	5	335-	355	350.05	87.47	0.98	1.27E+002	54.99	1.20E+003
F	6	950-	961	955.08	238.74	1.17	2.85E+002	42.91	2.49E+002
F	7	1175-	1187	1181.71	295.40	0.94	5.46E+001	26.74	1.87E+002
F	8	1349-	1358	1353.96	338.47	0.84	6.71E+001	24.89	1.07E+002
F	9	1403-	1414	1408.42	352.09	1.29	1.35E+002	30.00	1.18E+002
F	10	2035-	2055	2044.36	511.09	2.23	1.30E+002	26.55	1.20E+002
F	11	2326-	2342	2333.89	583.47	1.32	1.75E+002	30.86	1.04E+002
F	12	2429-	2448	2438.66	609.67	1.32	1.73E+002	29.37	9.29E+001
F	13	2905-	2919	2911.19	727.81	1.35	4.31E+001	17.90	4.66E+001
F	14	3175-	3189	3182.19	795.57	1.16	3.19E+001	17.35	5.77E+001
F	15	3437-	3449	3443.55	860.91	1.03	2.69E+001	14.23	2.96E+001
F	16	3639-	3656	3648.05	912.04	1.43	1.36E+002	26.46	5.78E+001
F	17	3871-	3888	3878.86	969.75	1.48	9.17E+001	23.60	5.92E+001
F	18	4689-	4704	4696.32	1174.13	0.95	3.53E+001	15.55	4.18E+001
F	19	5331-	5344	5337.39	1334.41	1.40	3.38E+001	14.94	2.21E+001
F	20	5510-	5523	5516.48	1379.19	0.98	1.53E+001	9.62	1.07E+001
F	21	5837-	5863	5850.27	1462.64	1.99	9.34E+002	60.09	3.00E+001
F	22	7062-	7075	7068.95	1767.34	1.94	3.46E+001	13.84	1.14E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	1.000	511.00*	100.00	1.83545E-001	4.48749E-002
K-40	0.905	1460.81*	10.67	1.61599E+001	1.67122E+000
Co-60	0.935	1173.22*	100.00	6.20370E-002	2.77901E-002
		1332.49*	100.00	6.12813E-002	2.75127E-002
Eu-155	0.317	86.54*	30.90	5.28534E-001	2.50460E-001
		105.31	20.70		
TL-208	0.900	277.35	6.80		
		510.84*	21.60	8.49746E-001	2.19038E-001
		583.14*	84.20	3.05722E-001	6.69753E-002
		860.37*	12.46	3.49703E-001	1.89606E-001
Bi-212	0.988	727.17*	11.80	5.71143E-001	2.46424E-001
Pb-212	0.999	74.81* @	10.70	1.16350E+001	2.53431E+000
		77.11* @	18.00	1.44554E+000	5.53388E-001
		87.30* @	8.00	2.04146E+000	9.67403E-001
		238.63*	44.60	7.16355E-001	1.55630E-001
Bi-214	0.396	609.31*	46.30	5.55893E-001	1.16777E-001
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.849	74.82* @	6.21	2.00473E+001	4.60281E+000
		77.11* @	10.50	2.47806E+000	9.66541E-001
		87.30* @	4.67	3.49715E+000	1.67815E+000
		241.98	7.49		
		295.21*	19.20	3.38128E-001	1.75164E-001
		351.92*	37.20	4.53578E-001	1.26149E-001
Ac-228	0.982	338.32*	11.40	7.27269E-001	2.93051E-001
		911.07*	27.70	8.07297E-001	1.81891E-001
		969.11*	16.60	9.20963E-001	2.55852E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		1.000	1.164727E-001	4.686235E-002
K-40		0.905	1.615993E+001	1.671224E+000
Co-60		0.935	6.165538E-002	1.955174E-002
Eu-155		0.317	2.803601E-001	2.541360E-001
TL-208		0.900	3.105202E-001	6.251271E-002
Bi-212		0.988	5.711435E-001	2.464238E-001
Pb-212	@	0.999	7.163548E-001	1.556295E-001
Bi-214		0.396	5.558929E-001	1.167771E-001
PB-214	@	0.849	4.149323E-001	1.006331E-001
Ac-228		0.982	8.213752E-001	1.322832E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.90	7.8184E-001	14.13
M 4	84.88	3.9730E-001	25.78
F 14	795.57	5.3123E-002	54.43
F 20	1379.19	2.5483E-002	62.94
F 22	1767.34	5.7629E-002	40.02

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
+	Co-60	1173.22*	100.00	6.9610E-002	5.15E-002	6.2037E-002
		1332.49*	100.00	5.1512E-002		6.1281E-002
	Nb-94	702.63	100.00	1.0473E-001	1.01E-001	3.4905E-002
		871.10	100.00	1.0127E-001		-2.3076E-002
	Ag-108m	79.20	7.10	5.5549E+000	1.19E-001	-2.5614E+000
		433.93	89.90	1.2350E-001		-8.9201E-002
		614.37	90.40	1.5935E-001		3.0552E-004
		722.95	90.50	1.1897E-001		-7.0853E-003
	Sb-125	176.33	6.89	2.3126E+000	3.64E-001	1.5343E+000
		427.89	29.33	3.6444E-001		-1.7077E-001
		463.38	10.35	1.1379E+000		1.3070E+000
		600.56	17.80	5.5728E-001		5.5675E-002
		606.64	5.02	2.8092E+000		5.5418E+000
		635.90	11.32	9.2835E-001		1.0485E+000
	Cs-134	563.23	8.38	1.3044E+000	1.27E-001	4.8160E-003
		569.32	15.43	6.9238E-001		-3.1840E-001
		604.70	97.60	1.3810E-001		-3.8473E-002
		795.84	85.40	1.2673E-001		2.0590E-002
		801.93	8.73	1.1922E+000		5.4672E-002
	Cs-137	661.65	85.12	1.2740E-001	1.27E-001	-5.9264E-003
	Eu-152	121.78	28.40	7.9605E-001	3.40E-001	-1.1761E-001
		244.69	7.49	1.9173E+000		-5.8929E-001
		344.27	26.50	4.6915E-001		-4.5310E-001
		778.89	12.74	7.9692E-001		-3.0810E-001
		867.32	4.16	2.5017E+000		-2.3112E-001
		964.01	14.40	8.3430E-001		4.5745E-001
		1085.78	10.00	9.4200E-001		3.9032E-001
		1112.02	13.30	8.1636E-001		9.0186E-001
		1407.95	20.70	3.4035E-001		3.2242E-001
	Eu-154	123.07	40.50	5.5578E-001	2.48E-001	6.0442E-001
		247.94	6.60	2.0424E+000		-3.4737E+000
		591.81	4.83	2.2497E+000		1.9680E+000
		723.30	19.70	5.5300E-001		1.8484E-002
		756.87	4.33	2.4800E+000		-4.8135E-001
		873.19	11.50	8.6818E-001		-8.1666E-002
		996.32	10.30	9.0268E-001		1.6182E-001
		1004.76	17.90	5.0891E-001		2.5870E-002
		1274.45	35.50	2.4760E-001		-1.8710E-001
+	Eu-155	86.54*	30.90	6.7961E-001	6.80E-001	5.2853E-001
		105.31	20.70	1.2659E+000		5.3347E-001
	Am-241	59.54	35.90	1.4401E+000	1.44E+000	1.9517E-001
	Cm-243	228.19	10.56	1.3691E+000	9.37E-001	1.9381E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	9.3667E-001	9.37E-001	-6.6630E-001

+ = 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

Report Generated On 12/8/2005 2:30:28 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Detector ID: RED6264

Spectrum File: RED6264
Sample ID:
Sample Title: NOL-05-02-111-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/8/2005 2:20:26 PM
Live Time: 600.0 seconds
Real Time: 601.1 seconds

Energy Calibration Date: 6/13/2005
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number:
Title: NOL-05-02-111-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	287-	316	291.87	72.92	1.08	4.67E+002	66.64	1.11E+003
m	2	287-	316	300.60	75.11	1.09	7.53E+002	74.34	1.48E+003
m	3	287-	316	309.42	77.31	1.09	1.55E+002	56.61	1.38E+003
F	4	330-	344	339.33	84.79	1.07	2.61E+002	63.99	1.38E+003
M	5	949-	982	955.32	238.80	1.04	2.93E+002	42.42	2.58E+002
m	6	949-	982	966.65	241.63	1.04	3.80E+001	25.64	2.62E+002
F	7	1177-	1189	1181.69	295.40	0.90	6.65E+001	27.39	1.89E+002
F	8	1347-	1361	1353.88	338.45	1.25	7.30E+001	27.34	1.79E+002
F	9	1402-	1418	1408.75	352.17	0.93	1.38E+002	29.30	1.60E+002
F	10	2033-	2053	2044.49	511.12	2.41	1.40E+002	26.41	1.15E+002
F	11	2327-	2343	2334.47	583.62	1.43	1.62E+002	29.02	8.74E+001
F	12	2433-	2447	2439.11	609.78	1.25	1.50E+002	28.92	8.52E+001
F	13	2905-	2918	2911.44	727.87	1.11	4.82E+001	18.82	5.25E+001
F	14	3070-	3082	3075.64	768.93	0.80	2.45E+001	13.22	3.12E+001
M	15	3640-	3676	3648.60	912.18	1.37	1.51E+002	25.72	3.39E+001
m	16	3640-	3676	3670.57	917.67	1.37	1.32E+001	10.68	2.14E+001
M	17	3856-	3887	3862.67	965.70	1.34	3.67E+001	16.96	5.03E+001
m	18	3856-	3887	3879.02	969.79	1.34	7.30E+001	21.47	6.48E+001
F	19	4477-	4494	4485.36	1121.38	1.74	6.42E+001	20.14	4.75E+001
F	20	4693-	4707	4699.25	1174.86	1.28	4.37E+001	17.27	3.63E+001
F	21	5330-	5345	5336.70	1334.24	1.36	4.30E+001	15.47	1.95E+001
F	22	5837-	5866	5851.21	1462.87	2.05	9.71E+002	60.54	2.16E+001
F	23	7063-	7076	7069.33	1767.43	2.05	3.47E+001	13.45	1.07E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	1.000	511.00*	100.00	1.96476E-001	4.57091E-002
K-40	0.881	1460.81*	10.67	1.68045E+001	1.71715E+000
Co-60	0.917	1173.22*	100.00	7.68363E-002	3.09825E-002
		1332.49*	100.00	7.80133E-002	2.87032E-002
TL-208	0.747	277.35	6.80		
		510.84*	21.60	9.09610E-001	2.24276E-001
		583.14*	84.20	2.83591E-001	6.26893E-002
		860.37	12.46		
Bi-212	0.985	727.17*	11.80	6.38919E-001	2.60260E-001
Pb-212	0.843	74.81* @	10.70	1.11403E+001	2.44502E+000
		77.11* @	18.00	1.30887E+000	5.42813E-001
		87.30 @	8.00		
		238.63*	44.60	7.35428E-001	1.56969E-001
Bi-214	0.689	609.31*	46.30	4.82304E-001	1.10474E-001
		1120.29*	15.10	7.38534E-001	2.44613E-001
		1764.49	15.80		
PB-214	0.911	74.82* @	6.21	1.91950E+001	4.43730E+000
		77.11* @	10.50	2.24378E+000	9.45499E-001
		87.30 @	4.67		
		241.98*	7.49	5.69512E-001	3.96095E-001
		295.21*	19.20	4.12045E-001	1.83282E-001
		351.92*	37.20	4.63243E-001	1.25276E-001
Ac-228	0.978	338.32*	11.40	7.91632E-001	3.21431E-001
		911.07*	27.70	8.95331E-001	1.83629E-001
		969.11*	16.60	7.32848E-001	2.28865E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		1.000	1.352202E-001	4.763081E-002
K-40		0.881	1.680452E+001	1.717149E+000
Co-60		0.917	7.746969E-002	2.105596E-002
TL-208		0.747	2.835908E-001	6.200426E-002
Bi-212		0.985	6.389186E-001	2.602603E-001
Pb-212	@	0.843	7.354278E-001	1.569686E-001
Bi-214		0.689	5.257129E-001	1.006822E-001
PB-214	@	0.911	4.547640E-001	1.000695E-001
Ac-228		0.978	8.250595E-001	1.308259E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.92	7.7816E-001	14.27
F 4	84.79	4.3532E-001	24.50
F 14	768.93	4.0788E-002	54.03
m 16	917.67	2.2014E-002	80.85
M 17	965.70	6.1179E-002	46.21
F 23	1767.43	5.7809E-002	38.77

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
+	Co-60	1173.22*	100.00	6.4621E-002	5.05E-002	7.6836E-002
		1332.49*	100.00	5.0534E-002		7.8013E-002
	Nb-94	702.63	100.00	1.0754E-001	9.80E-002	1.0998E-001
		871.10	100.00	9.7986E-002		1.6211E-003
	Ag-108m	79.20	7.10	5.6280E+000	1.24E-001	-3.3715E-002
		433.93	89.90	1.3141E-001		5.1895E-003
		614.37	90.40	1.5724E-001		-3.8903E-002
		722.95	90.50	1.2419E-001		2.7252E-002
	Sb-125	176.33	6.89	2.3493E+000	3.66E-001	3.8085E-001
		427.89	29.33	3.6632E-001		-1.6052E-001
		463.38	10.35	1.1103E+000		5.7482E-001
		600.56	17.80	5.8069E-001		-1.7598E-001
		606.64	5.02	2.7635E+000		4.8801E+000
		635.90	11.32	8.7936E-001		1.0521E-001
	Cs-134	563.23	8.38	1.2623E+000	1.22E-001	-1.3699E+000
		569.32	15.43	7.0530E-001		2.8135E-001
		604.70	97.60	1.3697E-001		-1.9021E-001
		795.84	85.40	1.2233E-001		4.7082E-002
		801.93	8.73	1.0898E+000		-2.1646E+000
	Cs-137	661.65	85.12	1.2826E-001	1.28E-001	-1.1251E-002
	Eu-152	121.78	28.40	7.8819E-001	3.06E-001	2.9330E-002
		244.69	7.49	1.9016E+000		-1.3137E-001
		344.27	26.50	4.7226E-001		5.1169E-002
		778.89	12.74	8.0996E-001		-1.4827E-001
		867.32	4.16	2.4252E+000		1.4722E+000
		964.01	14.40	9.3590E-001		-1.2796E-001
		1085.78	10.00	9.6673E-001		9.8402E-001
		1112.02	13.30	7.4227E-001		1.4822E-001
		1407.95	20.70	3.0634E-001		-1.2912E-001
	Eu-154	123.07	40.50	5.4550E-001	2.62E-001	8.9710E-002
		247.94	6.60	2.0440E+000		-3.9264E-001
		591.81	4.83	2.2451E+000		-8.9191E-001
		723.30	19.70	5.6562E-001		-2.0337E-001
		756.87	4.33	2.3246E+000		-1.1277E+000
		873.19	11.50	8.4982E-001		-2.6955E-001
		996.32	10.30	9.1268E-001		7.1691E-001
		1004.76	17.90	4.9484E-001		2.3355E-002
		1274.45	35.50	2.6248E-001		2.7758E-002
	Eu-155	86.54	30.90	1.1244E+000	1.12E+000	3.8075E-002
		105.31	20.70	1.2586E+000		1.1329E+000
	Am-241	59.54	35.90	1.4471E+000	1.45E+000	-2.6932E-001
	Cm-243	228.19	10.56	1.3796E+000	9.46E-001	1.8786E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	9.4570E-001	9.46E-001	9.0183E-001

+ = 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

Report Generated On 12/8/2005 2:15:26 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Detector ID: RED6264

Spectrum File: RED6264
Sample ID:
Sample Title: NOL-05-02-112-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/8/2005 2:05:23 PM
Live Time: 600.0 seconds
Real Time: 601.1 seconds

Energy Calibration Date: 6/13/2005
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number:
Title: NOL-05-02-112-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	286-	305	291.60	72.86	1.02	4.24E+002	64.56	1.12E+003
m	2	286-	305	300.41	75.06	1.03	7.44E+002	77.68	1.45E+003
M	3	332-	356	339.96	84.95	1.14	3.47E+002	64.51	1.35E+003
m	4	332-	356	350.11	87.49	1.14	1.00E+002	56.41	1.49E+003
F	5	948-	964	955.06	238.74	1.02	2.88E+002	44.13	4.22E+002
F	6	1176-	1188	1181.44	295.34	1.22	7.49E+001	28.94	1.87E+002
F	7	1348-	1360	1353.96	338.47	1.02	7.13E+001	26.95	1.57E+002
F	8	1403-	1419	1408.78	352.18	1.12	1.28E+002	30.51	1.95E+002
F	9	1848-	1861	1854.26	463.56	1.18	4.78E+001	20.44	7.98E+001
F	10	2037-	2056	2045.45	511.36	2.05	1.95E+002	30.32	1.09E+002
F	11	2325-	2343	2334.00	583.50	1.29	1.91E+002	30.84	9.79E+001
F	12	2432-	2448	2439.07	609.77	1.52	1.77E+002	28.62	5.89E+001
F	13	2642-	2655	2647.98	662.00	0.87	2.61E+001	15.81	5.74E+001
F	14	2904-	2919	2910.60	727.66	1.77	4.87E+001	18.46	4.58E+001
F	15	3640-	3659	3648.58	912.17	1.44	1.77E+002	28.13	4.39E+001
F	16	3870-	3887	3880.43	970.14	1.59	8.83E+001	21.35	4.29E+001
F	17	4480-	4494	4487.89	1122.02	1.70	4.20E+001	18.24	4.27E+001
F	18	5329-	5342	5335.25	1333.87	0.96	2.74E+001	13.89	2.96E+001
F	19	5838-	5865	5851.91	1463.05	2.01	1.05E+003	63.65	3.49E+001
F	20	7064-	7078	7070.43	1767.70	1.23	4.17E+001	13.99	9.61E+000

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	0.996	511.00*	100.00	2.74126E-001	5.65634E-002
K-40	0.861	1460.81*	10.67	1.82439E+001	1.84262E+000
Cs-137	0.996	661.65*	85.12	4.69166E-002	2.89978E-002
TL-208	0.748	277.35	6.80		
		510.84*	21.60	1.26910E+000	2.81632E-001
		583.14*	84.20	3.33074E-001	6.91295E-002
		860.37	12.46		
Bi-212	0.993	727.17*	11.80	6.45281E-001	2.55907E-001
Pb-212	0.677	74.81* @	10.70	1.10141E+001	2.44628E+000
		77.11 @	18.00		
		87.30* @	8.00	1.60102E+000	9.56110E-001
		238.63*	44.60	7.24030E-001	1.58610E-001
Bi-214	0.679	609.31*	46.30	5.71401E-001	1.15966E-001
		1120.29*	15.10	4.83377E-001	2.15992E-001
		1764.49	15.80		
PB-214	0.669	74.82* @	6.21	1.89776E+001	4.43442E+000
		77.11 @	10.50		
		87.30* @	4.67	2.74265E+000	1.65093E+000
		241.98	7.49		
		295.21*	19.20	4.63872E-001	1.95515E-001
		351.92*	37.20	4.29420E-001	1.25164E-001
Ac-228	0.973	338.32*	11.40	7.73187E-001	3.16369E-001
		911.07*	27.70	1.04499E+000	2.05175E-001
		969.11*	16.60	8.87032E-001	2.33628E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
	ANN		0.996	2.021824E-001	5.845417E-002
	K-40		0.861	1.824391E+001	1.842625E+000
	Cs-137		0.996	4.691664E-002	2.899777E-002
X	Eu-155		0.317		
	TL-208		0.748	3.330739E-001	6.827197E-002
	Bi-212		0.993	6.452814E-001	2.559067E-001
	Pb-212	@	0.677	7.240302E-001	1.586099E-001
	Bi-214		0.679	5.517049E-001	1.021712E-001
	PB-214	@	0.669	4.394347E-001	1.054134E-001
	Ac-228		0.973	9.372513E-001	1.385858E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.86	7.0602E-001	15.24
M 3	84.95	5.7761E-001	18.61
F 9	463.56	7.9590E-002	42.81
F 18	1333.87	4.5596E-002	50.77
F 20	1767.70	6.9577E-002	33.51

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
	Co-60	1173.22	100.00	1.1244E-001	1.02E-001	1.1756E-001
		1332.49	100.00	1.0216E-001		2.1505E-002
	Nb-94	702.63	100.00	1.0830E-001	9.92E-002	-8.7806E-002
		871.10	100.00	9.9194E-002		2.7456E-002
	Ag-108m	79.20	7.10	5.7239E+000	1.24E-001	-1.2884E+001
		433.93	89.90	1.3344E-001		7.8915E-002
		614.37	90.40	1.5509E-001		5.3604E-002
		722.95	90.50	1.2419E-001		-5.8454E-002
	Sb-125	176.33	6.89	2.3680E+000	3.80E-001	-8.5631E-001
		427.89	29.33	3.7983E-001		-8.6897E-002
		463.38	10.35	1.1413E+000		7.3710E-002
		600.56	17.80	6.0703E-001		-1.8163E-002
		606.64	5.02	2.7564E+000		3.0744E+000
		635.90	11.32	8.3946E-001		-3.5843E-001
	Cs-134	563.23	8.38	1.2862E+000	1.29E-001	-1.0782E+000
		569.32	15.43	7.2354E-001		-1.8365E-002
		604.70	97.60	1.3941E-001		-1.0277E-001
		795.84	85.40	1.2918E-001		1.0952E-001
		801.93	8.73	1.2234E+000		-8.9661E-002
+	Cs-137	661.65*	85.12	8.0385E-002	8.04E-002	4.6917E-002
	Eu-152	121.78	28.40	7.8649E-001	3.35E-001	-2.0050E-001
		244.69	7.49	2.0191E+000		1.0656E-001
		344.27	26.50	4.7278E-001		-1.4069E-001
		778.89	12.74	7.5636E-001		-1.7934E+000
		867.32	4.16	2.4742E+000		-9.9758E-001
		964.01	14.40	8.2525E-001		-5.9138E-002
		1085.78	10.00	9.5621E-001		-3.8299E-001
		1112.02	13.30	7.6023E-001		4.2855E-001
		1407.95	20.70	3.3494E-001		1.4864E-001
	Eu-154	123.07	40.50	5.4670E-001	2.53E-001	-4.0564E-001
		247.94	6.60	2.1586E+000		-2.1356E+000
		591.81	4.83	2.1930E+000		-1.0148E+000
		723.30	19.70	5.6936E-001		-2.7261E-001
		756.87	4.33	2.3943E+000		-1.1726E+000
		873.19	11.50	8.6818E-001		2.7854E-001
		996.32	10.30	9.0602E-001		-5.9199E-001
		1004.76	17.90	5.4150E-001		5.9913E-002
		1274.45	35.50	2.5343E-001		-6.1462E-003
	Eu-155	86.54*	30.90	7.5529E-001	7.55E-001	4.1450E-001
		105.31	20.70	1.3034E+000		3.8979E-001
	Am-241	59.54	35.90	1.4350E+000	1.44E+000	3.8173E-001
	Cm-243	228.19	10.56	1.3770E+000	9.68E-001	6.8687E-002

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	9.6830E-001	9.68E-001	-3.8265E-001

+ = 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

Report Generated On 12/8/2005 1:34:00 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Detector ID: RED6264

Spectrum File: RED6264
Sample ID:
Sample Title: NOL-05-02-113-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/8/2005 1:23:57 PM
Live Time: 600.0 seconds
Real Time: 601.2 seconds

Energy Calibration Date: 6/13/2005
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number:
Title: NOL-05-02-113-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	287-	305	292.11	72.99	0.85	3.10E+002	63.05	1.25E+003
m	2	287-	305	300.66	75.12	0.86	6.66E+002	78.50	1.47E+003
F	3	330-	345	339.74	84.89	1.02	2.49E+002	66.77	1.69E+003
F	4	948-	961	955.47	238.84	1.04	3.32E+002	46.14	3.23E+002
F	5	1174-	1192	1181.84	295.44	0.88	5.92E+001	26.66	2.71E+002
F	6	1347-	1361	1353.75	338.42	1.12	7.07E+001	25.89	1.59E+002
F	7	1402-	1416	1409.36	352.32	1.08	1.38E+002	31.45	1.81E+002
F	8	1848-	1860	1853.42	463.34	0.77	4.39E+001	18.97	7.85E+001
F	9	2033-	2055	2045.22	511.30	1.90	1.76E+002	28.57	1.09E+002
F	10	2327-	2343	2334.95	583.74	1.19	1.58E+002	30.89	1.32E+002
F	11	2430-	2448	2440.14	610.04	1.44	1.73E+002	28.54	7.35E+001
F	12	3439-	3453	3446.42	861.63	1.56	3.90E+001	17.61	4.49E+001
F	13	3642-	3657	3649.07	912.29	1.33	1.51E+002	27.39	5.07E+001
F	14	3873-	3889	3880.81	970.23	1.40	7.19E+001	21.98	6.28E+001
F	15	4480-	4495	4487.32	1121.87	1.70	4.60E+001	17.81	3.60E+001
F	16	5839-	5866	5852.76	1463.26	2.04	9.82E+002	60.99	2.10E+001

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

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	0.997	511.00*	100.00	2.47036E-001	5.23099E-002
K-40	0.836	1460.81*	10.67	1.69911E+001	1.73398E+000
TL-208	0.890	277.35	6.80		
		510.84*	21.60	1.14368E+000	2.59562E-001
		583.14*	84.20	2.75262E-001	6.47385E-002
		860.37*	12.46	5.06225E-001	2.36840E-001
Pb-212	0.520	74.81* @	10.70	9.85163E+000	2.25333E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	8.33765E-001	1.74661E-001
Bi-214	0.676	609.31*	46.30	5.58612E-001	1.14812E-001
		1120.29*	15.10	5.29005E-001	2.12429E-001
		1764.49	15.80		
PB-214	0.580	74.82* @	6.21	1.69746E+001	4.07340E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	3.66469E-001	1.76303E-001
		351.92*	37.20	4.65466E-001	1.31270E-001
Ac-228	0.967	338.32*	11.40	7.66780E-001	3.05374E-001
		911.07*	27.70	8.90865E-001	1.91620E-001
		969.11*	16.60	7.22489E-001	2.33348E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		0.997	1.841569E-001	5.399027E-002
K-40		0.836	1.699112E+001	1.733981E+000
TL-208		0.890	2.911050E-001	6.187592E-002
Pb-212	@	0.520	8.337651E-001	1.746608E-001
Bi-214		0.676	5.519188E-001	1.010041E-001
PB-214	@	0.580	4.301577E-001	1.052899E-001
Ac-228		0.967	8.123387E-001	1.332469E-001

? = 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 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.99	5.1630E-001	20.35
F 3	84.89	4.1476E-001	26.83
F 8	463.34	7.3099E-002	43.26

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Co-60	1173.22	100.00	1.0992E-001	8.45E-002	2.0586E-002
	1332.49	100.00	8.4465E-002		7.2477E-002
Nb-94	702.63	100.00	1.0130E-001	9.89E-002	-1.2491E-001
	871.10	100.00	9.8893E-002		-2.6993E-002
Ag-108m	79.20	7.10	5.9733E+000	1.24E-001	-1.1102E+001
	433.93	89.90	1.2410E-001		-4.4438E-002
	614.37	90.40	1.5070E-001		-1.9272E-002
	722.95	90.50	1.2659E-001		1.4290E-002
Sb-125	176.33	6.89	2.5211E+000	3.66E-001	5.3925E-001
	427.89	29.33	3.6632E-001		-6.4463E-002
	463.38	10.35	1.1379E+000		4.2328E-001
	600.56	17.80	6.2852E-001		8.8945E-002
	606.64	5.02	2.8092E+000		5.6021E+000
	635.90	11.32	9.1964E-001		-1.2692E-001
Cs-134	563.23	8.38	1.3427E+000	1.24E-001	8.5068E-001
	569.32	15.43	6.8362E-001		-1.1709E+000
	604.70	97.60	1.3735E-001		-9.0680E-002
	795.84	85.40	1.2424E-001		1.1599E-001
	801.93	8.73	1.1602E+000		-6.9911E-001
Cs-137	661.65	85.12	1.2683E-001	1.27E-001	6.1747E-002
Eu-152	121.78	28.40	8.4410E-001	3.29E-001	6.4204E-001
	244.69	7.49	2.0129E+000		-3.1785E+000
	344.27	26.50	4.8452E-001		-1.7092E-001
	778.89	12.74	8.1854E-001		-4.4906E-001
	867.32	4.16	2.6736E+000		-1.4588E+000
	964.01	14.40	8.1609E-001		1.2067E-001
	1085.78	10.00	9.3480E-001		-8.3571E-001
	1112.02	13.30	7.2383E-001		-3.7146E-001
	1407.95	20.70	3.2943E-001		3.5190E-001
Eu-154	123.07	40.50	5.8626E-001	2.48E-001	5.4295E-001
	247.94	6.60	2.1571E+000		-1.1037E+000
	591.81	4.83	2.3457E+000		-2.4690E+000
	723.30	19.70	5.9123E-001		8.2406E-002
	756.87	4.33	2.3052E+000		1.3008E+000
	873.19	11.50	8.7077E-001		7.0746E-001
	996.32	10.30	8.6496E-001		3.8878E-001
	1004.76	17.90	5.1678E-001		4.4838E-001
	1274.45	35.50	2.4760E-001		1.6384E-002
Eu-155	86.54	30.90	1.1750E+000	1.18E+000	5.6268E-001
	105.31	20.70	1.3413E+000		1.4457E+000
Am-241	59.54	35.90	1.5141E+000	1.51E+000	6.4895E-001
Cm-243	228.19	10.56	1.4406E+000	9.71E-001	1.3739E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	9.7148E-001	9.71E-001	1.8780E-002

+ = 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

Report Generated On 12/7/2005 12:31:05 AM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-02-114
Sample Title: NOL-05-02-114-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/7/2005 12:21:02 AM
Live Time: 600.0 seconds
Real Time: 601.2 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-02-114
Title: NOL-05-02-114-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	284-	305	291.31	72.68	0.84	3.71E+002	66.19	1.27E+003
m	2	284-	305	300.12	74.89	0.84	7.37E+002	82.06	1.50E+003
M	3	329-	364	338.58	84.53	1.10	3.41E+002	67.26	1.53E+003
m	4	329-	364	349.69	87.32	1.11	1.60E+002	58.73	1.52E+003
m	5	329-	364	357.76	89.35	1.11	9.37E+001	56.73	1.52E+003
F	6	736-	750	743.81	186.14	0.69	6.34E+001	33.47	4.85E+002
M	7	948-	970	953.94	238.80	1.03	2.92E+002	44.82	3.12E+002
m	8	948-	970	965.88	241.80	1.03	4.66E+001	29.18	2.77E+002
F	9	1175-	1185	1181.77	295.88	0.40	3.80E+001	2.41	1.89E+002
F	10	1347-	1357	1351.36	338.34	1.04	9.93E+001	29.10	1.29E+002
F	11	1398-	1414	1406.43	352.13	1.06	1.56E+002	32.83	2.09E+002
F	12	1842-	1857	1849.43	463.00	1.05	4.14E+001	20.38	1.01E+002
F	13	2031-	2051	2041.46	511.03	1.99	1.50E+002	29.71	1.60E+002
F	14	2320-	2339	2330.22	583.24	1.58	2.33E+002	32.70	9.23E+001
F	15	2426-	2444	2435.12	609.47	1.43	1.54E+002	27.95	8.48E+001
F	16	2639-	2651	2644.68	661.85	1.41	4.13E+001	20.06	6.47E+001
F	17	3135-	3147	3140.21	785.65	1.08	2.51E+001	15.34	4.04E+001
F	18	3632-	3651	3641.78	910.90	1.65	1.44E+002	25.88	5.05E+001
F	19	3864-	3881	3873.03	968.63	1.55	8.75E+001	22.64	6.01E+001
F	20	4471-	4487	4478.96	1119.85	1.73	5.28E+001	17.98	3.11E+001
F	21	4683-	4696	4689.54	1172.39	1.45	3.92E+001	15.06	1.95E+001
F	22	5826-	5854	5840.50	1459.50	1.99	1.07E+003	62.97	7.25E+000
F	23	7050-	7063	7056.88	1762.93	1.73	4.09E+001	14.76	1.21E+001

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gm)	Activity Uncertainty
ANN	1.000	511.00*	100.00	2.05006E-001	4.91315E-002
K-40	0.949	1460.81*	10.67	1.79745E+001	1.79800E+000
Cs-137	0.999	661.65*	85.12	7.21620E-002	3.60338E-002
Eu-155	0.322	86.54*	30.90	6.43678E-001	2.67346E-001
		105.31	20.70		
TL-208	0.751	277.35	6.80		
		510.84*	21.60	9.49103E-001	2.40304E-001
		583.14*	84.20	3.94192E-001	7.54762E-002
		860.37	12.46		
Pb-212	0.676	74.81* @	10.70	1.05497E+001	2.37810E+000
		77.11 @	18.00		
		87.30* @	8.00	2.48621E+000	1.03262E+000
		238.63*	44.60	7.09089E-001	1.55695E-001
Bi-214	0.983	609.31*	46.30	4.79484E-001	1.05386E-001
		1120.29*	15.10	5.88291E-001	2.09984E-001
		1764.49*	15.80	4.80386E-001	1.79905E-001
PB-214	0.816	74.82* @	6.21	1.81774E+001	4.30477E+000
		77.11 @	10.50		
		87.30* @	4.67	4.25903E+000	1.79797E+000
		241.98*	7.49	6.77795E-001	4.38719E-001
		295.21*	19.20	2.28387E-001	4.10755E-002
		351.92*	37.20	5.08784E-001	1.36637E-001
Ac-228	0.998	338.32*	11.40	1.04308E+000	3.46766E-001
		911.07*	27.70	8.21295E-001	1.75693E-001
		969.11*	16.60	8.50249E-001	2.37475E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
ANN		1.000	1.198608E-001	5.169125E-002
K-40		0.949	1.797452E+001	1.798002E+000
Cs-137		0.999	7.216199E-002	3.603376E-002
Eu-155		0.322	4.218400E-001	2.704251E-001
TL-208		0.751	3.941921E-001	7.437492E-002
Pb-212	@	0.676	7.090889E-001	1.556950E-001
Bi-214		0.983	4.968605E-001	8.344460E-002
PB-214	@	0.816	2.531242E-001	3.696432E-002
Ac-228		0.998	8.616386E-001	1.308064E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.68	6.1818E-001	17.84
M 3	84.53	5.6751E-001	19.75
m 5	89.35	1.5615E-001	60.55
F 6	186.14	1.0560E-001	52.82
F 12	463.00	6.8958E-002	49.27
F 17	785.65	4.1905E-002	61.02
F 21	1172.39	6.5295E-002	38.44

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
	Co-60	1173.22	100.00	1.0280E-001	8.78E-002	9.5531E-003
		1332.49	100.00	8.7772E-002		6.6784E-002
	Nb-94	702.63	100.00	1.0593E-001	9.19E-002	-2.8382E-005
		871.10	100.00	9.1860E-002		7.6834E-002
	Ag-108m	79.20	7.10	5.6451E+000	1.23E-001	-7.3135E+000
		433.93	89.90	1.2630E-001		-6.3062E-002
		614.37	90.40	1.4513E-001		-6.6813E-002
		722.95	90.50	1.2268E-001		6.2432E-002
	Sb-125	176.33	6.89	2.4239E+000	3.89E-001	5.1682E-001
		427.89	29.33	3.8866E-001		-7.3202E-002
		463.38	10.35	1.1656E+000		5.3369E-001
		600.56	17.80	6.1778E-001		6.9020E-002
		606.64	5.02	2.7171E+000		4.0392E+000
		635.90	11.32	9.6491E-001		1.9108E-001
	Cs-134	563.23	8.38	1.3659E+000	1.23E-001	1.1988E+000
		569.32	15.43	6.9069E-001		-8.0674E-001
		604.70	97.60	1.4304E-001		-3.6468E-002
		795.84	85.40	1.2334E-001		-9.5650E-002
		801.93	8.73	1.1331E+000		-5.9448E-001
+	Cs-137	661.65*	85.12	7.9689E-002	7.97E-002	7.2162E-002
	Eu-152	121.78	28.40	8.2006E-001	3.25E-001	8.3377E-001
		244.69	7.49	2.0554E+000		-5.4928E-001
		344.27	26.50	4.7687E-001		-2.1382E-001
		778.89	12.74	8.1730E-001		1.7654E-002
		867.32	4.16	2.3062E+000		-2.7767E+000
		964.01	14.40	8.8270E-001		1.9169E+000
		1085.78	10.00	9.3684E-001		-3.1416E-001
		1112.02	13.30	7.8669E-001		8.6934E-002
		1407.95	20.70	3.2476E-001		-6.8371E-002
	Eu-154	123.07	40.50	5.6795E-001	2.28E-001	1.5016E-001
		247.94	6.60	2.2294E+000		-1.1468E+000
		591.81	4.83	2.2128E+000		-9.3083E-001
		723.30	19.70	5.6482E-001		6.1539E-001
		756.87	4.33	2.4317E+000		1.7058E+000
		873.19	11.50	7.6116E-001		-7.0401E-001
		996.32	10.30	8.7750E-001		4.3868E-002
		1004.76	17.90	5.2628E-001		3.2522E-001
		1274.45	35.50	2.2836E-001		-2.2865E-001
+	Eu-155	86.54*	30.90	7.3960E-001	7.40E-001	6.4368E-001
		105.31	20.70	1.3072E+000		-3.4863E-002
	Am-241	59.54	35.90	1.4959E+000	1.50E+000	1.9521E-001
	Cm-243	228.19	10.56	1.4227E+000	9.95E-001	-9.6403E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
Cm-243	277.60	14.00	9.9510E-001	9.95E-001	-4.5145E-001

+ = 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

Report Generated On 12/6/2005 9:49:53 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-02-115
Sample Title: NOL-05-02-115-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/6/2005 9:39:51 PM
Live Time: 600.0 seconds
Real Time: 601.3 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-02-115
Title: NOL-05-02-115-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	282-	306	291.82	72.81	1.06	4.90E+002	74.25	1.91E+003
m	2	282-	306	300.14	74.89	1.06	9.51E+002	88.62	1.93E+003
F	3	335-	344	338.95	84.63	0.72	2.15E+002	67.21	1.31E+003
F	4	739-	755	745.43	186.55	1.30	9.75E+001	40.19	5.50E+002
F	5	949-	962	953.83	238.78	1.03	3.08E+002	46.10	3.55E+002
F	6	1174-	1184	1179.74	295.37	0.68	5.70E+001	24.96	1.57E+002
F	7	1345-	1360	1351.37	338.35	1.18	6.13E+001	25.92	1.70E+002
F	8	1401-	1414	1406.33	352.11	1.35	1.41E+002	31.77	1.51E+002
F	9	2033-	2052	2041.89	511.14	1.94	1.47E+002	28.62	1.29E+002
F	10	2322-	2339	2330.53	583.32	1.26	1.41E+002	27.79	9.09E+001
F	11	2426-	2444	2434.71	609.36	1.34	1.41E+002	27.82	9.69E+001
F	12	2899-	2914	2907.47	727.51	1.65	5.03E+001	17.55	3.90E+001
F	13	3632-	3650	3642.37	911.05	1.52	1.45E+002	26.07	4.77E+001
F	14	3866-	3880	3873.07	968.64	1.23	8.45E+001	20.84	3.05E+001
F	15	4471-	4484	4478.72	1119.79	1.45	4.30E+001	18.75	4.90E+001
F	16	4685-	4698	4691.13	1172.79	1.55	3.45E+001	15.38	2.35E+001
F	17	5826-	5854	5840.65	1459.54	2.09	9.56E+002	60.38	1.45E+001
F	18	7046-	7064	7055.31	1762.54	2.28	6.09E+001	15.78	4.75E+000

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gm)	Activity Uncertainty
ANN	0.999	511.00*	100.00	2.00408E-001	4.75523E-002
K-40	0.952	1460.81*	10.67	1.60291E+001	1.64602E+000
TL-208	0.751	277.35	6.80		
		510.84*	21.60	9.27816E-001	2.32824E-001
		583.14*	84.20	2.38215E-001	5.63359E-002
		860.37	12.46		
Bi-212	0.996	727.17*	11.80	6.45703E-001	2.37632E-001
Pb-212	0.520	74.81* @	10.70	1.36166E+001	2.95501E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	7.48191E-001	1.62253E-001
Bi-214	0.975	609.31*	46.30	4.38817E-001	1.02304E-001
		1120.29*	15.10	4.78901E-001	2.15057E-001
		1764.49*	15.80	7.15417E-001	1.98680E-001
PB-214	0.582	74.82* @	6.21	2.34618E+001	5.36887E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	3.42074E-001	1.60525E-001
		351.92*	37.20	4.60036E-001	1.28934E-001
Ac-228	0.998	338.32*	11.40	6.44511E-001	2.90500E-001
		911.07*	27.70	8.30761E-001	1.77210E-001
		969.11*	16.60	8.21611E-001	2.20108E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
ANN		0.999	1.489539E-001	4.905590E-002
K-40		0.952	1.602913E+001	1.646016E+000
TL-208		0.751	2.382148E-001	5.579843E-002
Bi-212		0.996	6.457034E-001	2.376317E-001
Pb-212	@	0.520	7.481906E-001	1.622535E-001
Bi-214		0.975	4.940720E-001	8.377045E-002
PB-214	@	0.582	4.137773E-001	1.005235E-001
Ac-228		0.998	7.935199E-001	1.246748E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.81	8.1692E-001	15.15
F 3	84.63	3.5815E-001	31.28
F 4	186.55	1.6255E-001	41.21
F 16	1172.79	5.7425E-002	44.63

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
Co-60	1173.22	100.00	9.8536E-002	7.65E-002	2.7723E-002
	1332.49	100.00	7.6534E-002		1.4110E-002
Nb-94	702.63	100.00	9.7147E-002	8.84E-002	1.0714E-001
	871.10	100.00	8.8447E-002		6.2827E-003
Ag-108m	79.20	7.10	5.9018E+000	1.12E-001	-7.4257E+000
	433.93	89.90	1.1214E-001		-4.2487E-002
	614.37	90.40	1.3866E-001		-2.3300E-002
	722.95	90.50	1.1772E-001		-1.4533E-002
Sb-125	176.33	6.89	2.5823E+000	3.59E-001	1.0283E-001
	427.89	29.33	3.5874E-001		-3.1893E-002
	463.38	10.35	1.0403E+000		-3.5462E-001
	600.56	17.80	5.4033E-001		7.4330E-002
	606.64	5.02	2.6378E+000		5.8072E+000
	635.90	11.32	8.1861E-001		2.2459E-001
Cs-134	563.23	8.38	1.2161E+000	1.14E-001	-3.0375E-001
	569.32	15.43	6.7411E-001		-3.5089E-001
	604.70	97.60	1.3317E-001		9.0066E-003
	795.84	85.40	1.1373E-001		6.1495E-002
	801.93	8.73	1.0688E+000		-4.7015E-001
Cs-137	661.65	85.12	1.2186E-001	1.22E-001	-1.6698E-002
Eu-152	121.78	28.40	8.6687E-001	3.00E-001	-2.5553E-001
	244.69	7.49	2.0092E+000		-1.9318E+000
	344.27	26.50	4.4499E-001		-3.0033E-001
	778.89	12.74	7.1447E-001		-1.1987E+000
	867.32	4.16	2.0782E+000		-1.4603E+000
	964.01	14.40	7.9908E-001		8.4019E-001
	1085.78	10.00	8.5915E-001		3.4348E-001
	1112.02	13.30	8.0033E-001		-4.0457E-002
	1407.95	20.70	2.9994E-001		9.6346E-002
Eu-154	123.07	40.50	6.0046E-001	2.48E-001	-3.3517E-001
	247.94	6.60	2.1866E+000		-1.8793E+000
	591.81	4.83	1.8521E+000		-2.8731E-001
	723.30	19.70	5.3715E-001		5.5069E-001
	756.87	4.33	2.1369E+000		1.0516E-002
	873.19	11.50	7.7496E-001		6.8600E-001
	996.32	10.30	8.4112E-001		-1.3052E-001
	1004.76	17.90	4.6523E-001		-2.6481E-001
	1274.45	35.50	2.4801E-001		2.7767E-001
Eu-155	86.54	30.90	1.2388E+000	1.24E+000	2.7236E+000
	105.31	20.70	1.3794E+000		6.9606E-001
Am-241	59.54	35.90	1.5954E+000	1.60E+000	8.9001E-002
Cm-243	228.19	10.56	1.4589E+000	9.86E-001	1.3721E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
Cm-243	277.60	14.00	9.8560E-001	9.86E-001	6.5470E-001

+ = 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

Report Generated On 12/6/2005 9:35:21 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-02-116
Sample Title: NOL-05-02-116-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/6/2005 9:25:19 PM
Live Time: 600.0 seconds
Real Time: 601.3 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-02-116
Title: NOL-05-02-116-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	284-	305	291.47	72.72	0.92	4.87E+002	74.56	1.64E+003
m	2	284-	305	300.14	74.89	0.92	9.28E+002	90.97	1.78E+003
F	3	332-	345	339.27	84.71	1.00	2.84E+002	77.36	1.97E+003
M	4	949-	970	953.86	238.78	1.03	3.30E+002	46.57	2.89E+002
m	5	949-	970	965.21	241.63	1.04	5.48E+001	29.40	2.87E+002
F	6	1174-	1187	1180.76	295.62	0.86	5.55E+001	27.80	2.32E+002
F	7	1346-	1357	1352.63	338.66	0.97	8.57E+001	28.13	1.52E+002
F	8	1400-	1416	1406.28	352.09	1.11	1.57E+002	31.18	1.60E+002
F	9	2031-	2053	2041.91	511.15	2.08	1.63E+002	28.39	1.26E+002
F	10	2320-	2340	2330.73	583.37	1.38	2.03E+002	31.18	9.71E+001
F	11	2426-	2443	2434.97	609.43	1.41	1.78E+002	28.78	6.28E+001
F	12	3632-	3654	3642.00	910.96	1.49	1.58E+002	27.03	5.66E+001
F	13	3864-	3882	3873.11	968.65	1.46	1.08E+002	23.23	4.49E+001
F	14	4471-	4487	4477.82	1119.57	1.85	4.98E+001	17.48	2.89E+001
F	15	4944-	4957	4950.51	1237.50	0.48	1.81E+001	8.31	3.93E+001
F	16	5827-	5855	5840.70	1459.55	1.98	1.04E+003	62.24	1.74E+001
F	17	7047-	7061	7054.25	1762.27	1.59	3.47E+001	13.62	1.11E+001

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/gm)	Activity Uncertainty
ANN	0.999	511.00*		100.00	2.21984E-001	4.90343E-002
K-40	0.953	1460.81*		10.67	1.73694E+001	1.75128E+000
TL-208	0.750	277.35		6.80		
		510.84*		21.60	1.02770E+000	2.42029E-001
		583.14*		84.20	3.43459E-001	6.91665E-002
		860.37		12.46		
Pb-212	0.520	74.81*	@	10.70	1.32906E+001	2.91231E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	8.02825E-001	1.69322E-001
Bi-214	0.967	609.31*		46.30	5.54552E-001	1.12871E-001
		1120.29*		15.10	5.54632E-001	2.03520E-001
		1764.49*		15.80	4.07630E-001	1.65100E-001
PB-214	0.730	74.82*	@	6.21	2.29001E+001	5.28618E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98*		7.49	7.96042E-001	4.47119E-001
		295.21*		19.20	3.33329E-001	1.76075E-001
		351.92*		37.20	5.11045E-001	1.32718E-001
Ac-228	0.997	338.32*		11.40	9.00981E-001	3.27666E-001
		911.07*		27.70	9.03507E-001	1.86410E-001
		969.11*		16.60	1.05096E+000	2.51249E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
ANN		0.999	1.477966E-001	5.120271E-002
K-40		0.953	1.736944E+001	1.751278E+000
TL-208		0.750	3.434590E-001	6.825482E-002
Pb-212	@	0.520	8.028251E-001	1.693215E-001
Bi-214		0.967	5.158784E-001	8.472048E-002
PB-214	@	0.730	4.652435E-001	1.031252E-001
Ac-228		0.997	9.463810E-001	1.361667E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.72	8.1109E-001	15.32
F 3	84.71	4.7348E-001	27.23
F 15	1237.50	3.0180E-002	45.88

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
Co-60	1173.22	100.00	1.0932E-001	8.02E-002	1.0918E-001
	1332.49	100.00	8.0170E-002		2.6722E-002
Nb-94	702.63	100.00	9.7410E-002	9.40E-002	-4.7974E-002
	871.10	100.00	9.3964E-002		5.4748E-002
Ag-108m	79.20	7.10	6.2014E+000	1.22E-001	-1.0789E+001
	433.93	89.90	1.2240E-001		6.7611E-002
	614.37	90.40	1.4132E-001		-5.8658E-002
	722.95	90.50	1.2217E-001		1.5087E-001
Sb-125	176.33	6.89	2.6462E+000	3.71E-001	-1.2371E+000
	427.89	29.33	3.7112E-001		-1.7124E-001
	463.38	10.35	1.0832E+000		2.9528E-001
	600.56	17.80	5.5645E-001		1.8907E-001
	606.64	5.02	2.6062E+000		5.6706E+000
	635.90	11.32	8.9382E-001		-4.6889E-001
Cs-134	563.23	8.38	1.2797E+000	1.14E-001	8.7367E-001
	569.32	15.43	6.7411E-001		1.4135E-001
	604.70	97.60	1.3535E-001		2.3072E-002
	795.84	85.40	1.1405E-001		1.6767E-002
	801.93	8.73	1.0787E+000		-7.1376E-001
Cs-137	661.65	85.12	1.2072E-001	1.21E-001	-1.4256E-002
Eu-152	121.78	28.40	9.0270E-001	3.14E-001	-4.2879E-001
	244.69	7.49	2.0781E+000		-7.2687E-001
	344.27	26.50	4.3295E-001		-5.4697E-001
	778.89	12.74	7.3266E-001		-1.1582E+000
	867.32	4.16	2.2992E+000		-7.4465E-001
	964.01	14.40	8.7310E-001		2.1096E+000
	1085.78	10.00	9.1288E-001		1.3205E-001
	1112.02	13.30	7.3931E-001		-3.6873E-001
	1407.95	20.70	3.1399E-001		-4.0130E-001
Eu-154	123.07	40.50	6.3106E-001	2.57E-001	7.9100E-002
	247.94	6.60	2.2471E+000		-2.1299E+000
	591.81	4.83	2.1722E+000		1.2214E-001
	723.30	19.70	5.5655E-001		2.7198E-001
	756.87	4.33	2.0631E+000		-2.9030E+000
	873.19	11.50	7.8581E-001		-4.2657E-001
	996.32	10.30	8.4785E-001		1.1798E-001
	1004.76	17.90	4.9292E-001		2.0682E-001
	1274.45	35.50	2.5670E-001		-1.0125E-001
Eu-155	86.54	30.90	1.2734E+000	1.27E+000	2.9265E+000
	105.31	20.70	1.4386E+000		3.6157E-001
Am-241	59.54	35.90	1.6003E+000	1.60E+000	-1.3464E+000
Cm-243	228.19	10.56	1.5183E+000	1.02E+000	-8.7057E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
Cm-243	277.60	14.00	1.0224E+000	1.02E+000	7.7274E-001

+ = 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

Report Generated On 12/6/2005 11:15:39 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-02-117
Sample Title: NOL-05-02-117-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/6/2005 11:05:37 PM
Live Time: 600.0 seconds
Real Time: 601.1 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-02-117
Title: NOL-05-02-117-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	285-	314	291.98	72.85	1.00	3.33E+002	65.21	1.39E+003
m	2	285-	314	300.11	74.88	1.00	8.26E+002	80.47	1.46E+003
m	3	285-	314	308.96	77.11	1.01	1.15E+002	57.00	1.33E+003
M	4	333-	355	338.92	84.62	1.21	2.71E+002	65.56	1.34E+003
m	5	333-	355	349.38	87.24	1.22	1.48E+002	60.60	1.54E+003
F	6	555-	562	558.39	139.66	0.85	4.70E+001	24.77	3.62E+002
F	7	945-	961	953.59	238.72	1.09	2.95E+002	44.66	3.89E+002
F	8	1175-	1186	1179.83	295.39	0.86	6.01E+001	28.24	2.02E+002
F	9	1346-	1357	1351.80	338.45	0.89	5.92E+001	24.53	1.25E+002
F	10	1402-	1412	1406.94	352.26	1.16	1.73E+002	33.79	1.26E+002
F	11	1843-	1859	1851.57	463.53	1.53	5.45E+001	23.01	1.20E+002
F	12	2033-	2053	2042.42	511.27	2.23	1.51E+002	28.72	1.36E+002
F	13	2319-	2340	2330.68	583.36	1.32	1.84E+002	30.49	1.13E+002
F	14	2427-	2444	2435.13	609.47	1.27	1.72E+002	29.28	7.90E+001
M	15	2607-	2652	2612.70	653.85	1.39	2.07E+001	16.29	6.05E+001
m	16	2607-	2652	2644.97	661.92	1.39	7.83E+001	21.82	6.45E+001
F	17	2899-	2912	2906.17	727.18	1.24	4.39E+001	18.66	5.25E+001
F	18	3432-	3445	3439.24	860.33	0.93	2.32E+001	15.07	4.90E+001
F	19	3634-	3653	3642.68	911.13	1.57	1.30E+002	25.14	5.12E+001
F	20	3866-	3882	3872.95	968.61	1.45	9.88E+001	23.00	4.56E+001
F	21	4471-	4486	4478.94	1119.84	1.28	5.12E+001	18.55	4.57E+001
F	22	4680-	4701	4690.70	1172.68	1.85	1.05E+002	23.41	5.65E+001
F	23	5319-	5336	5328.29	1331.74	1.71	7.93E+001	20.05	2.90E+001
F	24	5827-	5854	5840.79	1459.57	2.01	1.06E+003	63.30	2.80E+001

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gm)	Activity Uncertainty
ANN	0.998	511.00*	100.00	2.06018E-001	4.81052E-002
K-40	0.955	1460.81*	10.67	1.77265E+001	1.78509E+000
Co-60	0.987	1173.22*	100.00	1.79555E-001	4.23455E-002
		1332.49*	100.00	1.39438E-001	3.68972E-002
Cs-137	0.998	661.65*	85.12	1.36726E-001	4.13523E-002
Eu-155	0.324	86.54*	30.90	5.94405E-001	2.69937E-001
		105.31	20.70		
TL-208	0.901	277.35	6.80		
		510.84*	21.60	9.53787E-001	2.35938E-001
		583.14*	84.20	3.11075E-001	6.55938E-002
		860.37*	12.46	2.91930E-001	1.92597E-001
Bi-212	1.000	727.17*	11.80	5.62700E-001	2.48382E-001
Pb-212	1.000	74.81* @	10.70	1.18247E+001	2.58821E+000
		77.11* @	18.00	9.36460E-001	5.00811E-001
		87.30* @	8.00	2.29589E+000	1.04263E+000
		238.63*	44.60	7.17865E-001	1.56402E-001
Bi-214	0.698	609.31*	46.30	5.38396E-001	1.12943E-001
		1120.29*	15.10	5.70360E-001	2.15420E-001
		1764.49	15.80		
PB-214	0.849	74.82* @	6.21	2.03743E+001	4.69842E+000
		77.11* @	10.50	1.60536E+000	8.66861E-001
		87.30* @	4.67	3.93300E+000	1.81064E+000
		241.98	7.49		
		295.21*	19.20	3.60447E-001	1.80049E-001
		351.92*	37.20	5.65160E-001	1.45051E-001
Ac-228	0.998	338.32*	11.40	6.21658E-001	2.75666E-001
		911.07*	27.70	7.46704E-001	1.67596E-001
		969.11*	16.60	9.60433E-001	2.45201E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
ANN		0.998	1.392473E-001	4.990072E-002
K-40		0.955	1.772648E+001	1.785089E+000
Co-60		0.987	1.567511E-001	2.781840E-002
Cs-137		0.998	1.367263E-001	4.135228E-002
Eu-155		0.324	3.350395E-001	2.734706E-001
TL-208		0.901	3.091237E-001	6.141387E-002
Bi-212		1.000	5.626998E-001	2.483820E-001
Pb-212	@	1.000	7.178654E-001	1.564021E-001
Bi-214		0.698	5.452881E-001	1.000286E-001
PB-214	@	0.849	4.863986E-001	1.108373E-001
Ac-228		0.998	7.759012E-001	1.236606E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.85	5.5521E-001	19.57
M 4	84.62	4.5161E-001	24.19
F 6	139.66	7.8273E-002	52.75
F 11	463.53	9.0893E-002	42.19
M 15	653.85	3.4575E-002	78.54

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
+	Co-60	1173.22*	100.00	8.6304E-002	6.10E-002	1.7955E-001
		1332.49*	100.00	6.0953E-002		1.3944E-001
	Nb-94	702.63	100.00	1.0326E-001	9.72E-002	-7.5813E-002
		871.10	100.00	9.7174E-002		1.4118E-002
	Ag-108m	79.20	7.10	5.4156E+000	1.23E-001	-1.9001E+000
		433.93	89.90	1.2427E-001		-4.8293E-002
		614.37	90.40	1.5170E-001		-1.3202E-002
		722.95	90.50	1.2268E-001		9.7643E-002
	Sb-125	176.33	6.89	2.2927E+000	3.81E-001	-2.1017E-001
		427.89	29.33	3.8141E-001		2.2770E-001
		463.38	10.35	1.1718E+000		2.9352E-002
		600.56	17.80	6.0092E-001		-7.7267E-001
		606.64	5.02	2.7608E+000		3.2688E+000
		635.90	11.32	9.2906E-001		-4.2102E-002
	Cs-134	563.23	8.38	1.2772E+000	1.25E-001	1.3493E+000
		569.32	15.43	6.6139E-001		-5.5004E-002
		604.70	97.60	1.4219E-001		-6.5247E-002
		795.84	85.40	1.2541E-001		3.6920E-002
		801.93	8.73	1.1455E+000		1.4322E-001
+	Cs-137	661.65*	85.12	6.9949E-002	6.99E-002	1.3673E-001
	Eu-152	121.78	28.40	7.8571E-001	3.22E-001	1.7897E-002
		244.69	7.49	1.9845E+000		-3.8533E-001
		344.27	26.50	4.6121E-001		6.3151E-002
		778.89	12.74	7.0286E-001		-5.5798E-001
		867.32	4.16	2.3545E+000		2.0290E-001
		964.01	14.40	8.8746E-001		8.6735E-001
		1085.78	10.00	9.4692E-001		7.1775E-001
		1112.02	13.30	8.3987E-001		-1.5045E-001
		1407.95	20.70	3.2211E-001		-1.7160E-001
	Eu-154	123.07	40.50	5.4453E-001	2.62E-001	-7.2960E-002
		247.94	6.60	2.0983E+000		-2.9683E+000
		591.81	4.83	2.3088E+000		-2.8214E-001
		723.30	19.70	5.5893E-001		3.0780E-001
		756.87	4.33	2.3136E+000		-1.3292E+000
		873.19	11.50	8.6268E-001		1.0496E+000
		996.32	10.30	9.7820E-001		-6.1381E-002
		1004.76	17.90	5.8868E-001		4.7674E-001
		1274.45	35.50	2.6199E-001		9.4447E-002
+	Eu-155	86.54*	30.90	7.4514E-001	7.45E-001	5.9441E-001
		105.31	20.70	1.2714E+000		1.3638E-001
	Am-241	59.54	35.90	1.4465E+000	1.45E+000	-5.2214E-002
	Cm-243	228.19	10.56	1.3863E+000	9.64E-001	-1.3467E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
Cm-243	277.60	14.00	9.6405E-001	9.64E-001	-1.7870E-002

+ = 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

Report Generated On 12/8/2005 3:45:53 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: RED6264

Spectrum File: RED6264
Sample ID:
Sample Title: NOL-05-02-118-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/8/2005 3:35:51 PM
Live Time: 600.0 seconds
Real Time: 601.1 seconds

Energy Calibration Date: 6/13/2005
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number:
Title: NOL-05-02-118-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	286-	319	291.55	72.85	1.05	4.23E+002	66.51	1.20E+003
m	2	286-	319	300.66	75.12	1.06	8.92E+002	78.35	1.53E+003
m	3	286-	319	309.59	77.36	1.06	1.93E+002	57.12	1.38E+003
F	4	330-	346	339.56	84.85	0.96	2.19E+002	64.98	1.81E+003
F	5	945-	962	955.20	238.77	1.11	2.75E+002	43.70	4.31E+002
F	6	1174-	1187	1181.41	295.33	1.05	6.86E+001	27.54	1.96E+002
F	7	1348-	1359	1353.96	338.47	0.85	6.27E+001	25.39	1.46E+002
F	8	1399-	1415	1408.02	351.99	1.13	1.42E+002	30.79	1.83E+002
F	9	2035-	2054	2044.20	511.05	2.25	1.60E+002	27.83	1.07E+002
F	10	2326-	2345	2334.08	583.52	1.38	1.48E+002	27.78	9.20E+001
F	11	2430-	2448	2438.37	609.59	1.35	1.58E+002	28.24	8.51E+001
F	12	2904-	2917	2910.75	727.70	1.19	3.67E+001	18.51	5.98E+001
F	13	3639-	3656	3647.93	912.01	1.65	1.48E+002	26.00	3.83E+001
F	14	3871-	3886	3878.93	969.76	1.28	7.09E+001	20.92	5.15E+001
F	15	4479-	4493	4485.08	1121.32	1.17	4.34E+001	17.35	3.92E+001
F	16	5834-	5864	5849.82	1462.53	1.99	9.63E+002	61.03	3.52E+001
F	17	7060-	7077	7067.85	1767.06	2.17	5.65E+001	15.30	1.96E+000

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	1.000	511.00*	100.00	2.24789E-001	4.96067E-002
K-40	0.916	1460.81*	10.67	1.66657E+001	1.71349E+000
TL-208	0.749	277.35	6.80		
		510.84*	21.60	1.04069E+000	2.44882E-001
		583.14*	84.20	2.57681E-001	5.89607E-002
		860.37	12.46		
Bi-212	0.992	727.17*	11.80	4.86531E-001	2.51702E-001
Pb-212	0.843	74.81* @	10.70	1.31978E+001	2.83469E+000
		77.11* @	18.00	1.63357E+000	5.78910E-001
		87.30 @	8.00		
		238.63*	44.60	6.90213E-001	1.54100E-001
Bi-214	0.953	609.31*	46.30	5.07478E-001	1.10344E-001
		1120.29*	15.10	4.99708E-001	2.06506E-001
		1764.49*	15.80	6.85631E-001	1.97944E-001
PB-214	0.762	74.82* @	6.21	2.27402E+001	5.15567E+000
		77.11* @	10.50	2.80041E+000	1.01421E+000
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	4.25112E-001	1.85000E-001
		351.92*	37.20	4.77184E-001	1.30658E-001
Ac-228	0.983	338.32*	11.40	6.79710E-001	2.95196E-001
		911.07*	27.70	8.73079E-001	1.83575E-001
		969.11*	16.60	7.12069E-001	2.22896E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		1.000	1.691296E-001	5.118329E-002
K-40		0.916	1.666573E+001	1.713487E+000
TL-208		0.749	2.576805E-001	5.835961E-002
Bi-212		0.992	4.865311E-001	2.517023E-001
Pb-212	@	0.843	6.902127E-001	1.541002E-001
Bi-214		0.953	5.407699E-001	8.733661E-002
PB-214	@	0.762	4.598546E-001	1.067246E-001
Ac-228		0.983	7.839786E-001	1.277470E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.85	7.0482E-001	15.73
F 4	84.85	3.6464E-001	29.70

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Co-60	1173.22	100.00	1.0334E-001	7.65E-002	-4.3298E-002
	1332.49	100.00	7.6465E-002		3.9908E-002
Nb-94	702.63	100.00	1.0316E-001	9.23E-002	1.3588E-002
	871.10	100.00	9.2346E-002		3.4448E-002
Ag-108m	79.20	7.10	5.8101E+000	1.27E-001	3.2611E-001
	433.93	89.90	1.2990E-001		-2.3353E-002
	614.37	90.40	1.5331E-001		-8.2703E-003
	722.95	90.50	1.2686E-001		1.9228E-002
Sb-125	176.33	6.89	2.3906E+000	3.79E-001	-1.9374E-001
	427.89	29.33	3.7862E-001		1.8973E-001
	463.38	10.35	1.1581E+000		1.3381E-001
	600.56	17.80	6.4081E-001		6.4890E-001
	606.64	5.02	2.8022E+000		3.0714E+000
	635.90	11.32	9.1964E-001		8.0820E-001
Cs-134	563.23	8.38	1.2677E+000	1.24E-001	5.6536E-001
	569.32	15.43	6.7920E-001		-8.4220E-001
	604.70	97.60	1.4434E-001		-1.5156E-002
	795.84	85.40	1.2424E-001		4.2923E-002
	801.93	8.73	1.1699E+000		-1.4087E+000
Cs-137	661.65	85.12	1.2654E-001	1.27E-001	9.5105E-002
Eu-152	121.78	28.40	8.2187E-001	3.29E-001	9.2774E-002
	244.69	7.49	1.9942E+000		-1.5930E+000
	344.27	26.50	4.7587E-001		1.3499E-001
	778.89	12.74	7.6557E-001		-6.1732E-001
	867.32	4.16	2.3460E+000		-8.2365E-001
	964.01	14.40	8.6608E-001		-5.5616E-002
	1085.78	10.00	9.5621E-001		-9.6553E-001
	1112.02	13.30	7.6277E-001		2.6558E-001
	1407.95	20.70	3.2943E-001		2.7528E-001
Eu-154	123.07	40.50	5.6843E-001	2.60E-001	-1.6163E-001
	247.94	6.60	2.1661E+000		-1.5470E+000
	591.81	4.83	2.0897E+000		-2.4082E+000
	723.30	19.70	5.8404E-001		0.0000E+000
	756.87	4.33	2.4860E+000		-2.2329E-001
	873.19	11.50	7.8345E-001		-5.6003E-002
	996.32	10.30	9.7663E-001		-3.8117E-001
	1004.76	17.90	5.2066E-001		-3.3516E-001
	1274.45	35.50	2.6025E-001		-6.0257E-002
Eu-155	86.54	30.90	1.1605E+000	1.16E+000	2.7707E-001
	105.31	20.70	1.3148E+000		-5.1878E-001
Am-241	59.54	35.90	1.4597E+000	1.46E+000	-1.8896E-001
Cm-243	228.19	10.56	1.4431E+000	9.90E-001	-1.4620E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	9.9037E-001	9.90E-001	2.4605E-001

+ = 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

Report Generated On 12/8/2005 4:04:45 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: RED6264

Spectrum File: RED6264
Sample ID:
Sample Title: NOL-05-02-119-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/8/2005 3:54:43 PM
Live Time: 600.0 seconds
Real Time: 601.2 seconds

Energy Calibration Date: 6/13/2005
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number:
Title: NOL-05-02-119-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	284-	305	291.98	72.95	0.99	4.91E+002	72.76	1.77E+003
m	2	284-	305	300.36	75.05	0.99	8.23E+002	84.72	1.74E+003
M	3	334-	355	339.65	84.87	1.17	3.42E+002	68.43	1.42E+003
m	4	334-	355	349.85	87.42	1.17	1.74E+002	62.86	1.76E+003
F	5	945-	962	955.11	238.75	0.97	2.63E+002	43.26	4.42E+002
F	6	1174-	1187	1181.19	295.27	1.21	6.21E+001	27.08	1.82E+002
F	7	1347-	1361	1353.58	338.37	0.78	7.14E+001	24.37	1.53E+002
F	8	1398-	1417	1407.63	351.89	1.62	1.64E+002	30.65	1.78E+002
F	9	2034-	2056	2044.44	511.10	1.89	1.46E+002	27.94	1.41E+002
F	10	2324-	2343	2333.20	583.30	1.49	1.77E+002	29.24	9.03E+001
F	11	2430-	2448	2438.27	609.57	1.33	1.45E+002	27.83	9.06E+001
F	12	3440-	3451	3444.70	861.20	0.52	1.98E+001	12.02	3.63E+001
F	13	3637-	3655	3646.35	911.61	1.45	1.30E+002	25.05	4.72E+001
F	14	3869-	3886	3878.66	969.70	1.33	6.92E+001	20.94	5.85E+001
F	15	4478-	4492	4484.52	1121.18	1.10	4.00E+001	16.36	3.33E+001
F	16	5836-	5863	5849.37	1462.42	2.02	9.31E+002	59.83	3.47E+001
F	17	7060-	7073	7066.76	1766.79	2.18	2.85E+001	11.96	6.69E+000

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	1.000	511.00*	100.00	2.05588E-001	4.81840E-002
K-40	0.926	1460.81*	10.67	1.61047E+001	1.66491E+000
Eu-155	0.319	86.54*	30.90	7.22158E-001	2.96791E-001
		105.31	20.70		
TL-208	0.900	277.35	6.80		
		510.84*	21.60	9.51798E-001	2.36229E-001
		583.14*	84.20	3.08769E-001	6.49670E-002
		860.37*	12.46	2.56964E-001	1.59142E-001
Pb-212	0.677	74.81* @	10.70	1.22004E+001	2.70069E+000
		77.11 @	18.00		
		87.30* @	8.00	2.78933E+000	1.14635E+000
		238.63*	44.60	6.60395E-001	1.50057E-001
Bi-214	0.963	609.31*	46.30	4.67563E-001	1.06549E-001
		1120.29*	15.10	4.60543E-001	1.94403E-001
		1764.49*	15.80	3.45404E-001	1.49231E-001
PB-214	0.670	74.82* @	6.21	2.10217E+001	4.89720E+000
		77.11 @	10.50		
		87.30* @	4.67	4.77830E+000	1.99668E+000
		241.98	7.49		
		295.21*	19.20	3.84815E-001	1.79822E-001
		351.92*	37.20	5.50847E-001	1.38157E-001
Ac-228	0.993	338.32*	11.40	7.74337E-001	2.90838E-001
		911.07*	27.70	7.68844E-001	1.72520E-001
		969.11*	16.60	6.95193E-001	2.22515E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		1.000	1.404636E-001	4.986925E-002
K-40		0.926	1.610465E+001	1.664911E+000
Eu-155		0.319	4.770259E-001	2.997620E-001
TL-208		0.900	3.015033E-001	5.951246E-002
Pb-212	@	0.677	6.603952E-001	1.500569E-001
Bi-214		0.963	4.319958E-001	7.919344E-002
PB-214	@	0.670	4.906672E-001	1.073269E-001
Ac-228		0.993	7.471641E-001	1.234499E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.95	8.1820E-001	14.82
M 3	84.87	5.7077E-001	19.98

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
	Co-60	1173.22	100.00	1.0402E-001	7.29E-002	4.4544E-002
		1332.49	100.00	7.2897E-002		4.4505E-002
	Nb-94	702.63	100.00	1.0343E-001	9.01E-002	5.6617E-002
		871.10	100.00	9.0053E-002		-7.9989E-002
	Ag-108m	79.20	7.10	6.2353E+000	1.20E-001	-1.4157E+001
		433.93	89.90	1.2007E-001		-1.0521E-001
		614.37	90.40	1.4784E-001		-3.9548E-002
		722.95	90.50	1.2229E-001		1.0893E-001
	Sb-125	176.33	6.89	2.5691E+000	3.70E-001	-1.8076E+000
		427.89	29.33	3.7006E-001		2.2697E-003
		463.38	10.35	1.0694E+000		2.5412E-001
		600.56	17.80	5.5304E-001		-2.9538E-001
		606.64	5.02	2.6325E+000		4.1712E+000
		635.90	11.32	8.8848E-001		-1.8868E-001
	Cs-134	563.23	8.38	1.2048E+000	1.19E-001	6.0684E-002
		569.32	15.43	6.7326E-001		1.3702E-001
		604.70	97.60	1.3255E-001		2.0267E-002
		795.84	85.40	1.1908E-001		-1.0526E-002
		801.93	8.73	1.1339E+000		-1.0824E+000
	Cs-137	661.65	85.12	1.2362E-001	1.24E-001	-7.5189E-003
	Eu-152	121.78	28.40	8.8152E-001	3.46E-001	3.2593E-001
		244.69	7.49	2.0535E+000		1.5099E-002
		344.27	26.50	4.5270E-001		-1.8444E-003
		778.89	12.74	7.4468E-001		-5.3768E-001
		867.32	4.16	2.3240E+000		-3.2565E-001
		964.01	14.40	8.3430E-001		2.6442E-001
		1085.78	10.00	9.3480E-001		1.0487E+000
		1112.02	13.30	7.3443E-001		3.9367E-001
		1407.95	20.70	3.4566E-001		9.8978E-002
	Eu-154	123.07	40.50	6.1203E-001	2.44E-001	-3.0720E-002
		247.94	6.60	2.1706E+000		-3.8687E+000
		591.81	4.83	2.1148E+000		-1.6067E+000
		723.30	19.70	5.5555E-001		3.5696E-001
		756.87	4.33	2.1713E+000		-7.1298E-002
		873.19	11.50	7.9776E-001		4.5314E-001
		996.32	10.30	8.2173E-001		-2.2729E-001
		1004.76	17.90	4.7397E-001		-7.2504E-002
		1274.45	35.50	2.4403E-001		-2.8844E-002
+	Eu-155	86.54*	30.90	8.2203E-001	8.22E-001	7.2216E-001
		105.31	20.70	1.3949E+000		-1.0409E+000
	Am-241	59.54	35.90	1.5790E+000	1.58E+000	9.2411E-001
	Cm-243	228.19	10.56	1.4556E+000	9.63E-001	-1.8164E-002

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	9.6270E-001	9.63E-001	-3.6202E-001

+ = 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

Report Generated On 12/8/2005 4:21:05 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: RED6264

Spectrum File: RED6264
Sample ID:
Sample Title: NOL-05-02-120-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/8/2005 4:11:02 PM
Live Time: 600.0 seconds
Real Time: 601.2 seconds

Energy Calibration Date: 6/13/2005
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number:
Title: NOL-05-02-120-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	274-	309	291.80	72.91	1.03	4.72E+002	72.65	1.82E+003
m	2	274-	309	300.49	75.08	1.03	9.65E+002	87.22	1.95E+003
F	3	331-	345	339.54	84.85	1.07	2.16E+002	73.33	2.05E+003
F	4	944-	962	955.03	238.73	0.98	2.70E+002	43.17	4.61E+002
F	5	1344-	1360	1353.67	338.40	1.01	5.51E+001	24.49	1.78E+002
F	6	1400-	1419	1408.27	352.05	1.35	1.47E+002	29.04	1.56E+002
F	7	2032-	2056	2044.67	511.16	2.04	1.62E+002	27.70	1.24E+002
F	8	2323-	2344	2333.71	583.43	1.48	1.78E+002	29.06	9.10E+001
F	9	2432-	2447	2438.08	609.52	1.36	1.40E+002	27.33	7.43E+001
F	10	2905-	2917	2909.77	727.45	0.74	2.61E+001	14.59	4.72E+001
F	11	3637-	3657	3647.46	911.89	1.55	1.47E+002	25.04	2.89E+001
F	12	3869-	3886	3877.60	969.43	1.58	1.08E+002	22.90	3.32E+001
F	13	5508-	5521	5514.71	1378.74	0.92	1.48E+001	8.17	3.29E+000
F	14	5834-	5862	5848.94	1462.31	2.01	9.64E+002	60.86	2.53E+001
F	15	7061-	7074	7067.82	1767.05	1.78	3.02E+001	12.88	8.61E+000

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	0.999	511.00*	100.00	2.28408E-001	4.97691E-002
K-40	0.935	1460.81*	10.67	1.66754E+001	1.71232E+000
TL-208	0.750	277.35	6.80		
		510.84*	21.60	1.05745E+000	2.46064E-001
		583.14*	84.20	3.10179E-001	6.48331E-002
		860.37	12.46		
Bi-212	0.998	727.17*	11.80	3.45944E-001	1.97390E-001
Pb-212	0.521	74.81* @	10.70	1.42901E+001	3.08431E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	6.76869E-001	1.51685E-001
Bi-214	0.658	609.31*	46.30	4.50234E-001	1.04034E-001
		1120.29	15.10		
		1764.49*	15.80	3.66685E-001	1.60485E-001
Ac-228	0.989	338.32*	11.40	5.97012E-001	2.81535E-001
		911.07*	27.70	8.71849E-001	1.78781E-001
		969.11*	16.60	1.08726E+000	2.56594E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		0.999	1.614095E-001	5.165562E-002
K-40		0.935	1.667545E+001	1.712323E+000
TL-208		0.750	3.101794E-001	6.404019E-002
Bi-212		0.998	3.459445E-001	1.973902E-001
Pb-212	@	0.521	6.768694E-001	1.516853E-001
Bi-214		0.658	4.255127E-001	8.729653E-002
Ac-228		0.989	8.685366E-001	1.300885E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.91	7.8630E-001	15.40
F 3	84.85	3.5947E-001	34.00
F 6	352.05	2.4550E-001	19.72
F 13	1378.74	2.4652E-002	55.25

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Co-60	1173.22	100.00	1.0128E-001	6.51E-002	8.7164E-002
	1332.49	100.00	6.5131E-002		-1.0875E-002
Nb-94	702.63	100.00	9.8031E-002	8.91E-002	-3.0932E-002
	871.10	100.00	8.9051E-002		7.6615E-003
Ag-108m	79.20	7.10	6.5912E+000	1.17E-001	-3.8353E+000
	433.93	89.90	1.2270E-001		8.8593E-002
	614.37	90.40	1.4784E-001		4.5383E-002
	722.95	90.50	1.1698E-001		-1.7121E-002
Sb-125	176.33	6.89	2.6954E+000	3.54E-001	-2.6353E+000
	427.89	29.33	3.5358E-001		-1.5610E-001
	463.38	10.35	1.0712E+000		5.8662E-001
	600.56	17.80	5.5020E-001		-1.4336E-001
	606.64	5.02	2.5721E+000		2.1058E+000
	635.90	11.32	8.8393E-001		2.1721E-001
Cs-134	563.23	8.38	1.1705E+000	1.16E-001	-5.5089E-001
	569.32	15.43	6.5356E-001		7.2854E-002
	604.70	97.60	1.3176E-001		-1.3444E-001
	795.84	85.40	1.1607E-001		9.1774E-002
	801.93	8.73	1.0617E+000		-1.6183E+000
Cs-137	661.65	85.12	1.2362E-001	1.24E-001	1.1859E-001
Eu-152	121.78	28.40	9.0504E-001	3.38E-001	-3.4868E-001
	244.69	7.49	1.9954E+000		-2.1135E+000
	344.27	26.50	4.5324E-001		2.7220E-001
	778.89	12.74	7.0096E-001		-1.1927E+000
	867.32	4.16	2.2640E+000		-2.1671E+000
	964.01	14.40	8.5738E-001		-2.8531E-001
	1085.78	10.00	8.9416E-001		-8.0456E-002
	1112.02	13.30	6.2616E-001		-5.5343E-001
	1407.95	20.70	3.3765E-001		-1.3585E-002
Eu-154	123.07	40.50	6.3058E-001	2.34E-001	5.2104E-001
	247.94	6.60	2.1601E+000		-2.7470E+000
	591.81	4.83	1.9915E+000		-5.9227E-001
	723.30	19.70	5.3875E-001		-6.8664E-002
	756.87	4.33	2.1575E+000		-3.9885E-001
	873.19	11.50	7.6886E-001		-6.8136E-001
	996.32	10.30	8.6496E-001		-6.6270E-001
	1004.76	17.90	4.6968E-001		2.2107E-001
	1274.45	35.50	2.3422E-001		-2.2216E-001
Eu-155	86.54	30.90	1.2967E+000	1.30E+000	4.6515E-001
	105.31	20.70	1.4641E+000		6.5743E-001
Am-241	59.54	35.90	1.6353E+000	1.64E+000	3.0467E-001
Cm-243	228.19	10.56	1.4803E+000	9.88E-001	-1.7515E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	9.8803E-001	9.88E-001	8.0316E-001

+ = 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

Report Generated On 12/6/2005 8:15:43 AM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: RED6264

Spectrum File: RED6264
Sample ID:
Sample Title: NOL-05-02-121-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/6/2005 8:05:39 AM
Live Time: 600.0 seconds
Real Time: 601.3 seconds

Energy Calibration Date: 6/13/2005
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number:
Title: NOL-05-02-121-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	283-	316	291.79	72.91	1.02	5.33E+002	74.44	1.81E+003
m	2	283-	316	300.40	75.06	1.03	1.03E+003	87.96	1.96E+003
m	3	283-	316	309.78	77.40	1.03	1.30E+002	64.04	1.86E+003
M	4	333-	355	339.78	84.90	1.15	3.97E+002	73.87	1.77E+003
m	5	333-	355	349.72	87.39	1.15	1.75E+002	65.68	1.99E+003
F	6	948-	962	954.33	238.55	0.92	2.64E+002	45.00	4.33E+002
F	7	1175-	1185	1180.11	295.00	1.28	6.81E+001	29.08	1.66E+002
F	8	1348-	1359	1352.42	338.08	0.97	6.30E+001	27.22	1.64E+002
F	9	1400-	1414	1406.45	351.59	1.08	1.46E+002	31.41	1.72E+002
F	10	2031-	2053	2041.95	510.48	1.56	1.42E+002	28.74	1.61E+002
F	11	2322-	2342	2331.75	582.94	1.42	2.13E+002	32.01	1.11E+002
F	12	2425-	2445	2435.46	608.87	1.44	1.67E+002	28.81	8.93E+001
F	13	2640-	2653	2646.30	661.58	1.14	3.59E+001	18.15	6.03E+001
F	14	2900-	2914	2908.15	727.05	1.06	2.94E+001	17.66	6.75E+001
F	15	3635-	3654	3644.31	911.10	1.77	1.41E+002	25.82	5.20E+001
F	16	3867-	3884	3873.82	968.49	1.57	1.07E+002	24.10	5.33E+001
F	17	4685-	4700	4692.41	1173.15	1.71	4.13E+001	17.01	3.33E+001
F	18	5323-	5339	5331.40	1332.91	1.99	3.78E+001	15.37	2.29E+001
F	19	5829-	5858	5843.61	1460.98	2.06	9.98E+002	61.32	1.90E+001
F	20	7053-	7066	7058.33	1764.68	1.78	2.37E+001	11.98	1.30E+001

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	0.992	511.00*	100.00	2.00305E-001	4.87008E-002
K-40	0.999	1460.81*	10.67	1.72740E+001	1.75545E+000
Co-60	0.997	1173.22*	100.00	7.26374E-002	3.04632E-002
		1332.49*	100.00	6.84619E-002	2.83795E-002
Cs-137	1.000	661.65*	85.12	6.45973E-002	3.35405E-002
Eu-155	0.320	86.54*	30.90	7.27056E-001	3.07683E-001
		105.31	20.70		
TL-208	0.750	277.35	6.80		
		510.84*	21.60	9.27339E-001	2.37846E-001
		583.14*	84.20	3.72028E-001	7.39402E-002
		860.37	12.46		
Bi-212	1.000	727.17*	11.80	3.88914E-001	2.38246E-001
Pb-212	0.999	74.81* @	10.70	1.52665E+001	3.26361E+000
		77.11* @	18.00	1.09641E+000	5.81431E-001
		87.30* @	8.00	2.80825E+000	1.18843E+000
		238.63*	44.60	6.63132E-001	1.53519E-001
Bi-214	0.695	609.31*	46.30	5.38716E-001	1.14069E-001
		1120.29	15.10		
		1764.49*	15.80	2.87612E-001	1.48209E-001
PB-214	0.848	74.82* @	6.21	2.63045E+001	5.93866E+000
		77.11* @	10.50	1.87955E+000	1.00657E+000
		87.30* @	4.67	4.81071E+000	2.06803E+000
		241.98	7.49		
		295.21*	19.20	4.21910E-001	1.93595E-001
		351.92*	37.20	4.90585E-001	1.33627E-001
Ac-228	0.996	338.32*	11.40	6.82479E-001	3.13918E-001
		911.07*	27.70	8.30844E-001	1.80142E-001
		969.11*	16.60	1.07545E+000	2.66966E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		0.992	1.199473E-001	5.118583E-002
K-40		0.999	1.727397E+001	1.755448E+000
Co-60		0.997	7.040196E-002	2.076492E-002
Cs-137		1.000	6.459726E-002	3.354046E-002
Eu-155		0.320	4.845130E-001	3.106682E-001
TL-208		0.750	3.720276E-001	7.293942E-002
Bi-212		1.000	3.889139E-001	2.382460E-001
Pb-212	@	0.999	6.631318E-001	1.535190E-001
Bi-214		0.695	4.453048E-001	9.039557E-002
PB-214	@	0.848	4.688480E-001	1.079432E-001
Ac-228		0.996	8.658739E-001	1.348472E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.91	8.8851E-001	13.96
M 4	84.90	6.6125E-001	18.62

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
+	Co-60	1173.22*	100.00	6.2683E-002	5.54E-002	7.2637E-002
		1332.49*	100.00	5.5427E-002		6.8462E-002
	Nb-94	702.63	100.00	1.0754E-001	9.92E-002	1.2798E-001
		871.10	100.00	9.9194E-002		5.9628E-002
	Ag-108m	79.20	7.10	6.5869E+000	1.22E-001	1.7083E+000
		433.93	89.90	1.3778E-001		4.1611E-002
		614.37	90.40	1.4575E-001		-1.3313E-002
		722.95	90.50	1.2229E-001		8.3102E-003
	Sb-125	176.33	6.89	2.7376E+000	3.82E-001	-1.3636E+000
		427.89	29.33	3.8223E-001		-2.4616E-001
		463.38	10.35	1.1730E+000		6.2314E-001
		600.56	17.80	6.1597E-001		7.5212E-001
		606.64	5.02	2.7952E+000		5.0958E+000
		635.90	11.32	9.3697E-001		1.4082E-001
	Cs-134	563.23	8.38	1.2757E+000	1.29E-001	-1.0339E+000
		569.32	15.43	7.2630E-001		4.2729E-002
		604.70	97.60	1.4470E-001		4.6658E-002
		795.84	85.40	1.2948E-001		1.7050E-001
		801.93	8.73	1.2048E+000		-7.4598E-001
+	Cs-137	661.65*	85.12	8.1302E-002	8.13E-002	6.4597E-002
	Eu-152	121.78	28.40	9.2621E-001	3.35E-001	-2.2411E-001
		244.69	7.49	2.1891E+000		-7.4785E-001
		344.27	26.50	5.0136E-001		2.3921E-001
		778.89	12.74	8.2067E-001		-3.1817E-001
		867.32	4.16	2.3165E+000		-3.0779E+000
		964.01	14.40	9.5801E-001		7.0239E-002
		1085.78	10.00	9.9081E-001		3.7819E-001
		1112.02	13.30	7.9731E-001		-1.0602E+000
		1407.95	20.70	3.3494E-001		-3.1385E-001
	Eu-154	123.07	40.50	6.3879E-001	2.49E-001	-3.6046E-001
		247.94	6.60	2.2986E+000		-3.8032E+000
		591.81	4.83	2.1737E+000		-1.1279E+000
		723.30	19.70	5.6687E-001		3.0794E-001
		756.87	4.33	2.3052E+000		-2.6210E+000
		873.19	11.50	8.3104E-001		-7.3037E-001
		996.32	10.30	9.7663E-001		8.6244E-001
		1004.76	17.90	5.1089E-001		-3.9861E-001
		1274.45	35.50	2.4878E-001		-1.4613E-001
+	Eu-155	86.54*	30.90	8.7383E-001	8.74E-001	7.2706E-001
		105.31	20.70	1.4688E+000		-1.2527E+000
	Am-241	59.54	35.90	1.6181E+000	1.62E+000	-1.6234E+000
	Cm-243	228.19	10.56	1.6033E+000	1.06E+000	-3.9346E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	1.0589E+000	1.06E+000	4.8637E-001

+ = 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

Report Generated On 12/6/2005 4:05:23 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: RED6264

Spectrum File: C:\GENIE2K\CAMFILES\NOL-05-02-122-F-G.CNF
Sample ID:
Sample Title: NOL-05-02-122-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/6/2005 8:19:21 AM
Live Time: 600.0 seconds
Real Time: 601.4 seconds

Energy Calibration Date: 6/13/2005
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: C:\GENIE2K\CAMFILES\NOL-05-02-122-F-G.CNF
Log Number:
Title: NOL-05-02-122-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	284-	314	291.76	72.90	1.13	5.35E+002	74.30	1.82E+003
m	2	284-	314	300.13	74.99	1.13	1.09E+003	86.99	1.96E+003
m	3	284-	314	309.24	77.27	1.14	1.29E+002	63.95	1.85E+003
M	4	331-	353	339.86	84.92	1.15	4.05E+002	163.62	1.89E+003
m	5	331-	353	349.21	87.26	1.15	1.94E+002	87.65	2.44E+003
F	6	948-	962	954.36	238.56	1.34	3.19E+002	45.08	3.86E+002
F	7	1177-	1188	1181.88	295.45	1.39	7.47E+001	29.85	2.12E+002
F	8	1342-	1359	1352.86	338.20	1.43	1.02E+002	73.48	2.47E+002
F	9	1397-	1413	1406.08	351.50	1.44	1.63E+002	32.00	2.06E+002
F	10	2034-	2054	2043.77	510.94	2.33	1.35E+002	28.45	1.60E+002
F	11	2323-	2343	2331.83	582.96	1.60	1.86E+002	30.22	1.00E+002
F	12	2429-	2444	2436.10	609.03	1.62	1.57E+002	29.15	9.08E+001
F	13	2635-	2655	2644.08	661.03	1.65	1.05E+002	60.97	7.59E+001
F	14	2900-	2917	2907.41	726.86	1.69	4.30E+001	18.74	7.40E+001
F	15	3636-	3653	3644.07	911.04	1.79	1.64E+002	69.96	5.44E+001
F	16	3866-	3883	3875.53	968.91	1.81	8.70E+001	23.30	7.23E+001
F	17	5323-	5337	5330.23	1332.62	1.98	3.97E+001	15.51	2.35E+001
F	18	5829-	5858	5843.98	1461.07	2.03	1.27E+003	113.38	2.61E+001

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File: C:\GENIE2K\CAMFILES\NOL-05-02-122-F-G.CNF

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	1.000	511.00*	100.00	2.09284E-001	4.85753E-002
K-40	0.998	1460.81*	10.67	2.41775E+001	2.60996E+000
Cs-137	0.988	661.65*	85.12	2.05872E-001	1.21388E-001
Eu-155	0.322	86.54*	30.90	8.76954E-001	4.20465E-001
		105.31	20.70		
TL-208	0.751	277.35	6.80		
		510.84*	21.60	9.68909E-001	2.38401E-001
		583.14*	84.20	3.56759E-001	6.78121E-002
		860.37	12.46		
Bi-212	0.997	727.17*	11.80	6.27885E-001	2.78215E-001
Pb-212	1.000	74.81* @	10.70	1.68355E+001	2.97731E+000
		77.11* @	18.00	1.14112E+000	5.93588E-001
		87.30* @	8.00	3.38723E+000	1.62405E+000
		238.63*	44.60	8.55280E-001	1.76350E-001
Bi-214	0.397	609.31*	46.30	5.54807E-001	1.14853E-001
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.847	74.82* @	6.21	2.90080E+001	5.54536E+000
		77.11* @	10.50	1.95620E+000	1.02801E+000
		87.30* @	4.67	5.80254E+000	2.81642E+000
		241.98	7.49		
		295.21*	19.20	4.97432E-001	2.12820E-001
		351.92*	37.20	5.94507E-001	1.42702E-001
Ac-228	1.000	338.32*	11.40	1.20096E+000	8.76918E-001
		911.07*	27.70	1.08001E+000	4.65967E-001
		969.11*	16.60	9.70790E-001	2.65953E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File:C:\GENIE2K\CAMFILES\NOL-05-02-122-F-G.CNF

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		1.000	1.322244E-001	5.067350E-002
K-40		0.998	2.417751E+001	2.609959E+000
Cs-137		0.988	2.058716E-001	1.213882E-001
Eu-155		0.322	5.701003E-001	4.232981E-001
TL-208		0.751	3.567587E-001	6.680799E-002
Bi-212		0.997	6.278847E-001	2.782154E-001
Pb-212	@	1.000	8.552802E-001	1.763505E-001
Bi-214		0.397	5.548073E-001	1.148531E-001
PB-214	@	0.847	5.652098E-001	1.157112E-001
Ac-228		1.000	1.010819E+000	2.233604E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.90	8.9224E-001	13.88
M 4	84.92	6.7519E-001	40.39
F 17	1332.62	6.6098E-002	39.10

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:C:\GENIE2K\CAMFILES\NOL-05-02-122-F-G.CNF
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
	Co-60	1173.22	100.00	1.2426E-001	1.09E-001	6.7037E-002
		1332.49	100.00	1.0874E-001		1.1162E-001
	Nb-94	702.63	100.00	1.1739E-001	1.15E-001	4.9202E-002
		871.10	100.00	1.1505E-001		1.0034E-001
	Ag-108m	79.20	7.10	6.6674E+000	1.44E-001	-2.2921E+000
		433.93	89.90	1.5803E-001		3.9375E-002
		614.37	90.40	1.7283E-001		2.8384E-003
		722.95	90.50	1.4432E-001		-6.6609E-002
	Sb-125	176.33	6.89	3.0131E+000	4.74E-001	6.9255E-001
		427.89	29.33	4.7399E-001		4.4957E-001
		463.38	10.35	1.4157E+000		7.5220E-002
		600.56	17.80	7.1363E-001		3.4848E-001
		606.64	5.02	3.2123E+000		4.6372E+000
		635.90	11.32	1.1054E+000		-3.6477E-001
	Cs-134	563.23	8.38	1.4692E+000	1.44E-001	-1.1474E-001
		569.32	15.43	7.7139E-001		5.3134E-001
		604.70	97.60	1.6354E-001		-6.1280E-003
		795.84	85.40	1.4421E-001		7.3384E-002
		801.93	8.73	1.3771E+000		-8.3872E-002
+	Cs-137	661.65*	85.12	1.1298E-001	1.13E-001	2.0587E-001
	Eu-152	121.78	28.40	1.0175E+000	3.82E-001	-3.4672E-001
		244.69	7.49	2.3235E+000		2.7383E-002
		344.27	26.50	5.5793E-001		2.2151E-001
		778.89	12.74	9.7445E-001		-1.0912E+000
		867.32	4.16	2.7084E+000		-2.4136E+000
		964.01	14.40	1.0061E+000		3.6984E-001
		1085.78	10.00	1.1704E+000		1.0754E-001
		1112.02	13.30	9.2340E-001		-7.1360E-001
		1407.95	20.70	3.8202E-001		3.8755E-001
	Eu-154	123.07	40.50	7.0379E-001	3.03E-001	-1.9501E-001
		247.94	6.60	2.5719E+000		-1.4107E+000
		591.81	4.83	2.5594E+000		-1.0970E+000
		723.30	19.70	6.6566E-001		-2.1818E-002
		756.87	4.33	2.8579E+000		1.6005E+000
		873.19	11.50	9.6412E-001		6.2763E-001
		996.32	10.30	1.0456E+000		1.1263E-001
		1004.76	17.90	6.0077E-001		-6.2153E-002
		1274.45	35.50	3.0344E-001		9.8697E-003
+	Eu-155	86.54*	30.90	1.0513E+000	1.05E+000	8.7695E-001
		105.31	20.70	1.5647E+000		9.4724E-001
	Am-241	59.54	35.90	1.7679E+000	1.77E+000	3.4624E-002
	Cm-243	228.19	10.56	1.7377E+000	1.16E+000	-4.0528E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	1.1611E+000	1.16E+000	1.8544E-001

+ = 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

Report Generated On 12/6/2005 9:56:39 AM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: RED6264

Spectrum File: RED6264
Sample ID:
Sample Title: NOL-05-02-123-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/6/2005 9:46:36 AM
Live Time: 600.0 seconds
Real Time: 601.3 seconds

Energy Calibration Date: 6/13/2005
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number:
Title: NOL-05-02-123-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	286-	306	291.78	72.90	0.93	4.89E+002	71.01	1.44E+003
m	2	286-	306	300.17	75.00	0.93	8.07E+002	83.76	1.72E+003
F	3	330-	345	339.55	84.85	1.14	2.65E+002	70.22	1.87E+003
F	4	950-	964	954.46	238.59	1.02	2.61E+002	44.77	4.33E+002
F	5	1173-	1187	1180.14	295.01	1.24	6.96E+001	29.20	2.31E+002
F	6	1346-	1360	1352.34	338.06	1.09	6.40E+001	26.54	1.82E+002
F	7	1401-	1416	1407.50	351.86	1.03	1.27E+002	30.78	1.99E+002
F	8	2033-	2053	2042.26	510.56	1.71	1.17E+002	28.02	1.71E+002
F	9	2323-	2340	2332.08	583.02	1.57	1.82E+002	30.58	1.04E+002
F	10	2428-	2446	2436.83	609.21	1.43	1.60E+002	29.11	1.03E+002
F	11	3437-	3451	3444.02	861.03	1.33	3.02E+001	16.87	4.81E+001
F	12	3636-	3655	3645.22	911.33	1.75	1.27E+002	24.98	5.50E+001
M	13	3853-	3885	3858.81	964.73	1.45	2.29E+001	14.14	3.64E+001
m	14	3853-	3885	3876.99	969.28	1.45	8.41E+001	21.92	5.51E+001
F	15	4684-	4703	4695.35	1173.89	2.13	7.49E+001	21.84	6.78E+001
F	16	5324-	5339	5332.41	1333.16	1.50	4.03E+001	16.65	3.00E+001
F	17	5829-	5859	5845.72	1461.50	2.04	1.35E+003	71.08	1.24E+001
F	18	7058-	7071	7064.56	1766.24	1.29	2.57E+001	11.77	9.28E+000

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	0.994	511.00*	100.00	1.65005E-001	4.53186E-002
K-40	0.986	1460.81*	10.67	2.32995E+001	2.25192E+000
Co-60	0.987	1173.22*	100.00	1.31784E-001	3.97937E-002
		1332.49*	100.00	7.31311E-002	3.07218E-002
TL-208	0.901	277.35	6.80		
		510.84*	21.60	7.63913E-001	2.18887E-001
		583.14*	84.20	3.18019E-001	6.75482E-002
		860.37*	12.46	3.92188E-001	2.24123E-001
Pb-212	0.521	74.81* @	10.70	1.19614E+001	2.65312E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	6.55707E-001	1.52307E-001
Bi-214	0.680	609.31*	46.30	5.15142E-001	1.13192E-001
		1120.29	15.10		
		1764.49*	15.80	3.11637E-001	1.46153E-001
PB-214	0.582	74.82* @	6.21	2.06097E+001	4.80999E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	4.30924E-001	1.94829E-001
		351.92*	37.20	4.26783E-001	1.25650E-001
Ac-228	0.998	338.32*	11.40	6.94197E-001	3.07589E-001
		911.07*	27.70	7.49672E-001	1.71027E-001
		969.11*	16.60	8.44552E-001	2.37195E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		0.994	9.500388E-002	4.737780E-002
K-40		0.986	2.329945E+001	2.251922E+000
Co-60		0.987	9.503458E-002	2.431793E-002
TL-208		0.901	3.240801E-001	6.396288E-002
Pb-212	@	0.521	6.557067E-001	1.523067E-001
Bi-214		0.680	4.388422E-001	8.949150E-002
PB-214	@	0.582	4.279995E-001	1.055945E-001
Ac-228		0.998	7.672642E-001	1.264590E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.90	8.1472E-001	14.53
F 3	84.85	4.4214E-001	26.47
M 13	964.73	3.8215E-002	61.65

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
+	Co-60	1173.22*	100.00	9.4175E-002	6.16E-002	1.3178E-001
		1332.49*	100.00	6.1569E-002		7.3131E-002
	Nb-94	702.63	100.00	1.1414E-001	1.09E-001	1.3507E-002
		871.10	100.00	1.0944E-001		5.0011E-003
	Ag-108m	79.20	7.10	6.1672E+000	1.29E-001	-5.3790E+000
		433.93	89.90	1.4199E-001		6.6851E-002
		614.37	90.40	1.5410E-001		4.5870E-002
		722.95	90.50	1.2895E-001		-1.0848E-002
	Sb-125	176.33	6.89	2.5347E+000	4.03E-001	-1.7746E+000
		427.89	29.33	4.0262E-001		-1.3298E-001
		463.38	10.35	1.1697E+000		-7.4829E-004
		600.56	17.80	6.3347E-001		4.2637E-002
		606.64	5.02	2.8679E+000		6.0536E+000
		635.90	11.32	9.9111E-001		-2.2744E-001
	Cs-134	563.23	8.38	1.4088E+000	1.26E-001	8.3299E-002
		569.32	15.43	7.4937E-001		7.7498E-003
		604.70	97.60	1.4523E-001		1.4487E-002
		795.84	85.40	1.2611E-001		2.4143E-002
		801.93	8.73	1.1954E+000		-1.4031E+000
	Cs-137	661.65	85.12	1.3490E-001	1.35E-001	1.3390E-002
	Eu-152	121.78	28.40	8.9567E-001	4.04E-001	-3.3021E-002
		244.69	7.49	2.1195E+000		-2.1614E+000
		344.27	26.50	4.8904E-001		2.4196E-002
		778.89	12.74	8.4991E-001		-6.2181E-002
		867.32	4.16	2.6672E+000		1.1949E-001
		964.01	14.40	9.0831E-001		-1.2962E-001
		1085.78	10.00	1.0969E+000		3.4136E-001
		1112.02	13.30	7.9247E-001		-6.1604E-001
		1407.95	20.70	4.0371E-001		8.4102E-002
	Eu-154	123.07	40.50	6.2225E-001	2.77E-001	1.2547E-001
		247.94	6.60	2.3378E+000		1.9697E-001
		591.81	4.83	2.4972E+000		1.1038E+000
		723.30	19.70	6.0186E-001		3.4984E-001
		756.87	4.33	2.6985E+000		1.5300E+000
		873.19	11.50	9.6847E-001		3.2493E-001
		996.32	10.30	1.0189E+000		2.1759E-001
		1004.76	17.90	5.8256E-001		-8.6768E-001
		1274.45	35.50	2.7653E-001		-1.6774E-001
	Eu-155	86.54	30.90	1.2404E+000	1.24E+000	5.0488E-001
		105.31	20.70	1.4073E+000		2.8820E-001
	Am-241	59.54	35.90	1.5499E+000	1.55E+000	-1.0011E+000
	Cm-243	228.19	10.56	1.4688E+000	1.09E+000	-7.5168E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	1.0897E+000	1.09E+000	9.6985E-001

+ = 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

Report Generated On 12/6/2005 10:22:24 AM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: RED6264

Spectrum File: RED6264
Sample ID:
Sample Title: NOL-05-02-124-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/6/2005 10:12:20 AM
Live Time: 600.0 seconds
Real Time: 601.2 seconds

Energy Calibration Date: 6/13/2005
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number:
Title: NOL-05-02-124-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	284-	306	292.25	73.02	0.90	3.48E+002	65.43	1.42E+003
m	2	284-	306	300.62	75.11	0.90	7.56E+002	80.44	1.58E+003
M	3	334-	359	339.03	84.72	1.13	3.73E+002	67.98	1.17E+003
m	4	334-	359	350.69	87.63	1.13	1.69E+002	58.39	1.52E+003
F	5	949-	961	954.84	238.68	1.09	3.01E+002	44.40	3.04E+002
F	6	1173-	1188	1180.65	295.14	1.07	1.01E+002	29.41	2.08E+002
F	7	1348-	1359	1353.92	338.46	0.82	5.40E+001	24.68	1.49E+002
F	8	1403-	1415	1408.04	351.99	1.19	1.02E+002	28.82	1.46E+002
F	9	2031-	2054	2043.74	510.93	2.23	1.55E+002	27.52	1.29E+002
F	10	2325-	2342	2332.87	583.22	1.24	1.51E+002	28.54	9.70E+001
F	11	2427-	2447	2437.29	609.32	1.33	1.47E+002	27.18	8.62E+001
F	12	2901-	2916	2909.40	727.36	1.44	5.57E+001	18.94	4.95E+001
F	13	3635-	3653	3644.98	911.27	1.59	1.27E+002	24.75	4.49E+001
M	14	3854-	3885	3859.78	964.98	1.19	1.95E+001	13.53	3.69E+001
m	15	3854-	3885	3877.07	969.30	1.20	5.80E+001	19.45	4.94E+001
F	16	4476-	4491	4482.59	1120.69	2.01	3.90E+001	17.86	3.77E+001
F	17	5833-	5860	5847.03	1461.83	1.96	1.03E+003	62.87	3.15E+001
F	18	7058-	7074	7063.90	1766.07	2.27	4.66E+001	15.39	1.28E+001

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	1.000	511.00*	100.00	2.18545E-001	4.87488E-002
K-40	0.969	1460.81*	10.67	1.77697E+001	1.80371E+000
Eu-155	0.312	86.54*	30.90	7.00370E-001	2.77767E-001
		105.31	20.70		
TL-208	0.752	277.35	6.80		
		510.84*	21.60	1.01178E+000	2.40339E-001
		583.14*	84.20	2.63968E-001	6.05196E-002
		860.37	12.46		
Bi-212	0.999	727.17*	11.80	7.37850E-001	2.65337E-001
Pb-212	0.677	74.81* @	10.70	1.11829E+001	2.49422E+000
		77.11 @	18.00		
		87.30* @	8.00	2.70518E+000	1.07288E+000
		238.63*	44.60	7.54476E-001	1.62527E-001
Bi-214	0.984	609.31*	46.30	4.73114E-001	1.05153E-001
		1120.29*	15.10	4.49119E-001	2.10857E-001
		1764.49*	15.80	5.65239E-001	1.95042E-001
PB-214	0.670	74.82* @	6.21	1.92685E+001	4.51950E+000
		77.11 @	10.50		
		87.30* @	4.67	4.63414E+000	1.87095E+000
		241.98	7.49		
		295.21*	19.20	6.24125E-001	2.10244E-001
		351.92*	37.20	3.44075E-001	1.12627E-001
Ac-228	0.999	338.32*	11.40	5.86116E-001	2.83013E-001
		911.07*	27.70	7.52013E-001	1.69996E-001
		969.11*	16.60	5.82104E-001	2.04555E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		1.000	1.615279E-001	5.043689E-002
K-40		0.969	1.776967E+001	1.803707E+000
Eu-155		0.312	4.435851E-001	2.813243E-001
TL-208		0.752	2.639677E-001	5.990508E-002
Bi-212		0.999	7.378503E-001	2.653375E-001
Pb-212	@	0.677	7.544756E-001	1.625268E-001
Bi-214		0.984	4.866325E-001	8.475216E-002
PB-214	@	0.670	4.066065E-001	9.769098E-002
Ac-228		0.999	6.656338E-001	1.186883E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	73.02	5.8072E-001	18.78
M 3	84.72	6.2100E-001	18.24
M 14	964.98	3.2497E-002	69.38

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
	Co-60	1173.22	100.00	1.0992E-001	8.08E-002	1.1481E-001
		1332.49	100.00	8.0805E-002		4.3501E-002
	Nb-94	702.63	100.00	1.0929E-001	9.74E-002	5.3142E-002
		871.10	100.00	9.7376E-002		5.8241E-002
	Ag-108m	79.20	7.10	6.0273E+000	1.28E-001	-5.3947E+000
		433.93	89.90	1.2990E-001		9.5576E-003
		614.37	90.40	1.4680E-001		-2.4462E-002
		722.95	90.50	1.2843E-001		1.2931E-002
	Sb-125	176.33	6.89	2.3793E+000	3.76E-001	4.5058E-001
		427.89	29.33	3.7558E-001		-2.5342E-001
		463.38	10.35	1.1464E+000		-4.0801E-001
		600.56	17.80	6.1470E-001		4.7119E-001
		606.64	5.02	2.7061E+000		3.9160E+000
		635.90	11.32	9.0420E-001		5.7024E-001
	Cs-134	563.23	8.38	1.2215E+000	1.22E-001	-1.2705E-001
		569.32	15.43	7.0245E-001		-4.0661E-001
		604.70	97.60	1.3941E-001		4.5962E-002
		795.84	85.40	1.2233E-001		9.7930E-002
		801.93	8.73	1.1172E+000		-1.7065E+000
	Cs-137	661.65	85.12	1.2625E-001	1.26E-001	7.6184E-002
	Eu-152	121.78	28.40	8.3404E-001	3.56E-001	7.5250E-001
		244.69	7.49	2.0191E+000		9.7547E-001
		344.27	26.50	4.6285E-001		-1.0565E-001
		778.89	12.74	7.8809E-001		4.8465E-002
		867.32	4.16	2.4181E+000		-1.5474E+000
		964.01	14.40	8.0869E-001		-9.8239E-002
		1085.78	10.00	1.0340E+000		5.0394E-002
		1112.02	13.30	7.7030E-001		-6.0086E-001
		1407.95	20.70	3.5604E-001		3.5776E-001
	Eu-154	123.07	40.50	5.7792E-001	2.48E-001	-5.9323E-002
		247.94	6.60	2.1328E+000		-3.0936E+000
		591.81	4.83	2.3232E+000		7.6863E-001
		723.30	19.70	5.9361E-001		9.8310E-001
		756.87	4.33	2.4740E+000		4.6181E-004
		873.19	11.50	8.4982E-001		5.3945E-001
		996.32	10.30	9.2910E-001		-1.6969E-001
		1004.76	17.90	5.3590E-001		2.1687E-001
		1274.45	35.50	2.4760E-001		-4.1087E-002
+	Eu-155	86.54*	30.90	7.6264E-001	7.63E-001	7.0037E-001
		105.31	20.70	1.3438E+000		-7.2480E-001
	Am-241	59.54	35.90	1.5452E+000	1.55E+000	-6.4350E-002
	Cm-243	228.19	10.56	1.3919E+000	1.05E+000	1.7140E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	1.0471E+000	1.05E+000	1.2198E+000

+ = 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

Report Generated On 12/6/2005 9:20:23 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-02-125
Sample Title: NOL-05-02-125-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/6/2005 9:10:20 PM
Live Time: 600.0 seconds
Real Time: 601.2 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-02-125
Title: NOL-05-02-125-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	287-	305	291.65	72.76	0.85	4.28E+002	69.04	1.20E+003
m	2	287-	305	300.10	74.88	0.86	8.15E+002	84.85	1.57E+003
F	3	332-	346	339.22	84.70	0.97	3.17E+002	73.18	1.81E+003
F	4	945-	959	953.65	238.73	1.00	2.79E+002	43.65	3.33E+002
F	5	1172-	1190	1181.17	295.72	1.06	9.70E+001	28.55	2.27E+002
F	6	1346-	1359	1351.98	338.50	1.05	9.94E+001	27.85	1.40E+002
F	7	1399-	1412	1407.17	352.31	1.11	1.15E+002	29.76	1.56E+002
F	8	2029-	2050	2041.05	510.93	1.67	1.31E+002	29.39	1.75E+002
F	9	2324-	2340	2330.62	583.34	1.41	1.84E+002	30.33	8.32E+001
F	10	2426-	2443	2434.99	609.43	1.19	1.47E+002	28.50	1.01E+002
F	11	2899-	2913	2906.06	727.16	1.51	4.26E+001	16.88	3.75E+001
F	12	3634-	3652	3642.14	910.99	1.82	1.37E+002	25.05	4.13E+001
F	13	3863-	3881	3872.94	968.61	1.92	8.62E+001	21.30	4.68E+001
F	14	5320-	5333	5326.50	1331.29	1.70	3.64E+001	13.75	8.66E+000
F	15	5826-	5854	5840.56	1459.52	1.99	9.36E+002	59.48	2.16E+001
F	16	7048-	7063	7055.77	1762.65	1.99	3.76E+001	13.35	5.95E+000

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gm)	Activity Uncertainty
ANN	1.000	511.00*	100.00	1.79363E-001	4.68876E-002
K-40	0.950	1460.81*	10.67	1.56968E+001	1.61556E+000
TL-208	0.751	277.35	6.80		
		510.84*	21.60	8.30385E-001	2.27419E-001
		583.14*	84.20	3.11097E-001	6.53865E-002
		860.37	12.46		
Bi-212	1.000	727.17*	11.80	5.46672E-001	2.25897E-001
Pb-212	0.520	74.81* @	10.70	1.16613E+001	2.58837E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	6.78890E-001	1.50327E-001
Bi-214	0.677	609.31*	46.30	4.58253E-001	1.05397E-001
		1120.29	15.10		
		1764.49*	15.80	4.41254E-001	1.62885E-001
PB-214	0.579	74.82* @	6.21	2.00928E+001	4.69228E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	5.82439E-001	1.97460E-001
		351.92*	37.20	3.74390E-001	1.15396E-001
Ac-228	0.997	338.32*	11.40	1.04425E+000	3.35386E-001
		911.07*	27.70	7.82619E-001	1.69300E-001
		969.11*	16.60	8.38160E-001	2.24983E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
ANN		1.000	1.121661E-001	4.891957E-002
K-40		0.950	1.569681E+001	1.615562E+000
TL-208		0.751	3.110974E-001	6.459574E-002
Bi-212		1.000	5.466716E-001	2.258970E-001
Pb-212	@	0.520	6.788898E-001	1.503267E-001
Bi-214		0.677	4.532365E-001	8.848787E-002
PB-214	@	0.579	4.273551E-001	9.963049E-002
Ac-228		0.997	8.364983E-001	1.254566E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.76	7.1252E-001	16.15
F 3	84.70	5.2816E-001	23.09
F 14	1331.29	6.0601E-002	37.83

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
Co-60	1173.22	100.00	1.0533E-001	7.65E-002	-1.7375E-002
	1332.49	100.00	7.6534E-002		3.0777E-002
Nb-94	702.63	100.00	9.4479E-002	9.12E-002	3.0147E-002
	871.10	100.00	9.1249E-002		-6.6222E-003
Ag-108m	79.20	7.10	5.8013E+000	1.11E-001	-1.1558E+001
	433.93	89.90	1.2031E-001		-1.1181E-001
	614.37	90.40	1.4592E-001		-1.7363E-002
	722.95	90.50	1.1112E-001		9.9914E-002
Sb-125	176.33	6.89	2.4846E+000	3.75E-001	3.6159E-001
	427.89	29.33	3.7516E-001		-2.4019E-001
	463.38	10.35	1.0420E+000		-1.2797E+000
	600.56	17.80	5.7850E-001		4.0808E-002
	606.64	5.02	2.7034E+000		3.8442E+000
	635.90	11.32	8.7240E-001		7.4650E-001
Cs-134	563.23	8.38	1.2030E+000	1.12E-001	-2.7488E-001
	569.32	15.43	6.6282E-001		5.4630E-001
	604.70	97.60	1.3908E-001		8.5896E-002
	795.84	85.40	1.1209E-001		-4.0282E-002
	801.93	8.73	1.0521E+000		-8.1595E-001
Cs-137	661.65	85.12	1.2491E-001	1.25E-001	1.1560E-001
Eu-152	121.78	28.40	8.4289E-001	3.78E-001	4.5821E-001
	244.69	7.49	1.9607E+000		-1.9626E+000
	344.27	26.50	4.5470E-001		7.8092E-002
	778.89	12.74	7.6340E-001		-9.0275E-001
	867.32	4.16	2.1916E+000		-2.7631E+000
	964.01	14.40	8.4696E-001		1.2048E+000
	1085.78	10.00	9.0240E-001		-4.7199E-001
	1112.02	13.30	8.0482E-001		-2.1000E-002
	1407.95	20.70	3.7822E-001		4.9825E-001
Eu-154	123.07	40.50	5.8513E-001	2.67E-001	9.6019E-002
	247.94	6.60	2.1286E+000		-4.9272E-001
	591.81	4.83	2.1586E+000		1.1012E+000
	723.30	19.70	5.0922E-001		4.9516E-001
	756.87	4.33	2.1695E+000		-7.8812E-001
	873.19	11.50	7.8581E-001		4.1387E-001
	996.32	10.30	9.2163E-001		1.0036E-001
	1004.76	17.90	5.4041E-001		2.1528E-001
	1274.45	35.50	2.6716E-001		1.5002E-001
Eu-155	86.54	30.90	1.1975E+000	1.20E+000	2.3573E+000
	105.31	20.70	1.3625E+000		1.2487E+000
Am-241	59.54	35.90	1.5471E+000	1.55E+000	-1.8135E-001
Cm-243	228.19	10.56	1.3969E+000	9.60E-001	3.6444E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
Cm-243	277.60	14.00	9.5953E-001	9.60E-001	1.5887E-001

+ = 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

Report Generated On 12/8/2005 5:08:28 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: RED6264

Spectrum File: RED6264
Sample ID:
Sample Title: NOL-05-02-126-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/8/2005 4:58:25 PM
Live Time: 600.0 seconds
Real Time: 601.1 seconds

Energy Calibration Date: 6/13/2005
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number:
Title: NOL-05-02-126-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	287-	318	292.40	73.06	1.06	3.94E+002	66.70	1.26E+003
m	2	287-	318	300.35	75.05	1.06	8.45E+002	78.18	1.51E+003
m	3	287-	318	309.24	77.27	1.07	1.66E+002	57.06	1.43E+003
F	4	333-	345	339.64	84.87	0.99	2.45E+002	66.70	1.41E+003
F	5	949-	960	954.84	238.68	1.06	3.07E+002	43.82	2.57E+002
F	6	1174-	1186	1180.82	295.18	1.15	8.42E+001	28.37	1.66E+002
F	7	1349-	1359	1353.19	338.28	0.39	3.91E+001	18.78	1.41E+002
F	8	1402-	1417	1408.35	352.07	1.20	1.38E+002	29.58	1.40E+002
F	9	2036-	2056	2044.77	511.19	1.70	1.32E+002	27.51	1.30E+002
F	10	2327-	2340	2333.39	583.35	1.31	1.48E+002	29.45	9.07E+001
F	11	2430-	2445	2438.18	609.55	1.40	1.50E+002	26.66	5.20E+001
F	12	3174-	3186	3179.87	794.99	1.42	3.19E+001	16.43	3.59E+001
F	13	3637-	3655	3646.41	911.63	1.62	1.15E+002	24.89	6.17E+001
F	14	3870-	3887	3878.66	969.70	1.21	7.21E+001	21.28	6.32E+001
F	15	4474-	4492	4485.00	1121.29	1.53	4.97E+001	18.08	4.52E+001
F	16	5833-	5863	5848.78	1462.27	1.99	1.03E+003	62.96	2.71E+001
F	17	7059-	7072	7065.14	1766.38	1.74	3.46E+001	13.18	9.05E+000

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	0.999	511.00*	100.00	1.85662E-001	4.61631E-002
K-40	0.939	1460.81*	10.67	1.79029E+001	1.81330E+000
TL-208	0.750	277.35	6.80		
		510.84*	21.60	8.59544E-001	2.24951E-001
		583.14*	84.20	2.57557E-001	6.13820E-002
		860.37	12.46		
Pb-212	0.843	74.81* @	10.70	1.25257E+001	2.71463E+000
		77.11* @	18.00	1.40487E+000	5.55604E-001
		87.30 @	8.00		
		238.63*	44.60	7.70332E-001	1.63365E-001
Bi-214	0.972	609.31*	46.30	4.81776E-001	1.04364E-001
		1120.29*	15.10	5.71992E-001	2.16691E-001
		1764.49*	15.80	4.19940E-001	1.65395E-001
PB-214	0.762	74.82* @	6.21	2.15822E+001	4.93279E+000
		77.11* @	10.50	2.40835E+000	9.69291E-001
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	5.21234E-001	1.96394E-001
		351.92*	37.20	4.65437E-001	1.26244E-001
Ac-228	0.992	338.32*	11.40	4.23428E-001	2.14167E-001
		911.07*	27.70	6.82562E-001	1.66786E-001
		969.11*	16.60	7.24068E-001	2.26765E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		0.999	1.300292E-001	4.799513E-002
K-40		0.939	1.790293E+001	1.813299E+000
TL-208		0.750	2.575571E-001	6.080541E-002
Pb-212	@	0.843	7.703318E-001	1.633649E-001
Bi-214		0.972	4.795102E-001	8.174124E-002
PB-214	@	0.762	4.817518E-001	1.061962E-001
Ac-228		0.992	6.198335E-001	1.138150E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	73.06	6.5648E-001	16.93
F 4	84.87	4.0866E-001	27.20
F 12	794.99	5.3118E-002	51.54

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Co-60	1173.22	100.00	1.1150E-001	8.62E-002	7.2335E-002
	1332.49	100.00	8.6234E-002		1.0494E-001
Nb-94	702.63	100.00	1.1247E-001	9.61E-002	6.1570E-003
	871.10	100.00	9.6145E-002		-4.9443E-002
Ag-108m	79.20	7.10	5.8174E+000	1.24E-001	-6.8426E-001
	433.93	89.90	1.2933E-001		5.6941E-002
	614.37	90.40	1.5070E-001		1.6019E-002
	722.95	90.50	1.2393E-001		1.2506E-002
Sb-125	176.33	6.89	2.3514E+000	3.82E-001	-1.0489E+000
	427.89	29.33	3.8163E-001		-2.2593E-002
	463.38	10.35	1.1497E+000		1.6812E+000
	600.56	17.80	6.1088E-001		1.7645E-001
	606.64	5.02	2.6362E+000		3.8086E+000
	635.90	11.32	9.3482E-001		-2.4264E-001
Cs-134	563.23	8.38	1.3070E+000	1.25E-001	2.5060E-001
	569.32	15.43	6.8947E-001		3.3756E-001
	604.70	97.60	1.3545E-001		-6.6543E-003
	795.84	85.40	1.2455E-001		3.0043E-002
	801.93	8.73	1.1699E+000		-5.5219E-001
Cs-137	661.65	85.12	1.2911E-001	1.29E-001	5.8295E-002
Eu-152	121.78	28.40	8.1190E-001	3.51E-001	-4.7949E-003
	244.69	7.49	1.9752E+000		-4.9410E+000
	344.27	26.50	4.7123E-001		-2.7420E-001
	778.89	12.74	7.7691E-001		-7.2277E-001
	867.32	4.16	2.3606E+000		-2.3801E+000
	964.01	14.40	8.7641E-001		9.6120E-002
	1085.78	10.00	9.8056E-001		5.1383E-001
	1112.02	13.30	7.5515E-001		3.1415E-001
	1407.95	20.70	3.5089E-001		-5.9722E-003
Eu-154	123.07	40.50	5.6214E-001	2.55E-001	-2.0935E-001
	247.94	6.60	2.1766E+000		-3.2441E-001
	591.81	4.83	2.1591E+000		-8.6274E-001
	723.30	19.70	5.7429E-001		6.1788E-001
	756.87	4.33	2.4314E+000		6.6588E-001
	873.19	11.50	8.4717E-001		-2.7763E-001
	996.32	10.30	9.4202E-001		7.7063E-001
	1004.76	17.90	5.1678E-001		-1.8221E-001
	1274.45	35.50	2.5458E-001		-4.5477E-002
Eu-155	86.54	30.90	1.1691E+000	1.17E+000	2.1737E+000
	105.31	20.70	1.3029E+000		9.1599E-001
Am-241	59.54	35.90	1.4968E+000	1.50E+000	-6.7848E-001
Cm-243	228.19	10.56	1.3884E+000	9.92E-001	-9.4267E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	9.9192E-001	9.92E-001	-5.8902E-001

+ = 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

Report Generated On 12/8/2005 7:09:02 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: RED6264

Spectrum File: RED6264
Sample ID:
Sample Title: NOL-05-02-127-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/8/2005 6:58:59 PM
Live Time: 600.0 seconds
Real Time: 601.2 seconds

Energy Calibration Date: 6/13/2005
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number:
Title: NOL-05-02-127-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	286-	313	291.75	72.89	1.03	4.32E+002	70.13	1.42E+003
m	2	286-	313	300.26	75.02	1.03	8.34E+002	80.74	1.73E+003
m	3	286-	313	309.31	77.29	1.04	1.45E+002	60.32	1.46E+003
F	4	331-	346	339.29	84.78	1.09	3.24E+002	68.60	1.68E+003
M	5	950-	971	954.67	238.64	0.99	3.12E+002	43.83	2.31E+002
m	6	950-	971	966.89	241.69	0.99	4.16E+001	28.39	2.76E+002
F	7	1342-	1361	1353.41	338.33	1.84	9.73E+001	27.92	2.08E+002
F	8	1402-	1416	1407.50	351.86	1.22	1.58E+002	32.06	1.65E+002
F	9	1847-	1858	1851.53	462.87	0.52	2.41E+001	14.68	6.85E+001
F	10	2030-	2055	2042.37	510.59	2.57	1.75E+002	28.51	1.47E+002
F	11	2323-	2341	2332.57	583.14	1.41	1.71E+002	29.54	9.96E+001
F	12	2428-	2445	2436.51	609.13	1.35	1.58E+002	29.08	9.69E+001
F	13	3635-	3655	3645.40	911.38	1.66	1.68E+002	27.18	4.46E+001
F	14	3869-	3886	3876.83	969.24	1.63	8.58E+001	22.87	5.85E+001
F	15	4476-	4490	4482.55	1120.68	1.48	4.76E+001	18.02	3.34E+001
F	16	4948-	4961	4954.53	1238.69	1.77	3.89E+001	15.73	2.02E+001
F	17	5832-	5860	5847.09	1461.84	2.01	1.06E+003	63.35	2.22E+001
F	18	6350-	6363	6356.26	1589.15	1.62	3.18E+001	11.92	3.95E+000
F	19	7056-	7071	7063.37	1765.94	1.06	4.25E+001	14.37	1.19E+001

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	0.995	511.00*	100.00	2.46704E-001	5.22139E-002
K-40	0.969	1460.81*	10.67	1.82726E+001	1.84121E+000
TL-208	0.752	277.35	6.80		
		510.84*	21.60	1.14215E+000	2.59103E-001
		583.14*	84.20	2.97922E-001	6.45192E-002
		860.37	12.46		
Pb-212	0.843	74.81* @	10.70	1.23627E+001	2.70255E+000
		77.11* @	18.00	1.22570E+000	5.63728E-001
		87.30 @	8.00		
		238.63*	44.60	7.83453E-001	1.64895E-001
Bi-214	0.986	609.31*	46.30	5.08754E-001	1.12680E-001
		1120.29*	15.10	5.47059E-001	2.15227E-001
		1764.49*	15.80	5.16269E-001	1.81879E-001
PB-214	0.539	74.82* @	6.21	2.13013E+001	4.90660E+000
		77.11* @	10.50	2.10120E+000	9.79043E-001
		87.30 @	4.67		
		241.98*	7.49	6.23989E-001	4.38216E-001
		295.21	19.20		
		351.92*	37.20	5.29219E-001	1.39385E-001
Ac-228	0.998	338.32*	11.40	1.05449E+000	3.44947E-001
		911.07*	27.70	9.92859E-001	1.97157E-001
		969.11*	16.60	8.61484E-001	2.46741E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		0.995	1.823531E-001	5.400098E-002
K-40		0.969	1.827260E+001	1.841213E+000
TL-208		0.752	2.979215E-001	6.378452E-002
Pb-212	@	0.843	7.834530E-001	1.648954E-001
Bi-214		0.986	5.168267E-001	8.751186E-002
PB-214	@	0.539	5.379256E-001	1.328276E-001
Ac-228		0.998	9.604213E-001	1.406417E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.89	7.2050E-001	16.22
F 4	84.78	5.3922E-001	21.20
F 9	462.87	4.0110E-002	61.00
F 16	1238.69	6.4809E-002	40.44
F 18	1589.15	5.2935E-002	37.54

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Co-60	1173.22	100.00	1.2140E-001	8.49E-002	3.1231E-002
	1332.49	100.00	8.4911E-002		2.1635E-002
Nb-94	702.63	100.00	1.1150E-001	1.01E-001	4.0975E-002
	871.10	100.00	1.0098E-001		5.9169E-002
Ag-108m	79.20	7.10	6.0684E+000	1.29E-001	-6.2046E-001
	433.93	89.90	1.3938E-001		6.9823E-002
	614.37	90.40	1.5251E-001		-4.3897E-002
	722.95	90.50	1.2895E-001		1.2588E-001
Sb-125	176.33	6.89	2.4211E+000	4.03E-001	-1.9219E+000
	427.89	29.33	4.0262E-001		1.4627E-001
	463.38	10.35	1.1190E+000		5.1354E-001
	600.56	17.80	6.3100E-001		2.8325E-002
	606.64	5.02	2.8577E+000		5.7788E+000
	635.90	11.32	9.7889E-001		2.4838E-001
Cs-134	563.23	8.38	1.3096E+000	1.21E-001	-8.7483E-001
	569.32	15.43	6.8362E-001		1.6739E-001
	604.70	97.60	1.4594E-001		1.1451E-002
	795.84	85.40	1.2104E-001		-1.3637E-003
	801.93	8.73	1.1922E+000		-9.9083E-001
Cs-137	661.65	85.12	1.2939E-001	1.29E-001	-2.5419E-002
Eu-152	121.78	28.40	8.5923E-001	3.51E-001	7.9880E-001
	244.69	7.49	2.1336E+000		5.5862E-001
	344.27	26.50	4.6863E-001		-1.6627E-001
	778.89	12.74	8.1212E-001		-9.9098E-001
	867.32	4.16	2.4742E+000		-2.7467E+000
	964.01	14.40	8.9502E-001		2.4528E-001
	1085.78	10.00	9.6323E-001		-5.1380E-001
	1112.02	13.30	7.6780E-001		2.1252E-001
	1407.95	20.70	3.5089E-001		8.1749E-002
Eu-154	123.07	40.50	5.9535E-001	2.69E-001	1.9939E-001
	247.94	6.60	2.2673E+000		-1.5836E+000
	591.81	4.83	2.3187E+000		2.1458E+000
	723.30	19.70	5.9361E-001		6.1429E-001
	756.87	4.33	2.3755E+000		1.9322E+000
	873.19	11.50	8.8615E-001		6.3403E-001
	996.32	10.30	9.3558E-001		-1.3828E-002
	1004.76	17.90	5.2451E-001		-8.5010E-002
	1274.45	35.50	2.6906E-001		-5.1793E-002
Eu-155	86.54	30.90	1.1770E+000	1.18E+000	2.7927E-001
	105.31	20.70	1.3801E+000		-3.9289E-002
Am-241	59.54	35.90	1.5213E+000	1.52E+000	-7.5050E-001
Cm-243	228.19	10.56	1.4655E+000	1.00E+000	1.0691E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	9.9967E-001	1.00E+000	3.0626E-001

+ = 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

Report Generated On 12/8/2005 4:37:33 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: RED6264

Spectrum File: RED6264
Sample ID:
Sample Title: NOL-05-02-128-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/8/2005 4:24:32 PM
Live Time: 778.5 seconds
Real Time: 780.0 seconds

Energy Calibration Date: 6/13/2005
Eff Calibration Date: 8/8/2005
Calibration Efficiency: RED_SOIL_1M90D
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number:
Title: NOL-05-02-128-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	284-	305	291.71	72.88	0.98	6.08E+002	79.06	2.03E+003
m	2	284-	305	300.43	75.07	0.98	1.04E+003	92.55	1.98E+003
M	3	333-	355	339.22	84.76	1.29	4.27E+002	76.06	1.83E+003
m	4	333-	355	349.59	87.36	1.30	1.72E+002	68.72	2.35E+003
F	5	738-	751	742.95	185.70	0.82	7.19E+001	38.28	5.34E+002
F	6	950-	960	954.99	238.72	1.01	3.74E+002	50.59	3.30E+002
F	7	1078-	1087	1082.53	270.61	0.71	3.90E+001	26.90	2.03E+002
F	8	1176-	1187	1181.40	295.33	0.89	7.67E+001	29.68	2.07E+002
F	9	1346-	1359	1353.57	338.37	1.15	8.11E+001	30.10	2.16E+002
F	10	1402-	1417	1407.70	351.91	1.29	1.53E+002	32.92	2.04E+002
F	11	1841-	1861	1851.26	462.81	1.80	8.24E+001	24.90	1.53E+002
F	12	2031-	2050	2043.06	510.76	1.93	1.66E+002	30.48	1.52E+002
F	13	2326-	2341	2333.62	583.41	1.41	1.91E+002	32.36	1.15E+002
F	14	2431-	2446	2437.71	609.43	1.57	1.97E+002	30.88	7.64E+001
F	15	2902-	2917	2910.86	727.73	1.37	4.84E+001	19.95	7.38E+001
F	16	3435-	3451	3443.41	860.87	1.85	4.47E+001	17.19	3.83E+001
F	17	3636-	3658	3646.62	911.68	1.67	2.19E+002	31.66	8.12E+001
M	18	3829-	3888	3834.22	958.59	1.41	1.77E+001	15.15	5.40E+001
m	19	3829-	3888	3862.08	965.55	1.41	2.09E+001	15.92	7.43E+001
m	20	3829-	3888	3878.18	969.58	1.41	1.01E+002	25.40	8.06E+001
F	21	4476-	4491	4483.83	1121.00	1.35	4.59E+001	20.24	6.82E+001
F	22	5329-	5342	5335.40	1333.91	1.50	2.86E+001	15.44	3.06E+001
F	23	5833-	5863	5849.07	1462.34	2.07	1.32E+003	70.36	7.75E+000
F	24	7057-	7072	7064.73	1766.28	2.13	3.19E+001	14.22	1.70E+001

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	0.998	511.00*	100.00	5.76757E-001	1.33487E-001
K-40	0.933	1460.81*	10.67	5.65234E+001	5.48145E+000
Eu-155	0.322	86.54*	30.90	1.87947E+000	8.35627E-001
		105.31	20.70		
TL-208	0.902	277.35	6.80		
		510.84*	21.60	2.67017E+000	6.55341E-001
		583.14*	84.20	8.19251E-001	1.76329E-001
		860.37*	12.46	1.42555E+000	5.75479E-001
Bi-212	0.991	727.17*	11.80	1.57302E+000	6.73990E-001
Pb-212	0.678	74.81* @	10.70	4.00265E+001	8.61481E+000
		77.11 @	18.00		
		87.30* @	8.00	7.25945E+000	3.22761E+000
		238.63*	44.60	2.42269E+000	5.01414E-001
Bi-214	0.978	609.31*	46.30	1.56139E+000	3.12366E-001
		1120.29*	15.10	1.31106E+000	5.94141E-001
		1764.49*	15.80	9.62727E-001	4.40372E-001
PB-214	0.672	74.82* @	6.21	6.89668E+001	1.56651E+001
		77.11 @	10.50		
		87.30* @	4.67	1.24359E+001	5.60834E+000
		241.98	7.49		
		295.21*	19.20	1.20966E+000	5.10608E-001
		351.92*	37.20	1.29391E+000	3.52965E-001
Ac-228	0.993	338.32*	11.40	2.22143E+000	8.95422E-001
		911.07*	27.70	3.18892E+000	5.88808E-001
		969.11*	16.60	2.50113E+000	6.81609E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		0.998	3.887270E-001	1.382621E-001
K-40		0.933	5.652340E+001	5.481454E+000
Eu-155		0.322	1.060731E+000	8.467449E-001
TL-208		0.902	8.705093E-001	1.667657E-001
Bi-212		0.991	1.573018E+000	6.739904E-001
Pb-212	@	0.678	2.422690E+000	5.014139E-001
Bi-214		0.978	1.353245E+000	2.341583E-001
PB-214	@	0.672	1.267128E+000	2.848531E-001
Ac-228		0.993	2.761314E+000	3.989153E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.88	7.8128E-001	13.00
M 3	84.76	5.4809E-001	17.83
F 5	185.70	9.2355E-002	53.25
F 7	270.61	5.0155E-002	68.89
F 11	462.81	1.0581E-001	30.23
M 18	958.59	2.2757E-002	85.53
m 19	965.55	2.6807E-002	76.29
F 22	1333.91	3.6742E-002	53.98

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
	Co-60	1173.22	100.00	3.0605E-001	2.61E-001	1.5671E-001
		1332.49	100.00	2.6149E-001		1.6259E-001
	Nb-94	702.63	100.00	2.9628E-001	2.71E-001	6.3534E-002
		871.10	100.00	2.7108E-001		-2.3622E-003
	Ag-108m	79.20	7.10	1.7812E+001	3.44E-001	-5.0809E+001
		433.93	89.90	3.7015E-001		2.5170E-001
		614.37	90.40	4.0597E-001		-1.3684E-001
		722.95	90.50	3.4429E-001		-2.1731E-001
	Sb-125	176.33	6.89	7.1866E+000	1.06E+000	2.0626E+000
		427.89	29.33	1.0630E+000		2.6591E-001
		463.38	10.35	3.3383E+000		3.2927E+000
		600.56	17.80	1.7358E+000		2.1701E+000
		606.64	5.02	7.4366E+000		8.0022E+000
		635.90	11.32	2.6190E+000		1.0730E-001
	Cs-134	563.23	8.38	3.5502E+000	3.43E-001	-1.4506E+000
		569.32	15.43	1.9622E+000		9.1934E-001
		604.70	97.60	3.8701E-001		-1.3008E-001
		795.84	85.40	3.4297E-001		1.1517E-001
		801.93	8.73	3.2303E+000		-4.1642E+000
	Cs-137	661.65	85.12	3.5543E-001	3.55E-001	1.4574E-001
	Eu-152	121.78	28.40	2.5129E+000	1.02E+000	-1.0988E+000
		244.69	7.49	5.9317E+000		-1.0685E+001
		344.27	26.50	1.3650E+000		-4.7691E-001
		778.89	12.74	2.2374E+000		-1.3865E+000
		867.32	4.16	6.6669E+000		-6.2161E-001
		964.01	14.40	2.4647E+000		1.7136E+000
		1085.78	10.00	2.9364E+000		1.5396E+000
		1112.02	13.30	2.0251E+000		-1.9681E-001
		1407.95	20.70	1.0160E+000		-7.6719E-002
	Eu-154	123.07	40.50	1.7614E+000	7.16E-001	1.5379E+000
		247.94	6.60	6.4465E+000		-9.7915E+000
		591.81	4.83	6.2083E+000		3.9847E+000
		723.30	19.70	1.5898E+000		-3.0194E-001
		756.87	4.33	6.1901E+000		-9.9564E+000
		873.19	11.50	2.4264E+000		4.4654E-001
		996.32	10.30	2.6236E+000		-2.6286E+000
		1004.76	17.90	1.5138E+000		-2.9046E-004
		1274.45	35.50	7.1557E-001		-6.8847E-002
+	Eu-155	86.54*	30.90	2.4907E+000	2.49E+000	1.8795E+000
		105.31	20.70	3.9723E+000		-1.9456E+000
	Am-241	59.54	35.90	4.4506E+000	4.45E+000	5.2755E-001
	Cm-243	228.19	10.56	4.2389E+000	2.81E+000	-3.0882E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	2.8099E+000	2.81E+000	8.5465E-001

+ = 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

Report Generated On 12/6/2005 7:27:15 AM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: RED6264

Spectrum File: RED6264
Sample ID:
Sample Title: NOL-05-02-129-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/6/2005 7:17:12 AM
Live Time: 600.0 seconds
Real Time: 601.3 seconds

Energy Calibration Date: 6/13/2005
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number:
Title: NOL-05-02-129-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	287-	314	291.82	72.91	1.00	5.45E+002	73.72	1.33E+003
m	2	287-	314	300.23	75.02	1.00	1.01E+003	85.39	1.67E+003
m	3	287-	314	309.88	77.43	1.01	1.67E+002	61.61	1.52E+003
M	4	332-	357	339.75	84.90	1.24	3.36E+002	68.59	1.77E+003
m	5	332-	357	350.13	87.49	1.24	2.39E+002	64.90	1.94E+003
F	6	948-	960	953.65	238.38	1.07	3.03E+002	46.58	3.71E+002
F	7	1173-	1187	1179.98	294.97	1.10	1.17E+002	31.22	2.17E+002
F	8	1344-	1359	1351.93	337.96	1.44	9.02E+001	28.88	2.01E+002
F	9	1400-	1412	1406.74	351.67	1.19	1.27E+002	31.87	1.76E+002
F	10	1846-	1857	1851.98	462.99	1.08	4.42E+001	21.02	8.43E+001
F	11	2032-	2050	2041.23	510.30	1.57	1.13E+002	27.92	1.53E+002
F	12	2322-	2342	2331.39	582.85	1.42	1.63E+002	29.08	1.06E+002
F	13	2428-	2445	2436.06	609.02	1.39	1.77E+002	29.61	7.80E+001
F	14	2900-	2916	2907.83	726.97	1.43	5.17E+001	19.82	6.57E+001
F	15	3633-	3652	3642.69	910.70	1.70	1.39E+002	26.68	6.80E+001
F	16	3867-	3882	3874.36	968.62	1.54	7.25E+001	21.19	4.80E+001
F	17	4473-	4488	4479.87	1120.01	1.62	5.23E+001	17.96	3.18E+001
F	18	4945-	4959	4951.67	1237.97	1.63	4.17E+001	16.70	2.65E+001
F	19	5324-	5339	5331.27	1332.88	1.83	3.99E+001	14.75	1.48E+001
F	20	5829-	5856	5843.00	1460.82	2.03	1.08E+003	63.87	1.39E+001
F	21	7050-	7068	7059.51	1764.97	1.93	5.44E+001	16.08	7.15E+000

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	0.986	511.00*	100.00	1.58595E-001	4.47685E-002
K-40	1.000	1460.81*	10.67	1.86869E+001	1.87353E+000
Eu-155	0.317	86.54*	30.90	9.88659E-001	3.31546E-001
		105.31	20.70		
TL-208	0.749	277.35	6.80		
		510.84*	21.60	7.34238E-001	2.15761E-001
		583.14*	84.20	2.84144E-001	6.28122E-002
		860.37	12.46		
Bi-212	0.999	727.17*	11.80	6.84001E-001	2.74454E-001
Pb-212	0.998	74.81* @	10.70	1.50124E+001	3.20320E+000
		77.11* @	18.00	1.40978E+000	5.88478E-001
		87.30* @	8.00	3.81870E+000	1.28059E+000
		238.63*	44.60	7.59848E-001	1.66900E-001
Bi-214	0.997	609.31*	46.30	5.71052E-001	1.18483E-001
		1120.29*	15.10	6.01423E-001	2.16213E-001
		1764.49*	15.80	6.60279E-001	2.05963E-001
PB-214	0.848	74.82* @	6.21	2.58667E+001	5.82987E+000
		77.11* @	10.50	2.41677E+000	1.02483E+000
		87.30* @	4.67	6.54166E+000	2.24871E+000
		241.98	7.49		
		295.21*	19.20	7.23166E-001	2.28458E-001
		351.92*	37.20	4.28205E-001	1.28802E-001
Ac-228	0.995	338.32*	11.40	9.77703E-001	3.48568E-001
		911.07*	27.70	8.23363E-001	1.84053E-001
		969.11*	16.60	7.27773E-001	2.25978E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		0.986	9.722018E-002	4.673643E-002
K-40		1.000	1.868689E+001	1.873533E+000
Eu-155		0.317	7.164631E-001	3.347633E-001
TL-208		0.749	2.841441E-001	6.212593E-002
Bi-212		0.999	6.840008E-001	2.744540E-001
Pb-212	@	0.998	7.598480E-001	1.668996E-001
Bi-214		0.997	5.947448E-001	9.276803E-002
PB-214	@	0.848	4.993731E-001	1.100898E-001
Ac-228		0.995	8.128698E-001	1.320683E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.91	9.0753E-001	13.54
M 4	84.90	5.5937E-001	20.44
F 10	462.99	7.3729E-002	47.53
F 18	1237.97	6.9464E-002	40.07
F 19	1332.88	6.6420E-002	37.00

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
	Co-60	1173.22	100.00	1.2169E-001	9.38E-002	1.2104E-001
		1332.49	100.00	9.3756E-002		7.3572E-002
	Nb-94	702.63	100.00	1.1319E-001	1.02E-001	1.2191E-001
		871.10	100.00	1.0186E-001		7.2545E-002
	Ag-108m	79.20	7.10	6.2892E+000	1.34E-001	-2.3537E+000
		433.93	89.90	1.4025E-001		-6.7288E-002
		614.37	90.40	1.5291E-001		5.1428E-002
		722.95	90.50	1.3427E-001		-1.9837E-002
	Sb-125	176.33	6.89	2.6616E+000	4.15E-001	7.6753E-001
		427.89	29.33	4.1546E-001		2.4964E-001
		463.38	10.35	1.2230E+000		2.2051E-001
		600.56	17.80	6.4807E-001		-5.1404E-002
		606.64	5.02	2.8782E+000		4.4387E+000
		635.90	11.32	9.4975E-001		-1.6005E-002
	Cs-134	563.23	8.38	1.4558E+000	1.26E-001	4.3750E-001
		569.32	15.43	7.7302E-001		-4.0955E-002
		604.70	97.60	1.5082E-001		1.4669E-002
		795.84	85.40	1.2611E-001		-6.6021E-002
		801.93	8.73	1.2265E+000		3.4327E-002
	Cs-137	661.65	85.12	1.4503E-001	1.45E-001	9.2020E-002
	Eu-152	121.78	28.40	9.0144E-001	3.83E-001	3.0183E-001
		244.69	7.49	2.1891E+000		-1.2096E+000
		344.27	26.50	5.0136E-001		-1.2112E-001
		778.89	12.74	9.3379E-001		-9.3572E-001
		867.32	4.16	2.5154E+000		-1.1388E+000
		964.01	14.40	8.3610E-001		-5.1687E-001
		1085.78	10.00	1.0275E+000		1.1602E-001
		1112.02	13.30	7.7030E-001		-2.5901E-002
		1407.95	20.70	3.8305E-001		2.4217E-001
	Eu-154	123.07	40.50	6.2015E-001	2.88E-001	-5.1768E-001
		247.94	6.60	2.3709E+000		-2.6733E+000
		591.81	4.83	2.4075E+000		1.2317E-001
		723.30	19.70	6.2143E-001		7.0883E-001
		756.87	4.33	2.6031E+000		-2.9307E+000
		873.19	11.50	8.3645E-001		-5.5936E-002
		996.32	10.30	9.4202E-001		6.6736E-001
		1004.76	17.90	5.2451E-001		-4.6386E-002
		1274.45	35.50	2.8785E-001		4.0647E-002
+	Eu-155	86.54*	30.90	8.6084E-001	8.61E-001	9.8866E-001
		105.31	20.70	1.4306E+000		-9.7220E-001
	Am-241	59.54	35.90	1.5797E+000	1.58E+000	-3.3811E-001
	Cm-243	228.19	10.56	1.4982E+000	1.08E+000	-1.1839E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	1.0812E+000	1.08E+000	7.8291E-001

+ = 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

Report Generated On 12/6/2005 7:40:24 AM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: RED6264

Spectrum File: RED6264
Sample ID:
Sample Title: NOL-05-02-130-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/6/2005 7:30:23 AM
Live Time: 600.0 seconds
Real Time: 601.3 seconds

Energy Calibration Date: 6/13/2005
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number:
Title: NOL-05-02-130-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	286-	309	291.64	72.87	1.03	5.17E+002	72.48	1.41E+003
m	2	286-	309	300.33	75.04	1.04	1.06E+003	86.09	1.71E+003
F	3	332-	343	338.90	84.69	1.27	2.91E+002	69.58	1.38E+003
F	4	948-	959	953.84	238.43	1.03	3.24E+002	46.18	3.02E+002
F	5	1026-	1036	1031.34	257.81	0.55	3.66E+001	23.21	1.99E+002
F	6	1175-	1184	1179.48	294.85	0.85	8.92E+001	28.97	1.48E+002
F	7	1344-	1356	1351.87	337.95	0.86	6.16E+001	25.61	1.58E+002
F	8	1398-	1414	1406.31	351.56	1.36	1.40E+002	31.15	1.93E+002
F	9	1846-	1858	1850.24	462.55	0.84	4.56E+001	19.67	8.13E+001
F	10	1930-	1939	1935.13	483.78	0.67	2.43E+001	15.00	4.80E+001
F	11	2030-	2053	2042.15	510.53	2.36	1.87E+002	28.98	1.29E+002
F	12	2322-	2340	2330.58	582.64	1.36	1.93E+002	30.98	9.76E+001
F	13	2428-	2445	2436.22	609.06	1.29	1.63E+002	28.91	8.52E+001
F	14	3633-	3654	3642.81	910.73	1.65	1.50E+002	26.95	6.10E+001
M	15	3851-	3883	3856.12	964.06	1.53	2.10E+001	15.06	4.75E+001
m	16	3851-	3883	3874.41	968.63	1.53	9.91E+001	23.28	5.87E+001
F	17	4473-	4487	4479.60	1119.94	1.32	4.91E+001	18.15	4.02E+001
F	18	5322-	5335	5328.34	1332.15	1.89	3.86E+001	14.52	1.40E+001
F	19	5828-	5856	5842.83	1460.78	2.06	1.11E+003	64.44	1.09E+001
F	20	6347-	6360	6353.19	1588.38	0.79	1.73E+001	9.43	8.57E+000
F	21	7052-	7066	7059.26	1764.91	2.12	4.27E+001	14.41	9.26E+000

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	0.994	511.00*		100.00	2.63568E-001	5.42050E-002
K-40	1.000	1460.81*		10.67	1.92713E+001	1.91767E+000
TL-208	0.747	277.35		6.80		
		510.84*		21.60	1.22022E+000	2.70011E-001
		583.14*		84.20	3.36920E-001	6.96216E-002
		860.37		12.46		
Pb-212	0.520	74.81*	@	10.70	1.57732E+001	3.34443E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	8.13619E-001	1.72349E-001
Bi-214	0.997	609.31*		46.30	5.24869E-001	1.13331E-001
		1120.29*		15.10	5.64227E-001	2.17188E-001
		1764.49*		15.80	5.17951E-001	1.82375E-001
PB-214	0.580	74.82*	@	6.21	2.71777E+001	6.09092E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	5.52557E-001	2.02065E-001
		351.92*		37.20	4.70921E-001	1.30944E-001
Ac-228	0.995	338.32*		11.40	6.67756E-001	2.96735E-001
		911.07*		27.70	8.89532E-001	1.89388E-001
		969.11*		16.60	9.95375E-001	2.55950E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		0.994	1.907933E-001	5.620237E-002
K-40		1.000	1.927135E+001	1.917669E+000
TL-208		0.747	3.369204E-001	6.875033E-002
Pb-212	@	0.520	8.136191E-001	1.723494E-001
Bi-214		0.997	5.297200E-001	8.800330E-002
PB-214	@	0.580	4.950642E-001	1.098879E-001
Ac-228		0.995	8.729632E-001	1.354547E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.87	8.6206E-001	14.01
F 3	84.69	4.8433E-001	23.94
F 5	257.81	6.0946E-002	63.47
F 9	462.55	7.5959E-002	43.15
F 10	483.78	4.0541E-002	61.65
M 15	964.06	3.4998E-002	71.74
F 18	1332.15	6.4366E-002	37.59
F 20	1588.38	2.8911E-002	54.36

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Co-60	1173.22	100.00	1.1367E-001	8.97E-002	4.8259E-002
	1332.49	100.00	8.9659E-002		6.6378E-002
Nb-94	702.63	100.00	1.1052E-001	9.52E-002	5.1501E-002
	871.10	100.00	9.5210E-002		-8.3904E-003
Ag-108m	79.20	7.10	6.1991E+000	1.35E-001	-4.9781E+000
	433.93	89.90	1.4199E-001		1.5223E-001
	614.37	90.40	1.5450E-001		7.3294E-002
	722.95	90.50	1.3476E-001		1.1552E-001
Sb-125	176.33	6.89	2.5500E+000	4.01E-001	3.4663E-001
	427.89	29.33	4.0092E-001		-2.8944E-001
	463.38	10.35	1.1894E+000		8.4879E-001
	600.56	17.80	6.1088E-001		1.0304E-001
	606.64	5.02	2.7917E+000		3.2414E+000
	635.90	11.32	9.5186E-001		5.4114E-001
Cs-134	563.23	8.38	1.3044E+000	1.26E-001	4.0429E-001
	569.32	15.43	6.8362E-001		-7.0392E-001
	604.70	97.60	1.4470E-001		9.9911E-003
	795.84	85.40	1.2580E-001		-4.7546E-003
	801.93	8.73	1.1635E+000		-1.4574E+000
Cs-137	661.65	85.12	1.3300E-001	1.33E-001	8.6311E-002
Eu-152	121.78	28.40	8.9419E-001	4.30E-001	1.0736E-001
	244.69	7.49	2.1534E+000		-3.1551E+000
	344.27	26.50	5.0330E-001		-4.3776E-001
	778.89	12.74	8.4166E-001		-1.9375E-001
	867.32	4.16	2.3313E+000		-1.8424E+000
	964.01	14.40	9.4227E-001		1.5753E-002
	1085.78	10.00	9.9758E-001		-7.6806E-001
	1112.02	13.30	7.6529E-001		7.5180E-002
	1407.95	20.70	4.2963E-001		9.0354E-002
Eu-154	123.07	40.50	6.1522E-001	2.70E-001	-3.0171E-001
	247.94	6.60	2.3627E+000		6.8035E-002
	591.81	4.83	2.2404E+000		1.2743E-001
	723.30	19.70	6.2256E-001		7.9895E-001
	756.87	4.33	2.4498E+000		-2.7562E+000
	873.19	11.50	8.1458E-001		6.8249E-002
	996.32	10.30	1.0159E+000		-2.4738E-002
	1004.76	17.90	5.7039E-001		-1.7584E-001
	1274.45	35.50	2.7014E-001		1.8184E-002
Eu-155	86.54	30.90	1.2539E+000	1.25E+000	3.3219E+000
	105.31	20.70	1.4162E+000		4.1675E-001
Am-241	59.54	35.90	1.5772E+000	1.58E+000	4.9070E-001
Cm-243	228.19	10.56	1.4933E+000	1.04E+000	-8.1491E-002

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	1.0412E+000	1.04E+000	3.5806E-001

+ = 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

Report Generated On 12/6/2005 7:52:44 AM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: RED6264

Spectrum File: RED6264
Sample ID:
Sample Title: NOL-05-02-131-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/6/2005 7:42:42 AM
Live Time: 600.0 seconds
Real Time: 601.3 seconds

Energy Calibration Date: 6/13/2005
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number:
Title: NOL-05-02-131-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	287-	306	291.78	72.90	0.93	4.33E+002	69.98	1.35E+003
m	2	287-	306	300.09	74.98	0.94	7.98E+002	82.43	1.65E+003
M	3	333-	378	339.34	84.79	1.24	3.64E+002	69.27	1.49E+003
m	4	333-	378	349.73	87.39	1.25	1.93E+002	61.76	1.97E+003
m	5	333-	378	369.11	92.24	1.25	1.01E+002	58.93	1.89E+003
M	6	936-	960	939.89	234.94	0.92	3.90E+001	27.79	2.45E+002
m	7	936-	960	953.89	238.44	0.92	3.12E+002	46.66	3.57E+002
F	8	1175-	1204	1179.72	294.91	1.28	7.92E+001	30.18	4.76E+002
F	9	1342-	1358	1351.93	337.96	0.85	7.10E+001	26.44	2.10E+002
F	10	1400-	1417	1406.39	351.58	1.06	1.43E+002	32.22	2.35E+002
F	11	2031-	2053	2041.81	510.45	2.00	1.66E+002	28.05	1.15E+002
F	12	2323-	2340	2331.08	582.77	1.20	1.79E+002	32.09	1.42E+002
F	13	2428-	2446	2435.39	608.85	1.17	1.31E+002	27.42	1.02E+002
F	14	3633-	3653	3642.76	910.72	1.55	1.73E+002	28.47	6.33E+001
F	15	3865-	3883	3873.99	968.53	1.51	1.04E+002	24.06	6.16E+001
F	16	5828-	5856	5842.74	1460.76	2.00	1.13E+003	65.55	2.54E+001
F	17	6914-	6927	6920.51	1730.22	0.92	1.17E+001	8.15	4.90E+000
F	18	7053-	7068	7060.16	1765.14	1.78	4.12E+001	15.08	1.41E+001

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	0.991	511.00*	100.00	2.33879E-001	5.06146E-002
K-40	1.000	1460.81*	10.67	1.94978E+001	1.94377E+000
Eu-155	0.320	86.54*	30.90	7.99634E-001	3.00502E-001
		105.31	20.70		
TL-208	0.748	277.35	6.80		
		510.84*	21.60	1.08277E+000	2.50456E-001
		583.14*	84.20	3.12260E-001	6.92040E-002
		860.37	12.46		
Pb-212	0.677	74.81* @	10.70	1.18364E+001	2.62251E+000
		77.11 @	18.00		
		87.30* @	8.00	3.08859E+000	1.16069E+000
		238.63*	44.60	7.83816E-001	1.69738E-001
Bi-214	0.692	609.31*	46.30	4.23312E-001	1.02547E-001
		1120.29	15.10		
		1764.49*	15.80	5.00105E-001	1.89615E-001
PB-214	0.668	74.82* @	6.21	2.03944E+001	4.75501E+000
		77.11 @	10.50		
		87.30* @	4.67	5.29094E+000	2.02811E+000
		241.98	7.49		
		295.21*	19.20	4.90239E-001	2.04262E-001
		351.92*	37.20	4.80320E-001	1.34764E-001
Ac-228	0.994	338.32*	11.40	7.69552E-001	3.10984E-001
		911.07*	27.70	1.02348E+000	2.05476E-001
		969.11*	16.60	1.04736E+000	2.65370E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		0.991	1.664309E-001	5.273002E-002
K-40		1.000	1.949783E+001	1.943765E+000
Eu-155		0.320	5.236644E-001	3.041563E-001
TL-208		0.748	3.122602E-001	6.845167E-002
Pb-212	@	0.677	7.838157E-001	1.697378E-001
Bi-214		0.692	4.406897E-001	9.020112E-002
PB-214	@	0.668	4.832826E-001	1.104228E-001
Ac-228		0.994	9.760672E-001	1.439996E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.90	7.2145E-001	16.17
M 3	84.79	6.0738E-001	19.01
m 5	92.24	1.6885E-001	58.17
M 6	234.94	6.4981E-002	71.27
F 17	1730.22	1.9476E-002	69.77

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
	Co-60	1173.22	100.00	1.1581E-001	8.62E-002	7.3018E-002
		1332.49	100.00	8.6234E-002		6.5252E-002
	Nb-94	702.63	100.00	1.1390E-001	9.92E-002	4.4807E-002
		871.10	100.00	9.9194E-002		5.8438E-002
	Ag-108m	79.20	7.10	6.1076E+000	1.32E-001	-6.4188E+000
		433.93	89.90	1.3159E-001		8.1634E-002
		614.37	90.40	1.5050E-001		-1.1315E-002
		722.95	90.50	1.3252E-001		5.4972E-002
	Sb-125	176.33	6.89	2.4632E+000	3.91E-001	-1.7018E+000
		427.89	29.33	3.9052E-001		3.3907E-001
		463.38	10.35	1.2278E+000		1.4299E+000
		600.56	17.80	6.3837E-001		3.3251E-001
		606.64	5.02	2.7706E+000		4.6083E+000
		635.90	11.32	9.3911E-001		-5.5315E-001
	Cs-134	563.23	8.38	1.3402E+000	1.24E-001	-2.8915E-001
		569.32	15.43	7.1937E-001		1.7810E-001
		604.70	97.60	1.4344E-001		2.8199E-002
		795.84	85.40	1.2424E-001		7.8787E-002
		801.93	8.73	1.1537E+000		-1.7528E+000
	Cs-137	661.65	85.12	1.3190E-001	1.32E-001	1.1746E-001
	Eu-152	121.78	28.40	8.6695E-001	3.46E-001	-9.8432E-002
		244.69	7.49	2.1627E+000		-7.4057E-001
		344.27	26.50	4.7587E-001		-3.9404E-001
		778.89	12.74	8.0780E-001		-7.2220E-001
		867.32	4.16	2.3606E+000		-3.5647E+000
		964.01	14.40	9.4227E-001		3.2957E-001
		1085.78	10.00	1.0143E+000		1.2715E-001
		1112.02	13.30	7.9004E-001		-1.2532E+000
		1407.95	20.70	3.4566E-001		-1.8983E-001
	Eu-154	123.07	40.50	6.0200E-001	2.75E-001	7.4434E-002
		247.94	6.60	2.2887E+000		-3.0036E-001
		591.81	4.83	2.2357E+000		-7.1233E-001
		723.30	19.70	6.0884E-001		7.8444E-002
		756.87	4.33	2.4067E+000		-1.1577E+000
		873.19	11.50	8.4183E-001		-4.9643E-001
		996.32	10.30	9.7971E-001		9.7536E-002
		1004.76	17.90	5.3590E-001		2.9260E-001
		1274.45	35.50	2.7547E-001		-5.6591E-002
+	Eu-155	86.54*	30.90	8.6959E-001	8.70E-001	7.9963E-001
		105.31	20.70	1.3772E+000		-3.7879E-001
	Am-241	59.54	35.90	1.5684E+000	1.57E+000	7.7645E-001
	Cm-243	228.19	10.56	1.4639E+000	1.05E+000	-4.9788E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	1.0464E+000	1.05E+000	7.2023E-001

+ = 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

Report Generated On 12/6/2005 9:32:29 AM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: BLUE6279

Spectrum File: C:\GENIE2K\CAMFILES\NOL-05-02-132-F-G.CNF
Sample ID:
Sample Title: NOL-05-02-132-F-G
Description:

Sample Type:
Geometry: GM

Acquisition Started: 12/6/2005 12:26:54 AM
Live Time: 600.0 seconds
Real Time: 601.2 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: C:\GENIE2K\CAMFILES\NOL-05-02-132-F-G.CNF
Log Number:
Title: NOL-05-02-132-F-G
Description:

Geometry: GM

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	285-	316	291.71	72.78	1.13	5.37E+002	73.40	1.54E+003
m	2	285-	316	300.32	74.94	1.14	8.76E+002	80.62	1.71E+003
m	3	285-	316	309.13	77.15	1.14	2.33E+002	62.92	1.66E+003
M	4	333-	358	339.63	84.80	1.15	3.49E+002	66.87	1.49E+003
m	5	333-	358	349.95	87.39	1.16	1.38E+002	60.47	1.68E+003
F	6	947-	959	954.17	238.86	1.34	3.71E+002	47.36	2.86E+002
F	7	1174-	1186	1180.18	295.48	1.39	7.39E+001	28.00	1.84E+002
F	8	1345-	1360	1352.99	338.75	1.43	7.94E+001	75.27	1.84E+002
F	9	1401-	1415	1407.13	352.30	1.44	1.55E+002	31.80	1.58E+002
F	10	2032-	2053	2041.93	511.15	2.32	1.73E+002	28.89	1.20E+002
F	11	2322-	2340	2331.26	583.50	1.59	1.97E+002	31.58	1.18E+002
F	12	2428-	2445	2435.61	609.59	1.61	1.52E+002	28.47	9.71E+001
F	13	3015-	3027	3020.78	755.82	1.69	2.76E+001	14.91	3.10E+001
F	14	3634-	3652	3643.01	911.21	1.77	1.80E+002	28.55	5.34E+001
F	15	3864-	3883	3874.16	968.91	1.80	1.08E+002	24.46	7.25E+001
F	16	5828-	5856	5842.38	1459.97	2.01	1.06E+003	97.61	1.09E+001

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File: C:\GENIE2K\CAMFILES\NOL-05-02-132-F-G.CNF

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Unit)	Activity Uncertainty
ANN	0.999	511.00*	100.00	2.48062E-001	5.33122E-002
K-40	0.979	1460.81*	10.67	1.87490E+001	2.29314E+000
Eu-155	0.320	86.54*	30.90	5.78859E-001	2.78682E-001
		105.31	20.70		
TL-208	0.749	277.35	6.80		
		510.84*	21.60	1.14844E+000	2.64035E-001
		583.14*	84.20	3.49583E-001	7.22478E-002
		860.37	12.46		
Pb-212	0.999	74.81* @	10.70	1.31580E+001	2.84900E+000
		77.11* @	18.00	1.99957E+000	6.66996E-001
		87.30* @	8.00	2.23584E+000	1.07641E+000
		238.63*	44.60	9.47676E-001	1.91589E-001
Bi-214	0.396	609.31*	46.30	4.99943E-001	1.11827E-001
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.848	74.82* @	6.21	2.26716E+001	5.17744E+000
		77.11* @	10.50	3.42783E+000	1.17172E+000
		87.30* @	4.67	3.83014E+000	1.86652E+000
		241.98	7.49		
		295.21*	19.20	4.66002E-001	1.93134E-001
		351.92*	37.20	5.31170E-001	1.40430E-001
Ac-228	0.998	338.32*	11.40	8.76372E-001	8.42096E-001
		911.07*	27.70	1.08042E+000	2.11858E-001
		969.11*	16.60	1.09845E+000	2.74915E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File:C:\GENIE2K\CAMFILES\NOL-05-02-132-F-G.CNF

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Unit)	Wt mean Activity Uncertainty
ANN		0.999	1.725524E-001	5.549477E-002
K-40		0.979	1.874897E+001	2.293141E+000
Eu-155		0.320	2.565753E-001	2.835615E-001
TL-208		0.749	3.495830E-001	7.134390E-002
Pb-212	@	0.999	9.476758E-001	1.915888E-001
Bi-214		0.396	4.999426E-001	1.118273E-001
PB-214	@	0.848	5.090305E-001	1.113340E-001
Ac-228		0.998	1.079087E+000	1.645743E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.78	8.9570E-001	13.66
M 4	84.80	5.8225E-001	19.14
F 13	755.82	4.5930E-002	54.09

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:C:\GENIE2K\CAMFILES\NOL-05-02-132-F-G.CNF
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Unit)	Nuclide MDA (pCi/Unit)	Activity (pCi/Unit)
	Co-60	1173.22	100.00	1.0994E-001	9.13E-002	3.8513E-002
		1332.49	100.00	9.1310E-002		8.5731E-002
	Nb-94	702.63	100.00	1.0764E-001	1.02E-001	-1.3479E-001
		871.10	100.00	1.0203E-001		5.6844E-002
	Ag-108m	79.20	7.10	5.9911E+000	1.27E-001	-2.0100E-001
		433.93	89.90	1.2692E-001		5.2973E-003
		614.37	90.40	1.5506E-001		-1.1045E-001
		722.95	90.50	1.2828E-001		4.6095E-002
	Sb-125	176.33	6.89	2.4899E+000	3.80E-001	1.3681E+000
		427.89	29.33	3.8044E-001		-1.7653E-001
		463.38	10.35	1.1652E+000		1.2940E-001
		600.56	17.80	5.9528E-001		-3.1600E-001
		606.64	5.02	2.8742E+000		5.6155E+000
		635.90	11.32	9.6909E-001		7.0831E-003
	Cs-134	563.23	8.38	1.3253E+000	1.19E-001	1.2045E+000
		569.32	15.43	7.1947E-001		-6.1813E-001
		604.70	97.60	1.4381E-001		-8.2912E-002
		795.84	85.40	1.1907E-001		7.4855E-002
		801.93	8.73	1.0687E+000		-2.9406E+000
	Cs-137	661.65	85.12	1.3029E-001	1.30E-001	-2.4671E-003
	Eu-152	121.78	28.40	8.4386E-001	3.27E-001	2.2108E-001
		244.69	7.49	2.0308E+000		-4.1230E+000
		344.27	26.50	4.7477E-001		-2.7996E-001
		778.89	12.74	8.1277E-001		2.6608E-001
		867.32	4.16	2.3920E+000		-3.2581E+000
		964.01	14.40	9.6925E-001		4.7424E-001
		1085.78	10.00	1.0013E+000		8.9023E-001
		1112.02	13.30	8.4975E-001		-1.2341E+000
		1407.95	20.70	3.2680E-001		-3.3158E-001
	Eu-154	123.07	40.50	5.8200E-001	2.64E-001	-3.4846E-001
		247.94	6.60	2.1802E+000		-3.4835E+000
		591.81	4.83	2.3421E+000		-1.0963E-001
		723.30	19.70	5.9797E-001		5.8092E-001
		756.87	4.33	2.3778E+000		-1.6350E+000
		873.19	11.50	8.7977E-001		6.9215E-002
		996.32	10.30	9.6123E-001		-7.4014E-001
		1004.76	17.90	5.4881E-001		5.0303E-001
		1274.45	35.50	2.6387E-001		-1.3461E-001
+	Eu-155	86.54*	30.90	8.1477E-001	8.15E-001	5.7886E-001
		105.31	20.70	1.3850E+000		-2.3462E-001
	Am-241	59.54	35.90	1.5778E+000	1.58E+000	-9.8286E-001
	Cm-243	228.19	10.56	1.4427E+000	1.01E+000	2.5286E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Unit)	Nuclide MDA (pCi/Unit)	Activity (pCi/Unit)
Cm-243	277.60	14.00	1.0083E+000	1.01E+000	7.8177E-001

+ = 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

Report Generated On 12/6/2005 9:05:16 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-02-133
Sample Title: NOL-05-02-133-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/6/2005 8:55:14 PM
Live Time: 600.0 seconds
Real Time: 601.2 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-02-133
Title: NOL-05-02-133-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	287-	306	291.76	72.79	0.84	3.92E+002	68.32	1.23E+003
m	2	287-	306	300.15	74.89	0.85	7.96E+002	83.82	1.55E+003
F	3	335-	345	339.20	84.69	1.09	2.65E+002	71.36	1.22E+003
F	4	947-	959	953.70	238.74	0.89	2.65E+002	42.56	2.94E+002
F	5	1347-	1361	1352.54	338.64	1.13	7.92E+001	25.92	1.37E+002
F	6	1397-	1412	1406.63	352.18	1.00	1.14E+002	28.83	1.66E+002
F	7	2032-	2050	2040.92	510.90	2.10	1.08E+002	26.85	1.38E+002
F	8	2322-	2341	2330.30	583.26	1.44	1.83E+002	29.81	9.12E+001
F	9	2426-	2444	2434.30	609.26	1.49	1.53E+002	28.36	9.07E+001
F	10	2901-	2912	2907.17	727.44	0.91	2.48E+001	15.74	5.11E+001
F	11	3633-	3650	3642.23	911.01	1.52	1.42E+002	26.31	5.39E+001
F	12	3864-	3885	3873.83	968.83	2.01	9.50E+001	21.55	4.61E+001
F	13	5321-	5334	5327.51	1331.55	1.69	2.70E+001	13.04	1.44E+001
F	14	5827-	5854	5840.75	1459.56	1.97	9.86E+002	60.97	2.08E+001
F	15	6345-	6358	6352.28	1587.16	1.78	2.13E+001	10.13	3.42E+000

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gm)	Activity Uncertainty
ANN	1.000	511.00*	100.00	1.47690E-001	4.17304E-002
K-40	0.954	1460.81*	10.67	1.65337E+001	1.68444E+000
TL-208	0.751	277.35	6.80		
		510.84*	21.60	6.83751E-001	2.01104E-001
		583.14*	84.20	3.09967E-001	6.46087E-002
		860.37	12.46		
Bi-212	0.998	727.17*	11.80	3.18331E-001	2.05440E-001
Pb-212	0.520	74.81* @	10.70	1.13883E+001	2.53410E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	6.43431E-001	1.44518E-001
Bi-214	0.398	609.31*	46.30	4.79165E-001	1.06413E-001
		1120.29	15.10		
		1764.49	15.80		
Ac-228	0.999	338.32*	11.40	8.32379E-001	3.02147E-001
		911.07*	27.70	8.12229E-001	1.77211E-001
		969.11*	16.60	9.24049E-001	2.30807E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
ANN		1.000	8.073733E-002	4.394794E-002
K-40		0.954	1.653373E+001	1.684442E+000
TL-208		0.751	3.099668E-001	6.381413E-002
Bi-212		0.998	3.183311E-001	2.054396E-001
Pb-212	@	0.520	6.434308E-001	1.445179E-001
Bi-214		0.398	4.791647E-001	1.064133E-001
Ac-228		0.999	8.499063E-001	1.274441E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.79	6.5304E-001	17.44
F 3	84.69	4.4132E-001	26.95
F 6	352.18	1.9081E-001	25.19
F 13	1331.55	4.5019E-002	48.29
F 15	1587.16	3.5447E-002	47.64

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
Co-60	1173.22	100.00	1.0689E-001	8.11E-002	-7.8569E-003
	1332.49	100.00	8.1053E-002		7.1079E-002
Nb-94	702.63	100.00	9.6355E-002	9.43E-002	-1.7491E-002
	871.10	100.00	9.4261E-002		4.0510E-002
Ag-108m	79.20	7.10	5.7043E+000	1.23E-001	-3.6041E+000
	433.93	89.90	1.2315E-001		4.6208E-002
	614.37	90.40	1.4434E-001		9.2632E-003
	722.95	90.50	1.2268E-001		7.8952E-002
Sb-125	176.33	6.89	2.3964E+000	3.72E-001	-3.8780E-001
	427.89	29.33	3.7170E-001		-5.0517E-002
	463.38	10.35	1.0932E+000		-2.4426E-001
	600.56	17.80	5.6564E-001		3.6928E-001
	606.64	5.02	2.7000E+000		4.1442E+000
	635.90	11.32	8.9593E-001		1.9848E-001
Cs-134	563.23	8.38	1.2082E+000	1.09E-001	7.2728E-001
	569.32	15.43	6.5421E-001		8.7924E-002
	604.70	97.60	1.3820E-001		5.8684E-003
	795.84	85.40	1.0875E-001		-1.7200E-001
	801.93	8.73	1.0885E+000		-9.9959E-001
Cs-137	661.65	85.12	1.3002E-001	1.30E-001	9.6958E-002
Eu-152	121.78	28.40	8.0246E-001	3.00E-001	-1.6584E-002
	244.69	7.49	1.9462E+000		-1.3419E+000
	344.27	26.50	4.4910E-001		6.2065E-002
	778.89	12.74	7.7618E-001		-5.3299E-001
	867.32	4.16	2.3816E+000		-1.0542E+000
	964.01	14.40	8.2509E-001		-1.1191E-002
	1085.78	10.00	8.9535E-001		-1.8005E-001
	1112.02	13.30	7.7745E-001		-7.2323E-002
	1407.95	20.70	2.9994E-001		1.6739E-001
Eu-154	123.07	40.50	5.6400E-001	2.42E-001	3.8862E-001
	247.94	6.60	2.1457E+000		-2.7795E+000
	591.81	4.83	2.0887E+000		1.3122E+000
	723.30	19.70	5.6365E-001		2.2584E-001
	756.87	4.33	2.3015E+000		3.1986E-001
	873.19	11.50	7.6671E-001		-6.9003E-001
	996.32	10.30	9.3988E-001		2.8423E-001
	1004.76	17.90	5.2806E-001		5.7410E-001
	1274.45	35.50	2.4240E-001		-6.8400E-002
Eu-155	86.54	30.90	1.1425E+000	1.14E+000	1.6060E+000
	105.31	20.70	1.2979E+000		7.1958E-001
Am-241	59.54	35.90	1.5081E+000	1.51E+000	-6.3563E-001
Cm-243	228.19	10.56	1.4163E+000	9.34E-001	9.2797E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
Cm-243	277.60	14.00	9.3428E-001	9.34E-001	6.6876E-001

+ = 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

Report Generated On 12/8/2005 5:23:49 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: RED6264

Spectrum File: RED6264
Sample ID:
Sample Title: NOL-05-02-134-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/8/2005 5:13:47 PM
Live Time: 600.0 seconds
Real Time: 601.1 seconds

Energy Calibration Date: 6/13/2005
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number:
Title: NOL-05-02-134-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	286-	305	291.72	72.89	0.88	4.63E+002	67.77	1.19E+003
m	2	286-	305	300.30	75.03	0.88	7.51E+002	79.65	1.43E+003
F	3	334-	344	339.11	84.74	1.09	3.07E+002	68.36	1.18E+003
F	4	948-	961	954.98	238.72	1.15	2.90E+002	42.60	2.84E+002
F	5	1176-	1188	1181.10	295.25	1.17	8.36E+001	28.00	1.56E+002
F	6	1347-	1358	1353.48	338.35	0.94	5.60E+001	24.90	1.38E+002
F	7	1401-	1413	1407.21	351.78	1.31	1.17E+002	28.91	1.30E+002
F	8	2036-	2051	2044.30	511.07	1.61	9.63E+001	26.25	1.20E+002
F	9	2325-	2342	2333.16	583.29	1.29	1.61E+002	29.35	9.78E+001
F	10	2430-	2446	2437.97	609.50	1.34	1.47E+002	28.25	8.93E+001
F	11	2621-	2655	2648.07	662.02	1.50	4.75E+001	19.11	1.36E+002
F	12	2903-	2917	2910.08	727.53	1.39	4.52E+001	17.64	4.09E+001
F	13	3638-	3657	3646.89	911.75	1.50	1.44E+002	26.39	5.18E+001
F	14	3869-	3887	3878.19	969.58	1.61	7.21E+001	21.77	6.18E+001
F	15	4478-	4491	4483.72	1120.97	1.22	3.98E+001	16.99	3.94E+001
F	16	5327-	5340	5333.32	1333.39	0.77	2.39E+001	11.96	2.10E+001
F	17	5833-	5862	5848.47	1462.19	2.03	1.00E+003	62.08	1.50E+001
F	18	7059-	7072	7064.57	1766.24	2.39	3.09E+001	12.57	8.92E+000

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	1.000	511.00*	100.00	1.35463E-001	4.12439E-002
K-40	0.945	1460.81*	10.67	1.73353E+001	1.76739E+000
Cs-137	0.996	661.65*	85.12	8.55918E-002	3.58550E-002
TL-208	0.751	277.35	6.80		
		510.84*	21.60	6.27145E-001	1.97694E-001
		583.14*	84.20	2.81601E-001	6.29956E-002
		860.37	12.46		
Bi-212	0.996	727.17*	11.80	5.98643E-001	2.43937E-001
Pb-212	0.521	74.81* @	10.70	1.11237E+001	2.47932E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	7.27065E-001	1.56309E-001
Bi-214	0.978	609.31*	46.30	4.72245E-001	1.07978E-001
		1120.29*	15.10	4.57991E-001	2.01369E-001
		1764.49*	15.80	3.74931E-001	1.57072E-001
PB-214	0.582	74.82* @	6.21	1.91664E+001	4.49281E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	5.17996E-001	1.94137E-001
		351.92*	37.20	3.94643E-001	1.17412E-001
Ac-228	0.991	338.32*	11.40	6.06904E-001	2.86319E-001
		911.07*	27.70	8.48942E-001	1.84046E-001
		969.11*	16.60	7.24111E-001	2.31400E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		1.000	7.463755E-002	4.338525E-002
K-40		0.945	1.733525E+001	1.767393E+000
Cs-137		0.996	8.559181E-002	3.585502E-002
TL-208		0.751	2.816006E-001	6.232354E-002
Bi-212		0.996	5.986431E-001	2.439371E-001
Pb-212	@	0.521	7.270648E-001	1.563093E-001
Bi-214		0.978	4.437887E-001	8.138896E-002
PB-214	@	0.582	4.276785E-001	1.004670E-001
Ac-228		0.991	7.614575E-001	1.286754E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.89	7.7163E-001	14.64
F 3	84.74	5.1088E-001	22.30
F 16	1333.39	3.9831E-002	50.03

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
	Co-60	1173.22	100.00	1.0701E-001	9.01E-002	9.5790E-002
		1332.49	100.00	9.0078E-002		1.1184E-001
	Nb-94	702.63	100.00	1.0316E-001	8.97E-002	5.7557E-002
		871.10	100.00	8.9720E-002		-1.2710E-001
	Ag-108m	79.20	7.10	5.9663E+000	1.19E-001	-1.0423E+001
		433.93	89.90	1.2350E-001		-1.3841E-001
		614.37	90.40	1.4825E-001		-4.6308E-002
		722.95	90.50	1.1868E-001		-3.5230E-002
	Sb-125	176.33	6.89	2.4262E+000	3.83E-001	1.0129E+000
		427.89	29.33	3.8342E-001		1.6928E-001
		463.38	10.35	1.0945E+000		-7.2504E-001
		600.56	17.80	6.1597E-001		1.7049E-001
		606.64	5.02	2.7635E+000		3.9636E+000
		635.90	11.32	9.0642E-001		-5.4873E-002
	Cs-134	563.23	8.38	1.2914E+000	1.23E-001	1.9305E-003
		569.32	15.43	7.1658E-001		2.7475E-001
		604.70	97.60	1.4071E-001		-2.3122E-002
		795.84	85.40	1.2265E-001		1.0455E-001
		801.93	8.73	1.1954E+000		1.2650E-001
+	Cs-137	661.65*	85.12	1.6617E-001	1.66E-001	8.5592E-002
	Eu-152	121.78	28.40	8.1500E-001	3.69E-001	1.4506E-001
		244.69	7.49	2.0154E+000		-1.4097E+000
		344.27	26.50	4.7123E-001		-3.0722E-001
		778.89	12.74	8.7615E-001		-4.5524E-001
		867.32	4.16	2.2411E+000		4.6405E-001
		964.01	14.40	8.6608E-001		6.2318E-001
		1085.78	10.00	9.8056E-001		-1.3951E-001
		1112.02	13.30	7.6780E-001		2.9380E-001
		1407.95	20.70	3.6858E-001		4.2696E-001
	Eu-154	123.07	40.50	5.6702E-001	2.40E-001	-8.8634E-002
		247.94	6.60	2.1114E+000		-2.9793E+000
		591.81	4.83	2.2960E+000		9.3262E-001
		723.30	19.70	5.3875E-001		-2.5589E-001
		756.87	4.33	2.3438E+000		1.7565E+000
		873.19	11.50	8.0901E-001		1.5248E-001
		996.32	10.30	9.2910E-001		2.7319E-001
		1004.76	17.90	5.0891E-001		3.6569E-001
		1274.45	35.50	2.4040E-001		-2.1434E-001
	Eu-155	86.54	30.90	1.1839E+000	1.18E+000	2.9213E+000
		105.31	20.70	1.3239E+000		-8.3105E-001
	Am-241	59.54	35.90	1.5483E+000	1.55E+000	-3.6449E-001
	Cm-243	228.19	10.56	1.3814E+000	9.65E-001	-5.8781E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	9.6510E-001	9.65E-001	1.0551E+000

+ = 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

Report Generated On 12/8/2005 5:38:06 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: RED6264

Spectrum File: RED6264
Sample ID:
Sample Title: NOL-05-02-135-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/8/2005 5:28:03 PM
Live Time: 600.0 seconds
Real Time: 601.2 seconds

Energy Calibration Date: 6/13/2005
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number:
Title: NOL-05-02-135-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	284-	306	291.81	72.91	0.94	3.97E+002	68.57	1.58E+003
m	2	284-	306	300.19	75.01	0.95	7.53E+002	82.03	1.67E+003
F	3	334-	345	339.48	84.83	1.16	2.82E+002	68.15	1.29E+003
F	4	946-	965	954.85	238.68	1.09	2.65E+002	42.80	4.76E+002
F	5	1175-	1187	1180.95	295.22	0.94	7.50E+001	27.72	1.75E+002
F	6	1348-	1359	1354.13	338.51	0.87	7.12E+001	26.20	1.42E+002
M	7	1383-	1415	1387.05	346.74	1.07	2.63E+001	20.61	1.15E+002
m	8	1383-	1415	1407.75	351.92	1.07	1.22E+002	28.59	1.41E+002
F	9	2032-	2055	2043.56	510.88	2.14	1.73E+002	29.48	1.53E+002
F	10	2327-	2342	2333.37	583.34	1.40	1.73E+002	28.91	6.21E+001
F	11	2428-	2444	2437.51	609.38	1.25	1.35E+002	27.27	8.73E+001
F	12	2904-	2919	2911.37	727.85	1.42	4.30E+001	19.38	6.66E+001
F	13	3176-	3187	3181.04	795.28	1.10	2.60E+001	15.71	4.10E+001
F	14	3434-	3450	3442.52	860.65	1.54	3.76E+001	16.57	3.87E+001
F	15	3636-	3656	3646.08	911.55	1.79	1.21E+002	25.33	6.78E+001
F	16	3871-	3885	3878.38	969.63	1.34	6.37E+001	19.14	3.53E+001
F	17	4478-	4492	4485.02	1121.30	1.47	4.79E+001	18.18	3.72E+001
F	18	4688-	4703	4695.87	1174.02	1.82	4.27E+001	17.74	4.00E+001
F	19	4951-	4964	4957.16	1239.35	1.39	2.92E+001	15.58	3.34E+001
F	20	5509-	5522	5515.27	1378.88	1.90	2.81E+001	11.19	1.94E+000
F	21	5834-	5863	5848.56	1462.21	2.02	1.00E+003	61.58	2.95E+001
F	22	7059-	7074	7066.18	1766.64	1.88	5.24E+001	15.09	5.06E+000

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	1.000	511.00*	100.00	2.43122E-001	5.29733E-002
K-40	0.943	1460.81*	10.67	1.73085E+001	1.76047E+000
TL-208	0.902	277.35	6.80		
		510.84*	21.60	1.12557E+000	2.61907E-001
		583.14*	84.20	3.01923E-001	6.39648E-002
		860.37*	12.46	4.87394E-001	2.23098E-001
Bi-212	0.986	727.17*	11.80	5.69309E-001	2.65163E-001
Pb-212	0.521	74.81* @	10.70	1.11707E+001	2.50466E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	6.65756E-001	1.49796E-001
Bi-214	0.966	609.31*	46.30	4.33436E-001	1.02764E-001
		1120.29*	15.10	5.51573E-001	2.17178E-001
		1764.49*	15.80	6.35536E-001	1.93793E-001
PB-214	0.583	74.82* @	6.21	1.92475E+001	4.53614E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	4.64417E-001	1.88635E-001
		351.92*	37.20	4.08376E-001	1.17845E-001
Ac-228	0.994	338.32*	11.40	7.72074E-001	3.08808E-001
		911.07*	27.70	7.13225E-001	1.70745E-001
		969.11*	16.60	6.40035E-001	2.03554E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		1.000	1.749161E-001	5.457683E-002
K-40		0.943	1.730846E+001	1.760466E+000
TL-208		0.902	3.157697E-001	6.079846E-002
Bi-212		0.986	5.693090E-001	2.651627E-001
Pb-212	@	0.521	6.657557E-001	1.497962E-001
Bi-214		0.966	4.887679E-001	8.376421E-002
PB-214	@	0.583	4.241082E-001	9.994482E-002
Ac-228		0.994	6.965495E-001	1.204543E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.91	6.6184E-001	17.27
F 3	84.83	4.7003E-001	24.16
M 7	346.74	4.3881E-002	78.30
F 13	795.28	4.3335E-002	60.42
F 18	1174.02	7.1206E-002	41.53
F 19	1239.35	4.8723E-002	53.30
F 20	1378.88	4.6770E-002	39.86

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Co-60	1173.22	100.00	1.1551E-001	9.92E-002	1.5273E-002
	1332.49	100.00	9.9193E-002		1.3375E-001
Nb-94	702.63	100.00	1.0104E-001	8.91E-002	4.1614E-002
	871.10	100.00	8.9051E-002		-1.9916E-002
Ag-108m	79.20	7.10	6.0769E+000	1.31E-001	-1.9601E+000
	433.93	89.90	1.3271E-001		-1.2484E-003
	614.37	90.40	1.5271E-001		-5.8631E-002
	722.95	90.50	1.3125E-001		-3.4370E-002
Sb-125	176.33	6.89	2.4850E+000	3.79E-001	7.5226E-001
	427.89	29.33	3.7922E-001		2.5189E-001
	463.38	10.35	1.1747E+000		-2.5170E-001
	600.56	17.80	5.8739E-001		-2.6409E-002
	606.64	5.02	2.6732E+000		5.3408E+000
	635.90	11.32	9.5186E-001		-4.8269E-001
Cs-134	563.23	8.38	1.2353E+000	1.26E-001	-2.7070E-001
	569.32	15.43	7.1658E-001		-2.7818E-001
	604.70	97.60	1.3468E-001		5.2960E-002
	795.84	85.40	1.2611E-001		4.5427E-002
	801.93	8.73	1.1827E+000		-7.5040E-001
Cs-137	661.65	85.12	1.3784E-001	1.38E-001	1.0397E-001
Eu-152	121.78	28.40	8.5457E-001	3.48E-001	8.2206E-001
	244.69	7.49	1.9929E+000		7.2854E-001
	344.27	26.50	4.7175E-001		-2.6300E-001
	778.89	12.74	8.4580E-001		-1.2096E+000
	867.32	4.16	2.2179E+000		-6.6187E-001
	964.01	14.40	8.3968E-001		-2.0912E-001
	1085.78	10.00	9.3118E-001		-8.5110E-001
	1112.02	13.30	8.0690E-001		-1.1892E-001
	1407.95	20.70	3.4829E-001		-7.6749E-002
Eu-154	123.07	40.50	5.9131E-001	2.38E-001	-1.3113E-001
	247.94	6.60	2.0725E+000		-4.1370E+000
	591.81	4.83	2.3005E+000		2.3991E+000
	723.30	19.70	5.9952E-001		-2.9465E-001
	756.87	4.33	2.5453E+000		1.3304E+000
	873.19	11.50	7.9492E-001		-4.7198E-001
	996.32	10.30	9.3558E-001		-1.3136E-001
	1004.76	17.90	5.3213E-001		-2.4498E-001
	1274.45	35.50	2.3795E-001		-9.4174E-002
Eu-155	86.54	30.90	1.1880E+000	1.19E+000	1.3733E+000
	105.31	20.70	1.3321E+000		-1.8399E-001
Am-241	59.54	35.90	1.5386E+000	1.54E+000	-7.5576E-001
Cm-243	228.19	10.56	1.4262E+000	1.01E+000	6.0151E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	1.0081E+000	1.01E+000	-7.2350E-001

+ = 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

Report Generated On 12/8/2005 6:06:47 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: RED6264

Spectrum File: RED6264
Sample ID:
Sample Title: NOL-05-02-136-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/8/2005 5:56:43 PM
Live Time: 600.0 seconds
Real Time: 601.2 seconds

Energy Calibration Date: 6/13/2005
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number:
Title: NOL-05-02-136-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	282-	306	291.58	72.85	0.95	4.76E+002	69.91	1.49E+003
m	2	282-	306	300.27	75.03	0.95	7.28E+002	81.29	1.65E+003
F	3	334-	346	339.25	84.77	1.07	2.91E+002	68.26	1.44E+003
M	4	949-	974	954.88	238.69	1.01	2.69E+002	41.64	2.44E+002
m	5	949-	974	965.48	241.34	1.02	5.73E+001	28.12	2.86E+002
F	6	1175-	1187	1181.45	295.34	0.84	7.32E+001	27.20	1.82E+002
F	7	1349-	1359	1352.98	338.23	0.62	4.61E+001	22.79	1.47E+002
F	8	1402-	1414	1407.68	351.90	1.06	1.54E+002	32.01	1.48E+002
F	9	2036-	2055	2044.08	511.01	1.74	1.58E+002	28.65	1.17E+002
F	10	2323-	2342	2332.75	583.19	1.54	1.90E+002	30.12	9.26E+001
F	11	2430-	2447	2437.90	609.48	1.45	1.31E+002	27.05	9.21E+001
F	12	2639-	2655	2647.00	661.76	1.41	1.42E+002	28.00	8.53E+001
F	13	3634-	3658	3645.96	911.52	1.89	1.72E+002	27.39	5.89E+001
F	14	3870-	3886	3878.08	969.55	1.41	8.45E+001	21.37	4.15E+001
F	15	4477-	4492	4483.76	1120.99	0.89	4.63E+001	16.76	4.29E+001
F	16	4687-	4705	4695.65	1173.96	1.92	5.47E+001	20.07	5.41E+001
F	17	5324-	5340	5332.94	1333.30	1.81	5.87E+001	17.04	1.43E+001
F	18	5834-	5861	5847.95	1462.06	2.02	9.90E+002	61.45	3.14E+001
F	19	7058-	7071	7064.74	1766.28	1.64	3.77E+001	13.91	1.06E+001

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	1.000	511.00*	100.00	2.21617E-001	5.02679E-002
K-40	0.955	1460.81*	10.67	1.71269E+001	1.74738E+000
Co-60	0.982	1173.22*	100.00	9.63284E-002	3.61093E-002
		1332.49*	100.00	1.06467E-001	3.19891E-002
Cs-137	1.000	661.65*	85.12	2.56300E-001	5.87424E-002
TL-208	0.752	277.35	6.80		
		510.84*	21.60	1.02601E+000	2.47347E-001
		583.14*	84.20	3.31431E-001	6.80112E-002
		860.37	12.46		
Pb-212	0.521	74.81* @	10.70	1.07857E+001	2.43329E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	6.76134E-001	1.48869E-001
Bi-214	0.977	609.31*	46.30	4.22279E-001	1.01449E-001
		1120.29*	15.10	5.32332E-001	2.00866E-001
		1764.49*	15.80	4.57375E-001	1.74869E-001
PB-214	0.731	74.82* @	6.21	1.85840E+001	4.40432E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98*	7.49	8.58398E-001	4.45049E-001
		295.21*	19.20	4.53617E-001	1.84985E-001
		351.92*	37.20	5.18236E-001	1.38101E-001
Ac-228	0.995	338.32*	11.40	5.00271E-001	2.59251E-001
		911.07*	27.70	1.01644E+000	1.99727E-001
		969.11*	16.60	8.48264E-001	2.32214E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		1.000	1.500282E-001	5.231854E-002
K-40		0.955	1.712693E+001	1.747376E+000
Co-60		0.982	1.020089E-001	2.394446E-002
Cs-137		1.000	2.562999E-001	5.874237E-002
TL-208		0.752	3.314314E-001	6.714801E-002
Pb-212	@	0.521	6.761342E-001	1.488686E-001
Bi-214		0.977	4.473378E-001	8.041255E-002
PB-214	@	0.731	5.162639E-001	1.073936E-001
Ac-228		0.995	8.318208E-001	1.307534E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.85	7.9272E-001	14.70
F 3	84.77	4.8514E-001	23.45

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
+	Co-60	1173.22*	100.00	8.3006E-002	4.48E-002	9.6328E-002
		1332.49*	100.00	4.4841E-002		1.0647E-001
	Nb-94	702.63	100.00	1.1003E-001	9.74E-002	-9.3548E-002
		871.10	100.00	9.7376E-002		1.1330E-001
	Ag-108m	79.20	7.10	6.0568E+000	1.26E-001	-3.8603E+000
		433.93	89.90	1.3509E-001		5.1764E-002
		614.37	90.40	1.4927E-001		-1.0086E-001
		722.95	90.50	1.2633E-001		2.9798E-003
	Sb-125	176.33	6.89	2.4403E+000	3.90E-001	-1.7104E+000
		427.89	29.33	3.8993E-001		-1.6330E-001
		463.38	10.35	1.2403E+000		8.7163E-001
		600.56	17.80	5.6288E-001		-3.9197E-001
		606.64	5.02	2.6548E+000		5.2868E+000
		635.90	11.32	9.2835E-001		-7.8467E-001
	Cs-134	563.23	8.38	1.2703E+000	1.25E-001	-4.5008E-001
		569.32	15.43	6.8362E-001		3.5571E-001
		604.70	97.60	1.3313E-001		-2.3711E-002
		795.84	85.40	1.2549E-001		7.4537E-002
		801.93	8.73	1.1570E+000		-1.2792E+000
+	Cs-137	661.65*	85.12	1.0178E-001	1.02E-001	2.5630E-001
	Eu-152	121.78	28.40	8.4795E-001	3.51E-001	3.7614E-001
		244.69	7.49	2.0838E+000		7.0766E-001
		344.27	26.50	4.7996E-001		-2.5131E-001
		778.89	12.74	8.1854E-001		-2.4872E-001
		867.32	4.16	2.4322E+000		-1.8948E+000
		964.01	14.40	8.7126E-001		-1.6148E-001
		1085.78	10.00	1.0209E+000		8.7676E-001
		1112.02	13.30	7.9972E-001		-1.6996E-001
		1407.95	20.70	3.5089E-001		8.1151E-002
	Eu-154	123.07	40.50	5.9290E-001	2.44E-001	2.0708E-001
		247.94	6.60	2.2630E+000		-7.3680E-001
		591.81	4.83	2.1688E+000		4.6457E-001
		723.30	19.70	5.8765E-001		1.5890E-001
		756.87	4.33	2.3943E+000		-1.5568E+000
		873.19	11.50	8.1458E-001		4.0446E-001
		996.32	10.30	9.3881E-001		-1.2039E+000
		1004.76	17.90	5.3590E-001		2.0544E-002
		1274.45	35.50	2.4403E-001		-1.2336E-001
	Eu-155	86.54	30.90	1.1875E+000	1.19E+000	2.0975E+000
		105.31	20.70	1.3566E+000		7.7177E-001
	Am-241	59.54	35.90	1.5598E+000	1.56E+000	5.5374E-001
	Cm-243	228.19	10.56	1.4762E+000	1.01E+000	-3.7614E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	1.0081E+000	1.01E+000	8.0036E-002

+ = 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

Report Generated On 12/6/2005 9:34:57 AM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: BLUE6279

Spectrum File: C:\GENIE2K\CAMFILES\NOL-05-02-137-F-G.CNF
Sample ID:
Sample Title: NOL-05-02-137-F-G
Description:

Sample Type:
Geometry: GM

Acquisition Started: 12/5/2005 8:36:34 PM
Live Time: 600.0 seconds
Real Time: 601.3 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: C:\GENIE2K\CAMFILES\NOL-05-02-137-F-G.CNF
Log Number:
Title: NOL-05-02-137-F-G
Description:

Geometry: GM

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	282-	306	291.29	72.67	1.13	5.05E+002	75.87	2.04E+003
m	2	282-	306	300.12	74.89	1.14	8.58E+002	87.52	2.08E+003
	3	332-	345	339.76	84.83	0.85	1.38E+002	139.47	1.79E+003
F	4	946-	959	953.96	238.81	1.34	3.58E+002	48.09	3.52E+002
F	5	1347-	1359	1352.65	338.67	1.43	9.12E+001	27.90	1.53E+002
F	6	1399-	1411	1406.49	352.15	1.44	1.26E+002	30.06	1.50E+002
F	7	1843-	1854	1849.82	463.10	1.52	2.90E+001	19.46	7.74E+001
F	8	2030-	2053	2041.60	511.07	2.32	1.65E+002	32.82	1.44E+002
F	9	2321-	2342	2330.60	583.34	1.59	2.03E+002	82.01	9.55E+001
F	10	2424-	2445	2435.27	609.50	1.61	2.11E+002	65.70	9.07E+001
F	11	2900-	2916	2907.80	727.59	1.68	5.56E+001	19.85	6.77E+001
F	12	3171-	3182	3177.02	794.85	1.71	1.95E+001	13.19	4.50E+001
F	13	3633-	3651	3641.83	910.91	1.77	1.66E+002	28.10	6.48E+001
F	14	3866-	3883	3873.67	968.79	1.80	1.01E+002	23.85	6.04E+001
F	15	4470-	4486	4478.36	1119.70	1.87	5.34E+001	18.79	4.47E+001
F	16	4682-	4697	4689.69	1172.43	1.89	6.85E+001	30.53	4.16E+001
F	17	5318-	5336	5327.65	1331.58	1.96	6.65E+001	17.35	1.43E+001
F	18	5827-	5856	5841.01	1459.63	2.01	1.17E+003	66.19	2.20E+001

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File: C:\GENIE2K\CAMFILES\NOL-05-02-137-F-G.CNF

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Unit)	Activity Uncertainty
ANN	1.000	511.00*	100.00	2.36146E-001	5.68703E-002
K-40	0.959	1460.81*	10.67	2.06070E+001	2.03515E+000
Co-60	0.978	1173.22*	100.00	1.22649E-001	5.55249E-002
		1332.49*	100.00	1.22805E-001	3.34350E-002
TL-208	0.751	277.35	6.80		
		510.84*	21.60	1.09327E+000	2.78015E-001
		583.14*	84.20	3.61122E-001	1.53144E-001
		860.37	12.46		
Bi-212	0.995	727.17*	11.80	7.48799E-001	2.81542E-001
Pb-212	0.520	74.81* @	10.70	1.28998E+001	2.85011E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	9.13855E-001	1.88707E-001
Bi-214	0.697	609.31*	46.30	6.90640E-001	2.31623E-001
		1120.29*	15.10	6.25257E-001	2.29691E-001
		1764.49	15.80		
Ac-228	0.998	338.32*	11.40	1.00708E+000	3.46062E-001
		911.07*	27.70	9.98048E-001	2.04212E-001
		969.11*	16.60	1.02788E+000	2.66190E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File:C:\GENIE2K\CAMFILES\NOL-05-02-137-F-G.CNF

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Unit)	Wt mean Activity Uncertainty
ANN		1.000	1.581440E-001	6.574190E-002
K-40		0.959	2.060697E+001	2.035150E+000
Co-60		0.978	1.227631E-001	2.864291E-002
TL-208		0.751	3.611218E-001	1.526908E-001
Bi-212		0.995	7.487991E-001	2.815415E-001
Pb-212	@	0.520	9.138554E-001	1.887067E-001
Bi-214		0.697	6.576746E-001	1.630949E-001
Ac-228		0.998	1.008738E+000	1.467381E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.67	8.4140E-001	15.03
3	84.83	2.2959E-001	101.25
F 6	352.15	2.1067E-001	23.78
F 7	463.10	4.8319E-002	67.12
F 12	794.85	3.2560E-002	67.53

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:C:\GENIE2K\CAMFILES\NOL-05-02-137-F-G.CNF
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Unit)	Nuclide MDA (pCi/Unit)	Activity (pCi/Unit)
+	Co-60	1173.22*	100.00	7.0702E-002	4.71E-002	1.2265E-001
		1332.49*	100.00	4.7105E-002		1.2280E-001
	Nb-94	702.63	100.00	1.0473E-001	1.05E-001	-6.8513E-002
		871.10	100.00	1.0616E-001		-2.4158E-002
	Ag-108m	79.20	7.10	6.2610E+000	1.30E-001	-3.7988E+000
		433.93	89.90	1.2951E-001		2.7343E-002
		614.37	90.40	1.5829E-001		-9.3506E-002
		722.95	90.50	1.3356E-001		4.5552E-002
	Sb-125	176.33	6.89	2.6416E+000	3.93E-001	-1.7177E+000
		427.89	29.33	3.9331E-001		-5.0672E-001
		463.38	10.35	1.1267E+000		2.4255E-001
		600.56	17.80	6.1669E-001		6.1004E-002
		606.64	5.02	2.9783E+000		7.6940E+000
		635.90	11.32	9.4294E-001		-4.0723E-001
	Cs-134	563.23	8.38	1.3359E+000	1.30E-001	-4.9107E-001
		569.32	15.43	7.1512E-001		1.6206E-002
		604.70	97.60	1.5073E-001		-2.0170E-002
		795.84	85.40	1.2951E-001		6.6701E-002
		801.93	8.73	1.1565E+000		-9.5052E-002
	Cs-137	661.65	85.12	1.4167E-001	1.42E-001	4.1403E-002
	Eu-152	121.78	28.40	9.1423E-001	3.33E-001	-8.2125E-001
		244.69	7.49	2.2102E+000		-2.6674E+000
		344.27	26.50	4.8688E-001		-3.4991E-002
		778.89	12.74	8.0607E-001		-1.0002E+000
		867.32	4.16	2.5078E+000		-2.5806E+000
		964.01	14.40	9.3017E-001		2.1859E-001
		1085.78	10.00	1.0013E+000		-2.9108E-001
		1112.02	13.30	8.3797E-001		-1.1272E-002
		1407.95	20.70	3.3256E-001		1.0348E-002
	Eu-154	123.07	40.50	6.3521E-001	2.90E-001	4.6891E-001
		247.94	6.60	2.3764E+000		-2.3043E+000
		591.81	4.83	2.3328E+000		1.0253E+000
		723.30	19.70	6.1954E-001		3.1617E-001
		756.87	4.33	2.6130E+000		8.6662E-001
		873.19	11.50	9.4347E-001		7.1286E-001
		996.32	10.30	9.8687E-001		1.8208E-001
		1004.76	17.90	5.5259E-001		-7.4488E-003
		1274.45	35.50	2.9002E-001		2.0822E-001
	Eu-155	86.54	30.90	1.2642E+000	1.26E+000	1.9954E+000
		105.31	20.70	1.4550E+000		7.0200E-001
	Am-241	59.54	35.90	1.6526E+000	1.65E+000	7.4217E-001
	Cm-243	228.19	10.56	1.5513E+000	1.03E+000	6.8497E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Unit)	Nuclide MDA (pCi/Unit)	Activity (pCi/Unit)
Cm-243	277.60	14.00	1.0310E+000	1.03E+000	-2.0752E-002

+ = 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

Report Generated On 12/6/2005 9:35:22 AM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: BLUE6279

Spectrum File: C:\GENIE2K\CAMFILES\NOL-05-02-138-F-G.CNF
Sample ID:
Sample Title: NOL-05-02-138-F-G
Description:

Sample Type:
Geometry: GM

Acquisition Started: 12/5/2005 8:23:08 PM
Live Time: 600.0 seconds
Real Time: 601.3 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: C:\GENIE2K\CAMFILES\NOL-05-02-138-F-G.CNF
Log Number:
Title: NOL-05-02-138-F-G
Description:

Geometry: GM

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	286-	313	291.63	72.76	1.13	5.41E+002	76.34	1.59E+003
m	2	286-	313	300.28	74.93	1.14	9.75E+002	86.42	1.97E+003
m	3	286-	313	309.22	77.17	1.14	1.63E+002	66.02	1.62E+003
F	4	334-	343	339.24	84.70	1.15	3.74E+002	70.86	1.22E+003
F	5	943-	959	953.78	238.76	1.34	3.09E+002	118.66	3.95E+002
M	6	1173-	1203	1180.56	295.57	1.39	7.61E+001	29.01	2.55E+002
m	7	1173-	1203	1198.61	300.09	1.39	4.52E+001	26.67	2.43E+002
F	8	1346-	1359	1353.13	338.79	1.43	7.31E+001	27.74	1.87E+002
F	9	1399-	1415	1406.58	352.17	1.44	1.57E+002	101.78	1.78E+002
F	10	2031-	2053	2041.13	510.95	2.32	1.43E+002	28.60	1.59E+002
F	11	2321-	2339	2330.86	583.40	1.59	1.88E+002	31.17	1.14E+002
F	12	2428-	2444	2435.46	609.55	1.61	1.71E+002	29.02	7.71E+001
F	13	3633-	3652	3642.37	911.05	1.77	1.92E+002	8137.85	4.74E+001
F	14	3865-	3880	3872.89	968.60	1.80	6.27E+001	21.34	6.80E+001
F	15	4683-	4697	4689.47	1172.38	1.89	3.81E+001	114.16	4.76E+001
F	16	5827-	5852	5840.92	1459.61	2.01	1.20E+003	98.50	9.97E+000

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File: C:\GENIE2K\CAMFILES\NOL-05-02-138-F-G.CNF

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Unit)	Activity Uncertainty
ANN	1.000	511.00*	100.00	2.05045E-001	4.95030E-002
K-40	0.957	1460.81*	10.67	2.11152E+001	2.43526E+000
TL-208	0.750	277.35	6.80		
		510.84*	21.60	9.49284E-001	2.41938E-001
		583.14*	84.20	3.34167E-001	7.04317E-002
		860.37	12.46		
Pb-212	0.843	74.81* @	10.70	1.46515E+001	3.15142E+000
		77.11* @	18.00	1.39720E+000	6.28789E-001
		87.30 @	8.00		
		238.63*	44.60	7.89968E-001	3.27294E-001
Bi-214	0.397	609.31*	46.30	5.60314E-001	1.17538E-001
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.761	74.82* @	6.21	2.52450E+001	5.73089E+000
		77.11* @	10.50	2.39519E+000	1.09266E+000
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	4.79468E-001	1.99874E-001
		351.92*	37.20	5.37226E-001	3.59508E-001
Ac-228	0.996	338.32*	11.40	8.06733E-001	3.31263E-001
		911.07*	27.70	1.15652E+000	4.89033E+001
		969.11*	16.60	6.39829E-001	2.27963E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File:C:\GENIE2K\CAMFILES\NOL-05-02-138-F-G.CNF

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Unit)	Wt mean Activity Uncertainty
ANN		1.000	1.328652E-001	5.173451E-002
K-40		0.957	2.111518E+001	2.435255E+000
TL-208		0.750	3.341675E-001	6.958470E-002
Pb-212	@	0.843	7.899683E-001	3.272937E-001
Bi-214		0.397	5.603139E-001	1.175376E-001
PB-214	@	0.761	4.931057E-001	1.746906E-001
Ac-228		0.996	6.934748E-001	1.877916E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.76	9.0188E-001	14.11
F 4	84.70	6.2333E-001	18.95
m 7	300.09	7.5322E-002	59.01
F 15	1172.38	6.3473E-002	299.76

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:C:\GENIE2K\CAMFILES\NOL-05-02-138-F-G.CNF
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Unit)	Nuclide MDA (pCi/Unit)	Activity (pCi/Unit)
Co-60	1173.22	100.00	1.1667E-001	9.34E-002	9.5387E-002
	1332.49	100.00	9.3421E-002		7.5305E-002
Nb-94	702.63	100.00	1.1199E-001	9.55E-002	5.1705E-002
	871.10	100.00	9.5489E-002		-4.1954E-002
Ag-108m	79.20	7.10	6.3175E+000	1.25E-001	-4.2954E+000
	433.93	89.90	1.3107E-001		4.3187E-002
	614.37	90.40	1.6126E-001		-1.8191E-002
	722.95	90.50	1.2472E-001		3.6710E-002
Sb-125	176.33	6.89	2.6435E+000	4.12E-001	-9.8040E-001
	427.89	29.33	4.1213E-001		2.8664E-001
	463.38	10.35	1.1704E+000		-1.6316E-001
	600.56	17.80	6.4617E-001		-1.8481E-001
	606.64	5.02	2.9058E+000		4.7698E+000
	635.90	11.32	9.5393E-001		-1.0274E-001
Cs-134	563.23	8.38	1.3280E+000	1.38E-001	2.1067E-001
	569.32	15.43	7.0191E-001		-5.3671E-002
	604.70	97.60	1.4804E-001		-8.7769E-002
	795.84	85.40	1.3797E-001		2.8165E-002
	801.93	8.73	1.1799E+000		-1.2285E+000
Cs-137	661.65	85.12	1.2824E-001	1.28E-001	-6.0267E-002
Eu-152	121.78	28.40	8.9071E-001	3.83E-001	-7.1854E-001
	244.69	7.49	2.1255E+000		-2.5026E+000
	344.27	26.50	4.9256E-001		-3.9310E-001
	778.89	12.74	8.8911E-001		-5.2010E-001
	867.32	4.16	2.3166E+000		-3.2413E+000
	964.01	14.40	9.5317E-001		1.4580E+000
	1085.78	10.00	1.1068E+000		5.7385E-001
	1112.02	13.30	8.9747E-001		-5.3538E-001
	1407.95	20.70	3.8269E-001		7.4884E-002
Eu-154	123.07	40.50	6.2140E-001	2.76E-001	-4.3971E-001
	247.94	6.60	2.2649E+000		-3.7394E+000
	591.81	4.83	2.3560E+000		-7.3592E-001
	723.30	19.70	5.6789E-001		-2.6600E-001
	756.87	4.33	2.4609E+000		-1.6741E+000
	873.19	11.50	8.3634E-001		-1.6033E-001
	996.32	10.30	9.8371E-001		2.5944E-001
	1004.76	17.90	5.8009E-001		2.8216E-001
	1274.45	35.50	2.7618E-001		-1.7218E-001
Eu-155	86.54	30.90	1.2812E+000	1.28E+000	2.5700E+000
	105.31	20.70	1.4328E+000		-8.2887E-001
Am-241	59.54	35.90	1.6277E+000	1.63E+000	5.4014E-001
Cm-243	228.19	10.56	1.5195E+000	1.06E+000	4.8515E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Unit)	Nuclide MDA (pCi/Unit)	Activity (pCi/Unit)
Cm-243	277.60	14.00	1.0615E+000	1.06E+000	3.7758E-001

+ = 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

Report Generated On 12/6/2005 9:35:47 AM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: BLUE6279

Spectrum File: C:\GENIE2K\CAMFILES\NOL-05-02-139-F-G.CNF
Sample ID:
Sample Title: NOL-05-02-139-F-G
Description:

Sample Type:
Geometry: GM

Acquisition Started: 12/6/2005 12:12:27 AM
Live Time: 600.0 seconds
Real Time: 601.3 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: C:\GENIE2K\CAMFILES\NOL-05-02-139-F-G.CNF
Log Number:
Title: NOL-05-02-139-F-G
Description:

Geometry: GM

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	282-	316	291.74	72.79	1.13	5.08E+002	74.52	1.94E+003
m	2	282-	316	300.39	74.95	1.14	9.24E+002	84.49	1.94E+003
m	3	282-	316	309.22	77.17	1.14	1.93E+002	66.06	1.93E+003
M	4	330-	354	339.35	84.73	1.15	3.92E+002	216.76	1.96E+003
m	5	330-	354	350.01	87.40	1.16	1.03E+002	80.02	1.74E+003
F	6	943-	962	954.01	238.82	1.34	3.53E+002	47.98	5.62E+002
F	7	1171-	1186	1180.14	295.47	1.39	1.02E+002	30.31	2.40E+002
F	8	1346-	1360	1352.58	338.65	1.43	1.05E+002	27.71	1.57E+002
F	9	1401-	1415	1407.26	352.34	1.44	1.53E+002	31.25	1.59E+002
F	10	2030-	2049	2041.60	511.07	2.32	1.34E+002	88.13	1.49E+002
F	11	2321-	2339	2331.36	583.53	1.59	2.07E+002	30.73	8.36E+001
F	12	2425-	2444	2435.56	609.58	1.61	1.73E+002	96.53	1.05E+002
F	13	2900-	2916	2908.20	727.69	1.68	5.92E+001	55.77	7.28E+001
F	14	3432-	3446	3439.57	860.41	1.75	3.12E+001	17.70	5.61E+001
F	15	3635-	3654	3643.58	911.35	1.77	1.87E+002	29.09	5.47E+001
F	16	3867-	3882	3874.45	968.99	1.80	6.06E+001	23.01	9.01E+001
F	17	4472-	4486	4479.67	1120.03	1.87	3.11E+001	19.31	7.12E+001
F	18	5828-	5857	5842.32	1459.96	2.01	1.32E+003	105.80	1.15E+001
F	19	7050-	7067	7059.40	1763.56	2.12	5.90E+001	39.52	2.22E+000

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File: C:\GENIE2K\CAMFILES\NOL-05-02-139-F-G.CNF

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Unit)	Activity Uncertainty
ANN	1.000	511.00*	100.00	1.92306E-001	1.28897E-001
K-40	0.978	1460.81*	10.67	2.32500E+001	2.64840E+000
TL-208	0.900	277.35	6.80		
		510.84*	21.60	8.90304E-001	6.01159E-001
		583.14*	84.20	3.67901E-001	7.26317E-002
		860.37*	12.46	4.11856E-001	2.38801E-001
Bi-212	0.992	727.17*	11.80	7.97488E-001	7.57198E-001
Pb-212	0.999	74.81* @	10.70	1.38723E+001	3.00026E+000
		77.11* @	18.00	1.65146E+000	6.52332E-001
		87.30* @	8.00	1.67295E+000	1.34137E+000
		238.63*	44.60	9.00642E-001	1.86956E-001
Bi-214	0.993	609.31*	46.30	5.65897E-001	3.24141E-001
		1120.29*	15.10	3.64048E-001	2.29287E-001
		1764.49*	15.80	7.27695E-001	4.92895E-001
PB-214	0.847	74.82* @	6.21	2.39024E+001	5.45296E+000
		77.11* @	10.50	2.83107E+000	1.13809E+000
		87.30* @	4.67	2.86586E+000	2.30803E+000
		241.98	7.49		
		295.21*	19.20	6.45681E-001	2.19777E-001
		351.92*	37.20	5.23318E-001	1.38123E-001
Ac-228	0.998	338.32*	11.40	1.15654E+000	3.55515E-001
		911.07*	27.70	1.12425E+000	2.17465E-001
		969.11*	16.60	6.18799E-001	2.43641E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File:C:\GENIE2K\CAMFILES\NOL-05-02-139-F-G.CNF

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Unit)	Wt mean Activity Uncertainty
	ANN		1.000	1.120528E-001	1.297462E-001
	K-40		0.978	2.324998E+001	2.648398E+000
X	Eu-155		0.320		
	TL-208		0.900	3.715409E-001	6.860536E-002
	Bi-212		0.992	7.974884E-001	7.571980E-001
	Pb-212	@	0.999	9.006418E-001	1.869565E-001
	Bi-214		0.993	4.687162E-001	1.749941E-001
	PB-214	@	0.847	5.579642E-001	1.169452E-001
	Ac-228		0.998	9.443204E-001	1.475965E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.79	8.4626E-001	14.68
M 4	84.73	6.5403E-001	55.24

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:C:\GENIE2K\CAMFILES\NOL-05-02-139-F-G.CNF
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Unit)	Nuclide MDA (pCi/Unit)	Activity (pCi/Unit)
Co-60	1173.22	100.00	1.1573E-001	9.47E-002	2.6854E-002
	1332.49	100.00	9.4664E-002		5.4392E-002
Nb-94	702.63	100.00	1.0919E-001	1.09E-001	-2.1034E-002
	871.10	100.00	1.0901E-001		-9.0466E-002
Ag-108m	79.20	7.10	6.2709E+000	1.32E-001	-3.8199E-001
	433.93	89.90	1.3184E-001		-2.0382E-002
	614.37	90.40	1.6570E-001		2.6102E-002
	722.95	90.50	1.4036E-001		-7.3909E-002
Sb-125	176.33	6.89	2.6549E+000	4.21E-001	4.1458E-001
	427.89	29.33	4.2065E-001		4.2242E-002
	463.38	10.35	1.2830E+000		3.8947E-001
	600.56	17.80	6.4866E-001		5.0150E-001
	606.64	5.02	2.9817E+000		4.1347E+000
	635.90	11.32	9.7551E-001		-1.0903E+000
Cs-134	563.23	8.38	1.4511E+000	1.36E-001	1.1744E-001
	569.32	15.43	7.7770E-001		4.4538E-001
	604.70	97.60	1.5144E-001		-3.0533E-003
	795.84	85.40	1.3561E-001		9.0199E-002
	801.93	8.73	1.2378E+000		-9.6694E-001
Cs-137	661.65	85.12	1.3316E-001	1.33E-001	-1.4443E-001
Eu-152	121.78	28.40	9.0331E-001	3.27E-001	-1.7792E-002
	244.69	7.49	2.2657E+000		1.1567E+000
	344.27	26.50	5.0222E-001		8.9137E-003
	778.89	12.74	9.0516E-001		-3.2129E-001
	867.32	4.16	2.5219E+000		-1.6870E+000
	964.01	14.40	9.4665E-001		5.4028E-001
	1085.78	10.00	1.0814E+000		-1.1402E+000
	1112.02	13.30	9.1713E-001		2.4311E-002
	1407.95	20.70	3.2680E-001		8.8139E-002
Eu-154	123.07	40.50	6.3060E-001	2.97E-001	2.7064E-001
	247.94	6.60	2.3423E+000		-3.8660E+000
	591.81	4.83	2.3328E+000		1.1471E+000
	723.30	19.70	6.5050E-001		-2.4438E-001
	756.87	4.33	2.6130E+000		-1.0910E-001
	873.19	11.50	9.6533E-001		1.1222E+000
	996.32	10.30	1.0149E+000		9.7020E-001
	1004.76	17.90	5.9071E-001		-6.1459E-001
	1274.45	35.50	2.9719E-001		-9.5375E-003
Eu-155	86.54*	30.90	8.2852E-001	8.29E-001	4.3313E-001
	105.31	20.70	1.4465E+000		4.6979E-001
Am-241	59.54	35.90	1.6466E+000	1.65E+000	1.7219E+000
Cm-243	228.19	10.56	1.5577E+000	1.06E+000	-7.3955E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Unit)	Nuclide MDA (pCi/Unit)	Activity (pCi/Unit)
Cm-243	277.60	14.00	1.0600E+000	1.06E+000	-4.8170E-001

+ = 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

Report Generated On 12/6/2005 9:36:05 AM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: BLUE6279

Spectrum File: C:\GENIE2K\CAMFILES\NOL-05-02-140-F-G.CNF
Sample ID:
Sample Title: NOL-05-02-140-F-G
Description:

Sample Type:
Geometry: GM

Acquisition Started: 12/5/2005 11:56:07 PM
Live Time: 600.0 seconds
Real Time: 601.2 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: C:\GENIE2K\CAMFILES\NOL-05-02-140-F-G.CNF
Log Number:
Title: NOL-05-02-140-F-G
Description:

Geometry: GM

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	282-	317	291.73	72.78	1.13	4.56E+002	71.29	1.77E+003
m	2	282-	317	300.30	74.93	1.14	9.56E+002	83.31	1.74E+003
m	3	282-	317	309.01	77.12	1.14	2.01E+002	63.09	1.71E+003
M	4	332-	363	340.08	84.91	1.15	3.42E+002	242.25	1.58E+003
m	5	332-	363	359.62	89.81	1.16	8.88E+001	83.07	1.35E+003
F	6	946-	959	954.11	238.85	1.34	3.65E+002	47.95	3.57E+002
F	7	1176-	1186	1180.82	295.64	1.39	7.53E+001	29.87	1.81E+002
F	8	1347-	1358	1352.69	338.68	1.43	1.05E+002	28.58	1.37E+002
F	9	1399-	1414	1406.96	352.26	1.44	1.39E+002	84.96	1.62E+002
F	10	2030-	2051	2041.16	510.96	2.32	1.65E+002	30.98	1.79E+002
F	11	2321-	2341	2330.85	583.40	1.59	2.29E+002	32.28	1.00E+002
F	12	2428-	2447	2436.21	609.74	1.61	1.92E+002	30.20	8.96E+001
F	13	2898-	2914	2907.24	727.45	1.68	5.45E+001	19.35	6.56E+001
F	14	3634-	3652	3643.32	911.29	1.77	1.41E+002	26.68	6.40E+001
F	15	3866-	3883	3874.13	968.91	1.80	1.02E+002	23.06	5.12E+001
F	16	5828-	5857	5842.41	1459.98	2.01	1.15E+003	103.04	3.00E+001

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File: C:\GENIE2K\CAMFILES\NOL-05-02-140-F-G.CNF

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Unit)	Activity Uncertainty
ANN	1.000	511.00*	100.00	2.36305E-001	5.47238E-002
K-40	0.979	1460.81*	10.67	2.02379E+001	2.44471E+000
TL-208	0.750	277.35	6.80		
		510.84*	21.60	1.09400E+000	2.68643E-001
		583.14*	84.20	4.07252E-001	7.81072E-002
		860.37	12.46		
Bi-212	0.998	727.17*	11.80	7.34091E-001	2.74664E-001
Pb-212	0.843	74.81* @	10.70	1.43558E+001	3.07943E+000
		77.11* @	18.00	1.72539E+000	6.38365E-001
		87.30 @	8.00		
		238.63*	44.60	9.31852E-001	1.90622E-001
Bi-214	0.395	609.31*	46.30	6.28747E-001	1.25688E-001
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.760	74.82* @	6.21	2.47355E+001	5.60153E+000
		77.11* @	10.50	2.95781E+000	1.11640E+000
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	4.74635E-001	2.04541E-001
		351.92*	37.20	4.76039E-001	3.01302E-001
Ac-228	0.998	338.32*	11.40	1.15758E+000	3.63956E-001
		911.07*	27.70	8.49888E-001	1.87782E-001
		969.11*	16.60	1.04007E+000	2.59452E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File:C:\GENIE2K\CAMFILES\NOL-05-02-140-F-G.CNF

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Unit)	Wt mean Activity Uncertainty
ANN		1.000	1.483386E-001	5.719363E-002
K-40		0.979	2.023788E+001	2.444710E+000
TL-208		0.750	4.072524E-001	7.697131E-002
Bi-212		0.998	7.340912E-001	2.746637E-001
Pb-212	@	0.843	9.318523E-001	1.906215E-001
Bi-214		0.395	6.287472E-001	1.256878E-001
PB-214	@	0.760	4.750777E-001	1.692301E-001
Ac-228		0.998	9.513024E-001	1.403535E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.78	7.6024E-001	15.63
M 4	84.91	5.6941E-001	70.91
m 5	89.81	1.4804E-001	93.52

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:C:\GENIE2K\CAMFILES\NOL-05-02-140-F-G.CNF
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Unit)	Nuclide MDA (pCi/Unit)	Activity (pCi/Unit)
Co-60	1173.22	100.00	1.1255E-001	9.87E-002	-3.3571E-002
	1332.49	100.00	9.8687E-002		6.2707E-003
Nb-94	702.63	100.00	1.1073E-001	1.02E-001	-1.0697E-001
	871.10	100.00	1.0173E-001		-2.8834E-002
Ag-108m	79.20	7.10	5.9871E+000	1.27E-001	-5.7770E-001
	433.93	89.90	1.2652E-001		4.0537E-002
	614.37	90.40	1.6047E-001		-1.2282E-002
	722.95	90.50	1.3789E-001		2.1883E-002
Sb-125	176.33	6.89	2.4828E+000	3.93E-001	4.9565E-001
	427.89	29.33	3.9331E-001		1.1098E-001
	463.38	10.35	1.2466E+000		3.6081E-001
	600.56	17.80	6.1800E-001		-6.0505E-001
	606.64	5.02	2.9578E+000		-1.7621E+000
	635.90	11.32	9.7551E-001		-7.8837E-001
Cs-134	563.23	8.38	1.3821E+000	1.37E-001	-1.2743E+000
	569.32	15.43	7.7235E-001		8.6410E-002
	604.70	97.60	1.5267E-001		-8.2741E-002
	795.84	85.40	1.3680E-001		-9.6261E-003
	801.93	8.73	1.2347E+000		-2.2246E+000
Cs-137	661.65	85.12	1.3735E-001	1.37E-001	4.3447E-002
Eu-152	121.78	28.40	8.7706E-001	3.15E-001	2.9211E-001
	244.69	7.49	2.1059E+000		-4.8653E+000
	344.27	26.50	5.0673E-001		9.6765E-002
	778.89	12.74	8.5606E-001		-5.3936E-001
	867.32	4.16	2.5219E+000		-3.9925E+000
	964.01	14.40	9.4665E-001		1.4045E-001
	1085.78	10.00	1.0750E+000		-3.3312E-001
	1112.02	13.30	8.2361E-001		-1.3286E+000
	1407.95	20.70	3.1493E-001		-4.1756E-001
Eu-154	123.07	40.50	6.1060E-001	2.96E-001	4.4991E-001
	247.94	6.60	2.2381E+000		-1.3618E+000
	591.81	4.83	2.2904E+000		-1.0392E-001
	723.30	19.70	6.3119E-001		3.9017E-001
	756.87	4.33	2.6539E+000		-4.7182E-001
	873.19	11.50	8.8767E-001		5.8580E-001
	996.32	10.30	1.0241E+000		1.8979E-001
	1004.76	17.90	5.7830E-001		2.6201E-001
	1274.45	35.50	2.9618E-001		-1.7446E-001
Eu-155	86.54	30.90	1.2320E+000	1.23E+000	3.1090E+000
	105.31	20.70	1.3633E+000		-1.1944E+000
Am-241	59.54	35.90	1.5838E+000	1.58E+000	-7.0354E-002
Cm-243	228.19	10.56	1.5113E+000	1.01E+000	-9.3484E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Unit)	Nuclide MDA (pCi/Unit)	Activity (pCi/Unit)
Cm-243	277.60	14.00	1.0123E+000	1.01E+000	-2.2290E-001

+ = 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

Report Generated On 12/6/2005 8:24:34 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-02-141
Sample Title: NOL-05-02-141-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/6/2005 8:14:31 PM
Live Time: 600.0 seconds
Real Time: 601.1 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-02-141
Title: NOL-05-02-141-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	285-	305	291.50	72.73	0.98	3.46E+002	65.58	1.38E+003
m	2	285-	305	299.97	74.85	0.98	6.16E+002	77.73	1.49E+003
F	3	333-	357	339.78	84.84	1.60	3.66E+002	69.79	2.31E+003
F	4	945-	961	953.89	238.79	1.04	3.13E+002	47.13	4.40E+002
F	5	1172-	1187	1180.30	295.51	1.09	1.09E+002	30.42	2.11E+002
F	6	1344-	1359	1351.72	338.43	1.31	7.53E+001	27.73	1.84E+002
F	7	1396-	1418	1406.58	352.17	1.29	1.75E+002	32.22	2.21E+002
F	8	2031-	2053	2042.55	511.31	2.52	1.88E+002	29.43	1.29E+002
F	9	2322-	2349	2330.54	583.32	1.30	1.77E+002	29.97	1.43E+002
F	10	2425-	2446	2435.08	609.46	1.46	1.91E+002	30.78	1.12E+002
F	11	2898-	2915	2906.51	727.27	1.74	6.24E+001	19.26	4.73E+001
F	12	3433-	3444	3438.74	860.21	0.70	1.79E+001	12.40	3.38E+001
F	13	3633-	3652	3642.13	910.99	1.49	1.72E+002	27.92	5.04E+001
F	14	3728-	3739	3733.62	933.83	1.13	2.40E+001	12.54	1.60E+001
M	15	3849-	3882	3856.53	964.51	1.46	4.49E+001	15.71	2.55E+001
m	16	3849-	3882	3872.85	968.58	1.46	8.92E+001	21.21	3.91E+001
F	17	4470-	4486	4477.84	1119.57	1.55	4.98E+001	18.50	4.46E+001
F	18	5827-	5854	5840.76	1459.57	2.01	9.76E+002	60.77	3.12E+001
F	19	7050-	7067	7056.94	1762.94	1.97	4.95E+001	15.56	1.08E+001

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gm)	Activity Uncertainty
ANN	0.997	511.00*	100.00	2.56914E-001	5.31370E-002
K-40	0.954	1460.81*	10.67	1.63755E+001	1.67219E+000
TL-208	0.901	277.35	6.80		
		510.84*	21.60	1.18942E+000	2.64488E-001
		583.14*	84.20	2.99359E-001	6.39704E-002
		860.37*	12.46	2.24676E-001	1.58195E-001
Bi-212	1.000	727.17*	11.80	7.99992E-001	2.64407E-001
Pb-212	0.520	74.81* @	10.70	8.82183E+000	2.05659E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	7.60416E-001	1.65380E-001
Bi-214	0.982	609.31*	46.30	5.96724E-001	1.20980E-001
		1120.29*	15.10	5.55201E-001	2.14425E-001
		1764.49*	15.80	5.81975E-001	1.91764E-001
PB-214	0.581	74.82* @	6.21	1.52002E+001	3.71139E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	6.52708E-001	2.13104E-001
		351.92*	37.20	5.70658E-001	1.41832E-001
Ac-228	0.997	338.32*	11.40	7.91529E-001	3.16726E-001
		911.07*	27.70	9.83627E-001	1.95827E-001
		969.11*	16.60	8.66772E-001	2.25332E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
ANN		0.997	1.944783E-001	5.462872E-002
K-40		0.954	1.637545E+001	1.672194E+000
TL-208		0.901	2.890538E-001	5.869853E-002
Bi-212		1.000	7.999918E-001	2.644070E-001
Pb-212	@	0.520	7.604156E-001	1.653803E-001
Bi-214		0.982	5.856025E-001	9.234478E-002
PB-214	@	0.581	5.958453E-001	1.180721E-001
Ac-228		0.997	9.079835E-001	1.339413E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.73	5.7626E-001	18.97
F 3	84.84	6.1044E-001	19.05
F 14	933.83	4.0025E-002	52.24
M 15	964.51	7.4779E-002	35.02

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
Co-60	1173.22	100.00	1.0020E-001	7.65E-002	4.0753E-002
	1332.49	100.00	7.6534E-002		6.5070E-003
Nb-94	702.63	100.00	9.1451E-002	8.49E-002	-2.1883E-002
	871.10	100.00	8.4890E-002		-8.8660E-002
Ag-108m	79.20	7.10	5.3222E+000	1.16E-001	-1.0711E+001
	433.93	89.90	1.1600E-001		3.9634E-002
	614.37	90.40	1.5321E-001		-6.4151E-003
	722.95	90.50	1.2345E-001		6.8063E-002
Sb-125	176.33	6.89	2.3558E+000	3.59E-001	2.0136E+000
	427.89	29.33	3.5874E-001		1.1829E-001
	463.38	10.35	1.1468E+000		8.9556E-001
	600.56	17.80	5.4441E-001		-3.3135E-001
	606.64	5.02	2.8783E+000		7.1003E+000
	635.90	11.32	8.8532E-001		7.5921E-001
Cs-134	563.23	8.38	1.2797E+000	1.20E-001	-2.3460E-002
	569.32	15.43	6.7690E-001		1.4551E-001
	604.70	97.60	1.4389E-001		-7.1883E-003
	795.84	85.40	1.2002E-001		1.7598E-001
	801.93	8.73	1.0655E+000		-9.1400E-001
Cs-137	661.65	85.12	1.1755E-001	1.18E-001	9.2830E-002
Eu-152	121.78	28.40	7.7056E-001	3.38E-001	7.2112E-002
	244.69	7.49	1.9595E+000		4.2287E-001
	344.27	26.50	4.5570E-001		1.0999E-001
	778.89	12.74	7.2363E-001		-1.4209E+000
	867.32	4.16	2.1694E+000		5.0935E-002
	964.01	14.40	8.6340E-001		1.3544E+000
	1085.78	10.00	9.1634E-001		-8.1419E-002
	1112.02	13.30	8.2908E-001		3.5294E-002
	1407.95	20.70	3.3771E-001		-2.7590E-001
Eu-154	123.07	40.50	5.3446E-001	2.51E-001	-2.7754E-001
	247.94	6.60	2.0749E+000		-7.2152E-001
	591.81	4.83	2.0310E+000		8.8943E-001
	723.30	19.70	5.6129E-001		3.8021E-001
	756.87	4.33	2.2208E+000		-2.5094E+000
	873.19	11.50	7.4139E-001		1.5250E-001
	996.32	10.30	8.6445E-001		-1.6965E-002
	1004.76	17.90	5.0430E-001		2.0943E-001
	1274.45	35.50	2.5131E-001		-1.5904E-002
Eu-155	86.54	30.90	1.0998E+000	1.10E+000	1.5347E+000
	105.31	20.70	1.2224E+000		-3.1440E-001
Am-241	59.54	35.90	1.3370E+000	1.34E+000	-5.4140E-001
Cm-243	228.19	10.56	1.3498E+000	9.37E-001	-4.8656E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
Cm-243	277.60	14.00	9.3738E-001	9.37E-001	3.7894E-001

+ = 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

Report Generated On 12/8/2005 6:54:31 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: RED6264

Spectrum File: RED6264
Sample ID:
Sample Title: NOL-05-02-142-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/8/2005 6:44:29 PM
Live Time: 600.0 seconds
Real Time: 601.1 seconds

Energy Calibration Date: 6/13/2005
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number:
Title: NOL-05-02-142-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	282-	309	292.09	72.98	1.17	4.57E+002	67.86	1.79E+003
m	2	282-	309	300.43	75.07	1.17	8.59E+002	79.61	1.72E+003
M	3	331-	354	339.51	84.84	0.95	2.23E+002	62.96	1.42E+003
m	4	331-	354	349.52	87.34	0.96	9.51E+001	54.77	1.28E+003
F	5	928-	963	954.52	238.60	0.97	2.23E+002	39.52	7.13E+002
F	6	1345-	1360	1354.47	338.60	0.90	4.14E+001	24.48	1.95E+002
F	7	1402-	1413	1408.11	352.01	1.03	1.04E+002	28.48	1.30E+002
F	8	2036-	2052	2043.59	510.89	1.50	6.76E+001	24.66	1.33E+002
F	9	2323-	2342	2332.42	583.10	1.37	1.33E+002	26.04	8.00E+001
F	10	2428-	2446	2437.38	609.35	1.39	1.28E+002	25.63	6.89E+001
F	11	2638-	2652	2645.17	661.30	1.25	2.73E+001	16.62	5.19E+001
F	12	3638-	3655	3646.46	911.64	1.64	1.07E+002	22.57	3.60E+001
F	13	3872-	3885	3877.95	969.52	1.17	6.07E+001	18.98	3.54E+001
F	14	4689-	4703	4695.69	1173.97	1.76	4.02E+001	16.21	2.51E+001
F	15	5508-	5521	5514.08	1378.58	1.28	2.09E+001	12.00	1.59E+001
F	16	5833-	5860	5847.18	1461.87	1.94	8.11E+002	55.19	1.40E+001
F	17	7058-	7074	7065.23	1766.41	2.36	4.76E+001	13.96	0.00E+000

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	1.000	511.00*	100.00	9.50749E-002	3.70118E-002
K-40	0.967	1460.81*	10.67	1.40387E+001	1.48458E+000
Cs-137	0.996	661.65*	85.12	4.90741E-002	3.04594E-002
Eu-155	0.321	86.54*	30.90	3.95001E-001	2.40377E-001
		105.31	20.70		
TL-208	0.752	277.35	6.80		
		510.84*	21.60	4.40162E-001	1.75081E-001
		583.14*	84.20	2.32973E-001	5.46489E-002
		860.37	12.46		
Pb-212	0.677	74.81* @	10.70	1.27185E+001	2.75763E+000
		77.11 @	18.00		
		87.30* @	8.00	1.52569E+000	9.28456E-001
		238.63*	44.60	5.58527E-001	1.32318E-001
Bi-214	0.676	609.31*	46.30	4.12793E-001	9.69388E-002
		1120.29	15.10		
		1764.49*	15.80	5.78104E-001	1.79015E-001
Ac-228	0.993	338.32*	11.40	4.49138E-001	2.74668E-001
		911.07*	27.70	6.32534E-001	1.52010E-001
		969.11*	16.60	6.09981E-001	2.01051E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		1.000	4.475271E-002	3.881393E-002
K-40		0.967	1.403871E+001	1.484583E+000
Cs-137		0.996	4.907406E-002	3.045943E-002
Eu-155		0.321	2.503990E-001	2.428058E-001
TL-208		0.752	2.329731E-001	5.411898E-002
Pb-212	@	0.677	5.585268E-001	1.323179E-001
Bi-214		0.676	4.502766E-001	8.524304E-002
Ac-228		0.993	5.957570E-001	1.109257E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.98	7.6142E-001	14.85
M 3	84.84	3.7209E-001	28.20
F 7	352.01	1.7342E-001	27.37
F 14	1173.97	6.7035E-002	40.31
F 15	1378.58	3.4835E-002	57.43

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
	Co-60	1173.22	100.00	1.1087E-001	8.08E-002	4.4867E-002
		1332.49	100.00	8.0805E-002		1.5938E-002
	Nb-94	702.63	100.00	9.0813E-002	9.08E-002	-2.3733E-002
		871.10	100.00	9.2346E-002		-3.8673E-002
	Ag-108m	79.20	7.10	5.8028E+000	1.23E-001	-3.1914E+000
		433.93	89.90	1.2250E-001		-7.1619E-002
		614.37	90.40	1.4085E-001		-3.0125E-002
		722.95	90.50	1.2311E-001		4.9139E-002
	Sb-125	176.33	6.89	2.3368E+000	3.73E-001	1.0709E+000
		427.89	29.33	3.7252E-001		9.2710E-002
		463.38	10.35	1.0856E+000		6.8385E-001
		600.56	17.80	5.6704E-001		1.2302E-001
		606.64	5.02	2.5529E+000		4.2647E+000
		635.90	11.32	9.0420E-001		7.2145E-001
	Cs-134	563.23	8.38	1.1676E+000	1.22E-001	-1.6512E-001
		569.32	15.43	6.1710E-001		-4.2106E-002
		604.70	97.60	1.2937E-001		1.1878E-002
		795.84	85.40	1.2201E-001		7.0596E-003
		801.93	8.73	1.1891E+000		-4.4030E-001
+	Cs-137	661.65*	85.12	7.8659E-002	7.87E-002	4.9074E-002
	Eu-152	121.78	28.40	8.1554E-001	3.21E-001	-1.3364E-001
		244.69	7.49	1.9394E+000		-9.2159E-001
		344.27	26.50	4.7019E-001		-1.9347E-001
		778.89	12.74	7.3996E-001		-7.1709E-001
		867.32	4.16	2.3091E+000		2.4912E-001
		964.01	14.40	7.9745E-001		-4.4470E-001
		1085.78	10.00	9.4557E-001		4.3374E-002
		1112.02	13.30	7.0214E-001		-4.8499E-001
		1407.95	20.70	3.2098E-001		2.5282E-001
	Eu-154	123.07	40.50	5.7072E-001	2.30E-001	5.1796E-002
		247.94	6.60	2.0599E+000		-1.6235E+000
		591.81	4.83	2.1247E+000		1.0895E+000
		723.30	19.70	5.6187E-001		1.2912E-001
		756.87	4.33	2.3117E+000		-9.5754E-001
		873.19	11.50	8.2285E-001		2.1951E-001
		996.32	10.30	8.5081E-001		-4.6714E-001
		1004.76	17.90	4.8868E-001		5.6444E-002
		1274.45	35.50	2.3043E-001		-1.3285E-001
+	Eu-155	86.54*	30.90	7.0283E-001	7.03E-001	3.9500E-001
		105.31	20.70	1.2945E+000		-3.8391E-001
	Am-241	59.54	35.90	1.5111E+000	1.51E+000	2.0037E+000
	Cm-243	228.19	10.56	1.3513E+000	9.39E-001	8.2261E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	9.3914E-001	9.39E-001	4.5488E-002

+ = 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

Report Generated On 12/8/2005 6:41:26 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: RED6264

Spectrum File: RED6264
Sample ID:
Sample Title: NOL-05-02-143-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/8/2005 6:31:24 PM
Live Time: 600.0 seconds
Real Time: 601.1 seconds

Energy Calibration Date: 6/13/2005
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number:
Title: NOL-05-02-143-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	288-	305	292.08	72.98	0.88	3.48E+002	65.95	1.20E+003
m	2	288-	305	300.26	75.02	0.88	7.06E+002	79.44	1.47E+003
F	3	332-	345	339.10	84.73	0.81	1.73E+002	63.20	1.56E+003
F	4	948-	961	954.76	238.66	1.00	2.30E+002	41.60	3.42E+002
F	5	1174-	1186	1179.92	294.96	0.87	5.98E+001	26.39	1.80E+002
F	6	1308-	1317	1312.30	328.05	0.72	3.10E+001	19.99	9.61E+001
F	7	1348-	1362	1352.92	338.21	1.41	7.54E+001	26.62	1.47E+002
F	8	1402-	1413	1407.50	351.86	1.08	1.11E+002	29.22	1.32E+002
F	9	2030-	2055	2042.56	510.63	2.18	1.91E+002	29.65	1.44E+002
F	10	2327-	2339	2332.55	583.14	1.11	1.29E+002	27.45	7.24E+001
F	11	2427-	2446	2437.73	609.44	1.49	1.64E+002	28.05	7.75E+001
F	12	2641-	2654	2647.48	661.88	1.40	5.07E+001	19.35	5.05E+001
F	13	2903-	2915	2909.43	727.37	1.17	3.33E+001	17.22	4.73E+001
F	14	3174-	3186	3180.35	795.10	0.70	2.25E+001	13.88	4.71E+001
F	15	3436-	3447	3442.06	860.54	1.16	2.10E+001	15.41	3.90E+001
F	16	3635-	3654	3645.68	911.45	1.54	1.44E+002	26.81	6.00E+001
F	17	3869-	3887	3877.09	969.30	1.68	9.04E+001	22.16	4.95E+001
F	18	4476-	4489	4482.25	1120.61	1.03	3.78E+001	16.68	4.07E+001
F	19	4685-	4703	4695.64	1173.96	2.14	7.21E+001	18.76	2.60E+001
F	20	5325-	5344	5333.98	1333.56	1.91	6.36E+001	18.02	2.31E+001
F	21	5832-	5861	5847.24	1461.88	2.02	8.68E+002	57.42	1.50E+001

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	0.996	511.00*		100.00	2.68215E-001	5.53268E-002
K-40	0.966	1460.81*		10.67	1.50226E+001	1.57053E+000
Co-60	0.975	1173.22*		100.00	1.26960E-001	3.44834E-002
		1332.49*		100.00	1.15368E-001	3.38932E-002
Cs-137	0.998	661.65*		85.12	9.13545E-002	3.64546E-002
TL-208	0.903	277.35		6.80		
		510.84*		21.60	1.24174E+000	2.75486E-001
		583.14*		84.20	2.25924E-001	5.62235E-002
		860.37*		12.46	2.72617E-001	2.02686E-001
Bi-212	0.999	727.17*		11.80	4.41404E-001	2.33891E-001
Pb-212	0.521	74.81*	@	10.70	1.04650E+001	2.36514E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	5.77844E-001	1.38239E-001
Bi-214	0.699	609.31*		46.30	5.28139E-001	1.11316E-001
		1120.29*		15.10	4.34438E-001	1.97293E-001
		1764.49		15.80		
PB-214	0.582	74.82*	@	6.21	1.80314E+001	4.28026E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	3.70216E-001	1.74879E-001
		351.92*		37.20	3.71982E-001	1.16203E-001
Ac-228	0.997	338.32*		11.40	8.17104E-001	3.15768E-001
		911.07*		27.70	8.51690E-001	1.86332E-001
		969.11*		16.60	9.07968E-001	2.41960E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		0.996	2.187053E-001	5.653135E-002
K-40		0.966	1.502262E+001	1.570526E+000
Co-60		0.975	1.210643E-001	2.417210E-002
Cs-137		0.998	9.135454E-002	3.645458E-002
TL-208		0.903	2.292132E-001	5.374035E-002
Bi-212		0.999	4.414042E-001	2.338906E-001
Pb-212	@	0.521	5.778438E-001	1.382389E-001
Bi-214		0.699	5.055131E-001	9.694915E-002
PB-214	@	0.582	3.714413E-001	9.678458E-002
Ac-228		0.997	8.626790E-001	1.337353E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.98	5.7933E-001	18.97
F 3	84.73	2.8848E-001	36.52
F 6	328.05	5.1708E-002	64.45
F 14	795.10	3.7518E-002	61.65

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
+	Co-60	1173.22*	100.00	5.8961E-002	5.84E-002	1.2696E-001
		1332.49*	100.00	5.8387E-002		1.1537E-001
	Nb-94	702.63	100.00	1.1414E-001	9.43E-002	2.7668E-002
		871.10	100.00	9.4265E-002		1.2857E-002
	Ag-108m	79.20	7.10	5.9482E+000	1.18E-001	-7.1433E+000
		433.93	89.90	1.1904E-001		-2.0290E-001
		614.37	90.40	1.5050E-001		-1.2405E-002
		722.95	90.50	1.1812E-001		-3.8604E-002
	Sb-125	176.33	6.89	2.3752E+000	3.58E-001	-5.8127E-001
		427.89	29.33	3.5809E-001		-2.2019E-001
		463.38	10.35	1.1138E+000		5.5442E-001
		600.56	17.80	6.1088E-001		-1.3045E-001
		606.64	5.02	2.7133E+000		1.5272E+000
		635.90	11.32	9.0864E-001		-1.1273E-001
	Cs-134	563.23	8.38	1.3044E+000	1.23E-001	9.8448E-001
		569.32	15.43	7.1096E-001		1.8229E-001
		604.70	97.60	1.4162E-001		-2.9444E-002
		795.84	85.40	1.2265E-001		-4.4662E-003
		801.93	8.73	1.1439E+000		-1.0188E+000
+	Cs-137	661.65*	85.12	7.4947E-002	7.49E-002	9.1355E-002
	Eu-152	121.78	28.40	8.3191E-001	3.53E-001	-4.9375E-001
		244.69	7.49	2.0216E+000		-1.0339E+000
		344.27	26.50	4.6126E-001		-2.8359E-001
		778.89	12.74	7.9031E-001		-1.1169E+000
		867.32	4.16	2.3387E+000		-1.7923E+000
		964.01	14.40	9.0501E-001		1.9119E-001
		1085.78	10.00	9.0916E-001		-1.7361E-002
		1112.02	13.30	6.9661E-001		-3.3265E-001
		1407.95	20.70	3.5348E-001		-2.4207E-001
	Eu-154	123.07	40.50	5.8017E-001	2.45E-001	-2.2615E-001
		247.94	6.60	2.1840E+000		-1.2318E-001
		591.81	4.83	2.2310E+000		-9.1170E-001
		723.30	19.70	5.4137E-001		2.9970E-001
		756.87	4.33	2.2124E+000		-3.2605E+000
		873.19	11.50	8.2285E-001		1.2671E-001
		996.32	10.30	9.3235E-001		-2.4774E-001
		1004.76	17.90	5.6509E-001		1.0750E-001
		1274.45	35.50	2.4522E-001		-9.8794E-002
	Eu-155	86.54	30.90	1.1709E+000	1.17E+000	2.2498E+000
		105.31	20.70	1.3364E+000		2.1304E-001
	Am-241	59.54	35.90	1.5622E+000	1.56E+000	4.8202E-001
	Cm-243	228.19	10.56	1.3919E+000	9.57E-001	9.0246E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	9.5707E-001	9.57E-001	1.1835E-001

+ = 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

Report Generated On 12/8/2005 6:26:56 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: RED6264

Spectrum File: RED6264
Sample ID:
Sample Title: NOL-05-02-144-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/8/2005 6:16:53 PM
Live Time: 600.0 seconds
Real Time: 601.3 seconds

Energy Calibration Date: 6/13/2005
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number:
Title: NOL-05-02-144-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	282-	307	291.62	72.86	0.99	4.54E+002	71.58	1.77E+003
m	2	282-	307	300.42	75.06	0.99	8.66E+002	85.77	1.88E+003
F	3	332-	344	339.46	84.82	0.91	2.72E+002	70.38	1.60E+003
F	4	946-	961	954.47	238.59	1.06	3.12E+002	46.06	4.18E+002
F	5	1175-	1188	1180.76	295.17	0.99	8.57E+001	28.34	1.86E+002
F	6	1346-	1358	1353.07	338.25	0.86	8.96E+001	27.53	1.58E+002
F	7	1401-	1439	1407.75	351.92	1.03	1.18E+002	30.05	5.00E+002
F	8	2036-	2053	2043.35	510.83	1.65	1.44E+002	30.03	1.51E+002
F	9	2323-	2340	2332.04	583.01	1.27	1.59E+002	28.28	7.91E+001
F	10	2427-	2445	2436.67	609.17	1.45	1.64E+002	28.70	8.57E+001
F	11	2641-	2655	2647.79	661.95	1.28	7.35E+001	22.56	7.08E+001
F	12	2902-	2917	2909.09	727.28	1.36	5.78E+001	19.16	4.82E+001
F	13	3637-	3654	3646.05	911.54	1.41	1.59E+002	28.27	6.08E+001
M	14	3854-	3885	3859.46	964.90	1.32	2.77E+001	14.89	3.65E+001
m	15	3854-	3885	3877.63	969.44	1.32	9.65E+001	22.29	3.81E+001
F	16	4474-	4492	4482.85	1120.76	2.00	6.73E+001	18.68	3.01E+001
F	17	4685-	4706	4695.97	1174.04	2.42	1.14E+002	22.59	3.78E+001
F	18	5326-	5342	5334.44	1333.67	1.52	6.14E+001	19.61	3.79E+001
F	19	5832-	5861	5847.51	1461.95	2.06	1.10E+003	64.67	3.03E+001
F	20	7059-	7072	7066.00	1766.60	1.69	3.10E+001	13.15	1.00E+001

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	0.999	511.00*		100.00	2.02866E-001	5.04108E-002
K-40	0.962	1460.81*		10.67	1.90539E+001	1.90579E+000
Co-60	0.969	1173.22*		100.00	2.00495E-001	4.27473E-002
		1332.49*		100.00	1.11294E-001	3.66085E-002
Cs-137	0.997	661.65*		85.12	1.32270E-001	4.34958E-002
TL-208	0.752	277.35		6.80		
		510.84*		21.60	9.39192E-001	2.45664E-001
		583.14*		84.20	2.76871E-001	6.11250E-002
		860.37		12.46		
Bi-212	1.000	727.17*		11.80	7.64711E-001	2.69100E-001
Pb-212	0.521	74.81*	@	10.70	1.28223E+001	2.81606E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	7.82090E-001	1.68533E-001
Bi-214	0.972	609.31*		46.30	5.29690E-001	1.13144E-001
		1120.29*		15.10	7.73657E-001	2.30032E-001
		1764.49*		15.80	3.75904E-001	1.63883E-001
PB-214	0.583	74.82*	@	6.21	2.20931E+001	5.11033E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	5.30621E-001	1.96921E-001
		351.92*		37.20	3.96041E-001	1.20750E-001
Ac-228	0.996	338.32*		11.40	9.70938E-001	3.35118E-001
		911.07*		27.70	9.40405E-001	1.99099E-001
		969.11*		16.60	9.68568E-001	2.45743E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		0.999	1.430615E-001	5.207461E-002
K-40		0.962	1.905394E+001	1.905790E+000
Co-60		0.969	1.490350E-001	2.780555E-002
Cs-137		0.997	1.322697E-001	4.349577E-002
TL-208		0.752	2.768705E-001	6.045541E-002
Bi-212		1.000	7.647113E-001	2.691002E-001
Pb-212	@	0.521	7.820902E-001	1.685329E-001
Bi-214		0.972	5.213813E-001	8.630714E-002
PB-214	@	0.583	4.328163E-001	1.029387E-001
Ac-228		0.996	9.549685E-001	1.404552E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.86	7.5604E-001	15.78
F 3	84.82	4.5251E-001	25.92
M 14	964.90	4.6238E-002	53.68

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
+	Co-60	1173.22*	100.00	7.3737E-002	6.98E-002	2.0050E-001
		1332.49*	100.00	6.9844E-002		1.1129E-001
	Nb-94	702.63	100.00	1.0653E-001	1.05E-001	9.6384E-002
		871.10	100.00	1.0473E-001		-7.5888E-002
	Ag-108m	79.20	7.10	6.2974E+000	1.27E-001	-3.1106E+000
		433.93	89.90	1.3635E-001		-2.9099E-002
		614.37	90.40	1.5529E-001		5.0771E-004
		722.95	90.50	1.2659E-001		-1.9849E-002
	Sb-125	176.33	6.89	2.5824E+000	3.97E-001	2.2321E+000
		427.89	29.33	3.9691E-001		-6.3414E-002
		463.38	10.35	1.1631E+000		-2.5246E-002
		600.56	17.80	6.1088E-001		-2.7765E-001
		606.64	5.02	2.8022E+000		3.0312E+000
		635.90	11.32	9.5817E-001		1.0910E-001
	Cs-134	563.23	8.38	1.3725E+000	1.30E-001	6.8409E-001
		569.32	15.43	7.2906E-001		2.9082E-001
		604.70	97.60	1.4577E-001		-2.4203E-002
		795.84	85.40	1.3038E-001		5.4704E-002
		801.93	8.73	1.2203E+000		-1.7164E+000
+	Cs-137	661.65*	85.12	8.9823E-002	8.98E-002	1.3227E-001
	Eu-152	121.78	28.40	8.7899E-001	3.71E-001	8.3902E-002
		244.69	7.49	2.0413E+000		-1.2082E+000
		344.27	26.50	4.8047E-001		-2.6798E-001
		778.89	12.74	8.2703E-001		-1.4275E+000
		867.32	4.16	2.6154E+000		-4.4745E+000
		964.01	14.40	9.1324E-001		-5.0432E-001
		1085.78	10.00	1.0628E+000		4.1066E-001
		1112.02	13.30	7.7280E-001		-4.6879E-001
		1407.95	20.70	3.7103E-001		3.5100E-002
	Eu-154	123.07	40.50	6.0596E-001	2.58E-001	-2.1241E-001
		247.94	6.60	2.2413E+000		-9.0948E-001
		591.81	4.83	2.2960E+000		7.7439E-001
		723.30	19.70	5.8884E-001		3.2189E-001
		756.87	4.33	2.4920E+000		-2.9480E+000
		873.19	11.50	9.0124E-001		-8.8913E-001
		996.32	10.30	9.6732E-001		4.4852E-002
		1004.76	17.90	5.3590E-001		-3.4102E-001
		1274.45	35.50	2.5800E-001		1.4924E-001
	Eu-155	86.54	30.90	1.2695E+000	1.27E+000	3.5349E+000
		105.31	20.70	1.4174E+000		-2.0788E-001
	Am-241	59.54	35.90	1.6437E+000	1.64E+000	2.7156E-001
	Cm-243	228.19	10.56	1.4998E+000	1.05E+000	-1.3209E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	1.0471E+000	1.05E+000	3.1858E-001

+ = 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

Report Generated On 12/6/2005 9:36:26 AM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: BLUE6279

Spectrum File: C:\GENIE2K\CAMFILES\NOL-05-02-145-F-G.CNF
Sample ID:
Sample Title: NOL-05-02-145-F-G
Description:

Sample Type:
Geometry: GM

Acquisition Started: 12/5/2005 8:52:29 PM
Live Time: 600.0 seconds
Real Time: 601.3 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: C:\GENIE2K\CAMFILES\NOL-05-02-145-F-G.CNF
Log Number:
Title: NOL-05-02-145-F-G
Description:

Geometry: GM

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	288-	313	291.92	72.83	1.13	4.23E+002	75.62	1.43E+003
m	2	288-	313	300.30	74.93	1.14	8.75E+002	84.73	2.03E+003
m	3	288-	313	309.40	77.21	1.14	1.30E+002	64.90	1.60E+003
F	4	331-	346	340.09	84.91	1.15	2.99E+002	68.36	1.88E+003
F	5	947-	958	953.81	238.77	1.34	3.06E+002	46.07	3.06E+002
F	6	1173-	1187	1179.23	295.24	1.39	9.63E+001	85.47	2.09E+002
F	7	1345-	1358	1352.62	338.66	1.43	7.41E+001	27.10	1.73E+002
F	8	1399-	1414	1406.42	352.13	1.44	2.03E+002	34.79	1.89E+002
F	9	2032-	2052	2042.03	511.18	2.32	1.71E+002	30.70	1.63E+002
F	10	2322-	2339	2330.73	583.37	1.59	1.64E+002	30.89	1.28E+002
F	11	2426-	2444	2435.23	609.49	1.61	2.08E+002	31.97	1.06E+002
F	12	3632-	3651	3641.89	910.93	1.77	1.85E+002	195.86	5.48E+001
M	13	3849-	3881	3856.21	964.43	1.80	5.01E+001	17.46	4.07E+001
m	14	3849-	3881	3873.16	968.66	1.80	8.10E+001	22.03	6.96E+001
F	15	4468-	4487	4478.14	1119.65	1.87	7.78E+001	40.88	3.50E+001
F	16	4683-	4698	4690.61	1172.66	1.89	8.79E+001	21.49	3.58E+001
F	17	5827-	5855	5841.04	1459.64	2.01	1.22E+003	67.99	3.57E+001

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File: C:\GENIE2K\CAMFILES\NOL-05-02-145-F-G.CNF

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Unit)	Activity Uncertainty
ANN	0.999	511.00*	100.00	2.45388E-001	5.51239E-002
K-40	0.959	1460.81*	10.67	2.14630E+001	2.11015E+000
TL-208	0.750	277.35	6.80		
		510.84*	21.60	1.13605E+000	2.71544E-001
		583.14*	84.20	2.91738E-001	6.67511E-002
		860.37	12.46		
Pb-212	0.843	74.81* @	10.70	1.31349E+001	2.87181E+000
		77.11* @	18.00	1.11718E+000	5.97546E-001
		87.30 @	8.00		
		238.63*	44.60	7.82243E-001	1.69944E-001
Bi-214	0.696	609.31*	46.30	6.81642E-001	1.34300E-001
		1120.29*	15.10	9.10150E-001	4.88069E-001
		1764.49	15.80		
PB-214	0.762	74.82* @	6.21	2.26319E+001	5.21382E+000
		77.11* @	10.50	1.91517E+000	1.03430E+000
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	6.06713E-001	5.48162E-001
		351.92*	37.20	6.94095E-001	1.66205E-001
Ac-228	0.997	338.32*	11.40	8.18125E-001	3.25451E-001
		911.07*	27.70	1.11144E+000	1.18385E+000
		969.11*	16.60	8.26756E-001	2.40989E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File:C:\GENIE2K\CAMFILES\NOL-05-02-145-F-G.CNF

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Unit)	Wt mean Activity Uncertainty
ANN		0.999	1.823723E-001	5.694127E-002
K-40		0.959	2.146297E+001	2.110148E+000
TL-208		0.750	2.917381E-001	6.607054E-002
Pb-212	@	0.843	7.822430E-001	1.699439E-001
Bi-214		0.696	6.977259E-001	1.294877E-001
PB-214	@	0.762	6.867382E-001	1.590541E-001
Ac-228		0.997	8.311997E-001	1.911322E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.83	7.0478E-001	17.88
F 4	84.91	4.9839E-001	22.86
M 13	964.43	8.3470E-002	34.86
F 16	1172.66	1.4643E-001	24.47

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:C:\GENIE2K\CAMFILES\NOL-05-02-145-F-G.CNF
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Unit)	Nuclide MDA (pCi/Unit)	Activity (pCi/Unit)
Co-60	1173.22	100.00	1.3557E-001	1.20E-001	1.9239E-001
	1332.49	100.00	1.1990E-001		1.7952E-001
Nb-94	702.63	100.00	1.0996E-001	9.39E-002	4.7638E-002
	871.10	100.00	9.3861E-002		-1.7313E-002
Ag-108m	79.20	7.10	6.2031E+000	1.33E-001	-2.6270E-001
	433.93	89.90	1.4097E-001		9.4479E-002
	614.37	90.40	1.6570E-001		-6.2608E-002
	722.95	90.50	1.3278E-001		6.9109E-003
Sb-125	176.33	6.89	2.6824E+000	4.38E-001	1.7626E+000
	427.89	29.33	4.3773E-001		1.3956E-001
	463.38	10.35	1.2255E+000		-5.3495E-001
	600.56	17.80	6.3607E-001		4.3295E-002
	606.64	5.02	3.0919E+000		5.4915E+000
	635.90	11.32	1.0435E+000		1.0388E+000
Cs-134	563.23	8.38	1.4391E+000	1.36E-001	4.0113E-001
	569.32	15.43	7.5056E-001		-3.3423E-001
	604.70	97.60	1.5836E-001		-7.3700E-003
	795.84	85.40	1.3591E-001		2.0159E-002
	801.93	8.73	1.2719E+000		-9.5486E-001
Cs-137	661.65	85.12	1.4612E-001	1.46E-001	3.8573E-002
Eu-152	121.78	28.40	9.1406E-001	3.52E-001	8.2559E-001
	244.69	7.49	2.1206E+000		-7.7699E+000
	344.27	26.50	5.1120E-001		-1.4726E-001
	778.89	12.74	8.0607E-001		-1.4392E+000
	867.32	4.16	2.4215E+000		-1.2741E+000
	964.01	14.40	9.5317E-001		1.5393E+000
	1085.78	10.00	1.0287E+000		-1.0720E-001
	1112.02	13.30	8.6367E-001		-3.2631E-001
	1407.95	20.70	3.5192E-001		9.1979E-003
Eu-154	123.07	40.50	6.3107E-001	2.41E-001	1.4947E-002
	247.94	6.60	2.3221E+000		-1.9635E+000
	591.81	4.83	2.3835E+000		1.8950E-001
	723.30	19.70	6.1243E-001		2.3833E-001
	756.87	4.33	2.4356E+000		-3.2331E+000
	873.19	11.50	8.3634E-001		4.9456E-001
	996.32	10.30	1.0745E+000		3.1513E-001
	1004.76	17.90	5.9421E-001		2.6281E-002
	1274.45	35.50	2.4104E-001		-1.4193E-002
Eu-155	86.54	30.90	1.2541E+000	1.25E+000	4.6642E-001
	105.31	20.70	1.4679E+000		1.6057E+000
Am-241	59.54	35.90	1.6558E+000	1.66E+000	-8.9832E-002
Cm-243	228.19	10.56	1.5351E+000	1.04E+000	-7.1121E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Unit)	Nuclide MDA (pCi/Unit)	Activity (pCi/Unit)
Cm-243	277.60	14.00	1.0356E+000	1.04E+000	-3.1484E-001

+ = 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

Report Generated On 12/6/2005 9:36:49 AM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: BLUE6279

Spectrum File: C:\GENIE2K\CAMFILES\NOL-05-02-146-F-G.CNF
Sample ID:
Sample Title: NOL-05-02-146-F-G
Description:

Sample Type:
Geometry: GM

Acquisition Started: 12/5/2005 8:09:48 PM
Live Time: 600.0 seconds
Real Time: 601.2 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: C:\GENIE2K\CAMFILES\NOL-05-02-146-F-G.CNF
Log Number:
Title: NOL-05-02-146-F-G
Description:

Geometry: GM

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	284-	307	291.26	72.67	1.13	4.22E+002	74.64	2.01E+003
m	2	284-	307	300.21	74.91	1.14	8.42E+002	86.61	2.22E+003
M	3	330-	353	339.33	84.72	1.15	3.94E+002	154.41	1.89E+003
m	4	330-	353	349.61	87.30	1.16	1.77E+002	81.08	2.43E+003
F	5	942-	959	953.37	238.66	1.34	2.92E+002	115.05	3.75E+002
F	6	1174-	1185	1179.47	295.30	1.39	7.23E+001	34.59	1.67E+002
F	7	1344-	1359	1352.61	338.66	1.43	7.68E+001	82.47	1.52E+002
F	8	1397-	1415	1405.76	351.96	1.44	1.59E+002	111.11	1.86E+002
F	9	2033-	2052	2040.73	510.85	2.32	1.33E+002	28.54	1.42E+002
F	10	2321-	2340	2330.60	583.34	1.59	2.03E+002	81.21	8.43E+001
F	11	2425-	2442	2434.46	609.30	1.61	1.37E+002	88.79	8.78E+001
F	12	3632-	3651	3642.26	911.02	1.77	1.32E+002	63.47	7.52E+001
F	13	3864-	3883	3873.27	968.69	1.80	7.94E+001	51.96	5.17E+001
F	14	4469-	4488	4478.30	1119.69	1.87	6.64E+001	65.92	3.19E+001
F	15	4681-	4699	4689.91	1172.49	1.89	8.19E+001	38.48	6.18E+001
F	16	5318-	5338	5327.73	1331.60	1.96	8.43E+001	41.54	1.85E+001
F	17	5826-	5855	5840.76	1459.57	2.01	1.04E+003	63.48	2.98E+001

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File: C:\GENIE2K\CAMFILES\NOL-05-02-146-F-G.CNF

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Unit)	Activity Uncertainty
ANN	0.999	511.00*	100.00	1.91147E-001	4.83976E-002
K-40	0.954	1460.81*	10.67	1.82747E+001	1.85432E+000
Co-60	0.980	1173.22*	100.00	1.46617E-001	6.98630E-002
		1332.49*	100.00	1.55653E-001	7.76321E-002
Eu-155	0.323	86.54*	30.90	7.45280E-001	3.71662E-001
		105.31	20.70		
TL-208	0.751	277.35	6.80		
		510.84*	21.60	8.84939E-001	2.35430E-001
		583.14*	84.20	3.61385E-001	1.51799E-001
		860.37	12.46		
Pb-212	0.677	74.81* @	10.70	1.26439E+001	2.79908E+000
		77.11 @	18.00		
		87.30* @	8.00	2.87865E+000	1.43554E+000
		238.63*	44.60	7.46151E-001	3.16145E-001
Bi-214	0.697	609.31*	46.30	4.50254E-001	2.96379E-001
		1120.29*	15.10	7.77666E-001	7.75890E-001
		1764.49	15.80		
PB-214	0.670	74.82* @	6.21	2.17858E+001	5.07556E+000
		77.11 @	10.50		
		87.30* @	4.67	4.93130E+000	2.48723E+000
		241.98	7.49		
		295.21*	19.20	4.55647E-001	2.31085E-001
		351.92*	37.20	5.43740E-001	3.90692E-001
Ac-228	0.998	338.32*	11.40	8.47999E-001	9.19895E-001
		911.07*	27.70	7.94608E-001	3.92243E-001
		969.11*	16.60	8.09983E-001	5.37182E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File:C:\GENIE2K\CAMFILES\NOL-05-02-146-F-G.CNF

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Unit)	Wt mean Activity Uncertainty
ANN		0.999	1.130878E-001	5.840341E-002
K-40		0.954	1.827474E+001	1.854324E+000
Co-60		0.980	1.506601E-001	5.193071E-002
Eu-155		0.323	4.798091E-001	3.817386E-001
TL-208		0.751	3.613848E-001	1.513419E-001
Pb-212	@	0.677	7.461514E-001	3.161447E-001
Bi-214		0.697	4.919447E-001	2.768669E-001
PB-214	@	0.670	4.783408E-001	1.976501E-001
Ac-228		0.998	8.050482E-001	2.995190E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.67	7.0322E-001	17.69
M 3	84.72	6.5734E-001	39.15

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:C:\GENIE2K\CAMFILES\NOL-05-02-146-F-G.CNF
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Unit)	Nuclide MDA (pCi/Unit)	Activity (pCi/Unit)
+	Co-60	1173.22*	100.00	9.0022E-002	5.48E-002	1.4662E-001
		1332.49*	100.00	5.4819E-002		1.5565E-001
	Nb-94	702.63	100.00	1.0738E-001	9.93E-002	1.7812E-002
		871.10	100.00	9.9284E-002		2.9405E-002
	Ag-108m	79.20	7.10	6.2317E+000	1.24E-001	-3.2883E+000
		433.93	89.90	1.2449E-001		-8.9738E-002
		614.37	90.40	1.4818E-001		4.6699E-002
		722.95	90.50	1.3121E-001		1.1080E-001
	Sb-125	176.33	6.89	2.5342E+000	3.96E-001	5.0695E-002
		427.89	29.33	3.9572E-001		1.0055E-001
		463.38	10.35	1.1548E+000		-5.5877E-001
		600.56	17.80	6.1800E-001		-2.1039E-001
		606.64	5.02	2.7587E+000		4.5250E+000
		635.90	11.32	8.8590E-001		-1.1547E-001
	Cs-134	563.23	8.38	1.2293E+000	1.25E-001	6.7515E-001
		569.32	15.43	6.4140E-001		-3.5879E-001
		604.70	97.60	1.4250E-001		-3.9317E-002
		795.84	85.40	1.2473E-001		3.4585E-002
		801.93	8.73	1.1666E+000		-1.3601E+000
	Cs-137	661.65	85.12	1.4007E-001	1.40E-001	1.0238E-001
	Eu-152	121.78	28.40	8.8400E-001	3.30E-001	3.3177E-002
		244.69	7.49	2.0334E+000		-2.2142E+000
		344.27	26.50	4.6507E-001		-2.8940E-001
		778.89	12.74	8.1054E-001		-7.3385E-001
		867.32	4.16	2.3012E+000		-4.3012E+000
		964.01	14.40	8.6635E-001		-5.3409E-001
		1085.78	10.00	9.4752E-001		-5.0959E-001
		1112.02	13.30	8.6367E-001		6.6304E-003
		1407.95	20.70	3.2969E-001		3.6861E-002
	Eu-154	123.07	40.50	6.1182E-001	2.71E-001	-2.4262E-001
		247.94	6.60	2.1986E+000		-2.0244E+000
		591.81	4.83	2.1172E+000		-4.5684E-001
		723.30	19.70	5.9675E-001		2.9058E-001
		756.87	4.33	2.4037E+000		-1.6962E-001
		873.19	11.50	8.6644E-001		1.9779E-002
		996.32	10.30	9.7093E-001		5.2937E-001
		1004.76	17.90	5.3343E-001		1.6724E-002
		1274.45	35.50	2.7066E-001		2.2340E-001
+	Eu-155	86.54*	30.90	9.7793E-001	9.78E-001	7.4528E-001
		105.31	20.70	1.4229E+000		1.1213E+000
	Am-241	59.54	35.90	1.7061E+000	1.71E+000	-1.4163E-001
	Cm-243	228.19	10.56	1.4761E+000	9.81E-001	-3.0970E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Unit)	Nuclide MDA (pCi/Unit)	Activity (pCi/Unit)
Cm-243	277.60	14.00	9.8100E-001	9.81E-001	-9.6001E-001

+ = 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

Report Generated On 12/6/2005 9:37:09 AM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: BLUE6279

Spectrum File: C:\GENIE2K\CAMFILES\NOL-05-02-147-F-G.CNF
Sample ID:
Sample Title: NOL-05-02-147-F-G
Description:

Sample Type:
Geometry: GM

Acquisition Started: 12/6/2005 12:41:04 AM
Live Time: 600.0 seconds
Real Time: 601.2 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: C:\GENIE2K\CAMFILES\NOL-05-02-147-F-G.CNF
Log Number:
Title: NOL-05-02-147-F-G
Description:

Geometry: GM

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	285-	307	291.57	72.74	1.13	4.31E+002	71.51	1.64E+003
m	2	285-	307	300.42	74.96	1.14	7.79E+002	81.91	1.94E+003
M	3	333-	357	339.77	84.83	1.15	3.63E+002	439.70	1.43E+003
m	4	333-	357	350.13	87.43	1.16	1.49E+002	178.81	2.00E+003
F	5	948-	961	954.19	238.87	1.34	3.13E+002	46.13	3.64E+002
F	6	1171-	1185	1179.91	295.41	1.39	7.52E+001	74.28	1.94E+002
F	7	1346-	1357	1351.77	338.45	1.42	6.85E+001	96.67	1.38E+002
F	8	1401-	1412	1406.02	352.03	1.44	1.24E+002	32.29	1.71E+002
F	9	1845-	1858	1850.70	463.32	1.52	4.20E+001	20.64	9.45E+001
F	10	2030-	2053	2042.23	511.23	2.32	1.69E+002	85.79	1.08E+002
F	11	2320-	2341	2331.17	583.48	1.59	2.00E+002	65.92	8.20E+001
F	12	2428-	2447	2436.11	609.71	1.61	1.71E+002	29.62	1.04E+002
F	13	2901-	2917	2908.23	727.70	1.68	5.46E+001	23.89	5.01E+001
F	14	3171-	3183	3176.76	794.78	1.71	2.24E+001	15.99	4.59E+001
F	15	3635-	3652	3643.50	911.33	1.77	1.33E+002	25.59	5.64E+001
M	16	3851-	3883	3857.04	964.64	1.80	3.91E+001	22.12	2.46E+001
m	17	3851-	3883	3874.52	969.00	1.80	1.01E+002	45.47	3.53E+001
F	18	4471-	4488	4479.26	1119.93	1.87	6.58E+001	19.92	4.68E+001
F	19	5828-	5858	5842.62	1460.03	2.01	1.16E+003	106.62	1.86E+001

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File: C:\GENIE2K\CAMFILES\NOL-05-02-147-F-G.CNF

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Unit)	Activity Uncertainty
ANN	0.998	511.00*	100.00	2.41762E-001	1.27187E-001
K-40	0.982	1460.81*	10.67	2.04741E+001	2.50448E+000
TL-208	0.749	277.35	6.80		
		510.84*	21.60	1.11927E+000	5.95881E-001
		583.14*	84.20	3.56240E-001	1.26005E-001
		860.37	12.46		
Bi-212	0.991	727.17*	11.80	7.34992E-001	3.33238E-001
Pb-212	0.676	74.81* @	10.70	1.16890E+001	2.60015E+000
		77.11 @	18.00		
		87.30* @	8.00	2.42337E+000	2.94371E+000
		238.63*	44.60	7.98305E-001	1.71878E-001
Bi-214	0.696	609.31*	46.30	5.61594E-001	1.19227E-001
		1120.29*	15.10	7.69891E-001	2.47111E-001
		1764.49	15.80		
PB-214	0.669	74.82* @	6.21	2.01405E+001	4.71265E+000
		77.11 @	10.50		
		87.30* @	4.67	4.15139E+000	5.05250E+000
		241.98	7.49		
		295.21*	19.20	4.74091E-001	4.74907E-001
		351.92*	37.20	4.23605E-001	1.31189E-001
Ac-228	0.999	338.32*	11.40	7.55895E-001	1.07338E+000
		911.07*	27.70	7.97645E-001	1.79076E-001
		969.11*	16.60	1.03549E+000	4.76721E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File:C:\GENIE2K\CAMFILES\NOL-05-02-147-F-G.CNF

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Unit)	Wt mean Activity Uncertainty
	ANN		0.998	1.648147E-001	1.300424E-001
	K-40		0.982	2.047408E+001	2.504476E+000
X	Eu-155		0.319		
	TL-208		0.749	3.562400E-001	1.254689E-001
	Bi-212		0.991	7.349917E-001	3.332379E-001
	Pb-212	@	0.676	7.983051E-001	1.718782E-001
	Bi-214		0.696	6.009266E-001	1.073814E-001
	PB-214	@	0.669	4.271844E-001	1.264531E-001
	Ac-228		0.999	8.253619E-001	1.656308E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.74	7.1891E-001	16.58
M 3	84.83	6.0440E-001	121.25
F 9	463.32	7.0041E-002	49.12
F 14	794.78	3.7313E-002	71.42
M 16	964.64	6.5110E-002	56.62

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:C:\GENIE2K\CAMFILES\NOL-05-02-147-F-G.CNF
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Unit)	Nuclide MDA (pCi/Unit)	Activity (pCi/Unit)
Co-60	1173.22	100.00	1.0097E-001	8.08E-002	-5.7322E-002
	1332.49	100.00	8.0848E-002		-5.5662E-002
Nb-94	702.63	100.00	1.0738E-001	9.29E-002	3.8601E-002
	871.10	100.00	9.2869E-002		-1.1602E-002
Ag-108m	79.20	7.10	5.9338E+000	1.27E-001	-3.1507E+000
	433.93	89.90	1.2672E-001		1.6173E-002
	614.37	90.40	1.5889E-001		8.4199E-004
	722.95	90.50	1.2962E-001		7.4905E-002
Sb-125	176.33	6.89	2.3978E+000	4.06E-001	-3.1070E-001
	427.89	29.33	4.0635E-001		3.9452E-001
	463.38	10.35	1.1890E+000		2.8614E-001
	600.56	17.80	5.8149E-001		-3.9134E-001
	606.64	5.02	2.9163E+000		3.0209E-001
	635.90	11.32	8.9761E-001		-8.4063E-001
Cs-134	563.23	8.38	1.3040E+000	1.31E-001	1.0543E+000
	569.32	15.43	7.1221E-001		-1.7584E-001
	604.70	97.60	1.4566E-001		-1.5518E-002
	795.84	85.40	1.3075E-001		6.1685E-002
	801.93	8.73	1.1963E+000		-6.1650E-001
Cs-137	661.65	85.12	1.3457E-001	1.35E-001	4.7999E-002
Eu-152	121.78	28.40	8.4873E-001	3.33E-001	2.3017E-001
	244.69	7.49	2.0461E+000		-1.0051E+000
	344.27	26.50	4.8113E-001		-3.5944E-001
	778.89	12.74	8.3687E-001		-2.4710E-001
	867.32	4.16	2.1902E+000		-6.5302E+000
	964.01	14.40	8.8582E-001		-2.3123E-001
	1085.78	10.00	1.0219E+000		2.1891E-001
	1112.02	13.30	8.8635E-001		-2.6696E-001
	1407.95	20.70	3.3256E-001		1.3019E-002
Eu-154	123.07	40.50	5.8533E-001	2.64E-001	-3.5885E-001
	247.94	6.60	2.2305E+000		-2.5803E+000
	591.81	4.83	2.2374E+000		9.2587E-001
	723.30	19.70	5.9675E-001		1.6326E-001
	756.87	4.33	2.4101E+000		-1.2732E+000
	873.19	11.50	8.0794E-001		3.5375E-001
	996.32	10.30	9.3151E-001		-8.2930E-003
	1004.76	17.90	5.6926E-001		-1.0243E-001
	1274.45	35.50	2.6387E-001		1.2418E-001
Eu-155	86.54*	30.90	8.8603E-001	8.86E-001	6.2741E-001
	105.31	20.70	1.3663E+000		3.2264E-001
Am-241	59.54	35.90	1.5479E+000	1.55E+000	7.0667E-002
Cm-243	228.19	10.56	1.4803E+000	1.01E+000	-3.4535E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Unit)	Nuclide MDA (pCi/Unit)	Activity (pCi/Unit)
Cm-243	277.60	14.00	1.0107E+000	1.01E+000	1.0848E+000

+ = 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

Report Generated On 12/6/2005 9:37:58 AM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: BLUE6279

Spectrum File: C:\GENIE2K\CAMFILES\NOL-05-02-148-F-G.CNF
Sample ID:
Sample Title: NOL-05-02-148-F-G
Description:

Sample Type:
Geometry: GM

Acquisition Started: 12/5/2005 11:42:58 PM
Live Time: 600.0 seconds
Real Time: 601.2 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: C:\GENIE2K\CAMFILES\NOL-05-02-148-F-G.CNF
Log Number:
Title: NOL-05-02-148-F-G
Description:

Geometry: GM

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	284-	307	291.38	72.69	1.13	3.94E+002	71.26	1.80E+003
m	2	284-	307	300.17	74.90	1.14	8.75E+002	84.74	1.86E+003
M	3	333-	354	339.11	84.67	1.15	3.25E+002	308.67	1.49E+003
m	4	333-	354	349.98	87.39	1.16	1.21E+002	125.28	1.48E+003
F	5	948-	960	953.97	238.81	1.34	2.86E+002	46.92	3.69E+002
F	6	1076-	1085	1080.42	270.49	1.37	4.73E+001	27.64	1.65E+002
F	7	1175-	1185	1180.77	295.62	1.39	7.54E+001	29.16	1.79E+002
F	8	1347-	1357	1352.32	338.58	1.43	6.74E+001	25.47	1.19E+002
F	9	1400-	1417	1406.45	352.14	1.44	1.75E+002	32.27	1.91E+002
F	10	2029-	2053	2041.67	511.09	2.32	1.57E+002	28.04	1.63E+002
F	11	2323-	2339	2331.06	583.45	1.59	1.68E+002	93.43	8.82E+001
F	12	2427-	2447	2435.83	609.64	1.61	1.76E+002	28.56	8.04E+001
F	13	2903-	2914	2908.88	727.86	1.68	3.15E+001	17.69	5.24E+001
F	14	3633-	3653	3643.08	911.23	1.77	1.57E+002	56.50	4.91E+001
F	15	3866-	3883	3875.20	969.17	1.80	7.69E+001	21.80	6.49E+001
F	16	4472-	4487	4479.04	1119.87	1.87	5.75E+001	17.39	2.40E+001
F	17	5827-	5857	5842.26	1459.94	2.01	1.12E+003	88.64	1.93E+001

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File: C:\GENIE2K\CAMFILES\NOL-05-02-148-F-G.CNF

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Unit)	Activity Uncertainty
ANN	1.000	511.00*	100.00	2.24903E-001	5.04132E-002
K-40	0.977	1460.81*	10.67	1.97129E+001	2.23239E+000
TL-208	0.749	277.35	6.80		
		510.84*	21.60	1.04122E+000	2.48402E-001
		583.14*	84.20	2.99462E-001	1.70578E-001
		860.37	12.46		
Bi-212	0.986	727.17*	11.80	4.24750E-001	2.43511E-001
Pb-212	0.676	74.81* @	10.70	1.31464E+001	2.87417E+000
		77.11 @	18.00		
		87.30* @	8.00	1.96831E+000	2.07294E+000
		238.63*	44.60	7.29959E-001	1.65686E-001
Bi-214	0.696	609.31*	46.30	5.77439E-001	1.17585E-001
		1120.29*	15.10	6.72703E-001	2.15682E-001
		1764.49	15.80		
PB-214	0.668	74.82* @	6.21	2.26515E+001	5.21813E+000
		77.11 @	10.50		
		87.30* @	4.67	3.37184E+000	3.56020E+000
		241.98	7.49		
		295.21*	19.20	4.75062E-001	2.00477E-001
		351.92*	37.20	5.99531E-001	1.49094E-001
Ac-228	0.999	338.32*	11.40	7.43696E-001	3.04295E-001
		911.07*	27.70	9.40630E-001	3.56340E-001
		969.11*	16.60	7.85444E-001	2.37307E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File:C:\GENIE2K\CAMFILES\NOL-05-02-148-F-G.CNF

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Unit)	Wt mean Activity Uncertainty
	ANN		1.000	1.602189E-001	6.240659E-002
	K-40		0.977	1.971285E+001	2.232391E+000
X	Eu-155		0.320		
	TL-208		0.749	2.994624E-001	1.702982E-001
	Bi-212		0.986	4.247497E-001	2.435114E-001
	Pb-212	@	0.676	7.299589E-001	1.656864E-001
	Bi-214		0.696	5.992659E-001	1.032393E-001
	PB-214	@	0.668	5.552050E-001	1.196365E-001
	Ac-228		0.999	8.066141E-001	1.656748E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.69	6.5590E-001	18.11
M 3	84.67	5.4226E-001	94.87
F 6	270.49	7.8898E-002	58.39

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:C:\GENIE2K\CAMFILES\NOL-05-02-148-F-G.CNF
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Unit)	Nuclide MDA (pCi/Unit)	Activity (pCi/Unit)
Co-60	1173.22	100.00	1.0692E-001	8.87E-002	9.9692E-002
	1332.49	100.00	8.8707E-002		6.1499E-002
Nb-94	702.63	100.00	1.0500E-001	9.58E-002	-8.7109E-003
	871.10	100.00	9.5812E-002		2.4692E-002
Ag-108m	79.20	7.10	5.9782E+000	1.27E-001	-2.7885E+000
	433.93	89.90	1.2712E-001		-1.6987E-001
	614.37	90.40	1.5849E-001		4.8455E-002
	722.95	90.50	1.2801E-001		-4.9527E-002
Sb-125	176.33	6.89	2.5972E+000	3.93E-001	2.4486E-001
	427.89	29.33	3.9271E-001		-2.0631E-001
	463.38	10.35	1.2141E+000		1.1908E+000
	600.56	17.80	6.1008E-001		-2.2644E-001
	606.64	5.02	2.8848E+000		9.2367E-001
	635.90	11.32	1.0028E+000		6.4376E-002
Cs-134	563.23	8.38	1.3121E+000	1.31E-001	-2.8683E-001
	569.32	15.43	7.1947E-001		-1.3724E-001
	604.70	97.60	1.4640E-001		5.6434E-002
	795.84	85.40	1.3137E-001		1.2906E-001
	801.93	8.73	1.1864E+000		-1.2391E+000
Cs-137	661.65	85.12	1.2526E-001	1.25E-001	9.4926E-002
Eu-152	121.78	28.40	8.7164E-001	3.55E-001	-2.1933E-001
	244.69	7.49	2.1641E+000		9.3844E-001
	344.27	26.50	4.9050E-001		-2.0033E-001
	778.89	12.74	8.2162E-001		-5.9999E-001
	867.32	4.16	2.2857E+000		-3.3022E+000
	964.01	14.40	9.3680E-001		5.4975E-001
	1085.78	10.00	9.9075E-001		8.8451E-001
	1112.02	13.30	8.4975E-001		8.4239E-003
	1407.95	20.70	3.5460E-001		2.5310E-001
Eu-154	123.07	40.50	6.0383E-001	2.64E-001	-6.0530E-002
	247.94	6.60	2.3003E+000		-3.6026E+000
	591.81	4.83	2.2761E+000		-3.3794E-001
	723.30	19.70	5.8563E-001		1.3333E-001
	756.87	4.33	2.3516E+000		1.3485E+000
	873.19	11.50	8.3912E-001		1.4949E-001
	996.32	10.30	8.6884E-001		2.3962E-001
	1004.76	17.90	5.4118E-001		2.0066E-001
	1274.45	35.50	2.6387E-001		-1.0433E-001
Eu-155	86.54*	30.90	7.6441E-001	7.64E-001	5.0960E-001
	105.31	20.70	1.4026E+000		5.6354E-001
Am-241	59.54	35.90	1.5736E+000	1.57E+000	3.5611E-001
Cm-243	228.19	10.56	1.5464E+000	1.04E+000	5.5090E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Unit)	Nuclide MDA (pCi/Unit)	Activity (pCi/Unit)
Cm-243	277.60	14.00	1.0387E+000	1.04E+000	3.0476E-001

+ = 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

Report Generated On 12/12/2005 2:25:31 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: RED6264

Spectrum File: C:\GENIE2K\CAMFILES\NOL-05-02-149-F-G.CNF
Sample ID:
Sample Title: NOL-05-02-149-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/8/2005 10:00:20 AM
Live Time: 600.0 seconds
Real Time: 601.1 seconds

Energy Calibration Date: 6/13/2005
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: C:\GENIE2K\CAMFILES\NOL-05-02-149-F-G.CNF
Log Number:
Title: NOL-05-02-149-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	283-	305	291.28	72.78	1.13	4.87E+002	70.08	1.66E+003
m	2	283-	305	300.19	75.01	1.13	7.47E+002	85.88	2.00E+003
F	3	332-	344	339.49	84.83	1.15	3.01E+002	162.38	1.26E+003
F	4	948-	960	954.06	238.49	1.34	2.67E+002	42.99	3.06E+002
M	5	1177-	1207	1181.21	295.28	1.39	4.41E+001	25.56	1.69E+002
m	6	1177-	1207	1201.73	300.41	1.40	3.43E+001	23.25	2.11E+002
F	7	1350-	1362	1354.56	338.62	1.43	5.32E+001	25.69	1.54E+002
F	8	1401-	1415	1407.18	351.77	1.44	1.40E+002	29.56	1.45E+002
F	9	2031-	2054	2042.50	510.62	2.33	1.56E+002	28.67	1.62E+002
F	10	2322-	2341	2331.71	582.93	1.60	1.82E+002	33.30	9.74E+001
F	11	2427-	2447	2436.69	609.18	1.62	1.64E+002	70.06	7.74E+001
F	12	2902-	2915	2908.51	727.14	1.69	4.05E+001	17.80	4.92E+001
F	13	3638-	3653	3644.58	911.17	1.79	1.22E+002	25.45	5.43E+001
F	14	3868-	3887	3876.22	969.09	1.81	8.16E+001	20.31	4.01E+001
F	15	4475-	4493	4482.43	1120.65	1.89	4.91E+001	17.12	3.53E+001
F	16	5831-	5859	5845.56	1461.46	2.03	9.32E+002	59.46	2.90E+001

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File: C:\GENIE2K\CAMFILES\NOL-05-02-149-F-G.CNF

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	0.996	511.00*	100.00	2.29850E-001	4.79778E-002
K-40	0.987	1460.81*	10.67	1.68946E+001	1.49164E+000
TL-208	0.751	277.35	6.80		
		510.84*	21.60	1.06412E+000	2.38514E-001
		583.14*	84.20	3.32779E-001	6.92226E-002
		860.37	12.46		
Bi-212	1.000	727.17*	11.80	5.63969E-001	2.52108E-001
Pb-212	0.520	74.81* @	10.70	1.09949E+001	2.14751E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	6.83549E-001	1.50436E-001
Bi-214	0.699	609.31*	46.30	5.53130E-001	2.41586E-001
		1120.29*	15.10	5.94435E-001	2.13023E-001
		1764.49	15.80		
PB-214	0.580	74.82* @	6.21	1.89444E+001	3.94752E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	2.79969E-001	1.67945E-001
		351.92*	37.20	4.87973E-001	1.23021E-001
Ac-228	0.999	338.32*	11.40	5.97303E-001	2.98219E-001
		911.07*	27.70	7.64649E-001	1.67037E-001
		969.11*	16.60	8.69773E-001	2.22026E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File:C:\GENIE2K\CAMFILES\NOL-05-02-149-F-G.CNF

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		0.996	1.579700E-001	5.019903E-002
K-40		0.987	1.689462E+001	1.491640E+000
TL-208		0.751	3.327792E-001	6.836775E-002
Bi-212		1.000	5.639685E-001	2.521079E-001
Pb-212	@	0.520	6.835490E-001	1.504359E-001
Bi-214		0.699	5.763674E-001	1.597790E-001
PB-214	@	0.580	4.153386E-001	9.924385E-002
Ac-228		0.999	7.683722E-001	1.218329E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.78	8.1208E-001	14.38
F 3	84.83	5.0232E-001	53.88
m 6	300.41	5.7209E-002	67.75

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:C:\GENIE2K\CAMFILES\NOL-05-02-149-F-G.CNF
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Co-60	1173.22	100.00	1.0516E-001	8.74E-002	1.7849E-003
	1332.49	100.00	8.7443E-002		-1.0742E-002
Nb-94	702.63	100.00	1.1098E-001	1.01E-001	6.0115E-002
	871.10	100.00	1.0122E-001		2.9600E-002
Ag-108m	79.20	7.10	5.8325E+000	1.29E-001	-1.2348E+001
	433.93	89.90	1.3202E-001		1.0058E-003
	614.37	90.40	1.5211E-001		7.0521E-003
	722.95	90.50	1.2946E-001		2.1106E-003
Sb-125	176.33	6.89	2.3797E+000	3.87E-001	8.7828E-001
	427.89	29.33	3.8679E-001		1.0620E-001
	463.38	10.35	1.1492E+000		5.6913E-001
	600.56	17.80	6.0811E-001		-1.0701E-001
	606.64	5.02	2.8218E+000		4.5806E+000
	635.90	11.32	8.6761E-001		-4.3108E-001
Cs-134	563.23	8.38	1.2835E+000	1.32E-001	-1.6062E+000
	569.32	15.43	7.1966E-001		5.0447E-001
	604.70	97.60	1.4460E-001		-2.2001E-002
	795.84	85.40	1.3180E-001		8.4879E-002
	801.93	8.73	1.1352E+000		-2.0136E+000
Cs-137	661.65	85.12	1.3213E-001	1.32E-001	1.0926E-001
Eu-152	121.78	28.40	8.3306E-001	3.51E-001	8.3732E-002
	244.69	7.49	1.9511E+000		-1.2184E+000
	344.27	26.50	4.8145E-001		7.9322E-002
	778.89	12.74	8.2347E-001		-7.4329E-001
	867.32	4.16	2.4305E+000		-3.4561E+000
	964.01	14.40	9.1910E-001		3.0040E-001
	1085.78	10.00	1.0410E+000		-5.9453E-001
	1112.02	13.30	7.5069E-001		-1.8165E-001
	1407.95	20.70	3.5068E-001		1.6834E-001
Eu-154	123.07	40.50	5.8088E-001	2.56E-001	1.5374E-002
	247.94	6.60	2.0847E+000		-1.4487E+000
	591.81	4.83	2.1731E+000		-6.7485E-001
	723.30	19.70	5.9220E-001		1.2140E-001
	756.87	4.33	2.4793E+000		1.6545E+000
	873.19	11.50	8.9788E-001		5.3871E-002
	996.32	10.30	9.0522E-001		-6.6484E-001
	1004.76	17.90	5.4104E-001		1.4826E-001
	1274.45	35.50	2.5561E-001		-2.4697E-001
Eu-155	86.54	30.90	1.1761E+000	1.18E+000	1.5446E+000
	105.31	20.70	1.3282E+000		8.8148E-002
Am-241	59.54	35.90	1.5511E+000	1.55E+000	6.2829E-001
Cm-243	228.19	10.56	1.3938E+000	9.27E-001	1.9619E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	9.2680E-001	9.27E-001	-2.7750E-001

+ = 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

Report Generated On 12/7/2005 8:52:39 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-02-150
Sample Title: NOL-05-02-150-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/7/2005 8:42:36 PM
Live Time: 600.0 seconds
Real Time: 601.2 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-02-150
Title: NOL-05-02-150-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	282-	307	291.60	72.75	1.12	5.07E+002	74.46	1.92E+003
m	2	282-	307	300.25	74.92	1.12	7.94E+002	86.18	1.97E+003
F	3	335-	344	339.13	84.67	0.99	2.03E+002	70.53	1.20E+003
F	4	943-	962	954.38	238.91	1.15	2.37E+002	44.16	5.30E+002
F	5	1176-	1186	1180.42	295.54	0.56	3.25E+001	21.38	1.61E+002
F	6	1349-	1361	1353.96	338.99	1.12	6.74E+001	26.98	1.50E+002
F	7	1398-	1415	1407.27	352.34	1.58	1.99E+002	31.83	1.30E+002
F	8	2031-	2054	2043.12	511.45	1.99	1.08E+002	26.10	1.53E+002
F	9	2324-	2341	2331.87	583.65	1.61	1.90E+002	30.98	9.21E+001
F	10	2428-	2447	2437.13	609.97	1.50	1.70E+002	29.18	8.79E+001
F	11	2639-	2656	2646.71	662.35	1.75	5.88E+001	19.33	5.38E+001
F	12	3172-	3184	3177.77	795.03	0.95	2.79E+001	15.04	3.90E+001
F	13	3635-	3653	3643.84	911.42	1.53	1.38E+002	25.28	4.21E+001
F	14	3867-	3882	3874.77	969.07	1.61	6.54E+001	21.05	5.19E+001
F	15	4474-	4487	4480.95	1120.35	1.50	3.38E+001	17.46	4.20E+001
F	16	4687-	4700	4692.99	1173.25	1.44	3.33E+001	17.00	4.00E+001
F	17	5320-	5339	5329.36	1332.01	2.11	4.76E+001	15.85	2.03E+001
F	18	5827-	5858	5843.49	1460.25	2.17	1.11E+003	64.30	2.01E+001
F	19	6364-	6377	6370.52	1591.71	1.24	1.43E+001	9.28	7.00E+000
F	20	7054-	7069	7061.48	1764.07	0.98	2.72E+001	11.57	9.92E+000

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	0.994	511.00*		100.00	1.46851E-001	4.07862E-002
K-40	0.990	1460.81*		10.67	1.86300E+001	1.85415E+000
Co-60	0.996	1173.22*		100.00	5.67408E-002	2.93405E-002
		1332.49*		100.00	8.37101E-002	2.86227E-002
Cs-137	0.985	661.65*		85.12	1.02716E-001	3.58454E-002
TL-208	0.744	277.35		6.80		
		510.84*		21.60	6.79867E-001	1.96819E-001
		583.14*		84.20	3.22212E-001	6.71477E-002
		860.37		12.46		
Pb-212	0.519	74.81*	@	10.70	1.13663E+001	2.54620E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	5.75980E-001	1.40325E-001
Bi-214	0.991	609.31*		46.30	5.32577E-001	1.12277E-001
		1120.29*		15.10	3.76863E-001	1.98762E-001
		1764.49*		15.80	3.19474E-001	1.39599E-001
PB-214	0.579	74.82*	@	6.21	1.95844E+001	4.61177E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	1.95349E-001	1.32486E-001
		351.92*		37.20	6.49035E-001	1.50079E-001
Ac-228	0.995	338.32*		11.40	7.08493E-001	3.04657E-001
		911.07*		27.70	7.90005E-001	1.70842E-001
		969.11*		16.60	6.35440E-001	2.15215E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		0.994	7.725345E-002	4.322886E-002
K-40		0.990	1.862998E+001	1.854149E+000
Co-60		0.996	7.055934E-002	2.048835E-002
Cs-137		0.985	1.027162E-001	3.584539E-002
TL-208		0.744	3.222117E-001	6.632160E-002
Pb-212	@	0.519	5.759803E-001	1.403250E-001
Bi-214		0.991	4.371850E-001	8.007634E-002
PB-214	@	0.579	3.940549E-001	9.932216E-002
Ac-228		0.995	7.267373E-001	1.225117E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.75	8.4545E-001	14.68
F 3	84.67	3.3776E-001	34.80
F 12	795.03	4.6474E-002	53.95
F 19	1591.71	2.3766E-002	65.08

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
+	Co-60	1173.22*	100.00	6.3755E-002	5.43E-002	5.6741E-002
		1332.49*	100.00	5.4339E-002		8.3710E-002
	Nb-94	702.63	100.00	1.0076E-001	9.40E-002	-4.8042E-003
		871.10	100.00	9.3964E-002		1.6869E-002
	Ag-108m	79.20	7.10	5.9247E+000	1.19E-001	-1.4284E+000
		433.93	89.90	1.1934E-001		8.5123E-003
		614.37	90.40	1.5076E-001		-3.4951E-002
		722.95	90.50	1.2521E-001		3.9742E-002
	Sb-125	176.33	6.89	2.4362E+000	3.72E-001	-4.9833E-001
		427.89	29.33	3.7228E-001		-5.2256E-002
		463.38	10.35	1.0798E+000		4.9137E-001
		600.56	17.80	5.6564E-001		9.8371E-002
		606.64	5.02	2.7972E+000		-1.6045E-001
		635.90	11.32	9.2089E-001		-1.5578E-001
	Cs-134	563.23	8.38	1.2572E+000	1.22E-001	-2.4633E-001
		569.32	15.43	7.0687E-001		2.8274E-002
		604.70	97.60	1.3838E-001		-3.5954E-002
		795.84	85.40	1.2215E-001		1.4371E-001
		801.93	8.73	1.0588E+000		-1.5540E-001
+	Cs-137	661.65*	85.12	8.0798E-002	8.08E-002	1.0272E-001
	Eu-152	121.78	28.40	8.4437E-001	3.06E-001	-6.8691E-001
		244.69	7.49	2.0312E+000		1.2530E+000
		344.27	26.50	4.6419E-001		1.9060E-001
		778.89	12.74	7.6555E-001		-8.1330E-001
		867.32	4.16	2.2497E+000		-3.2985E+000
		964.01	14.40	8.6665E-001		1.1525E+000
		1085.78	10.00	9.4357E-001		-6.4309E-001
		1112.02	13.30	8.2254E-001		-2.3051E-002
		1407.95	20.70	3.0564E-001		-1.2498E-001
	Eu-154	123.07	40.50	5.8814E-001	2.55E-001	1.8428E-001
		247.94	6.60	2.1542E+000		-1.7314E+000
		591.81	4.83	2.0887E+000		-1.8959E+000
		723.30	19.70	5.8100E-001		3.1074E-001
		756.87	4.33	2.3136E+000		-1.2175E+000
		873.19	11.50	8.0444E-001		8.9110E-002
		996.32	10.30	8.9352E-001		3.0414E-002
		1004.76	17.90	5.2268E-001		5.4703E-002
		1274.45	35.50	2.5456E-001		2.0816E-001
	Eu-155	86.54	30.90	1.1850E+000	1.18E+000	1.6041E+000
		105.31	20.70	1.3515E+000		-1.5221E-002
	Am-241	59.54	35.90	1.5512E+000	1.55E+000	-3.4969E-001
	Cm-243	228.19	10.56	1.4123E+000	9.86E-001	-4.5947E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	9.8633E-001	9.86E-001	9.9047E-002

+ = 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

Report Generated On 12/7/2005 9:06:58 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-02-151
Sample Title: NOL-05-02-151-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/7/2005 8:56:55 PM
Live Time: 600.0 seconds
Real Time: 601.2 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-02-151
Title: NOL-05-02-151-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	276-	305	280.13	69.87	1.06	1.35E+002	61.52	1.25E+003
m	2	276-	305	291.62	72.75	1.07	4.92E+002	72.96	1.67E+003
m	3	276-	305	300.04	74.87	1.07	9.35E+002	88.21	1.76E+003
F	4	334-	345	339.59	84.79	0.76	1.80E+002	66.08	1.51E+003
F	5	513-	520	516.39	129.13	0.64	5.96E+001	42.48	4.99E+002
F	6	947-	960	954.40	238.92	1.04	2.82E+002	44.94	3.53E+002
M	7	1175-	1203	1180.33	295.51	0.93	5.92E+001	26.52	1.60E+002
m	8	1175-	1203	1198.95	300.18	0.93	4.01E+001	22.81	1.38E+002
F	9	1343-	1361	1353.59	338.90	1.14	7.93E+001	27.16	2.09E+002
F	10	1399-	1414	1407.47	352.39	1.18	1.35E+002	29.84	1.48E+002
M	11	2016-	2054	2019.86	505.63	1.18	2.64E+001	16.91	5.90E+001
m	12	2016-	2054	2041.71	511.10	1.95	1.50E+002	28.20	1.73E+002
F	13	2320-	2339	2331.43	583.54	1.42	1.89E+002	31.18	1.09E+002
F	14	2427-	2445	2436.08	609.71	1.32	1.73E+002	29.43	8.76E+001
F	15	2638-	2652	2645.01	661.93	1.06	2.94E+001	16.40	5.32E+001
F	16	2795-	2806	2801.31	700.99	0.57	1.99E+001	11.90	3.30E+001
F	17	3464-	3475	3469.06	867.78	0.83	1.61E+001	12.69	3.44E+001
F	18	3634-	3652	3643.97	911.45	1.31	1.26E+002	25.73	6.65E+001
F	19	3867-	3883	3874.91	969.10	1.51	7.41E+001	20.64	4.52E+001
F	20	4474-	4488	4480.96	1120.35	1.73	5.84E+001	18.40	2.78E+001
F	21	5324-	5337	5330.15	1332.20	1.34	3.83E+001	15.11	1.85E+001
F	22	5828-	5858	5843.36	1460.22	2.06	1.11E+003	64.59	1.54E+001
F	23	7052-	7066	7058.43	1763.31	1.47	3.39E+001	13.69	1.40E+001

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	1.000	511.00*	100.00	2.05029E-001	4.74485E-002
K-40	0.989	1460.81*	10.67	1.86643E+001	1.85923E+000
Cs-137	0.998	661.65*	85.12	5.14048E-002	2.92661E-002
TL-208	0.748	277.35	6.80		
		510.84*	21.60	9.49209E-001	2.32945E-001
		583.14*	84.20	3.19910E-001	6.72224E-002
		860.37	12.46		
Pb-212	0.519	74.81* @	10.70	1.33884E+001	2.91232E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	6.84797E-001	1.53220E-001
Bi-214	0.989	609.31*	46.30	5.41391E-001	1.13538E-001
		1120.29*	15.10	6.51266E-001	2.16490E-001
		1764.49*	15.80	3.98627E-001	1.65631E-001
PB-214	0.579	74.82* @	6.21	2.30685E+001	5.29006E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	3.55179E-001	1.70083E-001
		351.92*	37.20	4.40220E-001	1.21932E-001
Ac-228	0.996	338.32*	11.40	8.34038E-001	3.14086E-001
		911.07*	27.70	7.22128E-001	1.69072E-001
		969.11*	16.60	7.20929E-001	2.14431E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		1.000	1.359286E-001	4.956932E-002
K-40		0.989	1.866432E+001	1.859233E+000
Cs-137		0.998	5.140484E-002	2.926606E-002
TL-208		0.748	3.199098E-001	6.640905E-002
Pb-212	@	0.519	6.847970E-001	1.532200E-001
Bi-214		0.989	5.202651E-001	8.595075E-002
PB-214	@	0.579	4.113507E-001	9.909785E-002
Ac-228		0.996	7.387033E-001	1.222900E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	69.87	2.2561E-001	45.45
m 2	72.75	8.1974E-001	14.83
F 4	84.79	3.0000E-001	36.71
F 5	129.13	9.9296E-002	71.30
m 8	300.18	6.6863E-002	56.86
M 11	505.63	4.4082E-002	63.94
F 16	700.99	3.3146E-002	59.83
F 17	867.78	2.6863E-002	78.75
F 21	1332.20	6.3771E-002	39.49

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
	Co-60	1173.22	100.00	1.1287E-001	9.32E-002	2.5047E-002
		1332.49	100.00	9.3234E-002		4.1021E-002
	Nb-94	702.63	100.00	1.0251E-001	9.60E-002	-7.2586E-002
		871.10	100.00	9.6020E-002		-4.4697E-002
	Ag-108m	79.20	7.10	5.9107E+000	1.15E-001	-1.0823E+001
		433.93	89.90	1.1480E-001		-7.5457E-002
		614.37	90.40	1.5708E-001		-8.5377E-002
		722.95	90.50	1.1638E-001		-2.5114E-002
	Sb-125	176.33	6.89	2.4596E+000	3.71E-001	1.0223E+000
		427.89	29.33	3.7054E-001		-9.4635E-002
		463.38	10.35	1.0982E+000		7.2056E-002
		600.56	17.80	6.1420E-001		5.5341E-002
		606.64	5.02	2.8623E+000		5.8677E+000
		635.90	11.32	9.3513E-001		-1.2901E-001
	Cs-134	563.23	8.38	1.2871E+000	1.27E-001	1.5700E-001
		569.32	15.43	6.9069E-001		-7.0233E-001
		604.70	97.60	1.4185E-001		7.8187E-002
		795.84	85.40	1.2715E-001		1.5395E-001
		801.93	8.73	1.1516E+000		-1.1383E+000
+	Cs-137	661.65*	85.12	7.6525E-002	7.65E-002	5.1405E-002
	Eu-152	121.78	28.40	8.4059E-001	3.14E-001	-2.0574E-001
		244.69	7.49	2.0289E+000		-9.5234E-001
		344.27	26.50	4.6221E-001		4.2625E-002
		778.89	12.74	7.5475E-001		-9.6509E-001
		867.32	4.16	2.3816E+000		-1.3997E+000
		964.01	14.40	8.6502E-001		-1.1308E-001
		1085.78	10.00	9.5688E-001		5.8692E-001
		1112.02	13.30	8.1151E-001		5.0565E-002
		1407.95	20.70	3.1399E-001		3.6806E-002
	Eu-154	123.07	40.50	5.7731E-001	2.40E-001	-3.7321E-001
		247.94	6.60	2.1085E+000		-3.4214E+000
		591.81	4.83	2.3173E+000		7.9612E-001
		723.30	19.70	5.3591E-001		8.2194E-002
		756.87	4.33	2.3556E+000		1.3538E+000
		873.19	11.50	8.4039E-001		2.3065E-001
		996.32	10.30	9.6949E-001		4.1902E-001
		1004.76	17.90	5.2087E-001		-7.8939E-001
		1274.45	35.50	2.4012E-001		-2.6136E-002
	Eu-155	86.54	30.90	1.1992E+000	1.20E+000	2.0545E+000
		105.31	20.70	1.3572E+000		1.6815E-001
	Am-241	59.54	35.90	1.5684E+000	1.57E+000	-1.4521E-001
	Cm-243	228.19	10.56	1.4330E+000	9.40E-001	1.5258E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	9.4047E-001	9.40E-001	3.4865E-001

+ = 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

Report Generated On 12/7/2005 9:23:46 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-02-152
Sample Title: NOL-05-02-152-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/7/2005 9:13:44 PM
Live Time: 600.0 seconds
Real Time: 601.3 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-02-152
Title: NOL-05-02-152-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	282-	309	291.89	72.82	0.99	5.39E+002	74.65	1.62E+003
m	2	282-	309	300.30	74.93	1.00	9.93E+002	88.63	1.79E+003
M	3	330-	355	339.26	84.70	1.33	3.72E+002	76.01	2.20E+003
m	4	330-	355	350.47	87.52	1.33	1.20E+002	66.08	1.90E+003
F	5	948-	960	954.64	238.98	0.85	2.83E+002	45.30	3.59E+002
F	6	1172-	1187	1179.77	295.37	0.99	9.60E+001	29.39	2.14E+002
F	7	1341-	1362	1352.79	338.70	1.17	9.43E+001	28.52	2.50E+002
F	8	1401-	1416	1407.65	352.44	1.09	1.58E+002	32.11	1.72E+002
F	9	2034-	2053	2043.33	511.50	1.77	1.33E+002	29.83	1.72E+002
F	10	2322-	2341	2332.08	583.71	1.16	1.74E+002	30.93	1.30E+002
F	11	2428-	2447	2436.79	609.88	1.30	1.65E+002	29.31	9.74E+001
F	12	2638-	2652	2645.75	662.11	1.08	4.65E+001	19.75	7.50E+001
F	13	2900-	2915	2908.66	727.81	1.34	5.02E+001	19.71	6.20E+001
F	14	3634-	3654	3644.43	911.56	1.47	1.43E+002	26.29	5.80E+001
F	15	3732-	3745	3736.93	934.66	1.51	3.23E+001	14.94	2.80E+001
F	16	3866-	3884	3875.17	969.17	1.61	9.68E+001	22.73	5.02E+001
F	17	4471-	4486	4480.28	1120.18	0.99	3.16E+001	17.39	6.31E+001
F	18	4687-	4700	4693.16	1173.30	1.19	5.01E+001	18.07	3.86E+001
F	19	4945-	4959	4951.32	1237.70	0.57	2.21E+001	10.18	4.30E+001
F	20	5323-	5340	5330.61	1332.32	1.97	6.26E+001	17.35	1.61E+001
F	21	5830-	5860	5844.21	1460.43	2.02	1.12E+003	65.06	3.24E+001
F	22	7052-	7067	7060.42	1763.81	1.55	3.97E+001	14.03	1.01E+001

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	0.992	511.00*		100.00	1.81407E-001	4.75437E-002
K-40	0.996	1460.81*		10.67	1.88083E+001	1.87337E+000
Co-60	0.999	1173.22*		100.00	8.54131E-002	3.15510E-002
		1332.49*		100.00	1.10105E-001	3.16921E-002
Cs-137	0.993	661.65*		85.12	8.12050E-002	3.57766E-002
TL-208	0.743	277.35		6.80		
		510.84*		21.60	8.39848E-001	2.30548E-001
		583.14*		84.20	2.95296E-001	6.49416E-002
		860.37		12.46		
Bi-212	0.988	727.17*		11.80	6.44478E-001	2.64019E-001
Pb-212	0.675	74.81*	@	10.70	1.41968E+001	3.05775E+000
		77.11	@	18.00		
		87.30*	@	8.00	1.85515E+000	1.08397E+000
		238.63*		44.60	6.89201E-001	1.54324E-001
Bi-214	0.991	609.31*		46.30	5.16448E-001	1.11451E-001
		1120.29*		15.10	3.52123E-001	1.97421E-001
		1764.49*		15.80	4.66286E-001	1.71263E-001
PB-214	0.666	74.82*	@	6.21	2.44614E+001	5.55978E+000
		77.11	@	10.50		
		87.30*	@	4.67	3.17799E+000	1.87237E+000
		241.98		7.49		
		295.21*		19.20	5.75935E-001	2.01304E-001
		351.92*		37.20	5.14724E-001	1.35450E-001
Ac-228	0.995	338.32*		11.40	9.91665E-001	3.37748E-001
		911.07*		27.70	8.15997E-001	1.77345E-001
		969.11*		16.60	9.40828E-001	2.41955E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
	ANN		0.992	1.176232E-001	4.952621E-002
	K-40		0.996	1.880829E+001	1.873373E+000
	Co-60		0.999	9.770380E-002	2.235963E-002
	Cs-137		0.993	8.120497E-002	3.577657E-002
X	Eu-155		0.316		
	TL-208		0.743	2.952965E-001	6.422460E-002
	Bi-212		0.988	6.444780E-001	2.640190E-001
	Pb-212	@	0.675	6.892007E-001	1.543238E-001
	Bi-214		0.991	4.741951E-001	8.443783E-002
	PB-214	@	0.666	5.338001E-001	1.123789E-001
	Ac-228		0.995	8.797037E-001	1.317119E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.82	8.9911E-001	13.84
M 3	84.70	6.1996E-001	20.43
F 15	934.66	5.3805E-002	46.28
F 19	1237.70	3.6894E-002	46.00

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
+	Co-60	1173.22*	100.00	6.2630E-002	4.71E-002	8.5413E-002
		1332.49*	100.00	4.7146E-002		1.1010E-001
	Nb-94	702.63	100.00	1.0807E-001	9.89E-002	-2.8962E-002
		871.10	100.00	9.8880E-002		-1.0570E-001
	Ag-108m	79.20	7.10	6.0693E+000	1.26E-001	-5.7821E+000
		433.93	89.90	1.2775E-001		1.0184E-001
		614.37	90.40	1.5018E-001		5.8942E-002
		722.95	90.50	1.2596E-001		-4.6957E-002
	Sb-125	176.33	6.89	2.4819E+000	3.80E-001	3.1841E-002
		427.89	29.33	3.7971E-001		-2.8286E-001
		463.38	10.35	1.1949E+000		6.4475E-002
		600.56	17.80	5.8481E-001		1.2270E-001
		606.64	5.02	2.7441E+000		-5.4496E-001
		635.90	11.32	9.9943E-001		1.2021E+000
	Cs-134	563.23	8.38	1.3163E+000	1.28E-001	1.7794E-001
		569.32	15.43	7.1875E-001		-1.4889E-001
		604.70	97.60	1.3978E-001		-1.9870E-002
		795.84	85.40	1.2830E-001		9.4652E-002
		801.93	8.73	1.2055E+000		-1.4135E+000
+	Cs-137	661.65*	85.12	8.9085E-002	8.91E-002	8.1205E-002
	Eu-152	121.78	28.40	8.8270E-001	3.76E-001	1.1954E-001
		244.69	7.49	2.0278E+000		-2.2467E+000
		344.27	26.50	4.8639E-001		3.7362E-003
		778.89	12.74	7.9290E-001		-8.2614E-001
		867.32	4.16	2.4806E+000		-1.1335E+000
		964.01	14.40	8.5686E-001		-1.7240E-001
		1085.78	10.00	1.0481E+000		4.9664E-001
		1112.02	13.30	8.2908E-001		3.6256E-001
		1407.95	20.70	3.7596E-001		3.6694E-001
	Eu-154	123.07	40.50	6.1595E-001	2.48E-001	3.8907E-001
		247.94	6.60	2.2211E+000		-3.0229E+000
		591.81	4.83	2.2306E+000		-1.9875E+000
		723.30	19.70	5.8100E-001		2.6896E-001
		756.87	4.33	2.2954E+000		-5.6389E-001
		873.19	11.50	8.8438E-001		6.9796E-001
		996.32	10.30	1.0261E+000		-6.1073E-001
		1004.76	17.90	5.8388E-001		4.2138E-001
		1274.45	35.50	2.4801E-001		-3.1159E-002
	Eu-155	86.54*	30.90	8.2255E-001	8.23E-001	4.8030E-001
		105.31	20.70	1.3846E+000		2.7902E-001
	Am-241	59.54	35.90	1.5942E+000	1.59E+000	-9.2959E-001
	Cm-243	228.19	10.56	1.4002E+000	1.01E+000	-1.1182E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	1.0081E+000	1.01E+000	-6.2596E-001

+ = 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

Report Generated On 12/6/2005 1:40:12 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: RED6264

Spectrum File: RED6264
Sample ID:
Sample Title: NOL-05-02-153-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/6/2005 1:30:09 PM
Live Time: 600.0 seconds
Real Time: 601.2 seconds

Energy Calibration Date: 6/13/2005
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number:
Title: NOL-05-02-153-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	285-	315	291.74	72.89	1.11	5.16E+002	72.81	1.64E+003
m	2	285-	315	300.62	75.11	1.12	1.00E+003	84.07	1.80E+003
m	3	285-	315	309.13	77.24	1.12	2.20E+002	62.83	1.73E+003
F	4	336-	343	339.83	84.92	0.93	2.61E+002	67.48	8.95E+002
F	5	949-	960	954.94	238.71	1.04	2.92E+002	45.20	3.10E+002
F	6	1074-	1088	1081.42	270.33	0.80	4.99E+001	25.67	2.25E+002
F	7	1172-	1186	1181.14	295.26	1.02	9.84E+001	31.18	2.46E+002
F	8	1346-	1359	1352.93	338.21	1.02	7.21E+001	27.92	1.86E+002
F	9	1396-	1416	1407.46	351.84	1.52	1.74E+002	31.44	1.94E+002
F	10	2032-	2055	2043.43	510.85	2.23	2.08E+002	29.80	1.14E+002
F	11	2322-	2343	2332.62	583.16	1.44	1.94E+002	30.26	9.69E+001
F	12	2428-	2447	2437.18	609.30	1.72	1.86E+002	29.56	8.90E+001
F	13	2905-	2917	2910.13	727.54	0.47	2.46E+001	13.54	6.00E+001
F	14	3484-	3495	3489.62	872.43	0.60	1.64E+001	10.42	2.12E+001
F	15	3634-	3654	3645.51	911.40	1.46	1.42E+002	26.10	5.51E+001
F	16	3869-	3886	3876.47	969.15	1.24	7.50E+001	21.66	6.10E+001
F	17	4476-	4490	4483.35	1120.88	1.29	4.64E+001	17.76	3.79E+001
F	18	4634-	4647	4641.38	1160.39	0.48	1.40E+001	5.63	2.07E+001
F	19	4686-	4701	4693.99	1173.55	1.32	3.76E+001	18.66	5.85E+001
F	20	5325-	5340	5333.41	1333.41	1.63	7.15E+001	18.22	1.41E+001
F	21	5831-	5861	5847.07	1461.84	1.94	1.17E+003	66.86	2.77E+001
F	22	7056-	7073	7064.47	1766.22	1.79	4.79E+001	14.85	7.02E+000

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	0.999	511.00*	100.00	2.92684E-001	5.77114E-002
K-40	0.969	1460.81*	10.67	2.01728E+001	2.00149E+000
Co-60	0.986	1173.22*	100.00	6.61730E-002	3.32481E-002
		1332.49*	100.00	1.29679E-001	3.45616E-002
TL-208	0.752	277.35	6.80		
		510.84*	21.60	1.35502E+000	2.89192E-001
		583.14*	84.20	3.38946E-001	6.88306E-002
		860.37	12.46		
Bi-212	0.996	727.17*	11.80	3.26193E-001	1.83348E-001
Pb-212	0.843	74.81* @	10.70	1.48440E+001	3.16428E+000
		77.11* @	18.00	1.86140E+000	6.44757E-001
		87.30 @	8.00		
		238.63*	44.60	7.33669E-001	1.61570E-001
Bi-214	0.980	609.31*	46.30	5.97610E-001	1.20344E-001
		1120.29*	15.10	5.33807E-001	2.12016E-001
		1764.49*	15.80	5.81559E-001	1.89308E-001
PB-214	0.763	74.82* @	6.21	2.55766E+001	5.75961E+000
		77.11* @	10.50	3.19097E+000	1.13069E+000
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	6.09296E-001	2.18667E-001
		351.92*	37.20	5.84302E-001	1.43867E-001
Ac-228	0.998	338.32*	11.40	7.82035E-001	3.26594E-001
		911.07*	27.70	8.40627E-001	1.82124E-001
		969.11*	16.60	7.53385E-001	2.31375E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		0.999	2.194713E-001	5.954787E-002
K-40		0.969	2.017279E+001	2.001493E+000
Co-60		0.986	9.669645E-002	2.396087E-002
TL-208		0.752	3.389458E-001	6.793848E-002
Bi-212		0.996	3.261928E-001	1.833481E-001
Pb-212	@	0.843	7.336692E-001	1.615703E-001
Bi-214		0.980	5.819446E-001	9.159341E-002
PB-214	@	0.763	5.918522E-001	1.201871E-001
Ac-228		0.998	8.031900E-001	1.310772E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.89	8.5977E-001	14.12
F 4	84.92	4.3442E-001	25.89
F 6	270.33	8.3221E-002	51.40
F 14	872.43	2.7367E-002	63.47
F 18	1160.39	2.3345E-002	40.20

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
+	Co-60	1173.22*	100.00	8.1972E-002	4.37E-002	6.6173E-002
		1332.49*	100.00	4.3732E-002		1.2968E-001
	Nb-94	702.63	100.00	1.1787E-001	9.86E-002	-2.4078E-002
		871.10	100.00	9.8592E-002		-2.2703E-002
	Ag-108m	79.20	7.10	6.2780E+000	1.28E-001	6.2592E-001
		433.93	89.90	1.3399E-001		6.8466E-002
		614.37	90.40	1.5646E-001		-1.4830E-002
		722.95	90.50	1.2791E-001		-2.7213E-002
	Sb-125	176.33	6.89	2.5414E+000	3.71E-001	-3.7601E-001
		427.89	29.33	3.7067E-001		-3.3435E-001
		463.38	10.35	1.2278E+000		1.8454E-001
		600.56	17.80	6.1976E-001		-1.4645E-001
		606.64	5.02	2.8816E+000		4.8568E+000
		635.90	11.32	9.6443E-001		4.3702E-001
	Cs-134	563.23	8.38	1.3427E+000	1.29E-001	3.7872E-001
		569.32	15.43	7.3861E-001		-2.2870E-001
		604.70	97.60	1.4788E-001		-1.9034E-002
		795.84	85.40	1.2888E-001		8.3261E-002
		801.93	8.73	1.2048E+000		-2.5453E+000
	Cs-137	661.65	85.12	1.3993E-001	1.40E-001	1.8160E-001
	Eu-152	121.78	28.40	8.6439E-001	3.90E-001	-4.7690E-001
		244.69	7.49	2.1005E+000		-3.3964E+000
		344.27	26.50	4.8047E-001		9.2715E-002
		778.89	12.74	8.2280E-001		-8.5716E-001
		867.32	4.16	2.5626E+000		3.1029E-001
		964.01	14.40	9.0335E-001		5.3658E-001
		1085.78	10.00	9.9758E-001		5.8933E-002
		1112.02	13.30	7.7280E-001		-6.4886E-002
		1407.95	20.70	3.9006E-001		3.5919E-001
	Eu-154	123.07	40.50	6.0309E-001	2.74E-001	3.7820E-001
		247.94	6.60	2.2615E+000		-2.9993E+000
		591.81	4.83	2.1882E+000		-3.1887E-001
		723.30	19.70	5.8524E-001		-2.0564E-001
		756.87	4.33	2.4800E+000		2.4086E-001
		873.19	11.50	8.2832E-001		-1.2472E-001
		996.32	10.30	9.6419E-001		3.6713E-001
		1004.76	17.90	5.7390E-001		-3.2927E-001
		1274.45	35.50	2.7442E-001		-1.3362E-001
	Eu-155	86.54	30.90	1.2236E+000	1.22E+000	1.4644E+000
		105.31	20.70	1.4082E+000		8.0571E-002
	Am-241	59.54	35.90	1.6045E+000	1.60E+000	-1.3973E+000
	Cm-243	228.19	10.56	1.4721E+000	1.01E+000	2.3859E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	1.0097E+000	1.01E+000	2.2196E-001

+ = 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

Report Generated On 12/6/2005 9:38:19 AM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: BLUE6279

Spectrum File: C:\GENIE2K\CAMFILES\NOL-05-02-154-F-G.CNF
Sample ID:
Sample Title: NOL-05-02-154-F-G
Description:

Sample Type:
Geometry: GM

Acquisition Started: 12/5/2005 7:56:08 PM
Live Time: 600.0 seconds
Real Time: 601.4 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: C:\GENIE2K\CAMFILES\NOL-05-02-154-F-G.CNF
Log Number:
Title: NOL-05-02-154-F-G
Description:

Geometry: GM

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	282-	314	291.53	72.73	1.13	6.96E+002	178.98	2.06E+003
m	2	282-	314	300.24	74.92	1.14	1.15E+003	259.04	2.10E+003
m	3	282-	314	308.96	77.10	1.14	1.61E+002	73.19	2.01E+003
F	4	333-	346	339.06	84.65	1.15	2.77E+002	70.55	1.89E+003
F	5	945-	961	953.80	238.77	1.34	3.10E+002	46.32	4.57E+002
F	6	1175-	1184	1179.50	295.31	1.39	7.12E+001	30.51	1.79E+002
F	7	1399-	1415	1406.52	352.15	1.44	1.57E+002	32.57	2.20E+002
F	8	2031-	2052	2041.52	511.05	2.32	1.38E+002	30.67	2.08E+002
F	9	2321-	2338	2330.48	583.31	1.59	1.87E+002	81.62	9.93E+001
F	10	2425-	2443	2434.39	609.28	1.61	2.10E+002	31.63	8.79E+001
F	11	2637-	2650	2644.26	661.74	1.64	3.55E+001	17.70	5.77E+001
F	12	2900-	2913	2906.86	727.36	1.68	4.25E+001	20.74	8.03E+001
F	13	3634-	3650	3642.22	911.01	1.77	1.53E+002	27.10	5.32E+001
M	14	3850-	3880	3856.49	964.50	1.80	3.64E+001	16.74	4.71E+001
m	15	3850-	3880	3872.84	968.58	1.80	9.55E+001	22.81	6.15E+001
F	16	4468-	4486	4478.40	1119.71	1.87	8.04E+001	54.02	5.90E+001
F	17	4682-	4699	4690.55	1172.64	1.89	1.08E+002	24.81	6.55E+001
F	18	5318-	5337	5327.40	1331.52	1.96	1.59E+002	41.49	2.73E+001
F	19	5826-	5854	5840.63	1459.53	2.01	1.23E+003	68.09	3.97E+001
F	20	7047-	7065	7056.16	1762.75	2.12	7.30E+001	17.21	2.41E+000

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File: C:\GENIE2K\CAMFILES\NOL-05-02-154-F-G.CNF

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Unit)	Activity Uncertainty
ANN	1.000	511.00*	100.00	1.98048E-001	5.14766E-002
K-40	0.952	1460.81*	10.67	2.16694E+001	2.12495E+000
Co-60	0.981	1173.22*	100.00	1.93866E-001	4.69745E-002
		1332.49*	100.00	2.93460E-001	7.99613E-002
Cs-137	1.000	661.65*	85.12	6.49840E-002	3.33299E-002
TL-208	0.751	277.35	6.80		
		510.84*	21.60	9.16887E-001	2.49804E-001
		583.14*	84.20	3.33112E-001	1.51397E-001
		860.37	12.46		
Bi-212	0.999	727.17*	11.80	5.73177E-001	2.87412E-001
Pb-212	0.843	74.81* @	10.70	1.72283E+001	5.15234E+000
		77.11* @	18.00	1.38210E+000	6.84190E-001
		87.30 @	8.00		
		238.63*	44.60	7.91272E-001	1.71396E-001
Bi-214	0.979	609.31*	46.30	6.89292E-001	1.34030E-001
		1120.29*	15.10	9.41473E-001	6.40031E-001
		1764.49*	15.80	8.99766E-001	2.30479E-001
PB-214	0.762	74.82* @	6.21	2.96848E+001	9.13542E+000
		77.11* @	10.50	2.36931E+000	1.18616E+000
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	4.48931E-001	2.06592E-001
		351.92*	37.20	5.38637E-001	1.43239E-001
Ac-228	0.631	338.32	11.40		
		911.07*	27.70	9.22265E-001	1.94357E-001
		969.11*	16.60	9.74313E-001	2.54251E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File:C:\GENIE2K\CAMFILES\NOL-05-02-154-F-G.CNF

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Unit)	Wt mean Activity Uncertainty
ANN		1.000	1.260953E-001	6.094058E-002
K-40		0.952	2.166940E+001	2.124946E+000
Co-60		0.981	2.194190E-001	4.050254E-002
Cs-137		1.000	6.498404E-002	3.332990E-002
TL-208		0.751	3.331121E-001	1.510075E-001
Bi-212		0.999	5.731772E-001	2.874119E-001
Pb-212	@	0.843	7.912723E-001	1.713958E-001
Bi-214		0.979	7.487960E-001	1.140104E-001
PB-214	@	0.762	5.095136E-001	1.177132E-001
Ac-228		0.631	9.414616E-001	1.544096E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.73	1.1604E+000	25.71
F 4	84.65	4.6121E-001	25.49
M 14	964.50	6.0663E-002	45.99

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:C:\GENIE2K\CAMFILES\NOL-05-02-154-F-G.CNF
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Unit)	Nuclide MDA (pCi/Unit)	Activity (pCi/Unit)
+	Co-60	1173.22*	100.00	9.1299E-002	6.44E-002	1.9387E-001
		1332.49*	100.00	6.4355E-002		2.9346E-001
	Nb-94	702.63	100.00	1.1688E-001	1.12E-001	-6.4642E-002
		871.10	100.00	1.1233E-001		1.0219E-002
	Ag-108m	79.20	7.10	6.3690E+000	1.38E-001	-3.7853E+000
		433.93	89.90	1.3843E-001		-5.7906E-002
		614.37	90.40	1.6835E-001		-2.4948E-002
		722.95	90.50	1.3763E-001		3.8468E-002
	Sb-125	176.33	6.89	2.6805E+000	4.20E-001	-1.7472E+000
		427.89	29.33	4.1953E-001		-9.1574E-002
		463.38	10.35	1.2498E+000		9.2628E-001
		600.56	17.80	6.1405E-001		-3.7008E-001
		606.64	5.02	2.9919E+000		6.2045E+000
		635.90	11.32	1.0213E+000		9.5215E-002
	Cs-134	563.23	8.38	1.4244E+000	1.38E-001	1.4813E-001
		569.32	15.43	7.2951E-001		-1.0861E+000
		604.70	97.60	1.5285E-001		5.6146E-002
		795.84	85.40	1.3797E-001		-5.5078E-003
		801.93	8.73	1.3080E+000		-1.7808E+000
+	Cs-137	661.65*	85.12	8.1122E-002	8.11E-002	6.4984E-002
	Eu-152	121.78	28.40	9.2930E-001	3.83E-001	2.1837E-001
		244.69	7.49	2.2565E+000		3.9122E-001
		344.27	26.50	5.2486E-001		-1.4588E+000
		778.89	12.74	8.7892E-001		-3.3087E-001
		867.32	4.16	2.5911E+000		-5.3803E+000
		964.01	14.40	9.3680E-001		8.5192E-001
		1085.78	10.00	1.1005E+000		3.0505E-001
		1112.02	13.30	9.6137E-001		-6.3767E-001
		1407.95	20.70	3.8269E-001		1.4421E-001
	Eu-154	123.07	40.50	6.4327E-001	2.91E-001	-1.6660E-001
		247.94	6.60	2.4666E+000		-1.0625E+000
		591.81	4.83	2.5122E+000		1.9160E+000
		723.30	19.70	6.4149E-001		7.1942E-001
		756.87	4.33	2.6011E+000		-1.1754E+000
		873.19	11.50	9.5082E-001		2.3418E-002
		996.32	10.30	1.0774E+000		6.6166E-001
		1004.76	17.90	6.0629E-001		-5.5932E-001
		1274.45	35.50	2.9106E-001		-7.7518E-002
	Eu-155	86.54	30.90	1.3123E+000	1.31E+000	3.0181E+000
		105.31	20.70	1.4976E+000		-1.4678E-001
	Am-241	59.54	35.90	1.7186E+000	1.72E+000	9.3139E-001
	Cm-243	228.19	10.56	1.5480E+000	1.10E+000	1.0710E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Unit)	Nuclide MDA (pCi/Unit)	Activity (pCi/Unit)
Cm-243	277.60	14.00	1.0955E+000	1.10E+000	-2.4091E-001

+ = 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

Report Generated On 12/6/2005 9:38:41 AM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: BLUE6279

Spectrum File: C:\GENIE2K\CAMFILES\NOL-05-02-155-F-G.CNF
Sample ID:
Sample Title: NOL-05-02-155-F-G
Description:

Sample Type:
Geometry: GM

Acquisition Started: 12/5/2005 10:58:56 PM
Live Time: 600.0 seconds
Real Time: 601.4 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: C:\GENIE2K\CAMFILES\NOL-05-02-155-F-G.CNF
Log Number:
Title: NOL-05-02-155-F-G
Description:

Geometry: GM

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	282-	309	291.23	72.66	1.13	6.26E+002	145.59	2.14E+003
m	2	282-	309	300.13	74.89	1.14	1.13E+003	220.54	2.34E+003
F	3	332-	345	338.95	84.63	1.15	3.52E+002	200.32	1.85E+003
F	4	948-	959	954.24	238.88	1.34	3.76E+002	48.80	3.24E+002
F	5	1171-	1186	1179.91	295.41	1.39	9.44E+001	85.86	2.78E+002
F	6	1343-	1361	1352.64	338.66	1.43	8.86E+001	28.94	2.47E+002
F	7	1402-	1416	1406.75	352.21	1.44	1.84E+002	34.49	1.75E+002
F	8	2032-	2053	2042.30	511.24	2.32	1.77E+002	40.42	1.57E+002
F	9	2322-	2340	2331.10	583.46	1.59	2.03E+002	32.98	1.43E+002
F	10	2427-	2444	2435.45	609.55	1.61	1.87E+002	44.96	8.89E+001
F	11	2902-	2913	2907.80	727.59	1.68	3.39E+001	19.23	6.30E+001
F	12	3629-	3654	3643.32	911.29	1.77	2.18E+002	52.31	4.88E+001
M	13	3851-	3882	3856.72	964.56	1.80	4.23E+001	18.54	5.77E+001
m	14	3851-	3882	3874.06	968.89	1.80	9.21E+001	23.94	8.95E+001
F	15	4473-	4487	4480.75	1120.30	1.87	3.52E+001	169.92	4.33E+001
F	16	4682-	4700	4691.13	1172.79	1.89	7.73E+001	71.83	5.24E+001
F	17	5319-	5337	5328.74	1331.85	1.96	1.06E+002	21.45	2.11E+001
F	18	5827-	5857	5841.89	1459.85	2.01	1.24E+003	100.37	1.11E+001

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File: C:\GENIE2K\CAMFILES\NOL-05-02-155-F-G.CNF

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Unit)	Activity Uncertainty
ANN	0.998	511.00*	100.00	2.53434E-001	6.73214E-002
K-40	0.972	1460.81*	10.67	2.18888E+001	2.50281E+000
Co-60	0.991	1173.22*	100.00	1.38452E-001	1.29113E-001
		1332.49*	100.00	1.94770E-001	4.24334E-002
TL-208	0.749	277.35	6.80		
		510.84*	21.60	1.17331E+000	3.26070E-001
		583.14*	84.20	3.61411E-001	7.51517E-002
		860.37	12.46		
Bi-212	0.995	727.17*	11.80	4.56341E-001	2.64546E-001
Pb-212	0.519	74.81* @	10.70	1.69940E+001	4.69926E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	9.61112E-001	1.95551E-001
Bi-214	0.698	609.31*	46.30	6.12925E-001	1.65628E-001
		1120.29*	15.10	4.12239E-001	1.98938E+000
		1764.49	15.80		
PB-214	0.581	74.82* @	6.21	2.92812E+001	8.37131E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	5.95027E-001	5.50312E-001
		351.92*	37.20	6.30576E-001	1.58216E-001
Ac-228	0.998	338.32*	11.40	9.78209E-001	3.54334E-001
		911.07*	27.70	1.30720E+000	3.48473E-001
		969.11*	16.60	9.39832E-001	2.63472E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File:C:\GENIE2K\CAMFILES\NOL-05-02-155-F-G.CNF

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Unit)	Wt mean Activity Uncertainty
ANN		0.998	1.753692E-001	6.920403E-002
K-40		0.972	2.188883E+001	2.502808E+000
Co-60		0.991	1.892803E-001	4.031211E-002
TL-208		0.749	3.614112E-001	7.422297E-002
Bi-212		0.995	4.563412E-001	2.645464E-001
Pb-212	@	0.519	9.611119E-001	1.955513E-001
Bi-214		0.698	6.115433E-001	1.650574E-001
PB-214	@	0.581	6.278623E-001	1.520565E-001
Ac-228		0.998	1.048667E+000	1.807597E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.66	1.0436E+000	23.25
F 3	84.63	5.8603E-001	56.97
M 13	964.56	7.0519E-002	43.82

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:C:\GENIE2K\CAMFILES\NOL-05-02-155-F-G.CNF
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Unit)	Nuclide MDA (pCi/Unit)	Activity (pCi/Unit)
+	Co-60	1173.22*	100.00	8.3333E-002	5.65E-002	1.3845E-001
		1332.49*	100.00	5.6463E-002		1.9477E-001
	Nb-94	702.63	100.00	1.1298E-001	1.07E-001	-7.2086E-002
		871.10	100.00	1.0674E-001		-2.0147E-002
	Ag-108m	79.20	7.10	6.5115E+000	1.37E-001	-7.8864E+000
		433.93	89.90	1.4043E-001		1.0582E-001
		614.37	90.40	1.6589E-001		-4.2099E-002
		722.95	90.50	1.3663E-001		-1.4913E-002
	Sb-125	176.33	6.89	2.7142E+000	4.06E-001	4.5838E-001
		427.89	29.33	4.0635E-001		-4.2966E-001
		463.38	10.35	1.2141E+000		-1.3781E-001
		600.56	17.80	6.8500E-001		6.5027E-001
		606.64	5.02	2.9919E+000		4.1568E+000
		635.90	11.32	1.0395E+000		-3.4221E-001
	Cs-134	563.23	8.38	1.4583E+000	1.42E-001	9.7315E-001
		569.32	15.43	7.3660E-001		-3.7783E-001
		604.70	97.60	1.5494E-001		-3.1604E-002
		795.84	85.40	1.4172E-001		-4.9295E-002
		801.93	8.73	1.3110E+000		-2.3715E+000
	Cs-137	661.65	85.12	1.3898E-001	1.39E-001	3.3427E-002
	Eu-152	121.78	28.40	9.4073E-001	4.06E-001	5.4822E-001
		244.69	7.49	2.2634E+000		-4.6182E+000
		344.27	26.50	5.1514E-001		-8.9748E-002
		778.89	12.74	8.9113E-001		-1.1438E+000
		867.32	4.16	2.6650E+000		-1.4066E+000
		964.01	14.40	9.9906E-001		8.3136E-001
		1085.78	10.00	1.0455E+000		4.5808E-001
		1112.02	13.30	8.3082E-001		-3.1441E-001
		1407.95	20.70	4.0645E-001		2.0633E-002
	Eu-154	123.07	40.50	6.5422E-001	2.76E-001	1.9386E-001
		247.94	6.60	2.4059E+000		-3.5585E+000
		591.81	4.83	2.4332E+000		-1.1418E+000
		723.30	19.70	6.3349E-001		2.1405E-001
		756.87	4.33	2.6306E+000		-5.6878E-002
		873.19	11.50	8.9289E-001		-7.6802E-001
		996.32	10.30	9.2476E-001		-2.6123E-001
		1004.76	17.90	5.9246E-001		-1.3554E-001
		1274.45	35.50	2.7618E-001		3.0873E-002
	Eu-155	86.54	30.90	1.3455E+000	1.35E+000	2.3322E+000
		105.31	20.70	1.5112E+000		-2.4341E-001
	Am-241	59.54	35.90	1.7399E+000	1.74E+000	1.2193E+000
	Cm-243	228.19	10.56	1.5895E+000	1.08E+000	4.2510E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Unit)	Nuclide MDA (pCi/Unit)	Activity (pCi/Unit)
Cm-243	277.60	14.00	1.0816E+000	1.08E+000	3.2326E-001

+ = 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

Report Generated On 12/8/2005 8:49:11 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: RED6264

Spectrum File: RED6264
Sample ID:
Sample Title: NOL-05-02-156-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/8/2005 8:39:08 PM
Live Time: 600.0 seconds
Real Time: 601.2 seconds

Energy Calibration Date: 6/13/2005
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number:
Title: NOL-05-02-156-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	282-	305	291.47	72.83	1.00	5.24E+002	71.75	1.64E+003
m	2	282-	305	300.24	75.02	1.00	8.47E+002	83.33	1.60E+003
F	3	330-	345	339.30	84.79	0.94	2.50E+002	69.85	1.93E+003
F	4	948-	961	954.29	238.54	1.06	2.61E+002	43.57	3.50E+002
F	5	1176-	1188	1180.77	295.17	0.87	6.08E+001	26.62	1.83E+002
F	6	1345-	1358	1353.64	338.39	1.21	7.59E+001	26.63	1.52E+002
F	7	1401-	1414	1407.45	351.84	1.30	1.43E+002	31.14	1.51E+002
F	8	2031-	2053	2042.26	510.56	2.48	1.82E+002	28.66	1.24E+002
F	9	2324-	2342	2332.23	583.06	1.52	1.92E+002	28.94	5.96E+001
F	10	2428-	2445	2436.88	609.22	1.17	1.15E+002	25.35	8.52E+001
F	11	2901-	2915	2909.14	727.30	1.18	3.26E+001	18.69	5.93E+001
F	12	3636-	3655	3645.96	911.52	1.62	1.48E+002	26.89	5.76E+001
M	13	3852-	3885	3859.86	965.00	1.70	3.82E+001	16.50	4.59E+001
m	14	3852-	3885	3876.28	969.10	1.70	9.33E+001	21.00	3.95E+001
F	15	5832-	5860	5846.59	1461.72	1.97	1.02E+003	61.97	1.09E+001
F	16	7056-	7070	7064.04	1766.11	1.37	3.16E+001	13.81	1.85E+001

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	0.994	511.00*	100.00	2.55526E-001	5.31573E-002
K-40	0.976	1460.81*	10.67	1.77002E+001	1.78985E+000
TL-208	0.751	277.35	6.80		
		510.84*	21.60	1.18299E+000	2.64383E-001
		583.14*	84.20	3.35501E-001	6.67788E-002
		860.37	12.46		
Bi-212	1.000	727.17*	11.80	4.31765E-001	2.52663E-001
Pb-212	0.521	74.81* @	10.70	1.25602E+001	2.75438E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	6.55135E-001	1.50022E-001
Bi-214	0.683	609.31*	46.30	3.69278E-001	9.34447E-002
		1120.29	15.10		
		1764.49*	15.80	3.83441E-001	1.71936E-001
PB-214	0.583	74.82* @	6.21	2.16415E+001	4.99913E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	3.76720E-001	1.76656E-001
		351.92*	37.20	4.81862E-001	1.32046E-001
Ac-228	0.997	338.32*	11.40	8.23390E-001	3.16304E-001
		911.07*	27.70	8.76149E-001	1.88256E-001
		969.11*	16.60	9.36354E-001	2.32572E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		0.994	1.830577E-001	5.502886E-002
K-40		0.976	1.770015E+001	1.789847E+000
TL-208		0.751	3.355007E-001	6.587759E-002
Bi-212		1.000	4.317651E-001	2.526626E-001
Pb-212	@	0.521	6.551355E-001	1.500223E-001
Bi-214		0.683	3.725076E-001	8.210252E-002
PB-214	@	0.583	4.441739E-001	1.057648E-001
Ac-228		0.997	8.864795E-001	1.328039E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.83	8.7276E-001	13.70
F 3	84.79	4.1643E-001	27.96
M 13	965.00	6.3641E-002	43.22

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Co-60	1173.22	100.00	1.0197E-001	8.84E-002	-2.8891E-002
	1332.49	100.00	8.8391E-002		2.2657E-002
Nb-94	702.63	100.00	1.0264E-001	1.01E-001	-1.5513E-002
	871.10	100.00	1.0127E-001		1.4382E-001
Ag-108m	79.20	7.10	6.1421E+000	1.30E-001	-1.2179E+001
	433.93	89.90	1.2990E-001		2.6995E-002
	614.37	90.40	1.4680E-001		6.3004E-002
	722.95	90.50	1.3176E-001		-3.4354E-002
Sb-125	176.33	6.89	2.4342E+000	3.93E-001	-1.2872E+000
	427.89	29.33	3.9285E-001		-7.0626E-002
	463.38	10.35	1.1464E+000		-5.7706E-003
	600.56	17.80	6.3470E-001		4.5343E-001
	606.64	5.02	2.6769E+000		5.1883E+000
	635.90	11.32	9.2618E-001		-4.7846E-001
Cs-134	563.23	8.38	1.2019E+000	1.33E-001	-9.0372E-001
	569.32	15.43	6.4112E-001		-1.7627E-001
	604.70	97.60	1.3697E-001		-5.4103E-003
	795.84	85.40	1.3335E-001		1.0833E-001
	801.93	8.73	1.2234E+000		-1.3099E+000
Cs-137	661.65	85.12	1.2911E-001	1.29E-001	-6.8278E-002
Eu-152	121.78	28.40	8.6164E-001	3.43E-001	-1.9696E-001
	244.69	7.49	2.0352E+000		7.5553E-001
	344.27	26.50	4.6706E-001		-4.1872E-001
	778.89	12.74	7.8364E-001		-6.8871E-001
	867.32	4.16	2.4672E+000		-2.2427E+000
	964.01	14.40	9.1488E-001		2.0317E-001
	1085.78	10.00	9.2024E-001		4.4071E-001
	1112.02	13.30	7.4745E-001		-4.4132E-001
	1407.95	20.70	3.4302E-001		9.2218E-002
Eu-154	123.07	40.50	6.0116E-001	2.61E-001	-5.8826E-002
	247.94	6.60	2.1870E+000		-7.6389E-001
	591.81	4.83	2.1346E+000		-1.1802E+000
	723.30	19.70	6.0652E-001		2.9538E-001
	756.87	4.33	2.3755E+000		-9.5564E-002
	873.19	11.50	8.6298E-001		2.2141E-001
	996.32	10.30	9.1599E-001		-6.0049E-001
	1004.76	17.90	5.0092E-001		-7.5099E-002
	1274.45	35.50	2.6137E-001		9.0635E-002
Eu-155	86.54	30.90	1.2334E+000	1.23E+000	2.6564E-001
	105.31	20.70	1.3738E+000		1.8799E-001
Am-241	59.54	35.90	1.5759E+000	1.58E+000	-4.4492E-001
Cm-243	228.19	10.56	1.4245E+000	9.99E-001	-3.6520E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	9.9890E-001	9.99E-001	6.3150E-001

+ = 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

Report Generated On 12/8/2005 11:13:17 AM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: RED6264

Spectrum File: RED6264
Sample ID:
Sample Title: NOL-05-02-157-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/8/2005 11:03:15 AM
Live Time: 600.0 seconds
Real Time: 601.2 seconds

Energy Calibration Date: 6/13/2005
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number:
Title: NOL-05-02-157-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	287-	316	292.05	72.97	1.01	4.44E+002	69.76	1.37E+003
m	2	287-	316	300.60	75.11	1.01	7.97E+002	78.89	1.56E+003
m	3	287-	316	308.84	77.17	1.02	1.92E+002	60.39	1.51E+003
F	4	330-	345	339.42	84.81	0.93	3.04E+002	68.31	1.76E+003
F	5	947-	961	955.04	238.73	1.23	3.04E+002	42.89	2.92E+002
F	6	1176-	1187	1181.51	295.35	0.76	6.82E+001	26.94	1.83E+002
F	7	1343-	1359	1352.96	338.22	1.57	8.51E+001	26.64	1.76E+002
F	8	1403-	1415	1408.44	352.09	1.27	9.50E+001	28.57	1.44E+002
F	9	2032-	2057	2044.91	511.22	2.33	1.78E+002	28.22	1.27E+002
F	10	2328-	2344	2334.29	583.57	1.37	1.48E+002	28.50	8.85E+001
F	11	2430-	2448	2438.14	609.54	1.50	1.46E+002	27.03	8.21E+001
F	12	2903-	2918	2911.24	727.82	1.35	2.92E+001	15.90	6.41E+001
F	13	3637-	3657	3647.41	911.88	1.56	1.44E+002	27.32	7.88E+001
F	14	3870-	3888	3878.72	969.71	1.74	8.87E+001	22.55	5.60E+001
F	15	4479-	4492	4485.46	1121.41	0.77	2.74E+001	15.27	5.50E+001
F	16	5329-	5342	5335.27	1333.88	1.63	3.10E+001	14.17	1.72E+001
F	17	5836-	5865	5850.01	1462.58	2.01	1.12E+003	65.07	1.39E+001
F	18	7062-	7076	7067.55	1766.98	1.76	2.05E+001	11.30	1.13E+001

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	0.999	511.00*	100.00	2.50723E-001	5.22519E-002
K-40	0.911	1460.81*	10.67	1.93699E+001	1.93060E+000
TL-208	0.747	277.35	6.80		
		510.84*	21.60	1.16076E+000	2.59818E-001
		583.14*	84.20	2.58420E-001	6.00566E-002
		860.37	12.46		
Bi-212	0.987	727.17*	11.80	3.87275E-001	2.15403E-001
Pb-212	0.843	74.81* @	10.70	1.18004E+001	2.59090E+000
		77.11* @	18.00	1.62455E+000	6.02647E-001
		87.30 @	8.00		
		238.63*	44.60	7.64105E-001	1.61069E-001
Bi-214	0.955	609.31*	46.30	4.69008E-001	1.04470E-001
		1120.29*	15.10	3.15197E-001	1.78806E-001
		1764.49*	15.80	2.48501E-001	1.39328E-001
PB-214	0.762	74.82* @	6.21	2.03324E+001	4.70187E+000
		77.11* @	10.50	2.78495E+000	1.05383E+000
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	4.22479E-001	1.81416E-001
		351.92*	37.20	3.19274E-001	1.09866E-001
Ac-228	0.987	338.32*	11.40	9.22139E-001	3.22996E-001
		911.07*	27.70	8.48766E-001	1.88740E-001
		969.11*	16.60	8.90849E-001	2.44894E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		0.999	1.949045E-001	5.380739E-002
K-40		0.911	1.936986E+001	1.930598E+000
TL-208		0.747	2.584196E-001	5.946318E-002
Bi-212		0.987	3.872754E-001	2.154028E-001
Pb-212	@	0.843	7.641046E-001	1.610693E-001
Bi-214		0.955	3.762996E-001	7.571907E-002
PB-214	@	0.762	3.469684E-001	9.397621E-002
Ac-228		0.987	8.746260E-001	1.356670E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.97	7.3951E-001	15.72
F 4	84.81	5.0627E-001	22.49
F 16	1333.88	5.1584E-002	45.79

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Co-60	1173.22	100.00	1.0469E-001	9.13E-002	-8.2661E-004
	1332.49	100.00	9.1321E-002		3.5345E-002
Nb-94	702.63	100.00	1.0627E-001	9.07E-002	7.2956E-002
	871.10	100.00	9.0714E-002		-1.2781E-001
Ag-108m	79.20	7.10	6.0506E+000	1.27E-001	-3.6349E-001
	433.93	89.90	1.3436E-001		-1.9975E-002
	614.37	90.40	1.5291E-001		-6.1170E-003
	722.95	90.50	1.2686E-001		9.1400E-002
Sb-125	176.33	6.89	2.4363E+000	3.83E-001	6.0277E-001
	427.89	29.33	3.8283E-001		-3.4804E-002
	463.38	10.35	1.1225E+000		1.4807E-001
	600.56	17.80	6.4566E-001		4.0456E-001
	606.64	5.02	2.7205E+000		3.0207E+000
	635.90	11.32	9.8705E-001		3.7196E-001
Cs-134	563.23	8.38	1.1906E+000	1.26E-001	-1.7714E+000
	569.32	15.43	7.0955E-001		2.1688E-001
	604.70	97.60	1.3904E-001		-1.8149E-002
	795.84	85.40	1.2642E-001		6.1945E-002
	801.93	8.73	1.2447E+000		-6.7052E-001
Cs-137	661.65	85.12	1.2883E-001	1.29E-001	-1.7904E-002
Eu-152	121.78	28.40	8.1790E-001	3.40E-001	-5.8043E-001
	244.69	7.49	1.9727E+000		-1.9766E+000
	344.27	26.50	4.4890E-001		-4.8889E-001
	778.89	12.74	8.5196E-001		-2.0831E-001
	867.32	4.16	2.3091E+000		-1.3906E+000
	964.01	14.40	8.7812E-001		-6.9193E-002
	1085.78	10.00	9.9420E-001		6.4103E-001
	1112.02	13.30	7.4486E-001		-1.1016E+000
	1407.95	20.70	3.4035E-001		-4.8241E-002
Eu-154	123.07	40.50	5.6970E-001	2.66E-001	-3.6162E-001
	247.94	6.60	2.1144E+000		-1.7457E+000
	591.81	4.83	2.3367E+000		3.3580E-001
	723.30	19.70	5.7919E-001		3.6556E-001
	756.87	4.33	2.4437E+000		-1.4293E+000
	873.19	11.50	7.9776E-001		4.4399E-001
	996.32	10.30	8.8574E-001		1.7032E-001
	1004.76	17.90	5.3213E-001		-7.9963E-002
	1274.45	35.50	2.6579E-001		-3.2998E-001
Eu-155	86.54	30.90	1.2096E+000	1.21E+000	4.1881E-001
	105.31	20.70	1.3559E+000		5.8327E-001
Am-241	59.54	35.90	1.6032E+000	1.60E+000	-2.6886E-001
Cm-243	228.19	10.56	1.4066E+000	9.66E-001	1.7016E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	9.6590E-001	9.66E-001	-3.5741E-001

+ = 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

Report Generated On 12/7/2005 9:41:38 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-02-158
Sample Title: NOL-05-02-158-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/7/2005 9:31:35 PM
Live Time: 600.0 seconds
Real Time: 601.2 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-02-158
Title: NOL-05-02-158-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	283-	306	291.91	72.83	1.11	4.11E+002	73.98	1.99E+003
m	2	283-	306	300.48	74.98	1.11	8.03E+002	88.51	2.10E+003
F	3	332-	345	338.85	84.60	1.04	2.19E+002	72.69	1.76E+003
M	4	944-	974	954.68	238.99	1.35	3.49E+002	44.66	3.59E+002
m	5	944-	974	966.97	242.07	1.35	7.71E+001	30.49	3.44E+002
F	6	1177-	1188	1181.93	295.92	1.19	7.18E+001	31.12	1.99E+002
F	7	1348-	1357	1353.14	338.79	0.64	5.04E+001	23.07	1.30E+002
F	8	1401-	1413	1407.85	352.48	1.10	1.04E+002	30.47	1.71E+002
F	9	2322-	2342	2332.76	583.88	1.96	2.05E+002	30.49	9.71E+001
F	10	2428-	2446	2437.13	609.97	1.35	1.48E+002	28.06	9.30E+001
F	11	2639-	2651	2644.86	661.89	1.07	3.32E+001	17.49	5.35E+001
F	12	2903-	2914	2909.13	727.92	1.24	5.08E+001	18.70	3.98E+001
F	13	3219-	3230	3224.52	806.71	1.00	2.08E+001	14.04	3.42E+001
F	14	3636-	3656	3645.57	911.85	1.97	1.30E+002	25.16	5.96E+001
F	15	3867-	3887	3877.12	969.65	1.91	9.31E+001	21.96	5.15E+001
F	16	4685-	4702	4694.80	1173.71	1.53	5.64E+001	18.68	4.05E+001
F	17	5325-	5340	5332.32	1332.75	1.63	5.94E+001	18.71	2.94E+001
F	18	5831-	5859	5845.62	1460.78	2.11	1.02E+003	61.65	2.90E+001
F	19	7055-	7068	7062.23	1764.26	1.76	3.25E+001	12.43	5.18E+000

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
K-40	1.000	1460.81*	10.67	1.70641E+001	1.72560E+000
Co-60	0.995	1173.22*	100.00	9.61780E-002	3.27500E-002
		1332.49*	100.00	1.04488E-001	3.39065E-002
Cs-137	0.998	661.65*	85.12	5.79854E-002	3.12837E-002
TL-208	0.460	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.46713E-001	6.85481E-002
		860.37	12.46		
Bi-212	0.983	727.17*	11.80	6.51726E-001	2.51883E-001
Pb-212	0.518	74.81* @	10.70	1.14711E+001	2.57979E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	8.49766E-001	1.71913E-001
Bi-214	0.690	609.31*	46.30	4.62667E-001	1.04528E-001
		1120.29	15.10		
		1764.49*	15.80	3.81327E-001	1.50938E-001
PB-214	0.724	74.82* @	6.21	1.97651E+001	4.67088E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98*	7.49	1.12029E+000	4.80706E-001
		295.21*	19.20	4.31302E-001	2.00487E-001
		351.92*	37.20	3.39692E-001	1.14384E-001
Ac-228	0.987	338.32*	11.40	5.30040E-001	2.56355E-001
		911.07*	27.70	7.45747E-001	1.67615E-001
		969.11*	16.60	9.04892E-001	2.33602E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
K-40		1.000	1.706407E+001	1.725599E+000
Co-60		0.995	1.001888E-001	2.355601E-002
Cs-137		0.998	5.798536E-002	3.128371E-002
TL-208		0.460	3.467130E-001	6.854810E-002
Bi-212		0.983	6.517261E-001	2.518830E-001
Pb-212	@	0.518	8.497660E-001	1.719132E-001
Bi-214		0.690	4.363021E-001	8.593322E-002
PB-214	@	0.724	3.932448E-001	9.729525E-002
Ac-228		0.987	7.404535E-001	1.202681E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.83	6.8418E-001	18.02
F 3	84.60	3.6464E-001	33.23
F 13	806.71	3.4666E-002	67.50

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
+	Co-60	1173.22*	100.00	6.9141E-002	5.91E-002	9.6178E-002
		1332.49*	100.00	5.9076E-002		1.0449E-001
	Nb-94	702.63	100.00	1.0569E-001	1.01E-001	-1.7517E-002
		871.10	100.00	1.0083E-001		5.1089E-003
	Ag-108m	79.20	7.10	6.0203E+000	1.23E-001	-6.6727E+000
		433.93	89.90	1.2334E-001		1.6104E-002
		614.37	90.40	1.4942E-001		6.4780E-003
		722.95	90.50	1.2319E-001		-6.2254E-002
	Sb-125	176.33	6.89	2.4800E+000	3.68E-001	-5.8251E-001
		427.89	29.33	3.6821E-001		-7.8050E-002
		463.38	10.35	1.1356E+000		-7.7834E-001
		600.56	17.80	5.8103E-001		2.4804E-001
		606.64	5.02	2.6622E+000		3.4958E+000
		635.90	11.32	8.9593E-001		-4.8147E-001
	Cs-134	563.23	8.38	1.2647E+000	1.18E-001	8.9190E-001
		569.32	15.43	6.7551E-001		7.3298E-002
		604.70	97.60	1.3077E-001		-4.1621E-002
		795.84	85.40	1.1755E-001		-1.9803E-002
		801.93	8.73	1.1819E+000		-8.0912E-001
+	Cs-137	661.65*	85.12	7.4580E-002	7.46E-002	5.7985E-002
	Eu-152	121.78	28.40	8.6013E-001	3.03E-001	-9.3465E-002
		244.69	7.49	1.9986E+000		1.9937E-001
		344.27	26.50	4.5419E-001		-7.0900E-001
		778.89	12.74	7.5909E-001		-1.8134E-001
		867.32	4.16	2.4935E+000		-2.5764E-001
		964.01	14.40	8.6014E-001		5.3915E-001
		1085.78	10.00	9.2323E-001		-1.3045E-001
		1112.02	13.30	8.0482E-001		-8.3163E-001
		1407.95	20.70	3.0280E-001		7.9490E-002
	Eu-154	123.07	40.50	5.9535E-001	2.65E-001	-4.4889E-001
		247.94	6.60	2.1128E+000		-1.2629E+000
		591.81	4.83	2.1029E+000		-2.3125E+000
		723.30	19.70	5.6599E-001		2.7514E-001
		756.87	4.33	2.2208E+000		-2.5216E+000
		873.19	11.50	8.8438E-001		-7.1020E-002
		996.32	10.30	8.9669E-001		-3.7975E-001
		1004.76	17.90	5.5586E-001		4.2381E-002
		1274.45	35.50	2.6510E-001		3.5678E-001
	Eu-155	86.54	30.90	1.2144E+000	1.21E+000	2.2976E+000
		105.31	20.70	1.3661E+000		-3.2206E-001
	Am-241	59.54	35.90	1.5634E+000	1.56E+000	3.1909E-001
	Cm-243	228.19	10.56	1.4589E+000	9.80E-001	8.8665E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	9.8044E-001	9.80E-001	2.0006E-001

+ = 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

Report Generated On 12/7/2005 9:56:47 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-02-159
Sample Title: NOL-05-02-159-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/7/2005 9:46:43 PM
Live Time: 600.0 seconds
Real Time: 601.2 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-02-159
Title: NOL-05-02-159-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	283-	309	291.71	72.78	1.12	5.45E+002	76.78	2.02E+003
m	2	283-	309	300.49	74.98	1.13	9.03E+002	87.95	2.08E+003
M	3	335-	354	339.46	84.76	1.39	4.07E+002	76.37	1.44E+003
m	4	335-	354	349.52	87.28	1.40	1.31E+002	65.97	1.92E+003
F	5	949-	960	954.72	239.00	1.08	2.38E+002	44.53	3.32E+002
F	6	1176-	1186	1180.98	295.68	1.08	8.82E+001	30.03	1.59E+002
F	7	1346-	1359	1353.84	338.96	1.37	8.86E+001	27.80	1.48E+002
F	8	1401-	1417	1408.03	352.53	1.10	1.01E+002	29.45	2.03E+002
F	9	2323-	2341	2332.48	583.81	1.52	1.67E+002	30.16	1.14E+002
F	10	2427-	2447	2437.04	609.95	1.52	1.90E+002	30.78	1.10E+002
F	11	2640-	2652	2646.18	662.22	1.15	3.92E+001	19.52	6.67E+001
F	12	3175-	3186	3179.92	795.57	0.89	2.37E+001	15.09	4.50E+001
F	13	3316-	3329	3322.68	831.22	0.79	2.50E+001	13.33	3.44E+001
F	14	3437-	3449	3442.70	861.20	0.80	2.77E+001	14.42	3.88E+001
F	15	3636-	3655	3646.19	912.00	1.86	1.47E+002	27.04	6.75E+001
M	16	3853-	3886	3859.09	965.15	1.76	4.61E+001	17.26	3.69E+001
m	17	3853-	3886	3876.71	969.55	1.77	8.32E+001	21.17	5.71E+001
F	18	4476-	4490	4482.07	1120.63	1.19	4.63E+001	17.46	4.06E+001
F	19	4683-	4703	4694.72	1173.68	2.01	8.87E+001	21.57	5.00E+001
F	20	5325-	5339	5332.31	1332.74	1.82	4.99E+001	17.71	2.82E+001
F	21	5833-	5861	5846.04	1460.88	2.04	1.05E+003	62.39	1.05E+001
F	22	6915-	6928	6921.32	1729.11	1.25	1.32E+001	8.20	0.00E+000
F	23	7056-	7072	7063.61	1764.61	2.12	4.49E+001	15.27	9.73E+000

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
K-40	1.000	1460.81*	10.67	1.75561E+001	1.76502E+000
Co-60	0.996	1173.22*	100.00	1.51380E-001	3.86646E-002
		1332.49*	100.00	8.76884E-002	3.18913E-002
Cs-137	0.990	661.65*	85.12	6.84120E-002	3.50204E-002
Eu-155	0.323	86.54*	30.90	5.25896E-001	2.84282E-001
		105.31	20.70		
TL-208	0.611	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	2.82165E-001	6.28874E-002
		860.37*	12.46	3.48168E-001	1.86073E-001
Pb-212	0.674	74.81* @	10.70	1.29034E+001	2.82418E+000
		77.11 @	18.00		
		87.30* @	8.00	2.03127E+000	1.09804E+000
		238.63*	44.60	5.79552E-001	1.41382E-001
Bi-214	0.992	609.31*	46.30	5.92149E-001	1.20649E-001
		1120.29*	15.10	5.16485E-001	2.02284E-001
		1764.49*	15.80	5.28089E-001	1.86993E-001
PB-214	0.663	74.82* @	6.21	2.22328E+001	5.12681E+000
		77.11 @	10.50		
		87.30* @	4.67	3.47970E+000	1.89929E+000
		241.98	7.49		
		295.21*	19.20	5.29582E-001	2.01156E-001
		351.92*	37.20	3.28118E-001	1.10531E-001
Ac-228	0.983	338.32*	11.40	9.32040E-001	3.26830E-001
		911.07*	27.70	8.41402E-001	1.82500E-001
		969.11*	16.60	8.08902E-001	2.22616E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
K-40		1.000	1.755614E+001	1.765024E+000
Co-60		0.996	1.134756E-001	2.460229E-002
Cs-137		0.990	6.841196E-002	3.502045E-002
Eu-155		0.323	3.192200E-001	2.869916E-001
TL-208		0.611	2.889309E-001	5.957677E-002
Pb-212	@	0.674	5.795515E-001	1.413824E-001
Bi-214		0.992	5.619101E-001	9.063359E-002
PB-214	@	0.663	3.747064E-001	9.546684E-002
Ac-228		0.983	8.446374E-001	1.295704E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.78	9.0844E-001	14.09
M 3	84.76	6.7825E-001	18.77
F 12	795.57	3.9572E-002	63.57
F 13	831.22	4.1649E-002	53.33
M 16	965.15	7.6848E-002	37.44
F 22	1729.11	2.2049E-002	61.95

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
+	Co-60	1173.22*	100.00	8.0590E-002	5.69E-002	1.5138E-001
		1332.49*	100.00	5.6907E-002		8.7688E-002
	Nb-94	702.63	100.00	1.0399E-001	1.00E-001	1.5070E-002
		871.10	100.00	1.0000E-001		8.4176E-002
	Ag-108m	79.20	7.10	5.9949E+000	1.20E-001	-6.4123E+000
		433.93	89.90	1.2050E-001		-1.2460E-001
		614.37	90.40	1.5908E-001		-1.9743E-002
		722.95	90.50	1.2843E-001		7.4570E-002
	Sb-125	176.33	6.89	2.4437E+000	3.53E-001	1.0591E+000
		427.89	29.33	3.5269E-001		-2.6241E-001
		463.38	10.35	1.1404E+000		1.9811E-001
		600.56	17.80	6.2133E-001		-2.0883E-001
		606.64	5.02	2.8911E+000		-3.6484E-001
		635.90	11.32	9.0642E-001		-3.1286E-002
	Cs-134	563.23	8.38	1.2597E+000	1.26E-001	-2.3210E-001
		569.32	15.43	6.8245E-001		-5.5363E-001
		604.70	97.60	1.4355E-001		-3.5852E-002
		795.84	85.40	1.2628E-001		6.8414E-003
		801.93	8.73	1.1878E+000		2.0918E-002
+	Cs-137	661.65*	85.12	8.0722E-002	8.07E-002	6.8412E-002
	Eu-152	121.78	28.40	8.4862E-001	3.27E-001	4.5177E-001
		244.69	7.49	2.0531E+000		-2.3706E+000
		344.27	26.50	4.9757E-001		-3.7815E-001
		778.89	12.74	7.7195E-001		-7.1764E-001
		867.32	4.16	2.4742E+000		2.4541E-001
		964.01	14.40	8.8904E-001		9.1802E-002
		1085.78	10.00	9.3684E-001		4.8290E-001
		1112.02	13.30	7.6101E-001		-2.5971E-001
		1407.95	20.70	3.2740E-001		-2.7513E-001
	Eu-154	123.07	40.50	5.8952E-001	2.52E-001	2.8906E-001
		247.94	6.60	2.1866E+000		-2.1745E+000
		591.81	4.83	2.2261E+000		6.6909E-001
		723.30	19.70	5.8891E-001		4.7172E-001
		756.87	4.33	2.4716E+000		2.1711E+000
		873.19	11.50	8.4039E-001		-8.0055E-001
		996.32	10.30	9.2470E-001		-2.6360E-001
		1004.76	17.90	5.3516E-001		1.1086E-001
		1274.45	35.50	2.5240E-001		1.5518E-001
+	Eu-155	86.54*	30.90	8.3012E-001	8.30E-001	5.2590E-001
		105.31	20.70	1.3645E+000		1.3337E+000
	Am-241	59.54	35.90	1.5935E+000	1.59E+000	4.5112E-001
	Cm-243	228.19	10.56	1.3928E+000	1.01E+000	-4.9588E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	1.0103E+000	1.01E+000	8.5820E-001

+ = 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

Report Generated On 12/7/2005 11:16:30 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-02-160
Sample Title: NOL-05-02-160-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/7/2005 11:06:27 PM
Live Time: 600.0 seconds
Real Time: 601.3 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-02-160
Title: NOL-05-02-160-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	284-	309	292.01	72.85	0.97	4.71E+002	73.83	1.71E+003
m	2	284-	309	300.54	74.99	0.98	9.30E+002	87.44	1.67E+003
M	3	332-	355	339.54	84.78	1.04	3.08E+002	70.93	1.62E+003
m	4	332-	355	349.93	87.38	1.04	1.47E+002	62.54	1.60E+003
F	5	945-	961	954.97	239.06	1.13	3.13E+002	44.70	3.58E+002
F	6	1349-	1362	1354.41	339.11	1.27	6.27E+001	28.29	1.81E+002
F	7	1400-	1415	1408.04	352.53	0.90	1.32E+002	31.14	2.05E+002
F	8	1844-	1861	1852.23	463.70	0.90	5.26E+001	20.18	1.03E+002
F	9	2328-	2342	2333.64	584.10	1.15	1.58E+002	30.32	1.01E+002
F	10	2427-	2445	2437.74	610.12	1.43	1.69E+002	28.48	7.09E+001
F	11	2899-	2916	2908.70	727.82	1.43	4.62E+001	19.04	6.30E+001
F	12	3637-	3656	3645.74	911.89	1.80	1.75E+002	27.55	4.38E+001
M	13	3852-	3887	3861.01	965.63	1.65	2.76E+001	15.90	5.43E+001
m	14	3852-	3887	3878.15	969.91	1.65	7.85E+001	20.84	5.52E+001
F	15	4474-	4492	4484.52	1121.24	1.97	7.29E+001	18.67	2.63E+001
F	16	4687-	4702	4694.73	1173.69	1.26	8.02E+001	21.49	4.61E+001
F	17	5325-	5343	5333.70	1333.09	1.93	1.03E+002	21.26	1.90E+001
F	18	5833-	5860	5847.01	1461.13	1.99	1.18E+003	66.46	2.10E+001
F	19	6348-	6362	6354.60	1587.74	1.75	2.18E+001	9.97	1.90E+000
F	20	7056-	7072	7064.24	1764.76	2.28	4.80E+001	14.49	3.98E+000

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
K-40	0.997	1460.81*	10.67	1.97639E+001	1.95010E+000
Co-60	0.991	1173.22*	100.00	1.36857E-001	3.82106E-002
		1332.49*	100.00	1.81690E-001	4.00030E-002
Eu-155	0.320	86.54*	30.90	5.88357E-001	2.75991E-001
		105.31	20.70		
TL-208	0.452	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	2.67336E-001	6.20106E-002
		860.37	12.46		
Bi-212	0.987	727.17*	11.80	5.92336E-001	2.54086E-001
Pb-212	0.674	74.81* @	10.70	1.32901E+001	2.88897E+000
		77.11 @	18.00		
		87.30* @	8.00	2.27253E+000	1.06601E+000
		238.63*	44.60	7.60579E-001	1.61378E-001
Bi-214	0.982	609.31*	46.30	5.28544E-001	1.10206E-001
		1120.29*	15.10	8.12714E-001	2.25355E-001
		1764.49*	15.80	5.63846E-001	1.79370E-001
Ac-228	0.980	338.32*	11.40	6.59419E-001	3.14983E-001
		911.07*	27.70	1.00197E+000	1.95276E-001
		969.11*	16.60	7.63731E-001	2.17835E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
K-40		0.997	1.976385E+001	1.950104E+000
Co-60		0.991	1.582469E-001	2.763091E-002
Eu-155		0.320	3.914432E-001	2.791351E-001
TL-208		0.452	2.673365E-001	6.201060E-002
Bi-212		0.987	5.923359E-001	2.540864E-001
Pb-212	@	0.674	7.605794E-001	1.613779E-001
Bi-214		0.982	5.788244E-001	8.667554E-002
Ac-228		0.980	8.542921E-001	1.320172E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.85	7.8438E-001	15.69
M 3	84.78	5.1284E-001	23.05
F 7	352.53	2.2028E-001	23.56
F 8	463.70	8.7694E-002	38.36
M 13	965.63	4.5967E-002	57.66
F 19	1587.74	3.6309E-002	45.78

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
+	Co-60	1173.22*	100.00	7.0826E-002	5.12E-002	1.3686E-001
		1332.49*	100.00	5.1154E-002		1.8169E-001
	Nb-94	702.63	100.00	9.7410E-002	9.74E-002	-5.8636E-002
		871.10	100.00	1.0382E-001		4.9564E-004
	Ag-108m	79.20	7.10	6.0557E+000	1.24E-001	-1.9012E+000
		433.93	89.90	1.2353E-001		-7.0738E-002
		614.37	90.40	1.4903E-001		-4.6554E-002
		722.95	90.50	1.2396E-001		4.6934E-002
	Sb-125	176.33	6.89	2.4305E+000	3.80E-001	1.2054E+000
		427.89	29.33	3.8028E-001		-6.7430E-002
		463.38	10.35	1.1718E+000		8.1476E-001
		600.56	17.80	6.0336E-001		4.4977E-001
		606.64	5.02	2.6413E+000		2.8437E+000
		635.90	11.32	8.9382E-001		-7.0131E-001
	Cs-134	563.23	8.38	1.3163E+000	1.25E-001	5.5431E-001
		569.32	15.43	6.8521E-001		-1.9808E-001
		604.70	97.60	1.3226E-001		6.1399E-002
		795.84	85.40	1.2453E-001		9.5708E-003
		801.93	8.73	1.2229E+000		-2.9550E-001
	Cs-137	661.65	85.12	1.3442E-001	1.34E-001	1.0784E-001
	Eu-152	121.78	28.40	8.6399E-001	3.11E-001	4.3560E-001
		244.69	7.49	2.0162E+000		-1.3494E+000
		344.27	26.50	4.9340E-001		-3.8009E-002
		778.89	12.74	8.0925E-001		-1.9576E-001
		867.32	4.16	2.6004E+000		-2.0635E+000
		964.01	14.40	8.7310E-001		1.9720E-001
		1085.78	10.00	9.5025E-001		-1.6144E+000
		1112.02	13.30	7.3193E-001		7.3314E-003
		1407.95	20.70	3.1123E-001		-2.0226E-001
	Eu-154	123.07	40.50	5.9353E-001	2.28E-001	-3.6454E-001
		247.94	6.60	2.1429E+000		-2.2935E+000
		591.81	4.83	2.1722E+000		-2.0863E-001
		723.30	19.70	5.6833E-001		3.6711E-001
		756.87	4.33	2.4201E+000		2.1233E+000
		873.19	11.50	9.0322E-001		8.5202E-001
		996.32	10.30	9.8108E-001		6.3185E-002
		1004.76	17.90	5.2448E-001		3.4372E-001
		1274.45	35.50	2.2836E-001		-2.0834E-001
+	Eu-155	86.54*	30.90	7.5777E-001	7.58E-001	5.8836E-001
		105.31	20.70	1.3620E+000		-2.9972E-002
	Am-241	59.54	35.90	1.6022E+000	1.60E+000	-1.9703E-001
	Cm-243	228.19	10.56	1.4090E+000	9.73E-001	-1.8835E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	9.7303E-001	9.73E-001	-7.4212E-001

+ = 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

Report Generated On 12/6/2005 8:35:35 AM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID:
Sample Title: NOL-05-02-161-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/6/2005 8:25:34 AM
Live Time: 600.0 seconds
Real Time: 600.7 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number:
Title: NOL-05-02-161-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	286-	313	292.00	72.85	0.99	1.48E+002	42.38	5.39E+002
m	2	286-	313	300.00	74.86	1.00	3.14E+002	51.35	5.78E+002
F	3	948-	960	953.80	238.77	1.08	1.20E+002	29.21	1.33E+002
F	4	1175-	1185	1180.02	295.44	0.86	3.22E+001	17.86	6.20E+001
F	5	1401-	1416	1406.53	352.16	0.53	3.18E+001	15.10	7.41E+001
F	6	2324-	2339	2330.97	583.43	1.10	6.97E+001	20.44	5.15E+001
F	7	2426-	2443	2435.28	609.51	1.52	6.31E+001	18.72	4.05E+001
F	8	2903-	2914	2908.49	727.77	0.78	1.54E+001	10.99	2.23E+001
F	9	3636-	3649	3643.72	911.39	1.06	4.25E+001	16.43	3.47E+001
F	10	5089-	5102	5095.66	1273.71	1.61	3.35E+001	14.57	1.93E+001
F	11	5829-	5854	5841.58	1459.77	2.03	4.66E+002	41.36	3.11E+000

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
K-40	0.968	1460.81*	10.67	7.81782E+000	9.39030E-001
TL-208	0.469	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	1.17933E-001	3.78568E-002
		860.37	12.46		
Bi-212	0.989	727.17*	11.80	1.97887E-001	1.42932E-001
Pb-212	0.520	74.81* @	10.70	4.50213E+000	1.14880E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	2.92487E-001	8.45479E-002
Bi-214	0.397	609.31*	46.30	1.97194E-001	6.32918E-002
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.581	74.82* @	6.21	7.75730E+000	2.05796E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	1.93269E-001	1.12027E-001
		351.92*	37.20	1.03648E-001	5.21490E-002

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
K-40		0.968	7.817819E+000	9.390296E-001
TL-208		0.469	1.179333E-001	3.785677E-002
Bi-212		0.989	1.978872E-001	1.429318E-001
Pb-212	@	0.520	2.924868E-001	8.454788E-002
Bi-214		0.397	1.971937E-001	6.329175E-002
PB-214	@	0.581	1.196093E-001	4.727754E-002

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.85	2.4606E-001	28.70
F 9	911.39	7.0897E-002	38.63
F 10	1273.71	5.5849E-002	43.48

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Co-60	1173.22	100.00	7.3815E-002	6.08E-002	1.1886E-002
	1332.49	100.00	6.0835E-002		9.2390E-003
Nb-94	702.63	100.00	7.1174E-002	6.66E-002	8.5333E-002
	871.10	100.00	6.6627E-002		-3.6726E-002
Ag-108m	79.20	7.10	3.5845E+000	7.98E-002	-7.5671E-001
	433.93	89.90	7.9850E-002		4.5234E-002
	614.37	90.40	9.8432E-002		-1.4306E-002
	722.95	90.50	8.6061E-002		3.0528E-002
Sb-125	176.33	6.89	1.5749E+000	2.33E-001	2.0877E+000
	427.89	29.33	2.3257E-001		-1.0444E-001
	463.38	10.35	7.6405E-001		3.5621E-001
	600.56	17.80	4.5073E-001		4.2307E-001
	606.64	5.02	1.8581E+000		-2.4844E-001
	635.90	11.32	6.4677E-001		-1.3523E-001
Cs-134	563.23	8.38	8.5076E-001	8.93E-002	-3.4287E-001
	569.32	15.43	4.7393E-001		-6.6179E-002
	604.70	97.60	9.8269E-002		6.1939E-002
	795.84	85.40	8.9276E-002		5.5060E-002
	801.93	8.73	8.1521E-001		-1.8292E-003
Cs-137	661.65	85.12	8.2200E-002	8.22E-002	-1.4871E-002
Eu-152	121.78	28.40	5.0860E-001	2.38E-001	5.2052E-002
	244.69	7.49	1.2977E+000		-3.8065E-001
	344.27	26.50	2.8383E-001		-5.0306E-001
	778.89	12.74	5.9589E-001		2.6681E-001
	867.32	4.16	1.6002E+000		-2.6933E+000
	964.01	14.40	5.6890E-001		3.2232E-001
	1085.78	10.00	6.9450E-001		3.5983E-002
	1112.02	13.30	5.9472E-001		-1.6023E-001
	1407.95	20.70	2.3831E-001		7.5332E-002
Eu-154	123.07	40.50	3.5547E-001	2.40E-001	1.9410E-001
	247.94	6.60	1.4230E+000		3.6627E-001
	591.81	4.83	1.6348E+000		6.1694E-001
	723.30	19.70	3.9197E-001		1.2653E-001
	756.87	4.33	1.6248E+000		2.5490E-001
	873.19	11.50	5.7964E-001		-1.0360E-001
	996.32	10.30	6.6203E-001		-4.0414E-001
	1004.76	17.90	3.5030E-001		-2.4575E-001
	1274.45	35.50	2.4012E-001		8.2256E-002
Eu-155	86.54	30.90	7.2606E-001	7.26E-001	4.7388E-001
	105.31	20.70	8.3989E-001		1.5170E-001
Am-241	59.54	35.90	9.7681E-001	9.77E-001	-3.0918E-001
Cm-243	228.19	10.56	9.1488E-001	5.85E-001	4.9158E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	5.8503E-001	5.85E-001	-3.1741E-001

+ = 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

Report Generated On 12/6/2005 10:39:30 AM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: RED6264

Spectrum File: RED6264
Sample ID:
Sample Title: NOL-05-02-161-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/6/2005 10:29:38 AM
Live Time: 600.0 seconds
Real Time: 601.2 seconds

Energy Calibration Date: 6/13/2005
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number:
Title: NOL-05-02-161-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	284-	306	291.94	72.94	0.92	4.72E+002	71.47	1.65E+003
m	2	284-	306	300.41	75.06	0.93	8.64E+002	85.64	1.63E+003
M	3	332-	353	339.57	84.85	1.29	3.39E+002	68.34	1.73E+003
m	4	332-	353	348.80	87.16	1.29	1.54E+002	61.87	1.70E+003
F	5	740-	749	744.12	186.00	0.65	5.23E+001	32.90	3.43E+002
F	6	946-	961	954.58	238.62	1.06	3.47E+002	47.41	3.95E+002
F	7	1348-	1362	1353.12	338.26	1.37	8.52E+001	28.37	1.73E+002
F	8	1401-	1414	1408.01	351.98	1.18	1.03E+002	29.21	1.61E+002
F	9	2030-	2054	2042.72	510.67	2.18	1.94E+002	28.67	1.06E+002
F	10	2324-	2342	2332.89	583.22	1.51	1.51E+002	28.80	1.07E+002
F	11	2427-	2448	2437.69	609.42	1.44	1.62E+002	28.09	8.85E+001
F	12	3637-	3658	3645.99	911.52	1.72	1.67E+002	27.53	5.41E+001
F	13	3869-	3885	3877.38	969.38	1.49	7.03E+001	21.52	5.73E+001
F	14	4685-	4704	4694.82	1173.75	2.16	5.42E+001	19.41	5.27E+001
F	15	5327-	5342	5333.96	1333.55	1.98	4.90E+001	15.94	1.32E+001
F	16	5833-	5862	5848.11	1462.10	2.00	1.12E+003	64.91	2.25E+001
F	17	7058-	7072	7066.05	1766.61	2.04	4.52E+001	13.54	0.00E+000

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	0.997	511.00*	100.00	2.73157E-001	5.47522E-002
K-40	0.952	1460.81*	10.67	1.93210E+001	1.92580E+000
Co-60	0.979	1173.22*	100.00	9.53149E-002	3.49652E-002
		1332.49*	100.00	8.88949E-002	2.97228E-002
Eu-155	0.326	86.54*	30.90	6.42757E-001	2.86963E-001
		105.31	20.70		
TL-208	0.752	277.35	6.80		
		510.84*	21.60	1.26462E+000	2.73714E-001
		583.14*	84.20	2.62849E-001	6.08185E-002
		860.37	12.46		
Pb-212	0.677	74.81* @	10.70	1.27959E+001	2.81060E+000
		77.11 @	18.00		
		87.30* @	8.00	2.48265E+000	1.10840E+000
		238.63*	44.60	8.69796E-001	1.80999E-001
Bi-214	0.671	609.31*	46.30	5.23146E-001	1.11057E-001
		1120.29	15.10		
		1764.49*	15.80	5.48834E-001	1.73176E-001
Ac-228	0.996	338.32*	11.40	9.24113E-001	3.40050E-001
		911.07*	27.70	9.87651E-001	1.98512E-001
		969.11*	16.60	7.06263E-001	2.28408E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		0.997	2.163816E-001	5.627572E-002
K-40		0.952	1.932099E+001	1.925805E+000
Co-60		0.979	9.158801E-002	2.264622E-002
Eu-155		0.326	4.175667E-001	2.907642E-001
TL-208		0.752	2.628489E-001	6.021224E-002
Pb-212	@	0.677	8.697960E-001	1.809988E-001
Bi-214		0.671	5.306320E-001	9.348524E-002
Ac-228		0.996	8.759220E-001	1.371121E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.94	7.8742E-001	15.13
M 3	84.85	5.6489E-001	20.16
F 5	186.00	8.7222E-002	62.86
F 8	351.98	1.7165E-001	28.36

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
+	Co-60	1173.22*	100.00	8.3793E-002	4.24E-002	9.5315E-002
		1332.49*	100.00	4.2355E-002		8.8895E-002
	Nb-94	702.63	100.00	1.0369E-001	9.68E-002	-5.9846E-002
		871.10	100.00	9.6763E-002		4.6695E-002
	Ag-108m	79.20	7.10	6.2795E+000	1.28E-001	-4.9616E+000
		433.93	89.90	1.3289E-001		-1.3259E-001
		614.37	90.40	1.4907E-001		2.5341E-002
		722.95	90.50	1.2764E-001		-9.3436E-003
	Sb-125	176.33	6.89	2.4830E+000	3.96E-001	-3.5679E-001
		427.89	29.33	3.9633E-001		3.3679E-001
		463.38	10.35	1.1845E+000		8.3087E-001
		600.56	17.80	6.0960E-001		-2.4603E-002
		606.64	5.02	2.7421E+000		6.2186E+000
		635.90	11.32	8.9974E-001		2.9514E-001
	Cs-134	563.23	8.38	1.3096E+000	1.30E-001	2.4670E-001
		569.32	15.43	6.8947E-001		-3.3354E-001
		604.70	97.60	1.3848E-001		-3.3158E-002
		795.84	85.40	1.2978E-001		1.0164E-001
		801.93	8.73	1.1537E+000		-2.6044E+000
	Cs-137	661.65	85.12	1.3162E-001	1.32E-001	-8.8871E-003
	Eu-152	121.78	28.40	8.7511E-001	3.69E-001	7.2212E-001
		244.69	7.49	2.0352E+000		-2.2119E+000
		344.27	26.50	4.7175E-001		1.3274E-001
		778.89	12.74	7.9911E-001		-1.2753E+000
		867.32	4.16	2.3679E+000		-1.1293E-001
		964.01	14.40	8.8323E-001		1.1145E-002
		1085.78	10.00	1.0846E+000		-6.7602E-001
		1112.02	13.30	7.5002E-001		-1.0485E+000
		1407.95	20.70	3.6858E-001		1.4519E-001
	Eu-154	123.07	40.50	6.0128E-001	2.48E-001	-4.2610E-002
		247.94	6.60	2.2048E+000		-1.3154E+000
		591.81	4.83	2.3142E+000		-7.3927E-001
		723.30	19.70	5.9598E-001		6.3029E-001
		756.87	4.33	2.4980E+000		-8.4639E-001
		873.19	11.50	8.4717E-001		4.1920E-001
		996.32	10.30	9.6419E-001		-1.9774E-001
		1004.76	17.90	5.2834E-001		7.9464E-003
		1274.45	35.50	2.4760E-001		-8.9844E-002
+	Eu-155	86.54*	30.90	8.1080E-001	8.11E-001	6.4276E-001
		105.31	20.70	1.3938E+000		-5.7378E-001
	Am-241	59.54	35.90	1.6196E+000	1.62E+000	-2.5191E-001
	Cm-243	228.19	10.56	1.4852E+000	9.40E-001	3.4053E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	9.3996E-001	9.40E-001	-1.1553E+000

+ = 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

Report Generated On 12/6/2005 9:39:03 AM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: BLUE6279

Spectrum File: C:\GENIE2K\CAMFILES\NOL-05-02-162-F-G.CNF
Sample ID:
Sample Title: NOL-05-02-162-F-G
Description:

Sample Type:
Geometry: GM

Acquisition Started: 12/5/2005 9:09:17 PM
Live Time: 600.0 seconds
Real Time: 601.3 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: C:\GENIE2K\CAMFILES\NOL-05-02-162-F-G.CNF
Log Number:
Title: NOL-05-02-162-F-G
Description:

Geometry: GM

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	286-	305	291.29	72.67	1.13	4.94E+002	77.26	1.78E+003
m	2	286-	305	300.06	74.87	1.14	9.16E+002	88.43	2.10E+003
	3	333-	345	339.17	84.68	0.87	1.50E+002	134.38	1.72E+003
F	4	942-	960	953.27	238.64	1.34	3.11E+002	140.94	4.39E+002
F	5	1168-	1188	1179.21	295.23	1.39	1.63E+002	75.60	2.96E+002
F	6	1399-	1414	1405.80	351.97	1.44	1.91E+002	34.54	1.99E+002
F	7	2029-	2051	2040.18	510.71	2.32	1.50E+002	28.98	1.64E+002
F	8	2321-	2338	2329.11	582.96	1.59	1.83E+002	30.81	1.10E+002
F	9	2424-	2445	2433.12	608.97	1.61	2.20E+002	31.68	9.62E+001
F	10	2894-	2912	2904.39	726.74	1.68	4.19E+001	19.12	8.79E+001
F	11	3630-	3648	3639.60	910.36	1.77	1.72E+002	28.37	5.69E+001
F	12	3861-	3879	3869.95	967.86	1.80	6.96E+001	20.88	6.61E+001
F	13	4467-	4483	4474.94	1118.85	1.87	8.41E+001	20.31	2.94E+001
F	14	4677-	4695	4686.87	1171.73	1.89	1.02E+002	24.71	8.31E+001
F	15	5315-	5333	5323.78	1330.61	1.96	1.33E+002	24.15	2.60E+001
F	16	5821-	5850	5836.69	1458.55	2.01	1.18E+003	106.41	3.03E+001
F	17	7041-	7060	7049.58	1761.11	2.12	4.93E+001	16.00	1.78E+001

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File: C:\GENIE2K\CAMFILES\NOL-05-02-162-F-G.CNF

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Unit)	Activity Uncertainty
ANN	0.998	511.00*	100.00	2.15037E-001	5.07180E-002
K-40	0.856	1460.81*	10.67	2.07655E+001	2.51717E+000
Co-60	0.917	1173.22*	100.00	1.81914E-001	4.64995E-002
		1332.49*	100.00	2.44879E-001	4.85269E-002
TL-208	0.751	277.35	6.80		
		510.84*	21.60	9.95542E-001	2.48483E-001
		583.14*	84.20	3.25754E-001	6.92571E-002
		860.37	12.46		
Bi-212	0.994	727.17*	11.80	5.64418E-001	2.65908E-001
Pb-212	0.521	74.81* @	10.70	1.37778E+001	3.01003E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	7.94755E-001	3.80762E-001
Bi-214	0.685	609.31*	46.30	7.21634E-001	1.36700E-001
		1120.29*	15.10	9.84491E-001	2.59692E-001
		1764.49	15.80		
PB-214	0.582	74.82* @	6.21	2.37395E+001	5.46518E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	1.02592E+000	5.06748E-001
		351.92*	37.20	6.52045E-001	1.60726E-001
Ac-228	0.612	338.32	11.40		
		911.07*	27.70	1.03470E+000	2.08008E-001
		969.11*	16.60	7.10415E-001	2.25728E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File:C:\GENIE2K\CAMFILES\NOL-05-02-162-F-G.CNF

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Unit)	Wt mean Activity Uncertainty
ANN		0.998	1.446742E-001	5.282849E-002
K-40		0.856	2.076549E+001	2.517172E+000
Co-60		0.917	2.120540E-001	3.357398E-002
TL-208		0.751	3.257537E-001	6.843859E-002
Bi-212		0.994	5.644180E-001	2.659083E-001
Pb-212	@	0.521	7.947550E-001	3.807617E-001
Bi-214		0.685	7.786658E-001	1.209647E-001
PB-214	@	0.582	6.862187E-001	1.532049E-001
Ac-228		0.612	8.857817E-001	1.529651E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.67	8.2318E-001	15.64
3	84.68	2.5005E-001	89.57
F 17	1761.11	8.2130E-002	32.47

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:C:\GENIE2K\CAMFILES\NOL-05-02-162-F-G.CNF
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Unit)	Nuclide MDA (pCi/Unit)	Activity (pCi/Unit)
+	Co-60	1173.22*	100.00	1.0354E-001	6.18E-002	1.8191E-001
		1332.49*	100.00	6.1814E-002		2.4488E-001
	Nb-94	702.63	100.00	1.0790E-001	1.08E-001	-4.6723E-002
		871.10	100.00	1.0985E-001		3.7203E-002
	Ag-108m	79.20	7.10	6.3350E+000	1.36E-001	-1.2190E+001
		433.93	89.90	1.3565E-001		6.5654E-002
		614.37	90.40	1.5669E-001		3.7338E-002
		722.95	90.50	1.3663E-001		5.7957E-002
	Sb-125	176.33	6.89	2.6176E+000	4.11E-001	8.4482E-001
		427.89	29.33	4.1098E-001		3.6228E-001
		463.38	10.35	1.2190E+000		3.7321E-001
		600.56	17.80	6.0475E-001		2.7587E-002
		606.64	5.02	3.0689E+000		7.9162E+000
		635.90	11.32	9.4735E-001		2.6312E-001
	Cs-134	563.23	8.38	1.4244E+000	1.29E-001	-8.1440E-002
		569.32	15.43	7.6696E-001		-2.2137E-002
		604.70	97.60	1.5785E-001		-3.2935E-004
		795.84	85.40	1.2857E-001		8.8130E-003
		801.93	8.73	1.2220E+000		-2.3964E-001
	Cs-137	661.65	85.12	1.4943E-001	1.49E-001	5.0105E-002
	Eu-152	121.78	28.40	9.0111E-001	3.55E-001	2.5780E-001
		244.69	7.49	2.1084E+000		-6.1976E-001
		344.27	26.50	5.0373E-001		-1.0183E+000
		778.89	12.74	8.5606E-001		-3.1189E-001
		867.32	4.16	2.6716E+000		-2.3668E+000
		964.01	14.40	9.4010E-001		8.6551E-001
		1085.78	10.00	1.0782E+000		1.5326E-001
		1112.02	13.30	9.8973E-001		-1.5250E-001
		1407.95	20.70	3.5460E-001		-2.6167E-002
	Eu-154	123.07	40.50	6.2476E-001	2.83E-001	1.0494E-001
		247.94	6.60	2.3264E+000		-5.2243E-001
		591.81	4.83	2.2277E+000		7.6759E-002
		723.30	19.70	6.2772E-001		3.7198E-001
		756.87	4.33	2.5713E+000		-1.7884E+000
		873.19	11.50	9.4101E-001		-1.0700E-001
		996.32	10.30	1.0118E+000		-1.5548E-001
		1004.76	17.90	5.7830E-001		1.4371E-001
		1274.45	35.50	2.8266E-001		2.1605E-001
	Eu-155	86.54	30.90	1.2831E+000	1.28E+000	2.2955E+000
		105.31	20.70	1.4446E+000		-3.6162E-001
	Am-241	59.54	35.90	1.6830E+000	1.68E+000	8.3440E-002
	Cm-243	228.19	10.56	1.5649E+000	1.06E+000	-4.3630E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Unit)	Nuclide MDA (pCi/Unit)	Activity (pCi/Unit)
Cm-243	277.60	14.00	1.0615E+000	1.06E+000	-4.9378E-002

+ = 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

Report Generated On 12/6/2005 9:40:47 AM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: BLUE6279

Spectrum File: C:\GENIE2K\CAMFILES\NOL-05-02-163-F-G.CNF
Sample ID:
Sample Title: NOL-05-02-163-F-G
Description:

Sample Type:
Geometry: GM

Acquisition Started: 12/5/2005 9:35:18 PM
Live Time: 600.0 seconds
Real Time: 601.3 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: C:\GENIE2K\CAMFILES\NOL-05-02-163-F-G.CNF
Log Number:
Title: NOL-05-02-163-F-G
Description:

Geometry: GM

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	282-	309	291.64	72.76	1.13	5.18E+002	148.41	1.95E+003
m	2	282-	309	300.20	74.91	1.14	9.64E+002	231.67	2.00E+003
M	3	332-	355	339.50	84.77	1.15	3.35E+002	68.39	1.75E+003
m	4	332-	355	349.55	87.29	1.16	1.53E+002	62.79	1.69E+003
F	5	740-	753	744.48	186.31	1.29	6.86E+001	36.59	4.58E+002
F	6	946-	960	953.57	238.71	1.34	2.85E+002	43.41	3.57E+002
F	7	1173-	1187	1180.39	295.53	1.39	8.00E+001	28.90	2.30E+002
F	8	1226-	1236	1230.91	308.18	1.40	3.16E+001	24.05	1.39E+002
F	9	1348-	1359	1353.18	338.80	1.43	7.62E+001	27.10	1.40E+002
F	10	1399-	1417	1406.97	352.27	1.44	1.62E+002	31.98	2.06E+002
F	11	2324-	2338	2331.07	583.46	1.59	1.76E+002	29.97	8.21E+001
F	12	2425-	2444	2435.44	609.55	1.61	2.07E+002	3858.53	9.24E+001
F	13	2901-	2913	2907.07	727.41	1.68	2.43E+001	18.08	6.38E+001
F	14	3633-	3652	3642.67	911.12	1.77	1.32E+002	81.07	7.69E+001
F	15	3866-	3882	3873.39	968.72	1.80	8.81E+001	22.26	5.14E+001
F	16	4469-	4487	4477.89	1119.58	1.87	6.78E+001	27.29	3.73E+001
F	17	4683-	4698	4690.39	1172.60	1.89	6.55E+001	20.74	4.94E+001
F	18	5320-	5336	5328.04	1331.68	1.96	6.41E+001	55.96	2.98E+001
F	19	5826-	5856	5840.92	1459.61	2.01	1.19E+003	66.55	1.95E+001

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File: C:\GENIE2K\CAMFILES\NOL-05-02-163-F-G.CNF

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Unit)	Activity Uncertainty
K-40	0.957	1460.81*	10.67	2.09684E+001	2.06282E+000
Co-60	0.985	1173.22*	100.00	1.17387E-001	3.82714E-002
		1332.49*	100.00	1.18219E-001	1.03691E-001
Eu-155	0.323	86.54*	30.90	6.47119E-001	2.93554E-001
		105.31	20.70		
TL-208	0.469	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.12252E-001	6.70024E-002
		860.37	12.46		
Bi-212	0.998	727.17*	11.80	3.27573E-001	2.46582E-001
Pb-212	0.677	74.81* @	10.70	1.44867E+001	4.49220E+000
		77.11 @	18.00		
		87.30* @	8.00	2.49950E+000	1.13385E+000
		238.63*	44.60	7.27291E-001	1.59014E-001
Bi-214	0.696	609.31*	46.30	6.79222E-001	1.26538E+001
		1120.29*	15.10	7.93342E-001	3.30361E-001
		1764.49	15.80		
PB-214	0.668	74.82* @	6.21	2.49610E+001	7.94944E+000
		77.11 @	10.50		
		87.30* @	4.67	4.28179E+000	1.96911E+000
		241.98	7.49		
		295.21*	19.20	5.04026E-001	2.00951E-001
		351.92*	37.20	5.52847E-001	1.43212E-001
Ac-228	0.997	338.32*	11.40	8.41103E-001	3.26912E-001
		911.07*	27.70	7.92960E-001	4.95641E-001
		969.11*	16.60	8.98807E-001	2.46022E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File:C:\GENIE2K\CAMFILES\NOL-05-02-163-F-G.CNF

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Unit)	Wt mean Activity Uncertainty
K-40		0.957	2.096838E+001	2.062824E+000
Co-60		0.985	1.174867E-001	3.590388E-002
Eu-155		0.323	3.777106E-001	2.969287E-001
TL-208		0.469	3.122521E-001	6.700240E-002
Bi-212		0.998	3.275729E-001	2.465817E-001
Pb-212	@	0.677	7.272914E-001	1.590138E-001
Bi-214		0.696	7.932640E-001	3.302487E-001
PB-214	@	0.668	5.367011E-001	1.141909E-001
Ac-228		0.997	8.663926E-001	1.827284E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.76	8.6290E-001	28.66
M 3	84.77	5.5900E-001	20.39
F 5	186.31	1.1435E-001	53.33
F 8	308.18	5.2589E-002	76.22

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:C:\GENIE2K\CAMFILES\NOL-05-02-163-F-G.CNF
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Unit)	Nuclide MDA (pCi/Unit)	Activity (pCi/Unit)
+	Co-60	1173.22*	100.00	7.6652E-002	6.36E-002	1.1739E-001
		1332.49*	100.00	6.3640E-002		1.1822E-001
	Nb-94	702.63	100.00	1.1495E-001	1.07E-001	1.0855E-001
		871.10	100.00	1.0674E-001		-4.2839E-002
	Ag-108m	79.20	7.10	6.2394E+000	1.31E-001	-4.4586E+000
		433.93	89.90	1.3107E-001		-1.8102E-002
		614.37	90.40	1.6532E-001		1.3728E-001
		722.95	90.50	1.3510E-001		8.9100E-002
	Sb-125	176.33	6.89	2.6416E+000	4.37E-001	2.1049E-001
		427.89	29.33	4.3719E-001		3.2587E-001
		463.38	10.35	1.2466E+000		9.7968E-002
		600.56	17.80	6.3607E-001		1.7863E-001
		606.64	5.02	2.9475E+000		5.1809E+000
		635.90	11.32	1.0049E+000		6.3732E-001
	Cs-134	563.23	8.38	1.4244E+000	1.34E-001	6.8586E-001
		569.32	15.43	7.8434E-001		-1.1404E-001
		604.70	97.60	1.5037E-001		-5.2837E-002
		795.84	85.40	1.3441E-001		3.4981E-002
		801.93	8.73	1.2378E+000		-2.1651E+000
	Cs-137	661.65	85.12	1.4194E-001	1.42E-001	3.2768E-002
	Eu-152	121.78	28.40	8.9208E-001	3.49E-001	1.8328E-001
		244.69	7.49	2.1593E+000		1.5755E-001
		344.27	26.50	4.9512E-001		-4.4794E-002
		778.89	12.74	8.5816E-001		-1.7720E+000
		867.32	4.16	2.5498E+000		-8.6791E-002
		964.01	14.40	8.8407E-001		4.6859E-001
		1085.78	10.00	1.0422E+000		-1.5808E+000
		1112.02	13.30	9.1280E-001		-2.9352E-001
		1407.95	20.70	3.4923E-001		1.5375E-001
	Eu-154	123.07	40.50	6.1572E-001	2.93E-001	-2.5449E-002
		247.94	6.60	2.3466E+000		-1.7318E+000
		591.81	4.83	2.3835E+000		5.9897E-001
		723.30	19.70	6.2188E-001		3.2073E-001
		756.87	4.33	2.4546E+000		6.0356E-001
		873.19	11.50	9.2359E-001		-3.1008E-001
		996.32	10.30	9.5471E-001		2.3098E-001
		1004.76	17.90	5.7108E-001		1.7183E-001
		1274.45	35.50	2.9312E-001		1.5158E-001
+	Eu-155	86.54*	30.90	8.1673E-001	8.17E-001	6.4712E-001
		105.31	20.70	1.4316E+000		8.9709E-001
	Am-241	59.54	35.90	1.6272E+000	1.63E+000	2.6130E-001
	Cm-243	228.19	10.56	1.4820E+000	1.06E+000	-6.0599E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Unit)	Nuclide MDA (pCi/Unit)	Activity (pCi/Unit)
Cm-243	277.60	14.00	1.0585E+000	1.06E+000	3.3486E-001

+ = 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

Report Generated On 12/8/2005 4:19:52 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID:
Sample Title: NOL-05-02-164-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/8/2005 4:09:50 PM
Live Time: 600.0 seconds
Real Time: 601.2 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number:
Title: NOL-05-02-164-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	288-	317	292.09	72.87	0.94	4.73E+002	72.89	1.23E+003
m	2	288-	317	300.54	74.99	0.95	9.75E+002	85.91	1.53E+003
m	3	288-	317	309.57	77.26	0.95	1.75E+002	59.50	1.45E+003
M	4	333-	359	339.30	84.72	1.05	2.53E+002	69.58	1.50E+003
m	5	333-	359	350.02	87.40	1.05	1.33E+002	60.98	1.66E+003
F	6	948-	963	954.57	238.96	0.97	2.84E+002	45.53	4.38E+002
F	7	1172-	1185	1180.06	295.45	1.07	5.78E+001	27.46	1.94E+002
F	8	1345-	1360	1352.89	338.73	1.28	8.07E+001	27.74	1.75E+002
F	9	1400-	1416	1407.28	352.34	1.17	1.84E+002	32.97	1.64E+002
F	10	2032-	2054	2042.70	511.34	1.78	1.58E+002	28.80	1.32E+002
F	11	2324-	2342	2332.30	583.76	1.38	1.77E+002	30.03	9.76E+001
F	12	2429-	2445	2436.78	609.88	1.23	1.65E+002	30.01	9.54E+001
F	13	2899-	2914	2908.76	727.83	1.29	3.94E+001	17.35	5.21E+001
F	14	3635-	3654	3644.74	911.64	1.48	1.69E+002	27.82	4.99E+001
M	15	3852-	3885	3859.15	965.17	1.43	3.15E+001	14.96	3.78E+001
m	16	3852-	3885	3876.39	969.47	1.43	9.36E+001	21.49	3.60E+001
F	17	4475-	4490	4482.52	1120.74	1.37	3.76E+001	18.24	5.43E+001
F	18	5831-	5859	5845.21	1460.68	2.02	1.15E+003	65.60	1.47E+001
F	19	7056-	7069	7062.43	1764.31	1.49	3.84E+001	14.06	1.00E+001

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	0.996	511.00*	100.00	2.15522E-001	4.89478E-002
K-40	0.999	1460.81*	10.67	1.93315E+001	1.91311E+000
Eu-155	0.320	86.54*	30.90	5.32694E-001	2.65767E-001
		105.31	20.70		
TL-208	0.743	277.35	6.80		
		510.84*	21.60	9.97788E-001	2.40815E-001
		583.14*	84.20	2.99305E-001	6.40440E-002
		860.37	12.46		
Bi-212	0.987	727.17*	11.80	5.05494E-001	2.30493E-001
Pb-212	0.998	74.81* @	10.70	1.39299E+001	2.99350E+000
		77.11* @	18.00	1.42433E+000	5.59660E-001
		87.30* @	8.00	2.05753E+000	1.02652E+000
		238.63*	44.60	6.90592E-001	1.54882E-001
Bi-214	0.993	609.31*	46.30	5.15498E-001	1.13207E-001
		1120.29*	15.10	4.19580E-001	2.08220E-001
		1764.49*	15.80	4.50738E-001	1.71263E-001
PB-214	0.847	74.82* @	6.21	2.40017E+001	5.44423E+000
		77.11* @	10.50	2.44172E+000	9.76586E-001
		87.30* @	4.67	3.52468E+000	1.77854E+000
		241.98	7.49		
		295.21*	19.20	3.47037E-001	1.74870E-001
		351.92*	37.20	5.98715E-001	1.46808E-001
Ac-228	0.993	338.32*	11.40	8.48692E-001	3.20517E-001
		911.07*	27.70	9.65598E-001	1.94126E-001
		969.11*	16.60	9.10570E-001	2.29653E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		0.996	1.508724E-001	5.082136E-002
K-40		0.999	1.933154E+001	1.913114E+000
Eu-155		0.320	2.787485E-001	2.692903E-001
TL-208		0.743	2.993049E-001	6.329690E-002
Bi-212		0.987	5.054940E-001	2.304929E-001
Pb-212	@	0.998	6.905919E-001	1.548820E-001
Bi-214		0.993	4.828008E-001	8.600681E-002
PB-214	@	0.847	4.972556E-001	1.102059E-001
Ac-228		0.993	9.261028E-001	1.345578E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.87	7.8908E-001	15.40
M 4	84.72	4.2094E-001	27.55
M 15	965.17	5.2536E-002	47.44

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
	Co-60	1173.22	100.00	1.0471E-001	7.75E-002	7.0622E-002
		1332.49	100.00	7.7460E-002		1.0648E-002
	Nb-94	702.63	100.00	1.0177E-001	9.49E-002	-5.6112E-002
		871.10	100.00	9.4851E-002		-3.3779E-003
	Ag-108m	79.20	7.10	5.9203E+000	1.15E-001	4.8426E-001
		433.93	89.90	1.2464E-001		8.5466E-002
		614.37	90.40	1.5076E-001		4.9295E-002
		722.95	90.50	1.1474E-001		-2.2644E-002
	Sb-125	176.33	6.89	2.5203E+000	3.66E-001	-9.3775E-001
		427.89	29.33	3.6587E-001		-3.2164E-001
		463.38	10.35	1.1609E+000		1.4503E-001
		600.56	17.80	5.7976E-001		-2.7283E-001
		606.64	5.02	2.7741E+000		4.0371E+000
		635.90	11.32	9.4517E-001		6.7510E-001
	Cs-134	563.23	8.38	1.1870E+000	1.10E-001	-1.5835E+000
		569.32	15.43	6.5709E-001		1.3194E-001
		604.70	97.60	1.4202E-001		3.0775E-002
		795.84	85.40	1.1044E-001		2.0350E-002
		801.93	8.73	1.0588E+000		-1.2093E-001
	Cs-137	661.65	85.12	1.2072E-001	1.21E-001	3.2567E-002
	Eu-152	121.78	28.40	8.4617E-001	3.35E-001	2.2734E-001
		244.69	7.49	2.0781E+000		-2.0498E-001
		344.27	26.50	4.7783E-001		3.2730E-001
		778.89	12.74	7.4819E-001		-4.1134E-001
		867.32	4.16	2.1916E+000		-2.1695E+000
		964.01	14.40	8.4530E-001		-1.0939E-001
		1085.78	10.00	9.4692E-001		1.9758E-001
		1112.02	13.30	7.3193E-001		-1.5773E-001
		1407.95	20.70	3.3516E-001		-7.2471E-003
	Eu-154	123.07	40.50	5.8733E-001	2.42E-001	-3.3888E-001
		247.94	6.60	2.2046E+000		-3.3571E+000
		591.81	4.83	2.0262E+000		1.3876E+000
		723.30	19.70	5.2591E-001		3.6639E-001
		756.87	4.33	2.3616E+000		-1.5100E+000
		873.19	11.50	8.4290E-001		8.2014E-001
		996.32	10.30	9.0925E-001		7.7620E-001
		1004.76	17.90	5.0988E-001		3.4802E-001
		1274.45	35.50	2.4240E-001		-3.0737E-002
+	Eu-155	86.54*	30.90	7.7104E-001	7.71E-001	5.3269E-001
		105.31	20.70	1.3501E+000		1.0633E-002
	Am-241	59.54	35.90	1.5190E+000	1.52E+000	7.4191E-001
	Cm-243	228.19	10.56	1.4369E+000	9.85E-001	-6.1003E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	9.8486E-001	9.85E-001	-8.8245E-001

+ = 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

Report Generated On 12/8/2005 11:40:08 AM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: RED6264

Spectrum File: RED6264
Sample ID:
Sample Title: NOL-05-02-165-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/8/2005 11:30:06 AM
Live Time: 600.0 seconds
Real Time: 601.3 seconds

Energy Calibration Date: 6/13/2005
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number:
Title: NOL-05-02-165-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	285-	309	291.66	72.87	1.12	5.59E+002	77.20	1.89E+003
m	2	285-	309	300.57	75.10	1.12	1.09E+003	90.59	2.18E+003
F	3	331-	366	339.82	84.91	1.39	4.02E+002	77.88	4.59E+003
F	4	948-	959	954.74	238.66	1.12	2.81E+002	43.77	2.89E+002
F	5	1177-	1186	1181.49	295.35	0.95	5.95E+001	27.68	1.51E+002
F	6	1400-	1418	1407.92	351.96	1.28	1.12E+002	29.03	2.02E+002
F	7	2031-	2053	2043.68	510.91	2.04	1.33E+002	28.10	1.61E+002
F	8	2327-	2344	2334.35	583.59	1.41	1.76E+002	28.97	7.28E+001
F	9	2428-	2450	2438.83	609.71	1.53	1.57E+002	27.67	9.47E+001
F	10	2642-	2655	2649.04	662.27	1.38	6.32E+001	20.35	4.89E+001
F	11	2904-	2917	2910.45	727.62	1.24	3.62E+001	18.58	5.95E+001
F	12	3638-	3655	3646.85	911.74	1.56	1.34E+002	25.74	4.95E+001
F	13	3871-	3887	3880.03	970.04	1.66	5.64E+001	20.12	5.86E+001
F	14	4691-	4705	4698.14	1174.58	1.22	3.39E+001	16.85	4.50E+001
F	15	5329-	5342	5335.21	1333.86	1.11	3.05E+001	14.86	2.88E+001
F	16	5835-	5865	5849.71	1462.50	2.02	8.76E+002	57.67	1.95E+001
F	17	7059-	7074	7067.20	1766.90	1.61	3.71E+001	14.07	1.20E+001

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	1.000	511.00*	100.00	1.87120E-001	4.69660E-002
K-40	0.918	1460.81*	10.67	1.51628E+001	1.58210E+000
Co-60	0.945	1173.22*	100.00	5.96303E-002	3.00216E-002
		1332.49*	100.00	5.53388E-002	2.72866E-002
Cs-137	0.989	661.65*	85.12	1.13757E-001	3.90187E-002
TL-208	0.748	277.35	6.80		
		510.84*	21.60	8.66297E-001	2.28656E-001
		583.14*	84.20	3.06414E-001	6.44128E-002
		860.37	12.46		
Bi-212	0.994	727.17*	11.80	4.79139E-001	2.52401E-001
Pb-212	0.521	74.81* @	10.70	1.60896E+001	3.42679E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	7.05403E-001	1.55893E-001
Bi-214	0.661	609.31*	46.30	5.04951E-001	1.08661E-001
		1120.29	15.10		
		1764.49*	15.80	4.50672E-001	1.76580E-001
PB-214	0.582	74.82* @	6.21	2.77229E+001	6.23801E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	3.68861E-001	1.82330E-001
		351.92*	37.20	3.74686E-001	1.15920E-001
Ac-228	0.619	338.32	11.40		
		911.07*	27.70	7.91935E-001	1.77372E-001
		969.11*	16.60	5.66004E-001	2.10566E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		1.000	1.209347E-001	4.893601E-002
K-40		0.918	1.516285E+001	1.582101E+000
Co-60		0.945	5.728023E-002	2.019237E-002
Cs-137		0.989	1.137566E-001	3.901867E-002
TL-208		0.748	3.064145E-001	6.363401E-002
Bi-212		0.994	4.791386E-001	2.524014E-001
Pb-212	@	0.521	7.054027E-001	1.558934E-001
Bi-214		0.661	4.900425E-001	9.254270E-002
PB-214	@	0.582	3.730091E-001	9.782327E-002
Ac-228		0.619	6.981610E-001	1.356570E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.87	9.3238E-001	13.80
F 3	84.91	6.7071E-001	19.35

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
+	Co-60	1173.22*	100.00	7.0653E-002	5.83E-002	5.9630E-002
		1332.49*	100.00	5.8250E-002		5.5339E-002
	Nb-94	702.63	100.00	9.7474E-002	9.43E-002	-3.4795E-002
		871.10	100.00	9.4265E-002		4.2776E-002
	Ag-108m	79.20	7.10	6.6669E+000	1.24E-001	-4.9184E+000
		433.93	89.90	1.2723E-001		7.1217E-002
		614.37	90.40	1.5110E-001		4.9955E-002
		722.95	90.50	1.2419E-001		1.8725E-002
	Sb-125	176.33	6.89	2.5994E+000	3.64E-001	-2.3306E+000
		427.89	29.33	3.6444E-001		-1.4683E-001
		463.38	10.35	1.1514E+000		6.0025E-001
		600.56	17.80	6.1343E-001		4.2478E-001
		606.64	5.02	2.6842E+000		-3.6398E-001
		635.90	11.32	8.7477E-001		5.4425E-001
	Cs-134	563.23	8.38	1.3552E+000	1.22E-001	8.7416E-002
		569.32	15.43	7.3180E-001		2.7433E-001
		604.70	97.60	1.3487E-001		2.5818E-002
		795.84	85.40	1.2169E-001		-1.8006E-001
		801.93	8.73	1.1699E+000		-4.7296E-001
+	Cs-137	661.65*	85.12	7.3624E-002	7.36E-002	1.1376E-001
	Eu-152	121.78	28.40	9.2956E-001	3.24E-001	8.8514E-002
		244.69	7.49	2.1453E+000		-6.5130E+000
		344.27	26.50	4.7071E-001		-5.8047E-001
		778.89	12.74	8.0129E-001		2.8268E-001
		867.32	4.16	2.4393E+000		1.4954E+000
		964.01	14.40	8.2342E-001		-4.9816E-002
		1085.78	10.00	9.3118E-001		5.5117E-001
		1112.02	13.30	7.1578E-001		-7.2417E-001
		1407.95	20.70	3.2383E-001		1.3179E-001
	Eu-154	123.07	40.50	6.4735E-001	2.34E-001	3.1957E-001
		247.94	6.60	2.3447E+000		-6.9173E-001
		591.81	4.83	2.1197E+000		-3.4555E-001
		723.30	19.70	5.6687E-001		-1.4766E-001
		756.87	4.33	2.3438E+000		-2.1855E+000
		873.19	11.50	7.8345E-001		-2.3623E-001
		996.32	10.30	9.2257E-001		1.2056E-001
		1004.76	17.90	5.2834E-001		2.4758E-001
		1274.45	35.50	2.3422E-001		-2.8004E-001
	Eu-155	86.54	30.90	1.3125E+000	1.31E+000	2.4733E+000
		105.31	20.70	1.4607E+000		-1.0478E+000
	Am-241	59.54	35.90	1.7114E+000	1.71E+000	2.0300E-001
	Cm-243	228.19	10.56	1.5920E+000	1.03E+000	1.8051E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	1.0256E+000	1.03E+000	3.1748E-001

+ = 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

Report Generated On 12/7/2005 11:56:57 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-02-166
Sample Title: NOL-05-02-166-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/7/2005 11:46:54 PM
Live Time: 600.0 seconds
Real Time: 601.3 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-02-166
Title: NOL-05-02-166-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	284-	307	291.67	72.77	1.07	4.89E+002	77.88	2.14E+003
m	2	284-	307	300.41	74.96	1.07	8.93E+002	90.80	2.06E+003
F	3	332-	345	338.98	84.64	1.20	3.25E+002	77.54	1.83E+003
F	4	946-	961	954.56	238.96	1.21	2.74E+002	46.58	4.57E+002
F	5	1176-	1185	1180.96	295.67	0.87	4.28E+001	27.61	1.75E+002
F	6	1349-	1360	1353.69	338.93	0.92	4.19E+001	25.87	1.70E+002
F	7	1402-	1417	1408.26	352.59	1.37	1.78E+002	33.22	1.62E+002
F	8	2031-	2054	2043.45	511.53	2.19	1.59E+002	29.26	1.62E+002
F	9	2323-	2341	2332.93	583.92	1.51	1.70E+002	30.31	1.12E+002
F	10	2430-	2446	2437.40	610.04	1.34	1.71E+002	29.23	7.60E+001
F	11	2641-	2654	2647.57	662.57	1.16	4.62E+001	20.41	7.25E+001
F	12	3438-	3449	3443.53	861.40	0.98	2.54E+001	15.31	4.06E+001
F	13	3635-	3655	3645.66	911.87	1.86	1.44E+002	25.76	5.26E+001
F	14	3869-	3886	3877.02	969.63	1.72	7.94E+001	22.32	6.25E+001
F	15	4474-	4491	4482.96	1120.85	2.27	5.51E+001	18.14	3.81E+001
F	16	5323-	5342	5333.03	1332.92	2.46	7.55E+001	17.65	1.23E+001
F	17	5832-	5861	5847.13	1461.16	1.99	1.05E+003	62.62	2.61E+001
F	18	6350-	6363	6356.59	1588.23	1.10	1.54E+001	9.69	8.64E+000
F	19	7057-	7071	7064.20	1764.75	1.67	2.98E+001	13.73	1.49E+001

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	0.991	511.00*		100.00	2.16478E-001	4.95398E-002
K-40	0.996	1460.81*		10.67	1.75308E+001	1.76572E+000
Cs-137	0.975	661.65*		85.12	8.06158E-002	3.68725E-002
TL-208	0.885	277.35		6.80		
		510.84*		21.60	1.00221E+000	2.43518E-001
		583.14*		84.20	2.88313E-001	6.35617E-002
		860.37*		12.46	3.19201E-001	1.96351E-001
Pb-212	0.519	74.81*	@	10.70	1.27725E+001	2.81996E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	6.65520E-001	1.54019E-001
Bi-214	0.988	609.31*		46.30	5.35613E-001	1.12612E-001
		1120.29*		15.10	6.13896E-001	2.12503E-001
		1764.49*		15.80	3.50582E-001	1.65110E-001
PB-214	0.575	74.82*	@	6.21	2.20073E+001	5.11477E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	2.57185E-001	1.71348E-001
		351.92*		37.20	5.79598E-001	1.45280E-001
Ac-228	0.986	338.32*		11.40	4.40729E-001	2.80635E-001
		911.07*		27.70	8.22267E-001	1.75132E-001
		969.11*		16.60	7.71855E-001	2.31607E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		0.991	1.535799E-001	5.119943E-002
K-40		0.996	1.753075E+001	1.765719E+000
Cs-137		0.975	8.061583E-002	3.687253E-002
TL-208		0.885	2.911924E-001	5.986186E-002
Pb-212	@	0.519	6.655203E-001	1.540186E-001
Bi-214		0.988	4.989069E-001	8.522406E-002
PB-214	@	0.575	4.447571E-001	1.108114E-001
Ac-228		0.986	7.318064E-001	1.250552E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.77	8.1555E-001	15.92
F 3	84.64	5.4085E-001	23.90
F 16	1332.92	1.2579E-001	23.38
F 18	1588.23	2.5651E-002	62.97

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
	Co-60	1173.22	100.00	1.0992E-001	9.77E-002	2.8571E-003
		1332.49	100.00	9.7661E-002		1.3939E-001
	Nb-94	702.63	100.00	1.0101E-001	9.00E-002	3.2211E-002
		871.10	100.00	9.0015E-002		-1.1458E-001
	Ag-108m	79.20	7.10	6.2511E+000	1.21E-001	-3.5125E+000
		433.93	89.90	1.2685E-001		6.6595E-002
		614.37	90.40	1.4980E-001		-7.1179E-002
		722.95	90.50	1.2062E-001		4.1382E-002
	Sb-125	176.33	6.89	2.5600E+000	3.73E-001	3.1788E-001
		427.89	29.33	3.7286E-001		-3.0656E-002
		463.38	10.35	1.1228E+000		-8.9232E-002
		600.56	17.80	5.8481E-001		1.1570E-001
		606.64	5.02	2.7306E+000		6.1789E+000
		635.90	11.32	9.0642E-001		9.6563E-001
	Cs-134	563.23	8.38	1.2187E+000	1.15E-001	1.4607E-002
		569.32	15.43	6.7131E-001		-2.7409E-001
		604.70	97.60	1.3207E-001		-1.2645E-001
		795.84	85.40	1.1469E-001		-2.7977E-002
		801.93	8.73	1.0754E+000		-1.6437E+000
+	Cs-137	661.65*	85.12	8.5971E-002	8.60E-002	8.0616E-002
	Eu-152	121.78	28.40	8.8160E-001	3.03E-001	-9.5167E-002
		244.69	7.49	2.1194E+000		-9.4418E-001
		344.27	26.50	4.8308E-001		-1.3874E-002
		778.89	12.74	8.1930E-001		2.1536E-001
		867.32	4.16	2.3681E+000		-2.7409E+000
		964.01	14.40	8.5193E-001		-1.1383E-001
		1085.78	10.00	9.2323E-001		-3.9943E-001
		1112.02	13.30	7.2196E-001		-5.7705E-001
		1407.95	20.70	3.0280E-001		-5.5796E-001
	Eu-154	123.07	40.50	6.1020E-001	2.57E-001	1.8089E-001
		247.94	6.60	2.1557E+000		-2.4706E+000
		591.81	4.83	2.2217E+000		-1.8490E+000
		723.30	19.70	5.6482E-001		6.0482E-001
		756.87	4.33	2.3497E+000		-1.1650E-001
		873.19	11.50	8.1228E-001		4.9600E-001
		996.32	10.30	9.3384E-001		7.3060E-001
		1004.76	17.90	5.1173E-001		1.1617E-001
		1274.45	35.50	2.5670E-001		-6.9831E-002
	Eu-155	86.54	30.90	1.2586E+000	1.26E+000	2.4208E+000
		105.31	20.70	1.4302E+000		3.1861E-001
	Am-241	59.54	35.90	1.6570E+000	1.66E+000	5.1666E-001
	Cm-243	228.19	10.56	1.4211E+000	9.69E-001	-1.2116E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	9.6855E-001	9.69E-001	-2.0934E-001

+ = 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

Report Generated On 12/7/2005 11:44:13 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-02-167
Sample Title: NOL-05-02-167-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/7/2005 11:34:10 PM
Live Time: 600.0 seconds
Real Time: 601.4 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-02-167
Title: NOL-05-02-167-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	282-	309	291.98	72.85	1.06	6.49E+002	80.47	2.04E+003
m	2	282-	309	300.47	74.97	1.06	9.91E+002	90.14	1.89E+003
F	3	330-	345	339.25	84.70	1.27	3.32E+002	77.89	2.05E+003
F	4	369-	378	371.82	92.87	0.93	8.43E+001	61.03	1.14E+003
F	5	946-	961	954.93	239.05	1.02	2.80E+002	44.91	4.02E+002
F	6	1076-	1086	1082.25	270.95	0.78	4.47E+001	25.78	1.83E+002
F	7	1176-	1188	1181.23	295.74	1.27	8.63E+001	30.13	1.82E+002
F	8	1399-	1415	1407.96	352.51	1.42	1.72E+002	33.05	1.83E+002
F	9	2324-	2343	2332.93	583.92	1.64	2.07E+002	31.84	1.13E+002
F	10	2430-	2446	2438.12	610.22	1.25	1.50E+002	28.42	8.83E+001
F	11	2641-	2657	2647.05	662.44	0.84	3.94E+001	17.59	7.36E+001
F	12	3635-	3656	3645.78	911.90	1.82	1.47E+002	26.65	6.62E+001
M	13	3854-	3885	3860.99	965.62	1.24	2.42E+001	15.25	5.56E+001
m	14	3854-	3885	3876.70	969.55	1.25	8.89E+001	22.91	5.73E+001
F	15	4474-	4489	4482.54	1120.74	1.66	3.96E+001	16.64	3.36E+001
F	16	4685-	4703	4694.95	1173.74	1.90	1.00E+002	22.91	4.75E+001
F	17	5323-	5343	5332.34	1332.75	1.73	1.08E+002	22.81	3.39E+001
F	18	5831-	5861	5847.14	1461.16	2.05	1.11E+003	64.54	3.13E+001
F	19	7058-	7072	7064.69	1764.88	1.47	4.14E+001	14.64	1.07E+001

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
K-40	0.996	1460.81*	10.67	1.86812E+001	1.85992E+000
Co-60	0.995	1173.22*	100.00	1.70784E-001	4.13167E-002
		1332.49*	100.00	1.89938E-001	4.27741E-002
Cs-137	0.981	661.65*	85.12	6.88612E-002	3.17684E-002
TL-208	0.459	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.49939E-001	7.05569E-002
		860.37	12.46		
Pb-212	0.517	74.81* @	10.70	1.41628E+001	3.06030E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	6.80997E-001	1.52758E-001
Bi-214	0.983	609.31*	46.30	4.68666E-001	1.05878E-001
		1120.29*	15.10	4.41479E-001	1.91337E-001
		1764.49*	15.80	4.86894E-001	1.78709E-001
PB-214	0.576	74.82* @	6.21	2.44028E+001	5.56259E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	5.18091E-001	2.00820E-001
		351.92*	37.20	5.61084E-001	1.42812E-001
Ac-228	0.622	338.32	11.40		
		911.07*	27.70	8.44393E-001	1.80783E-001
		969.11*	16.60	8.64378E-001	2.40424E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
K-40		0.996	1.868117E+001	1.859925E+000
Co-60		0.995	1.800292E-001	2.971719E-002
Cs-137		0.981	6.886123E-002	3.176842E-002
TL-208		0.459	3.499393E-001	7.055687E-002
Pb-212	@	0.517	6.809966E-001	1.527576E-001
Bi-214		0.983	4.675034E-001	8.224629E-002
PB-214	@	0.576	5.466441E-001	1.163834E-001
Ac-228		0.622	8.516113E-001	1.444919E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.85	1.0813E+000	12.40
F 3	84.70	5.5374E-001	23.44
F 4	92.87	1.4045E-001	72.42
F 6	270.95	7.4420E-002	57.74
M 13	965.62	4.0284E-002	63.08

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
+	Co-60	1173.22*	100.00	7.5702E-002	6.89E-002	1.7078E-001
		1332.49*	100.00	6.8912E-002		1.8994E-001
	Nb-94	702.63	100.00	1.0301E-001	9.77E-002	3.6216E-002
		871.10	100.00	9.7746E-002		-6.4062E-002
	Ag-108m	79.20	7.10	6.1789E+000	1.23E-001	-4.8020E+000
		433.93	89.90	1.2575E-001		-2.3951E-002
		614.37	90.40	1.4980E-001		6.0889E-002
		722.95	90.50	1.2268E-001		2.6013E-002
	Sb-125	176.33	6.89	2.5103E+000	3.82E-001	-5.0752E-001
		427.89	29.33	3.8197E-001		-2.8867E-001
		463.38	10.35	1.1562E+000		2.3898E-001
		600.56	17.80	5.9724E-001		-6.8170E-002
		606.64	5.02	2.7807E+000		4.5242E+000
		635.90	11.32	9.4915E-001		6.0534E-001
	Cs-134	563.23	8.38	1.3091E+000	1.27E-001	-2.1491E-001
		569.32	15.43	6.8383E-001		-3.7003E-001
		604.70	97.60	1.3838E-001		2.5394E-002
		795.84	85.40	1.2686E-001		2.3918E-002
		801.93	8.73	1.2229E+000		-1.1774E+000
+	Cs-137	661.65*	85.12	9.2064E-002	9.21E-002	6.8861E-002
	Eu-152	121.78	28.40	8.8364E-001	3.17E-001	-8.9204E-001
		244.69	7.49	2.0173E+000		-1.9694E-001
		344.27	26.50	4.7735E-001		-4.1366E-001
		778.89	12.74	8.1328E-001		-3.9688E-001
		867.32	4.16	2.4806E+000		-1.4506E+000
		964.01	14.40	9.0932E-001		5.5709E-002
		1085.78	10.00	9.6674E-001		-3.9804E-001
		1112.02	13.30	7.6101E-001		-2.5922E-001
		1407.95	20.70	3.1672E-001		2.8780E-001
	Eu-154	123.07	40.50	6.1364E-001	2.48E-001	-1.6581E-001
		247.94	6.60	2.1768E+000		-1.2813E+000
		591.81	4.83	2.1677E+000		3.5125E-001
		723.30	19.70	5.6247E-001		6.1428E-001
		756.87	4.33	2.2831E+000		-3.5599E-001
		873.19	11.50	8.2518E-001		2.9254E-002
		996.32	10.30	9.3384E-001		-5.0217E-001
		1004.76	17.90	5.4561E-001		8.2699E-002
		1274.45	35.50	2.4801E-001		-1.4837E-001
	Eu-155	86.54	30.90	1.2521E+000	1.25E+000	-4.1307E-001
		105.31	20.70	1.4075E+000		-1.6693E-001
	Am-241	59.54	35.90	1.6509E+000	1.65E+000	-3.7422E-001
	Cm-243	228.19	10.56	1.4266E+000	9.86E-001	-1.8838E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	9.8560E-001	9.86E-001	7.3676E-001

+ = 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

Report Generated On 12/7/2005 11:31:08 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-02-168
Sample Title: NOL-05-02-168-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/7/2005 11:21:06 PM
Live Time: 600.0 seconds
Real Time: 601.4 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-02-168
Title: NOL-05-02-168-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	286-	305	291.90	72.82	0.89	4.98E+002	75.23	1.68E+003
m	2	286-	305	300.55	74.99	0.90	8.89E+002	90.13	1.80E+003
F	3	331-	346	339.16	84.68	1.23	3.02E+002	78.82	2.18E+003
F	4	949-	962	955.25	239.13	1.08	2.43E+002	44.99	4.04E+002
F	5	1176-	1186	1180.72	295.61	1.08	7.25E+001	30.18	1.76E+002
M	6	1326-	1360	1331.09	333.27	0.77	3.46E+001	19.68	1.04E+002
m	7	1326-	1360	1353.79	338.95	0.78	6.99E+001	24.87	1.14E+002
F	8	1401-	1415	1408.21	352.58	1.21	1.44E+002	33.28	2.03E+002
F	9	2032-	2054	2043.70	511.59	2.12	1.41E+002	28.47	1.58E+002
F	10	2324-	2341	2333.00	583.94	1.42	1.81E+002	30.27	9.42E+001
F	11	2429-	2447	2437.99	610.18	1.37	1.63E+002	30.51	1.23E+002
F	12	2902-	2917	2910.61	728.30	1.42	4.49E+001	19.68	6.97E+001
F	13	3635-	3655	3646.10	911.98	1.88	1.63E+002	27.13	5.51E+001
M	14	3854-	3885	3860.84	965.59	1.69	4.73E+001	18.44	5.26E+001
m	15	3854-	3885	3876.78	969.57	1.69	6.86E+001	19.61	5.19E+001
F	16	4686-	4705	4695.52	1173.89	1.77	1.36E+002	26.48	6.34E+001
F	17	5324-	5342	5333.48	1333.03	1.73	1.59E+002	27.02	3.56E+001
F	18	5831-	5861	5847.02	1461.13	2.06	1.19E+003	66.71	2.33E+001
F	19	7057-	7070	7063.39	1764.55	1.86	3.57E+001	13.32	8.85E+000

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	0.989	511.00*	100.00	1.92249E-001	4.67638E-002
K-40	0.997	1460.81*	10.67	1.99477E+001	1.96475E+000
Co-60	0.989	1173.22*	100.00	2.31217E-001	4.86823E-002
		1332.49*	100.00	2.79696E-001	5.23194E-002
TL-208	0.736	277.35	6.80		
		510.84*	21.60	8.90041E-001	2.28375E-001
		583.14*	84.20	3.05717E-001	6.48755E-002
		860.37	12.46		
Bi-212	0.962	727.17*	11.80	5.76306E-001	2.61456E-001
Pb-212	0.516	74.81* @	10.70	1.27033E+001	2.80313E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	5.89951E-001	1.43305E-001
Bi-214	0.685	609.31*	46.30	5.08215E-001	1.14009E-001
		1120.29	15.10		
		1764.49*	15.80	4.19115E-001	1.62035E-001
PB-214	0.576	74.82* @	6.21	2.18881E+001	5.08451E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	4.35447E-001	1.95466E-001
		351.92*	37.20	4.67737E-001	1.33691E-001
Ac-228	0.983	338.32*	11.40	7.35168E-001	2.85727E-001
		911.07*	27.70	9.35786E-001	1.88904E-001
		969.11*	16.60	6.67236E-001	2.03086E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		0.989	1.262139E-001	4.877082E-002
K-40		0.997	1.994773E+001	1.964748E+000
Co-60		0.989	2.537128E-001	3.564009E-002
TL-208		0.736	3.057175E-001	6.410591E-002
Bi-212		0.962	5.763063E-001	2.614557E-001
Pb-212	@	0.516	5.899510E-001	1.433053E-001
Bi-214		0.685	4.787109E-001	9.324157E-002
PB-214	@	0.576	4.574458E-001	1.103487E-001
Ac-228		0.983	7.967772E-001	1.244971E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.82	8.2947E-001	15.12
F 3	84.68	5.0322E-001	26.10
M 6	333.27	5.7612E-002	56.92
M 14	965.59	7.8777E-002	39.02

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
+	Co-60	1173.22*	100.00	8.8115E-002	6.81E-002	2.3122E-001
		1332.49*	100.00	6.8105E-002		2.7970E-001
	Nb-94	702.63	100.00	1.0641E-001	1.00E-001	-1.1376E-001
		871.10	100.00	1.0000E-001		-2.0965E-002
	Ag-108m	79.20	7.10	6.2692E+000	1.29E-001	-1.3547E+001
		433.93	89.90	1.2937E-001		2.8215E-002
		614.37	90.40	1.5781E-001		-4.3115E-002
		722.95	90.50	1.2891E-001		2.1239E-002
	Sb-125	176.33	6.89	2.4911E+000	4.13E-001	-1.3507E+000
		427.89	29.33	4.1327E-001		-1.3761E-001
		463.38	10.35	1.1594E+000		7.8743E-001
		600.56	17.80	6.2133E-001		2.2847E-001
		606.64	5.02	2.8943E+000		5.3625E-001
		635.90	11.32	9.7075E-001		-3.8226E-001
	Cs-134	563.23	8.38	1.3682E+000	1.23E-001	4.4605E-001
		569.32	15.43	7.0018E-001		1.5297E-001
		604.70	97.60	1.3855E-001		2.5331E-002
		795.84	85.40	1.2275E-001		1.1286E-001
		801.93	8.73	1.1455E+000		-6.5349E-001
	Cs-137	661.65	85.12	1.4540E-001	1.45E-001	1.2332E-001
	Eu-152	121.78	28.40	8.7640E-001	3.17E-001	-2.3426E-001
		244.69	7.49	2.0938E+000		-1.1312E+000
		344.27	26.50	4.8780E-001		-3.1389E-001
		778.89	12.74	8.5254E-001		-1.2660E+000
		867.32	4.16	2.5255E+000		-9.0324E-002
		964.01	14.40	8.9846E-001		-3.1350E-001
		1085.78	10.00	1.0330E+000		1.7932E-001
		1112.02	13.30	8.5051E-001		-1.6966E+000
		1407.95	20.70	3.1672E-001		-1.9338E-001
	Eu-154	123.07	40.50	6.0864E-001	2.52E-001	9.8604E-002
		247.94	6.60	2.2646E+000		-1.1553E+000
		591.81	4.83	2.1858E+000		-9.2133E-001
		723.30	19.70	6.0223E-001		2.0043E-001
		756.87	4.33	2.5275E+000		-9.3082E-001
		873.19	11.50	9.0322E-001		1.6422E-002
		996.32	10.30	9.8108E-001		-2.8477E-001
		1004.76	17.90	5.8066E-001		5.8047E-002
		1274.45	35.50	2.5240E-001		1.2006E-001
	Eu-155	86.54	30.90	1.2748E+000	1.27E+000	5.1637E-001
		105.31	20.70	1.4291E+000		3.4627E-002
	Am-241	59.54	35.90	1.6491E+000	1.65E+000	-5.9717E-001
	Cm-243	228.19	10.56	1.4526E+000	1.01E+000	-1.0395E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	1.0081E+000	1.01E+000	6.3286E-001

+ = 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

Report Generated On 12/6/2005 1:58:56 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: RED6264

Spectrum File: RED6264
Sample ID:
Sample Title: NOL-05-02-169-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/6/2005 1:48:54 PM
Live Time: 600.0 seconds
Real Time: 601.3 seconds

Energy Calibration Date: 6/13/2005
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number:
Title: NOL-05-02-169-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	282-	318	291.83	72.92	1.18	5.40E+002	73.01	1.92E+003
m	2	282-	318	300.23	75.02	1.18	1.00E+003	84.65	2.05E+003
m	3	282-	318	309.27	77.28	1.18	2.00E+002	64.73	2.06E+003
M	4	330-	354	339.40	84.81	1.19	3.33E+002	69.47	1.93E+003
m	5	330-	354	349.94	87.44	1.19	1.48E+002	61.58	1.64E+003
F	6	514-	521	517.61	129.36	0.61	6.26E+001	42.10	5.12E+002
F	7	944-	962	954.57	238.61	0.96	2.64E+002	42.73	4.39E+002
F	8	1172-	1187	1180.23	295.03	1.22	8.94E+001	30.98	2.56E+002
F	9	1348-	1360	1353.21	338.28	1.05	9.28E+001	27.69	1.40E+002
F	10	1402-	1414	1407.69	351.90	1.12	1.40E+002	30.54	1.33E+002
F	11	2032-	2052	2042.11	510.52	1.91	1.45E+002	28.82	1.50E+002
F	12	2320-	2341	2332.71	583.18	1.41	2.19E+002	31.18	8.32E+001
F	13	2430-	2447	2437.73	609.44	1.55	1.80E+002	30.50	9.85E+001
F	14	2903-	2917	2909.52	727.39	1.35	6.50E+001	20.20	4.88E+001
F	15	3175-	3189	3181.39	795.36	1.32	2.87E+001	16.97	4.44E+001
F	16	3436-	3448	3442.37	860.61	0.73	2.60E+001	14.60	4.73E+001
F	17	3638-	3655	3645.26	911.34	1.69	1.47E+002	26.73	5.27E+001
F	18	3869-	3888	3877.74	969.47	1.93	9.63E+001	22.95	5.63E+001
F	19	4475-	4492	4483.08	1120.81	1.79	6.10E+001	20.68	5.58E+001
F	20	4688-	4702	4695.31	1173.88	1.39	5.42E+001	18.90	3.89E+001
F	21	5832-	5862	5847.31	1461.90	2.01	1.27E+003	69.52	1.92E+001
F	22	7057-	7071	7063.74	1766.03	2.09	4.24E+001	14.65	1.12E+001

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	0.993	511.00*	100.00	2.04363E-001	4.91014E-002
K-40	0.965	1460.81*	10.67	2.20327E+001	2.15158E+000
Eu-155	0.318	86.54*	30.90	6.14740E-001	2.82430E-001
		105.31	20.70		
TL-208	0.902	277.35	6.80		
		510.84*	21.60	9.46127E-001	2.40094E-001
		583.14*	84.20	3.82329E-001	7.37461E-002
		860.37*	12.46	3.37555E-001	1.93876E-001
Bi-212	0.999	727.17*	11.80	8.60992E-001	2.85925E-001
Pb-212	1.000	74.81* @	10.70	1.48320E+001	3.16636E+000
		77.11* @	18.00	1.69549E+000	6.40336E-001
		87.30* @	8.00	2.37443E+000	1.09089E+000
		238.63*	44.60	6.63504E-001	1.49421E-001
Bi-214	0.984	609.31*	46.30	5.80513E-001	1.21488E-001
		1120.29*	15.10	7.01796E-001	2.49263E-001
		1764.49*	15.80	5.14645E-001	1.85067E-001
PB-214	0.850	74.82* @	6.21	2.55560E+001	5.76252E+000
		77.11* @	10.50	2.90655E+000	1.11897E+000
		87.30* @	4.67	4.06755E+000	1.89385E+000
		241.98	7.49		
		295.21*	19.20	5.53804E-001	2.13299E-001
		351.92*	37.20	4.69426E-001	1.29191E-001
Ac-228	0.998	338.32*	11.40	1.00628E+000	3.39128E-001
		911.07*	27.70	8.68775E-001	1.87011E-001
		969.11*	16.60	9.67250E-001	2.51747E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		0.993	1.229757E-001	5.125409E-002
K-40		0.965	2.203269E+001	2.151582E+000
Eu-155		0.318	3.686399E-001	2.855368E-001
TL-208		0.902	3.767949E-001	6.804608E-002
Bi-212		0.999	8.609919E-001	2.859247E-001
Pb-212	@	1.000	6.635044E-001	1.494208E-001
Bi-214		0.984	5.807681E-001	9.405301E-002
PB-214	@	0.850	4.917467E-001	1.083091E-001
Ac-228		0.998	9.205859E-001	1.372737E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.92	8.9936E-001	13.53
M 4	84.81	5.5536E-001	20.85
F 6	129.36	1.0439E-001	67.22
F 15	795.36	4.7788E-002	59.19
F 20	1173.88	9.0256E-002	34.89

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
	Co-60	1173.22	100.00	1.2283E-001	1.02E-001	1.4143E-001
		1332.49	100.00	1.0216E-001		7.1623E-002
	Nb-94	702.63	100.00	1.1390E-001	1.08E-001	-2.0473E-002
		871.10	100.00	1.0808E-001		-4.9404E-003
	Ag-108m	79.20	7.10	6.2720E+000	1.37E-001	-7.3253E-002
		433.93	89.90	1.3707E-001		-3.2249E-002
		614.37	90.40	1.6125E-001		-9.2270E-002
		722.95	90.50	1.3697E-001		2.4007E-002
	Sb-125	176.33	6.89	2.5075E+000	3.95E-001	2.6168E+000
		427.89	29.33	3.9517E-001		1.2952E-001
		463.38	10.35	1.2039E+000		1.3738E+000
		600.56	17.80	6.2228E-001		-2.6055E-001
		606.64	5.02	2.9288E+000		6.1498E+000
		635.90	11.32	1.0052E+000		5.0898E-002
	Cs-134	563.23	8.38	1.3250E+000	1.25E-001	-9.8957E-001
		569.32	15.43	6.9092E-001		-6.3658E-001
		604.70	97.60	1.4665E-001		-6.2280E-002
		795.84	85.40	1.2455E-001		8.0049E-002
		801.93	8.73	1.1827E+000		3.2407E-001
	Cs-137	661.65	85.12	1.3023E-001	1.30E-001	-2.5906E-002
	Eu-152	121.78	28.40	8.6951E-001	3.51E-001	6.6603E-002
		244.69	7.49	2.0765E+000		-1.3935E-001
		344.27	26.50	4.6811E-001		-1.0015E-001
		778.89	12.74	8.7216E-001		-6.3189E-001
		867.32	4.16	2.6219E+000		1.3873E+000
		964.01	14.40	9.3110E-001		-1.5451E-001
		1085.78	10.00	1.0969E+000		3.4756E-001
		1112.02	13.30	7.8270E-001		-3.5254E-001
		1407.95	20.70	3.5089E-001		-3.6149E-002
	Eu-154	123.07	40.50	6.0417E-001	2.87E-001	-1.1397E-001
		247.94	6.60	2.2165E+000		-2.4412E+000
		591.81	4.83	2.3457E+000		7.1652E-001
		723.30	19.70	6.3042E-001		1.2724E-001
		756.87	4.33	2.6653E+000		-2.5183E+000
		873.19	11.50	9.3068E-001		9.9332E-002
		996.32	10.30	1.0070E+000		4.7551E-001
		1004.76	17.90	5.7738E-001		2.6426E-001
		1274.45	35.50	2.8684E-001		1.7812E-001
+	Eu-155	86.54*	30.90	7.9276E-001	7.93E-001	6.1474E-001
		105.31	20.70	1.4028E+000		-4.2408E-001
	Am-241	59.54	35.90	1.6098E+000	1.61E+000	1.1407E+000
	Cm-243	228.19	10.56	1.5054E+000	1.03E+000	1.8852E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	1.0331E+000	1.03E+000	-2.0158E-001

+ = 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

Report Generated On 12/6/2005 3:55:32 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: RED6264

Spectrum File: RED6264
Sample ID:
Sample Title: NOL-05-02-170-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/6/2005 3:45:29 PM
Live Time: 600.0 seconds
Real Time: 601.3 seconds

Energy Calibration Date: 6/13/2005
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number:
Title: NOL-05-02-170-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	285-	309	291.96	72.95	1.02	5.14E+002	73.60	1.77E+003
m	2	285-	309	300.27	75.03	1.02	8.19E+002	83.13	1.94E+003
M	3	332-	354	339.72	84.89	1.00	2.91E+002	67.92	1.60E+003
m	4	332-	354	349.65	87.37	1.01	1.30E+002	59.66	1.46E+003
F	5	944-	960	954.63	238.63	1.22	3.06E+002	43.83	3.67E+002
F	6	1176-	1185	1180.64	295.14	0.54	5.07E+001	23.12	1.56E+002
F	7	1343-	1358	1352.32	338.06	1.36	8.09E+001	28.01	1.90E+002
F	8	1401-	1416	1407.94	351.97	1.39	1.43E+002	31.91	1.90E+002
F	9	2031-	2054	2043.37	510.84	2.47	1.77E+002	28.96	1.41E+002
F	10	2326-	2343	2332.46	583.11	1.41	2.15E+002	32.14	8.82E+001
F	11	2428-	2445	2436.50	609.13	1.41	1.62E+002	29.34	9.95E+001
F	12	3635-	3653	3644.96	911.27	1.60	1.51E+002	25.98	3.76E+001
F	13	3867-	3886	3876.40	969.13	1.37	8.51E+001	23.73	8.54E+001
F	14	4476-	4489	4482.33	1120.63	1.09	3.61E+001	16.37	3.81E+001
F	15	4684-	4702	4693.70	1173.47	2.16	9.16E+001	21.81	4.22E+001
F	16	5324-	5340	5332.29	1333.14	1.97	5.65E+001	18.77	3.20E+001
F	17	5833-	5861	5846.60	1461.72	1.97	1.14E+003	66.03	3.09E+001
F	18	7056-	7072	7063.63	1766.01	1.47	3.90E+001	13.56	8.50E+000

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	0.999	511.00*	100.00	2.49606E-001	5.29518E-002
K-40	0.975	1460.81*	10.67	1.97174E+001	1.96308E+000
Co-60	0.993	1173.22*	100.00	1.61221E-001	4.04109E-002
		1332.49*	100.00	1.02508E-001	3.49646E-002
Eu-155	0.321	86.54*	30.90	5.40348E-001	2.69432E-001
		105.31	20.70		
TL-208	0.752	277.35	6.80		
		510.84*	21.60	1.15559E+000	2.62685E-001
		583.14*	84.20	3.75051E-001	7.43710E-002
		860.37	12.46		
Pb-212	0.677	74.81* @	10.70	1.21329E+001	2.67831E+000
		77.11 @	18.00		
		87.30* @	8.00	2.08709E+000	1.04068E+000
		238.63*	44.60	7.68385E-001	1.63148E-001
Bi-214	0.985	609.31*	46.30	5.21024E-001	1.14229E-001
		1120.29*	15.10	4.14687E-001	1.93409E-001
		1764.49*	15.80	4.73039E-001	1.71140E-001
PB-214	0.670	74.82* @	6.21	2.09053E+001	4.85793E+000
		77.11 @	10.50		
		87.30* @	4.67	3.57532E+000	1.80309E+000
		241.98	7.49		
		295.21*	19.20	3.14030E-001	1.52644E-001
		351.92*	37.20	4.80740E-001	1.33995E-001
Ac-228	0.999	338.32*	11.40	8.77215E-001	3.33339E-001
		911.07*	27.70	8.91198E-001	1.84682E-001
		969.11*	16.60	8.54351E-001	2.54543E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		0.999	1.685955E-001	5.527192E-002
K-40		0.975	1.971737E+001	1.963081E+000
Co-60		0.993	1.276445E-001	2.644118E-002
Eu-155		0.321	2.795486E-001	2.731334E-001
TL-208		0.752	3.750510E-001	7.335972E-002
Pb-212	@	0.677	7.683847E-001	1.631478E-001
Bi-214		0.985	4.884380E-001	8.527587E-002
PB-214	@	0.670	4.093388E-001	9.910042E-002
Ac-228		0.999	8.782773E-001	1.363955E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.95	8.5627E-001	14.33
M 3	84.89	4.8539E-001	23.32

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
+	Co-60	1173.22*	100.00	7.3923E-002	6.46E-002	1.6122E-001
		1332.49*	100.00	6.4637E-002		1.0251E-001
	Nb-94	702.63	100.00	1.1028E-001	9.83E-002	3.4721E-002
		871.10	100.00	9.8290E-002		3.4116E-002
	Ag-108m	79.20	7.10	6.3123E+000	1.24E-001	-4.1918E+000
		433.93	89.90	1.3743E-001		9.9341E-002
		614.37	90.40	1.6012E-001		-2.0581E-002
		722.95	90.50	1.2393E-001		2.7281E-002
	Sb-125	176.33	6.89	2.5192E+000	4.08E-001	9.3686E-001
		427.89	29.33	4.0825E-001		5.5467E-002
		463.38	10.35	1.2007E+000		1.3446E+000
		600.56	17.80	6.0831E-001		-1.3717E-001
		606.64	5.02	2.8474E+000		3.4893E+000
		635.90	11.32	9.8908E-001		1.6410E-001
	Cs-134	563.23	8.38	1.4254E+000	1.31E-001	4.3304E-001
		569.32	15.43	7.4401E-001		-4.7846E-001
		604.70	97.60	1.4523E-001		-4.1175E-002
		795.84	85.40	1.3128E-001		-3.1608E-002
		801.93	8.73	1.2356E+000		-5.5277E-001
	Cs-137	661.65	85.12	1.3810E-001	1.38E-001	7.5604E-004
	Eu-152	121.78	28.40	8.6627E-001	3.38E-001	-1.3772E-001
		244.69	7.49	2.0681E+000		-1.7683E+000
		344.27	26.50	4.8149E-001		-4.9543E-001
		778.89	12.74	8.9385E-001		-3.2834E-001
		867.32	4.16	2.4039E+000		-2.0088E+000
		964.01	14.40	9.6112E-001		7.4084E-001
		1085.78	10.00	1.0110E+000		-5.8094E-001
		1112.02	13.30	7.3443E-001		-4.1696E-001
		1407.95	20.70	3.3765E-001		9.7458E-002
	Eu-154	123.07	40.50	6.0393E-001	2.85E-001	1.0460E-001
		247.94	6.60	2.2018E+000		-1.7636E+000
		591.81	4.83	2.3187E+000		-1.0432E+000
		723.30	19.70	5.6812E-001		1.9012E-001
		756.87	4.33	2.5335E+000		-3.7361E-001
		873.19	11.50	8.8615E-001		4.6137E-001
		996.32	10.30	9.5476E-001		-3.1048E-001
		1004.76	17.90	5.6331E-001		4.3232E-001
		1274.45	35.50	2.8481E-001		2.0877E-002
+	Eu-155	86.54*	30.90	7.4848E-001	7.48E-001	5.4035E-001
		105.31	20.70	1.4098E+000		1.7845E-001
	Am-241	59.54	35.90	1.6955E+000	1.70E+000	4.7365E-001
	Cm-243	228.19	10.56	1.4811E+000	1.02E+000	2.5843E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	1.0195E+000	1.02E+000	1.5969E-002

+ = 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

Report Generated On 12/8/2005 4:03:11 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID:
Sample Title: NOL-05-02-171-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/8/2005 3:53:09 PM
Live Time: 600.0 seconds
Real Time: 601.3 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number:
Title: NOL-05-02-171-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	285-	306	291.84	72.81	0.87	3.94E+002	71.65	1.68E+003
m	2	285-	306	300.41	74.96	0.87	7.69E+002	86.52	1.74E+003
F	3	330-	346	339.70	84.82	1.01	2.69E+002	73.61	2.10E+003
F	4	950-	961	954.79	239.02	0.95	3.25E+002	46.93	3.09E+002
F	5	1171-	1191	1180.89	295.66	1.64	1.29E+002	32.80	3.04E+002
F	6	1346-	1358	1353.36	338.84	1.13	7.13E+001	27.72	1.66E+002
F	7	1401-	1412	1407.35	352.36	0.95	1.60E+002	33.66	1.66E+002
F	8	2032-	2053	2042.85	511.38	1.63	1.56E+002	30.10	1.65E+002
F	9	2321-	2341	2332.57	583.83	1.33	1.96E+002	31.14	9.89E+001
F	10	2429-	2444	2436.66	609.85	1.31	2.19E+002	32.32	7.18E+001
F	11	3173-	3187	3179.14	795.37	1.36	3.47E+001	17.46	5.13E+001
F	12	3436-	3448	3442.40	861.12	0.88	2.11E+001	14.83	4.89E+001
F	13	3637-	3655	3644.63	911.61	1.40	1.32E+002	26.39	6.42E+001
M	14	3854-	3885	3859.82	965.33	1.66	1.85E+001	15.98	5.53E+001
m	15	3854-	3885	3876.40	969.47	1.66	9.01E+001	22.15	6.21E+001
F	16	4475-	4490	4482.48	1120.73	1.55	5.42E+001	19.46	4.47E+001
F	17	4685-	4703	4694.48	1173.63	1.46	1.09E+002	23.07	3.80E+001
F	18	4947-	4960	4953.58	1238.27	0.93	2.48E+001	14.20	3.88E+001
F	19	5113-	5126	5119.38	1279.63	1.25	1.79E+001	11.70	1.75E+001
F	20	5323-	5343	5331.78	1332.61	1.86	7.08E+001	20.11	3.89E+001
F	21	5832-	5861	5845.46	1460.74	2.06	1.22E+003	67.60	1.00E+001
F	22	6150-	6163	6156.12	1538.23	1.07	9.45E+000	7.60	3.71E+000
F	23	7056-	7071	7062.89	1764.43	2.12	5.97E+001	16.05	6.23E+000

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	0.996	511.00*	100.00	2.12618E-001	5.01615E-002
K-40	1.000	1460.81*	10.67	2.04082E+001	2.00387E+000
Co-60	0.997	1173.22*	100.00	1.86741E-001	4.19911E-002
		1332.49*	100.00	1.24436E-001	3.66678E-002
TL-208	0.890	277.35	6.80		
		510.84*	21.60	9.84340E-001	2.45749E-001
		583.14*	84.20	3.32226E-001	6.81733E-002
		860.37*	12.46	2.65745E-001	1.89199E-001
Pb-212	0.518	74.81* @	10.70	1.09987E+001	2.48540E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	7.90533E-001	1.68512E-001
Bi-214	0.994	609.31*	46.30	6.83412E-001	1.31419E-001
		1120.29*	15.10	6.04750E-001	2.26212E-001
		1764.49*	15.80	7.01020E-001	2.01122E-001
PB-214	0.578	74.82* @	6.21	1.89511E+001	4.49795E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	7.77317E-001	2.36457E-001
		351.92*	37.20	5.22737E-001	1.40214E-001
Ac-228	0.993	338.32*	11.40	7.49080E-001	3.14176E-001
		911.07*	27.70	7.57407E-001	1.74351E-001
		969.11*	16.60	8.76306E-001	2.34128E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		0.996	1.424730E-001	5.199763E-002
K-40		1.000	2.040823E+001	2.003872E+000
Co-60		0.997	1.513912E-001	2.761957E-002
TL-208		0.890	3.247431E-001	6.340698E-002
Pb-212	@	0.518	7.905328E-001	1.685123E-001
Bi-214		0.994	6.726262E-001	9.893520E-002
PB-214	@	0.578	5.889660E-001	1.206046E-001
Ac-228		0.993	7.914319E-001	1.277539E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.81	6.5681E-001	18.18
F 3	84.82	4.4880E-001	27.34
F 11	795.37	5.7866E-002	50.28
M 14	965.33	3.0856E-002	86.30
F 18	1238.27	4.1288E-002	57.34
F 19	1279.63	2.9890E-002	65.24
F 22	1538.23	1.5751E-002	80.47

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
+	Co-60	1173.22*	100.00	6.8190E-002	6.82E-002	1.8674E-001
		1332.49*	100.00	7.3427E-002		1.2444E-001
	Nb-94	702.63	100.00	1.0448E-001	1.04E-001	-8.8725E-002
		871.10	100.00	1.0568E-001		1.5888E-001
	Ag-108m	79.20	7.10	6.0492E+000	1.23E-001	-6.1495E+000
		433.93	89.90	1.3043E-001		-3.8508E-002
		614.37	90.40	1.5961E-001		-9.2243E-002
		722.95	90.50	1.2345E-001		6.5581E-002
	Sb-125	176.33	6.89	2.4957E+000	4.01E-001	1.2970E+000
		427.89	29.33	4.0062E-001		4.7276E-002
		463.38	10.35	1.2396E+000		9.5863E-001
		600.56	17.80	5.9354E-001		-4.2441E-002
		606.64	5.02	2.8559E+000		5.3805E+000
		635.90	11.32	9.5903E-001		1.0249E-001
	Cs-134	563.23	8.38	1.3235E+000	1.22E-001	3.5588E-002
		569.32	15.43	7.4194E-001		2.7143E-001
		604.70	97.60	1.4423E-001		-2.2742E-003
		795.84	85.40	1.2154E-001		-2.3254E-002
		801.93	8.73	1.1937E+000		-7.4707E-001
	Cs-137	661.65	85.12	1.3619E-001	1.36E-001	1.0013E-001
	Eu-152	121.78	28.40	8.5432E-001	3.30E-001	-6.0409E-001
		244.69	7.49	2.0508E+000		-1.4990E+000
		344.27	26.50	4.9201E-001		-5.1382E-001
		778.89	12.74	7.8249E-001		-8.5950E-001
		867.32	4.16	2.5064E+000		-1.5354E+000
		964.01	14.40	9.0932E-001		2.7978E-003
		1085.78	10.00	1.0511E+000		-3.8322E-001
		1112.02	13.30	7.9126E-001		-1.2311E+000
		1407.95	20.70	3.3001E-001		7.7874E-002
	Eu-154	123.07	40.50	5.9854E-001	2.52E-001	1.3626E-001
		247.94	6.60	2.2335E+000		-2.3394E+000
		591.81	4.83	2.2700E+000		1.1032E+000
		723.30	19.70	5.6833E-001		2.0536E-001
		756.87	4.33	2.5714E+000		-6.9791E-002
		873.19	11.50	8.7721E-001		-6.3286E-001
		996.32	10.30	8.9352E-001		-4.9248E-001
		1004.76	17.90	5.1541E-001		-3.8065E-001
		1274.45	35.50	2.5240E-001		-1.6956E-001
	Eu-155	86.54	30.90	1.2189E+000	1.22E+000	4.9450E-001
		105.31	20.70	1.3679E+000		9.5893E-001
	Am-241	59.54	35.90	1.6302E+000	1.63E+000	9.8029E-003
	Cm-243	228.19	10.56	1.4581E+000	1.02E+000	1.0717E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	1.0224E+000	1.02E+000	1.1928E-001

+ = 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

Report Generated On 12/8/2005 3:49:56 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID:
Sample Title: NOL-05-02-172-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/8/2005 3:39:54 PM
Live Time: 600.0 seconds
Real Time: 601.2 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number:
Title: NOL-05-02-172-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	282-	306	292.15	72.89	0.92	4.15E+002	70.92	1.56E+003
m	2	282-	306	300.14	74.89	0.92	8.28E+002	87.68	1.70E+003
F	3	333-	345	339.58	84.79	0.90	2.45E+002	70.46	1.57E+003
F	4	949-	960	954.24	238.88	0.89	2.62E+002	42.43	2.72E+002
F	5	1176-	1186	1180.28	295.50	0.71	6.97E+001	27.25	1.85E+002
F	6	1344-	1360	1353.04	338.76	1.11	9.47E+001	28.80	1.96E+002
F	7	1402-	1417	1407.81	352.48	1.18	1.61E+002	32.28	1.68E+002
F	8	2324-	2341	2332.51	583.81	1.25	1.61E+002	29.60	1.06E+002
F	9	2429-	2449	2437.13	609.97	1.39	1.61E+002	29.56	1.12E+002
F	10	2902-	2915	2908.57	727.78	1.19	4.24E+001	17.79	4.71E+001
F	11	3435-	3448	3441.57	860.91	1.11	3.51E+001	15.95	3.71E+001
F	12	3636-	3658	3646.15	911.99	1.78	1.75E+002	28.16	6.13E+001
F	13	3868-	3886	3876.03	969.38	1.76	9.63E+001	22.21	4.48E+001
F	14	4688-	4701	4694.60	1173.66	1.40	4.22E+001	18.42	4.33E+001
F	15	5325-	5338	5332.02	1332.67	1.74	3.16E+001	14.29	1.88E+001
F	16	5830-	5860	5845.38	1460.72	1.99	1.09E+003	64.28	2.34E+001
F	17	7053-	7070	7061.49	1764.08	2.47	6.69E+001	16.38	2.35E+000

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/GM)	Activity Uncertainty
K-40	1.000	1460.81*		10.67	1.82724E+001	1.83056E+000
Co-60	0.997	1173.22*		100.00	7.20452E-002	3.19310E-002
		1332.49*		100.00	5.55975E-002	2.55063E-002
TL-208	0.612	277.35		6.80		
		510.84		21.60		
		583.14*		84.20	2.72247E-001	6.13700E-002
		860.37*		12.46	4.41632E-001	2.07497E-001
Bi-212	0.989	727.17*		11.80	5.43516E-001	2.37053E-001
Pb-212	0.519	74.81*	@	10.70	1.18492E+001	2.63990E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	6.38364E-001	1.43758E-001
Bi-214	0.689	609.31*		46.30	5.03447E-001	1.11207E-001
		1120.29		15.10		
		1764.49*		15.80	7.86396E-001	2.07856E-001
PB-214	0.578	74.82*	@	6.21	2.04165E+001	4.78398E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	4.18345E-001	1.78072E-001
		351.92*		37.20	5.24193E-001	1.36894E-001
Ac-228	0.985	338.32*		11.40	9.95382E-001	3.40655E-001
		911.07*		27.70	1.00340E+000	1.98196E-001
		969.11*		16.60	9.36649E-001	2.37166E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
K-40		1.000	1.827240E+001	1.830564E+000
Co-60		0.997	6.200433E-002	1.992879E-002
TL-208		0.612	2.858725E-001	5.885000E-002
Bi-212		0.989	5.435156E-001	2.370535E-001
Pb-212	@	0.519	6.383642E-001	1.437576E-001
Bi-214		0.689	5.664152E-001	9.805511E-002
PB-214	@	0.578	4.848747E-001	1.085306E-001
Ac-228		0.985	9.791800E-001	1.388716E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.89	6.9186E-001	17.09
F 3	84.79	4.0859E-001	28.74

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
+	Co-60	1173.22*	100.00	6.5919E-002	4.64E-002	7.2045E-002
		1332.49*	100.00	4.6381E-002		5.5598E-002
	Nb-94	702.63	100.00	1.0151E-001	9.12E-002	5.2721E-002
		871.10	100.00	9.1249E-002		-1.7261E-002
	Ag-108m	79.20	7.10	5.9934E+000	1.25E-001	-3.7481E+000
		433.93	89.90	1.2520E-001		-2.1103E-002
		614.37	90.40	1.4980E-001		2.0279E-003
		722.95	90.50	1.2496E-001		-4.1920E-002
	Sb-125	176.33	6.89	2.4287E+000	3.86E-001	-1.3885E+000
		427.89	29.33	3.8589E-001		-2.5423E-001
		463.38	10.35	1.1388E+000		1.0563E+000
		600.56	17.80	5.7467E-001		1.5157E-002
		606.64	5.02	2.7708E+000		-3.1636E-001
		635.90	11.32	9.3916E-001		5.5730E-001
	Cs-134	563.23	8.38	1.2722E+000	1.27E-001	6.7980E-001
		569.32	15.43	6.6566E-001		1.7967E-001
		604.70	97.60	1.3820E-001		3.6294E-002
		795.84	85.40	1.2686E-001		7.0749E-002
		801.93	8.73	1.1668E+000		-9.9136E-001
	Cs-137	661.65	85.12	1.1155E-001	1.12E-001	-5.6093E-002
	Eu-152	121.78	28.40	8.5042E-001	3.62E-001	2.3754E-001
		244.69	7.49	2.0462E+000		-1.8155E+000
		344.27	26.50	4.6911E-001		-3.3105E-001
		778.89	12.74	7.6340E-001		-9.1448E-001
		867.32	4.16	2.2781E+000		-1.4369E+000
		964.01	14.40	8.5193E-001		-2.2749E-001
		1085.78	10.00	9.1634E-001		-1.5744E+000
		1112.02	13.30	8.0033E-001		-1.6941E+000
		1407.95	20.70	3.6212E-001		2.4965E-001
	Eu-154	123.07	40.50	5.9193E-001	2.49E-001	-9.2929E-002
		247.94	6.60	2.1726E+000		-2.6317E+000
		591.81	4.83	2.1216E+000		1.3141E+000
		723.30	19.70	5.7642E-001		6.3526E-001
		756.87	4.33	2.2396E+000		-1.2150E+000
		873.19	11.50	7.9118E-001		3.3556E-001
		996.32	10.30	9.7530E-001		4.0324E-002
		1004.76	17.90	5.3866E-001		2.2630E-001
		1274.45	35.50	2.4911E-001		-1.7397E-001
	Eu-155	86.54	30.90	1.1912E+000	1.19E+000	1.8840E+000
		105.31	20.70	1.3797E+000		1.8372E-001
	Am-241	59.54	35.90	1.5975E+000	1.60E+000	5.4072E-002
	Cm-243	228.19	10.56	1.4131E+000	9.71E-001	-1.1835E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	9.7079E-001	9.71E-001	6.3964E-001

+ = 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

Report Generated On 12/8/2005 2:52:41 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID:
Sample Title: NOL-05-02-173-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/8/2005 2:42:39 PM
Live Time: 600.0 seconds
Real Time: 601.3 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number:
Title: NOL-05-02-173-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	285-	314	291.82	72.81	0.98	4.83E+002	73.05	1.62E+003
m	2	285-	314	300.46	74.97	0.98	1.06E+003	89.77	1.77E+003
m	3	285-	314	309.30	77.19	0.99	1.40E+002	63.47	1.66E+003
M	4	331-	355	340.02	84.90	1.11	4.14E+002	75.45	1.82E+003
m	5	331-	355	350.00	87.40	1.12	1.75E+002	65.97	1.69E+003
F	6	947-	960	954.57	238.96	0.95	3.70E+002	49.86	3.64E+002
F	7	1172-	1188	1180.95	295.67	0.93	8.17E+001	29.70	2.70E+002
F	8	1346-	1362	1354.51	339.13	1.30	8.70E+001	27.88	1.83E+002
F	9	1399-	1414	1407.69	352.45	0.96	1.49E+002	31.72	1.81E+002
F	10	2030-	2052	2042.46	511.28	2.09	1.75E+002	31.01	1.72E+002
F	11	2321-	2341	2332.85	583.90	1.27	2.24E+002	32.72	9.74E+001
F	12	2428-	2447	2437.42	610.04	1.26	2.16E+002	32.09	9.18E+001
F	13	2903-	2916	2909.21	727.95	1.01	4.73E+001	20.60	8.24E+001
F	14	3171-	3188	3179.85	795.55	1.55	4.37E+001	18.24	5.81E+001
F	15	3635-	3655	3645.82	911.91	1.71	1.69E+002	29.08	8.40E+001
M	16	3852-	3886	3860.36	965.47	1.39	4.45E+001	16.61	3.98E+001
m	17	3852-	3886	3876.73	969.55	1.40	9.97E+001	22.68	4.90E+001
F	18	4474-	4488	4481.94	1120.59	1.54	5.42E+001	19.20	3.90E+001
F	19	5509-	5522	5516.34	1378.65	1.34	2.36E+001	11.60	1.00E+001
F	20	5833-	5861	5845.97	1460.87	2.01	1.29E+003	69.87	2.82E+001
F	21	7054-	7073	7063.26	1764.52	2.19	6.24E+001	16.38	7.63E+000

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	0.998	511.00*	100.00	2.39179E-001	5.32925E-002
K-40	1.000	1460.81*	10.67	2.16983E+001	2.11173E+000
Eu-155	0.320	86.54*	30.90	7.00125E-001	2.97896E-001
		105.31	20.70		
TL-208	0.739	277.35	6.80		
		510.84*	21.60	1.10731E+000	2.62775E-001
		583.14*	84.20	3.79456E-001	7.42052E-002
		860.37	12.46		
Bi-212	0.982	727.17*	11.80	6.07227E-001	2.73891E-001
Pb-212	0.998	74.81* @	10.70	1.50880E+001	3.22357E+000
		77.11* @	18.00	1.14148E+000	5.64295E-001
		87.30* @	8.00	2.70423E+000	1.15062E+000
		238.63*	44.60	8.99939E-001	1.86059E-001
Bi-214	0.990	609.31*	46.30	6.73455E-001	1.30080E-001
		1120.29*	15.10	6.04219E-001	2.23416E-001
		1764.49*	15.80	7.32698E-001	2.05943E-001
PB-214	0.845	74.82* @	6.21	2.59970E+001	5.86615E+000
		77.11* @	10.50	1.95682E+000	9.78335E-001
		87.30* @	4.67	4.63252E+000	2.00192E+000
		241.98	7.49		
		295.21*	19.20	4.90611E-001	1.96522E-001
		351.92*	37.20	4.84995E-001	1.31362E-001
Ac-228	0.984	338.32*	11.40	9.15210E-001	3.26417E-001
		911.07*	27.70	9.69991E-001	2.00333E-001
		969.11*	16.60	9.69966E-001	2.42825E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		0.998	1.572164E-001	5.558658E-002
K-40		1.000	2.169831E+001	2.111726E+000
Eu-155		0.320	3.935741E-001	3.021989E-001
TL-208		0.739	3.794563E-001	7.316754E-002
Bi-212		0.982	6.072270E-001	2.738909E-001
Pb-212	@	0.998	8.999390E-001	1.860586E-001
Bi-214		0.990	6.735498E-001	9.867168E-002
PB-214	@	0.845	4.867015E-001	1.070608E-001
Ac-228		0.984	9.599527E-001	1.396698E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.81	8.0574E-001	15.11
M 4	84.90	6.8940E-001	18.24
F 14	795.55	7.2810E-002	41.74
M 16	965.47	7.4207E-002	37.30
F 19	1378.65	3.9328E-002	49.15

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
	Co-60	1173.22	100.00	1.1546E-001	9.47E-002	1.9855E-002
		1332.49	100.00	9.4734E-002		1.0648E-001
	Nb-94	702.63	100.00	1.0424E-001	1.00E-001	-2.3173E-002
		871.10	100.00	1.0000E-001		5.8635E-002
	Ag-108m	79.20	7.10	6.1371E+000	1.23E-001	-2.4415E+000
		433.93	89.90	1.2315E-001		-4.2587E-002
		614.37	90.40	1.5763E-001		-4.2472E-002
		722.95	90.50	1.3345E-001		-5.9397E-002
	Sb-125	176.33	6.89	2.6201E+000	3.88E-001	6.5077E-001
		427.89	29.33	3.8811E-001		-1.3763E-002
		463.38	10.35	1.2234E+000		9.5209E-001
		600.56	17.80	6.3532E-001		-8.6812E-002
		606.64	5.02	3.0095E+000		-3.0814E-002
		635.90	11.32	9.7075E-001		8.3880E-001
	Cs-134	563.23	8.38	1.3519E+000	1.35E-001	-7.0473E-001
		569.32	15.43	7.2657E-001		2.0530E-001
		604.70	97.60	1.5017E-001		-3.7681E-002
		795.84	85.40	1.3470E-001		1.6158E-002
		801.93	8.73	1.2286E+000		2.6392E-001
	Cs-137	661.65	85.12	1.2601E-001	1.26E-001	-3.1510E-002
	Eu-152	121.78	28.40	8.8988E-001	3.53E-001	1.7026E-002
		244.69	7.49	2.0814E+000		-3.2701E+000
		344.27	26.50	4.8070E-001		2.9573E-001
		778.89	12.74	7.9290E-001		-8.7125E-001
		867.32	4.16	2.4350E+000		-4.7388E+000
		964.01	14.40	9.1853E-001		1.5004E-001
		1085.78	10.00	1.0391E+000		4.3045E-001
		1112.02	13.30	7.4662E-001		-1.2022E+000
		1407.95	20.70	3.5258E-001		-1.9604E-001
	Eu-154	123.07	40.50	6.1815E-001	2.61E-001	1.6719E-001
		247.94	6.60	2.2239E+000		-4.4206E+000
		591.81	4.83	2.2916E+000		-1.9116E+000
		723.30	19.70	6.1953E-001		-3.3124E-001
		756.87	4.33	2.2769E+000		-2.5138E+000
		873.19	11.50	8.7480E-001		-5.9248E-001
		996.32	10.30	9.6365E-001		1.7587E-001
		1004.76	17.90	5.5586E-001		-1.9882E-001
		1274.45	35.50	2.6094E-001		1.1947E-001
+	Eu-155	86.54*	30.90	7.7737E-001	7.77E-001	7.0012E-001
		105.31	20.70	1.3875E+000		-8.6216E-002
	Am-241	59.54	35.90	1.5605E+000	1.56E+000	1.0277E-001
	Cm-243	228.19	10.56	1.4782E+000	1.03E+000	-7.1996E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	1.0252E+000	1.03E+000	2.5448E-001

+ = 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

Report Generated On 12/8/2005 12:09:50 AM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-02-174
Sample Title: NOL-05-02-174-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/7/2005 11:59:47 PM
Live Time: 600.0 seconds
Real Time: 601.3 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-02-174
Title: NOL-05-02-174-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	282-	309	292.19	72.90	1.31	4.39E+002	78.27	2.58E+003
m	2	282-	309	300.16	74.90	1.32	6.54E+002	86.18	2.81E+003
F	3	951-	960	955.07	239.09	1.00	1.41E+002	40.62	2.94E+002
F	4	2322-	2346	2333.40	584.04	1.66	1.19E+002	27.42	1.66E+002
F	5	2431-	2447	2438.08	610.21	1.39	7.50E+001	24.53	1.12E+002
F	6	3640-	3653	3646.60	912.11	1.24	5.56E+001	22.38	8.06E+001
F	7	3871-	3883	3876.91	969.60	0.95	3.84E+001	17.62	5.33E+001
F	8	5328-	5341	5334.18	1333.21	1.52	2.87E+001	15.00	2.76E+001
F	9	5831-	5863	5847.29	1461.19	2.74	9.33E+002	60.43	1.97E+002

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
K-40	0.996	1460.81*	10.67	1.56422E+001	1.62211E+000
TL-208	0.455	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	2.02000E-001	5.33482E-002
		860.37	12.46		
Pb-212	0.517	74.81* @	10.70	9.35728E+000	2.21023E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	3.42259E-001	1.12447E-001
Bi-214	0.383	609.31*	46.30	2.34326E-001	8.18721E-002
		1120.29	15.10		
		1764.49	15.80		
Ac-228	0.615	338.32	11.40		
		911.07*	27.70	3.18080E-001	1.33226E-001
		969.11*	16.60	3.72949E-001	1.75769E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
K-40	0.996	1.564215E+001	1.622106E+000
TL-208	0.455	2.019996E-001	5.334819E-002
Pb-212 @	0.517	3.422591E-001	1.124471E-001
Bi-214	0.383	2.343259E-001	8.187206E-002
Ac-228	0.615	3.381007E-001	1.061739E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.90	7.3175E-001	17.83
F 8	1333.21	4.7899E-002	52.20

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Co-60	1173.22	100.00	1.1574E-001	9.73E-002	1.7850E-002
	1332.49	100.00	9.7300E-002		2.2497E-002
Nb-94	702.63	100.00	9.9484E-002	9.95E-002	-9.1743E-002
	871.10	100.00	1.0620E-001		3.5066E-002
Ag-108m	79.20	7.10	6.1732E+000	1.24E-001	-1.7935E+000
	433.93	89.90	1.2446E-001		1.0565E-001
	614.37	90.40	1.4132E-001		1.0009E-002
	722.95	90.50	1.3036E-001		8.6190E-002
Sb-125	176.33	6.89	2.4993E+000	3.77E-001	1.7144E-002
	427.89	29.33	3.7687E-001		-1.3681E-002
	463.38	10.35	1.1811E+000		7.8620E-001
	600.56	17.80	5.9230E-001		-1.9801E-001
	606.64	5.02	2.5920E+000		-1.1035E+000
	635.90	11.32	9.3916E-001		3.1170E-001
Cs-134	563.23	8.38	1.3425E+000	1.22E-001	3.9719E-002
	569.32	15.43	7.1744E-001		3.0181E-001
	604.70	97.60	1.2833E-001		-3.2249E-002
	795.84	85.40	1.2154E-001		4.8066E-002
	801.93	8.73	1.2113E+000		-5.1101E-002
Cs-137	661.65	85.12	1.4398E-001	1.44E-001	1.8391E-001
Eu-152	121.78	28.40	8.8034E-001	3.30E-001	4.2068E-001
	244.69	7.49	2.1403E+000		-1.5574E+000
	344.27	26.50	4.8497E-001		-1.1642E+000
	778.89	12.74	8.2724E-001		5.1778E-001
	867.32	4.16	2.5064E+000		-3.2477E+000
	964.01	14.40	8.4364E-001		3.3286E-001
	1085.78	10.00	1.0020E+000		2.5389E-001
	1112.02	13.30	7.7513E-001		-4.6919E-001
	1407.95	20.70	3.3001E-001		-9.6679E-002
Eu-154	123.07	40.50	6.0853E-001	2.53E-001	-1.0548E-001
	247.94	6.60	2.3033E+000		-3.1588E-001
	591.81	4.83	2.2083E+000		-1.0604E+000
	723.30	19.70	6.0660E-001		8.0756E-001
	756.87	4.33	2.3852E+000		-4.6945E-001
	873.19	11.50	9.3747E-001		-2.1247E-001
	996.32	10.30	9.5481E-001		-1.8471E-001
	1004.76	17.90	5.3339E-001		-6.7768E-002
	1274.45	35.50	2.5348E-001		-1.4701E-002
Eu-155	86.54	30.90	1.2218E+000	1.22E+000	1.7388E+000
	105.31	20.70	1.4127E+000		-1.0101E-001
Am-241	59.54	35.90	1.6304E+000	1.63E+000	6.0942E-001
Cm-243	228.19	10.56	1.4440E+000	9.79E-001	-7.0097E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	9.7896E-001	9.79E-001	5.4193E-001

+ = 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

Report Generated On 12/8/2005 12:49:21 AM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-02-175
Sample Title: NOL-05-02-175-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/8/2005 12:39:19 AM
Live Time: 600.0 seconds
Real Time: 601.3 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-02-175
Title: NOL-05-02-175-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	286-	306	292.01	72.85	0.95	4.69E+002	74.99	1.66E+003
m	2	286-	306	300.52	74.99	0.95	8.55E+002	88.27	1.84E+003
M	3	331-	355	340.09	84.91	1.19	4.48E+002	75.37	1.97E+003
m	4	331-	355	350.01	87.40	1.20	1.65E+002	66.01	1.76E+003
F	5	948-	961	954.93	239.05	1.05	3.14E+002	45.23	3.13E+002
F	6	1174-	1186	1181.24	295.74	1.38	8.77E+001	29.62	1.82E+002
F	7	1349-	1361	1353.77	338.95	0.93	6.69E+001	27.74	1.80E+002
F	8	1398-	1414	1407.69	352.44	1.46	1.57E+002	32.12	1.82E+002
F	9	2031-	2055	2043.75	511.61	2.05	1.55E+002	28.30	1.43E+002
F	10	2325-	2342	2333.08	583.96	1.30	1.89E+002	30.50	8.40E+001
F	11	2431-	2445	2437.73	610.12	1.45	1.28E+002	26.71	7.05E+001
F	12	2638-	2654	2647.20	662.47	1.37	3.70E+001	18.27	6.82E+001
F	13	2904-	2917	2910.30	728.22	1.68	4.43E+001	19.09	5.37E+001
F	14	3246-	3257	3251.16	813.36	1.01	1.93E+001	13.26	3.00E+001
F	15	3637-	3654	3645.96	911.94	1.44	1.53E+002	27.78	6.09E+001
F	16	3869-	3887	3877.46	969.74	1.24	7.83E+001	22.28	7.35E+001
F	17	4478-	4492	4484.41	1121.21	2.07	4.71E+001	18.90	3.70E+001
F	18	4685-	4704	4695.04	1173.77	1.86	1.02E+002	22.95	4.73E+001
F	19	5324-	5341	5332.67	1332.83	1.85	7.22E+001	19.56	2.72E+001
F	20	5833-	5861	5847.33	1461.21	2.10	1.08E+003	63.62	1.79E+001
F	21	7057-	7072	7063.91	1764.68	1.70	4.69E+001	15.10	9.76E+000

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	0.989	511.00*		100.00	2.10901E-001	4.80367E-002
K-40	0.995	1460.81*		10.67	1.81321E+001	1.81485E+000
Co-60	0.994	1173.22*		100.00	1.74110E-001	4.14745E-002
		1332.49*		100.00	1.27010E-001	3.58048E-002
Cs-137	0.980	661.65*		85.12	6.45639E-002	3.27884E-002
Eu-155	0.320	86.54*		30.90	6.62215E-001	2.94701E-001
		105.31		20.70		
TL-208	0.735	277.35		6.80		
		510.84*		21.60	9.76393E-001	2.36255E-001
		583.14*		84.20	3.19474E-001	6.62829E-002
		860.37		12.46		
Bi-212	0.967	727.17*		11.80	5.68391E-001	2.53950E-001
Pb-212	0.674	74.81*	@	10.70	1.22116E+001	2.70549E+000
		77.11	@	18.00		
		87.30*	@	8.00	2.55781E+000	1.13828E+000
		238.63*		44.60	7.64584E-001	1.62724E-001
Bi-214	0.983	609.31*		46.30	4.01179E-001	9.69483E-002
		1120.29*		15.10	5.25557E-001	2.18038E-001
		1764.49*		15.80	5.51421E-001	1.85791E-001
PB-214	0.664	74.82*	@	6.21	2.10409E+001	4.90549E+000
		77.11	@	10.50		
		87.30*	@	4.67	4.38168E+000	1.97785E+000
		241.98		7.49		
		295.21*		19.20	5.26411E-001	1.98715E-001
		351.92*		37.20	5.10193E-001	1.34995E-001
Ac-228	0.983	338.32*		11.40	7.03616E-001	3.11871E-001
		911.07*		27.70	8.78741E-001	1.88371E-001
		969.11*		16.60	7.61065E-001	2.30860E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		0.989	1.418944E-001	5.007438E-002
K-40		0.995	1.813215E+001	1.814845E+000
Co-60		0.994	1.471227E-001	2.710245E-002
Cs-137		0.980	6.456389E-002	3.278843E-002
Eu-155		0.320	3.863959E-001	2.981554E-001
TL-208		0.735	3.194742E-001	6.546014E-002
Bi-212		0.967	5.683907E-001	2.539500E-001
Pb-212	@	0.674	7.645839E-001	1.627239E-001
Bi-214		0.983	4.457364E-001	7.996181E-002
PB-214	@	0.664	5.152357E-001	1.093383E-001
Ac-228		0.983	8.086953E-001	1.321910E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.85	7.8114E-001	16.00
M 3	84.91	7.4713E-001	16.81
F 14	813.36	3.2108E-002	68.85

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
+	Co-60	1173.22*	100.00	7.6847E-002	5.96E-002	1.7411E-001
		1332.49*	100.00	5.9639E-002		1.2701E-001
	Nb-94	702.63	100.00	1.0473E-001	9.63E-002	3.8134E-002
		871.10	100.00	9.6310E-002		-5.1147E-003
	Ag-108m	79.20	7.10	6.1151E+000	1.27E-001	-9.1959E+000
		433.93	89.90	1.2757E-001		4.7766E-002
		614.37	90.40	1.4474E-001		-6.1653E-002
		722.95	90.50	1.2720E-001		-4.9578E-002
	Sb-125	176.33	6.89	2.3954E+000	3.75E-001	-9.0280E-001
		427.89	29.33	3.7516E-001		-1.4060E-001
		463.38	10.35	1.1372E+000		6.8879E-001
		600.56	17.80	5.9478E-001		-7.8627E-002
		606.64	5.02	2.6203E+000		2.4695E+000
		635.90	11.32	9.6100E-001		-2.4073E-001
	Cs-134	563.23	8.38	1.2597E+000	1.23E-001	8.7590E-001
		569.32	15.43	6.5277E-001		-1.0504E+000
		604.70	97.60	1.3226E-001		-6.4514E-002
		795.84	85.40	1.2275E-001		5.4937E-002
		801.93	8.73	1.1967E+000		-1.0126E+000
+	Cs-137	661.65*	85.12	8.8692E-002	8.87E-002	6.4564E-002
	Eu-152	121.78	28.40	8.5933E-001	3.30E-001	-1.7365E-001
		244.69	7.49	2.0033E+000		-1.2589E+000
		344.27	26.50	4.6468E-001		5.0837E-002
		778.89	12.74	8.0316E-001		-6.9784E-001
		867.32	4.16	2.4871E+000		-2.0553E+000
		964.01	14.40	8.9219E-001		7.3564E-001
		1085.78	10.00	9.9570E-001		-9.3831E-001
		1112.02	13.30	7.6810E-001		-1.0130E+000
		1407.95	20.70	3.3001E-001		-3.1444E-001
	Eu-154	123.07	40.50	5.9717E-001	2.40E-001	5.6051E-003
		247.94	6.60	2.1991E+000		2.2509E-001
		591.81	4.83	2.2128E+000		9.4618E-002
		723.30	19.70	5.9227E-001		-2.6197E-001
		756.87	4.33	2.5331E+000		1.5387E+000
		873.19	11.50	8.2005E-001		-4.4150E-001
		996.32	10.30	9.5481E-001		2.3366E-001
		1004.76	17.90	5.4733E-001		6.0428E-001
		1274.45	35.50	2.4012E-001		7.6180E-002
+	Eu-155	86.54*	30.90	7.9227E-001	7.92E-001	6.6222E-001
		105.31	20.70	1.3864E+000		-2.2287E-001
	Am-241	59.54	35.90	1.6796E+000	1.68E+000	8.7572E-001
	Cm-243	228.19	10.56	1.3969E+000	9.56E-001	-3.2066E-002

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	9.5575E-001	9.56E-001	-2.4254E-001

+ = 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

Report Generated On 12/8/2005 1:02:05 AM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-02-176
Sample Title: NOL-05-02-176-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/8/2005 12:52:01 AM
Live Time: 600.0 seconds
Real Time: 601.3 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-02-176
Title: NOL-05-02-176-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	285-	305	291.97	72.84	0.85	4.75E+002	74.14	1.71E+003
m	2	285-	305	300.48	74.98	0.86	8.39E+002	88.70	1.66E+003
M	3	330-	355	339.89	84.86	1.01	3.93E+002	74.62	1.60E+003
m	4	330-	355	349.53	87.28	1.02	1.44E+002	63.31	1.72E+003
F	5	950-	961	954.93	239.05	0.97	3.20E+002	45.62	2.77E+002
F	6	1177-	1187	1180.96	295.67	0.76	5.40E+001	26.78	1.87E+002
F	7	1306-	1318	1312.06	328.50	0.86	4.22E+001	25.01	1.77E+002
F	8	1345-	1359	1353.87	338.97	0.84	7.72E+001	26.40	1.76E+002
F	9	1401-	1413	1407.80	352.47	0.93	1.30E+002	30.99	1.58E+002
F	10	2030-	2055	2043.70	511.60	2.66	2.02E+002	30.14	1.45E+002
F	11	2325-	2345	2333.27	584.00	1.61	2.10E+002	31.19	9.61E+001
F	12	2429-	2449	2437.72	610.12	1.36	1.55E+002	29.06	1.13E+002
F	13	2903-	2917	2909.60	728.04	1.49	4.70E+001	20.39	6.91E+001
F	14	3536-	3547	3541.48	885.86	0.66	1.71E+001	10.72	2.07E+001
F	15	3636-	3654	3645.79	911.90	1.92	2.05E+002	29.89	5.23E+001
F	16	3869-	3885	3876.94	969.61	1.74	7.63E+001	21.86	5.49E+001
F	17	4686-	4703	4694.73	1173.69	1.56	5.26E+001	19.19	7.89E+001
F	18	5326-	5343	5333.87	1333.13	1.88	7.44E+001	19.40	2.40E+001
F	19	5506-	5520	5511.91	1377.54	1.53	2.17E+001	10.83	7.75E+000
F	20	5832-	5861	5847.17	1461.17	2.00	1.14E+003	65.98	3.00E+001
F	21	6521-	6534	6528.22	1631.04	0.99	1.05E+001	8.09	5.33E+000
F	22	7056-	7071	7063.79	1764.65	2.53	5.32E+001	16.19	9.90E+000

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	0.989	511.00*		100.00	2.75111E-001	5.54935E-002
K-40	0.996	1460.81*		10.67	1.90674E+001	1.89946E+000
Co-60	0.990	1173.22*		100.00	8.97392E-002	3.34846E-002
		1332.49*		100.00	1.30818E-001	3.56216E-002
Eu-155	0.323	86.54*		30.90	5.78643E-001	2.78396E-001
		105.31		20.70		
TL-208	0.734	277.35		6.80		
		510.84*		21.60	1.27366E+000	2.77172E-001
		583.14*		84.20	3.56033E-001	7.02453E-002
		860.37		12.46		
Bi-212	0.977	727.17*		11.80	6.02881E-001	2.71129E-001
Pb-212	0.674	74.81*	@	10.70	1.19862E+001	2.66952E+000
		77.11	@	18.00		
		87.30*	@	8.00	2.23501E+000	1.07531E+000
		238.63*		44.60	7.78553E-001	1.64976E-001
Bi-214	0.687	609.31*		46.30	4.85310E-001	1.08660E-001
		1120.29		15.10		
		1764.49*		15.80	6.24835E-001	2.00188E-001
PB-214	0.664	74.82*	@	6.21	2.06526E+001	4.83782E+000
		77.11	@	10.50		
		87.30*	@	4.67	3.82871E+000	1.86464E+000
		241.98		7.49		
		295.21*		19.20	3.24239E-001	1.69794E-001
		351.92*		37.20	4.22833E-001	1.23267E-001
Ac-228	0.985	338.32*		11.40	8.11883E-001	3.05418E-001
		911.07*		27.70	1.17217E+000	2.17740E-001
		969.11*		16.60	7.41537E-001	2.26297E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		0.989	1.982075E-001	5.747580E-002
K-40		0.996	1.906743E+001	1.899463E+000
Co-60		0.990	1.090096E-001	2.439768E-002
Eu-155		0.323	3.182255E-001	2.820447E-001
TL-208		0.734	3.560334E-001	6.928041E-002
Bi-212		0.977	6.028809E-001	2.711288E-001
Pb-212	@	0.674	7.785533E-001	1.649764E-001
Bi-214		0.687	5.170629E-001	9.549920E-002
PB-214	@	0.664	3.893934E-001	9.820563E-002
Ac-228		0.985	9.331467E-001	1.395635E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.84	7.9153E-001	15.61
M 3	84.86	6.5581E-001	18.96
F 7	328.50	7.0381E-002	59.23
F 14	885.86	2.8432E-002	62.83
F 19	1377.54	3.6219E-002	49.83
F 21	1631.04	1.7582E-002	76.73

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
+	Co-60	1173.22*	100.00	9.4678E-002	5.57E-002	8.9739E-002
		1332.49*	100.00	5.5667E-002		1.3082E-001
	Nb-94	702.63	100.00	1.0569E-001	9.63E-002	5.5099E-002
		871.10	100.00	9.6310E-002		-1.8801E-003
	Ag-108m	79.20	7.10	6.2294E+000	1.23E-001	-1.0871E+001
		433.93	89.90	1.2259E-001		-1.2102E-001
		614.37	90.40	1.5170E-001		1.4826E-002
		722.95	90.50	1.3298E-001		-9.2072E-002
	Sb-125	176.33	6.89	2.5778E+000	4.10E-001	5.0787E-001
		427.89	29.33	4.0962E-001		3.6995E-001
		463.38	10.35	1.1515E+000		-2.9007E-001
		600.56	17.80	6.0699E-001		-1.9947E-001
		606.64	5.02	2.7574E+000		-2.8760E-002
		635.90	11.32	9.0850E-001		4.4070E-001
	Cs-134	563.23	8.38	1.3843E+000	1.29E-001	1.9831E-001
		569.32	15.43	7.3173E-001		-2.6900E-001
		604.70	97.60	1.3481E-001		-1.8000E-002
		795.84	85.40	1.2858E-001		1.2782E-001
		801.93	8.73	1.2542E+000		-5.1399E-001
	Cs-137	661.65	85.12	1.3467E-001	1.35E-001	1.1789E-001
	Eu-152	121.78	28.40	8.7165E-001	3.22E-001	-2.2984E-001
		244.69	7.49	2.0312E+000		6.1663E-002
		344.27	26.50	4.8022E-001		1.5038E-002
		778.89	12.74	8.3119E-001		-1.3583E+000
		867.32	4.16	2.4084E+000		-4.3326E+000
		964.01	14.40	9.1394E-001		5.7428E-001
		1085.78	10.00	1.0269E+000		-1.2118E+000
		1112.02	13.30	8.0033E-001		-1.1217E+000
		1407.95	20.70	3.2211E-001		-8.5840E-003
	Eu-154	123.07	40.50	6.0652E-001	2.80E-001	-1.9134E-001
		247.94	6.60	2.1712E+000		-2.2193E+000
		591.81	4.83	2.3678E+000		-1.1660E+000
		723.30	19.70	6.0551E-001		-5.4488E-001
		756.87	4.33	2.3257E+000		-3.1379E+000
		873.19	11.50	8.4039E-001		9.5562E-002
		996.32	10.30	9.1236E-001		-4.0698E-001
		1004.76	17.90	5.2268E-001		1.6134E-001
		1274.45	35.50	2.8013E-001		4.7332E-002
+	Eu-155	86.54*	30.90	7.8551E-001	7.86E-001	5.7864E-001
		105.31	20.70	1.4147E+000		-8.6898E-001
	Am-241	59.54	35.90	1.5958E+000	1.60E+000	-1.0783E-001
	Cm-243	228.19	10.56	1.3961E+000	9.66E-001	1.1903E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	9.6555E-001	9.66E-001	-2.6756E-001

+ = 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

Report Generated On 12/6/2005 2:27:24 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: RED6264

Spectrum File: RED6264
Sample ID:
Sample Title: NOL-05-02-177-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/6/2005 2:17:20 PM
Live Time: 600.0 seconds
Real Time: 601.3 seconds

Energy Calibration Date: 6/13/2005
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number:
Title: NOL-05-02-177-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	284-	306	291.79	72.91	0.99	4.41E+002	73.81	1.97E+003
m	2	284-	306	300.39	75.06	0.99	8.20E+002	87.22	2.08E+003
F	3	334-	345	339.55	84.85	0.94	2.53E+002	71.07	1.54E+003
F	4	832-	841	836.64	209.13	0.44	4.91E+001	26.91	2.85E+002
F	5	945-	963	954.50	238.60	1.14	3.30E+002	46.24	4.83E+002
F	6	1176-	1188	1180.92	295.21	0.82	7.57E+001	27.99	1.95E+002
F	7	1349-	1361	1353.10	338.25	0.60	6.53E+001	23.30	1.47E+002
F	8	1401-	1418	1407.54	351.87	1.16	1.73E+002	33.84	2.30E+002
F	9	2033-	2055	2044.25	511.06	2.27	1.72E+002	30.20	1.68E+002
F	10	2322-	2341	2333.07	583.27	1.31	2.08E+002	31.13	8.26E+001
F	11	2428-	2450	2437.65	609.42	1.42	1.54E+002	27.86	1.00E+002
F	12	2824-	2835	2829.29	707.33	0.74	2.33E+001	13.97	4.18E+001
F	13	2902-	2919	2908.60	727.16	1.37	5.48E+001	20.31	7.39E+001
F	14	3175-	3188	3181.71	795.45	0.45	2.56E+001	12.51	4.25E+001
F	15	3636-	3655	3645.48	911.40	1.61	1.51E+002	27.66	6.53E+001
M	16	3853-	3886	3859.53	964.92	1.60	3.55E+001	17.46	5.78E+001
m	17	3853-	3886	3877.19	969.33	1.60	1.04E+002	23.95	6.66E+001
F	18	4475-	4490	4482.77	1120.74	1.46	5.43E+001	18.74	3.97E+001
F	19	4685-	4705	4694.90	1173.77	2.08	1.38E+002	25.59	4.75E+001
F	20	5322-	5342	5332.86	1333.28	1.91	1.31E+002	24.33	3.14E+001
F	21	5833-	5862	5847.05	1461.84	1.98	1.19E+003	67.39	1.80E+001
F	22	7059-	7072	7065.34	1766.43	1.92	3.67E+001	13.97	1.05E+001

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	1.000	511.00*	100.00	2.42236E-001	5.36921E-002
K-40	0.969	1460.81*	10.67	2.06300E+001	2.03699E+000
Co-60	0.986	1173.22*	100.00	2.42033E-001	4.88621E-002
		1332.49*	100.00	2.38027E-001	4.78896E-002
TL-208	0.751	277.35	6.80		
		510.84*	21.60	1.12146E+000	2.64910E-001
		583.14*	84.20	3.63547E-001	7.20582E-002
		860.37	12.46		
Bi-212	1.000	727.17*	11.80	7.26103E-001	2.82160E-001
Pb-212	0.521	74.81* @	10.70	1.21495E+001	2.70929E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	8.27713E-001	1.74105E-001
Bi-214	0.976	609.31*	46.30	4.96311E-001	1.08561E-001
		1120.29*	15.10	6.24339E-001	2.25491E-001
		1764.49*	15.80	4.44727E-001	1.75304E-001
PB-214	0.583	74.82* @	6.21	2.09339E+001	4.90929E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	4.68571E-001	1.90481E-001
		351.92*	37.20	5.80997E-001	1.49543E-001
Ac-228	0.998	338.32*	11.40	7.08099E-001	2.75943E-001
		911.07*	27.70	8.94901E-001	1.93266E-001
		969.11*	16.60	1.04517E+000	2.64233E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		1.000	1.637093E-001	5.584399E-002
K-40		0.969	2.063001E+001	2.036993E+000
Co-60		0.986	2.399894E-001	3.420169E-002
TL-208		0.751	3.635473E-001	7.107752E-002
Bi-212		1.000	7.261034E-001	2.821599E-001
Pb-212	@	0.521	8.277133E-001	1.741049E-001
Bi-214		0.976	5.024355E-001	8.541782E-002
PB-214	@	0.583	5.381260E-001	1.176246E-001
Ac-228		0.998	8.893489E-001	1.357963E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.91	7.3486E-001	16.74
F 3	84.85	4.2145E-001	28.11
F 4	209.13	8.1846E-002	54.79
F 12	707.33	3.8788E-002	60.02
F 14	795.45	4.2591E-002	48.96
M 16	964.92	5.9192E-002	49.15

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
+	Co-60	1173.22*	100.00	8.1020E-002	6.85E-002	2.4203E-001
		1332.49*	100.00	6.8546E-002		2.3803E-001
	Nb-94	702.63	100.00	1.1052E-001	1.05E-001	1.8810E-002
		871.10	100.00	1.0473E-001		7.7830E-002
	Ag-108m	79.20	7.10	6.5226E+000	1.31E-001	-8.8402E+000
		433.93	89.90	1.3141E-001		-1.6133E-001
		614.37	90.40	1.5548E-001		-3.0330E-002
		722.95	90.50	1.3794E-001		-4.1709E-002
	Sb-125	176.33	6.89	2.5327E+000	4.04E-001	2.1894E+000
		427.89	29.33	4.0375E-001		-2.6010E-001
		463.38	10.35	1.2741E+000		1.2553E+000
		600.56	17.80	6.4566E-001		4.3283E-001
		606.64	5.02	2.8162E+000		3.9738E-001
		635.90	11.32	9.9111E-001		7.5293E-002
	Cs-134	563.23	8.38	1.3224E+000	1.30E-001	-9.1362E-001
		569.32	15.43	7.3725E-001		6.1731E-001
		604.70	97.60	1.4089E-001		-4.8039E-003
		795.84	85.40	1.2978E-001		3.4147E-002
		801.93	8.73	1.2804E+000		8.2450E-002
	Cs-137	661.65	85.12	1.4122E-001	1.41E-001	1.2864E-001
	Eu-152	121.78	28.40	9.0390E-001	3.76E-001	5.6843E-002
		244.69	7.49	2.1312E+000		-1.4976E+000
		344.27	26.50	4.8754E-001		-1.4979E-001
		778.89	12.74	7.7916E-001		-1.2104E+000
		867.32	4.16	2.5289E+000		-4.3212E+000
		964.01	14.40	9.7502E-001		4.2628E-002
		1085.78	10.00	9.8741E-001		-9.1841E-001
		1112.02	13.30	7.8270E-001		-1.7145E-001
		1407.95	20.70	3.7589E-001		5.7089E-002
	Eu-154	123.07	40.50	6.2631E-001	2.70E-001	1.1268E-001
		247.94	6.60	2.3113E+000		-6.3896E-001
		591.81	4.83	2.3812E+000		6.5689E-001
		723.30	19.70	6.2706E-001		-3.1557E-001
		756.87	4.33	2.5394E+000		-8.5537E-001
		873.19	11.50	9.0870E-001		-3.9008E-001
		996.32	10.30	9.8585E-001		-2.6143E-001
		1004.76	17.90	5.6863E-001		2.3305E-001
		1274.45	35.50	2.7014E-001		1.2647E-001
	Eu-155	86.54	30.90	1.2685E+000	1.27E+000	2.0867E+000
		105.31	20.70	1.4246E+000		-1.8485E-001
	Am-241	59.54	35.90	1.6835E+000	1.68E+000	4.6247E-001
	Cm-243	228.19	10.56	1.4925E+000	1.04E+000	1.0927E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	1.0368E+000	1.04E+000	5.2860E-001

+ = 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

Report Generated On 12/6/2005 3:14:20 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: RED6264

Spectrum File: RED6264
Sample ID:
Sample Title: NOL-05-02-178-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/6/2005 3:04:18 PM
Live Time: 600.0 seconds
Real Time: 601.3 seconds

Energy Calibration Date: 6/13/2005
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number:
Title: NOL-05-02-178-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	285-	309	291.60	72.86	1.04	4.99E+002	71.42	1.50E+003
m	2	285-	309	300.36	75.05	1.04	9.13E+002	83.60	1.78E+003
M	3	330-	355	340.03	84.97	1.04	3.13E+002	67.89	1.68E+003
m	4	330-	355	349.68	87.38	1.05	1.23E+002	59.60	1.55E+003
F	5	944-	960	954.66	238.64	1.19	3.19E+002	44.68	3.76E+002
F	6	1346-	1362	1353.68	338.40	0.99	6.76E+001	27.73	2.36E+002
F	7	1401-	1417	1407.59	351.88	0.88	1.37E+002	30.44	1.91E+002
F	8	2032-	2057	2044.71	511.17	2.36	1.86E+002	30.37	1.79E+002
F	9	2324-	2344	2332.85	583.21	1.44	2.09E+002	31.90	1.15E+002
F	10	2429-	2446	2436.78	609.20	1.60	1.75E+002	28.41	6.61E+001
F	11	2903-	2916	2909.00	727.26	1.08	3.38E+001	19.13	7.76E+001
F	12	3437-	3449	3442.66	860.69	1.09	2.79E+001	16.52	4.69E+001
F	13	3636-	3657	3645.81	911.48	1.65	1.50E+002	27.95	8.06E+001
M	14	3855-	3887	3860.42	965.14	1.13	2.58E+001	15.21	4.82E+001
m	15	3855-	3887	3877.52	969.41	1.13	7.57E+001	20.72	4.53E+001
F	16	4687-	4704	4695.12	1173.83	1.59	7.93E+001	22.47	5.85E+001
F	17	5323-	5341	5333.54	1333.45	1.28	7.80E+001	21.12	4.78E+001
F	18	5832-	5862	5846.82	1461.78	2.00	1.24E+003	68.90	3.43E+001
F	19	7056-	7073	7064.16	1766.14	1.83	5.41E+001	16.61	1.35E+001

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	0.999	511.00*	100.00	2.61182E-001	5.54884E-002
K-40	0.973	1460.81*	10.67	2.14301E+001	2.10511E+000
Co-60	0.981	1173.22*	100.00	1.39532E-001	4.10285E-002
		1332.49*	100.00	1.41482E-001	3.98557E-002
Eu-155	0.320	86.54*	30.90	5.12555E-001	2.67102E-001
		105.31	20.70		
TL-208	0.902	277.35	6.80		
		510.84*	21.60	1.20918E+000	2.75217E-001
		583.14*	84.20	3.65330E-001	7.32327E-002
		860.37*	12.46	3.61979E-001	2.18851E-001
Bi-212	1.000	727.17*	11.80	4.47144E-001	2.58662E-001
Pb-212	0.677	74.81* @	10.70	1.35221E+001	2.92549E+000
		77.11 @	18.00		
		87.30* @	8.00	1.97975E+000	1.03168E+000
		238.63*	44.60	8.00307E-001	1.68298E-001
Bi-214	0.682	609.31*	46.30	5.62595E-001	1.14770E-001
		1120.29	15.10		
		1764.49*	15.80	6.56639E-001	2.11962E-001
Ac-228	0.997	338.32*	11.40	7.32909E-001	3.21865E-001
		911.07*	27.70	8.88291E-001	1.94295E-001
		969.11*	16.60	7.59692E-001	2.22769E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		0.999	1.823419E-001	5.743302E-002
K-40		0.973	2.143005E+001	2.105109E+000
Co-60		0.981	1.405355E-001	2.858788E-002
Eu-155		0.320	3.053560E-001	2.706326E-001
TL-208		0.902	3.649998E-001	6.860501E-002
Bi-212		1.000	4.471445E-001	2.586622E-001
Pb-212	@	0.677	8.003074E-001	1.682977E-001
Bi-214		0.682	5.839162E-001	1.009251E-001
Ac-228		0.997	8.156137E-001	1.332821E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.86	8.3236E-001	14.30
M 3	84.97	5.2242E-001	21.66
F 7	351.88	2.2871E-001	22.18
M 14	965.14	4.2982E-002	58.98

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
+	Co-60	1173.22*	100.00	8.4882E-002	8.10E-002	1.3953E-001
		1332.49*	100.00	8.0960E-002		1.4148E-001
	Nb-94	702.63	100.00	1.1694E-001	1.02E-001	8.3955E-002
		871.10	100.00	1.0215E-001		-5.7297E-002
	Ag-108m	79.20	7.10	6.2330E+000	1.32E-001	-5.8359E+000
		433.93	89.90	1.3725E-001		-6.7184E-002
		614.37	90.40	1.5801E-001		-6.6185E-003
		722.95	90.50	1.3176E-001		-3.0335E-002
	Sb-125	176.33	6.89	2.4771E+000	4.00E-001	1.7537E-001
		427.89	29.33	3.9977E-001		2.8173E-002
		463.38	10.35	1.2511E+000		1.6649E-001
		600.56	17.80	6.5047E-001		6.7022E-001
		606.64	5.02	2.7847E+000		3.8690E+000
		635.90	11.32	9.8298E-001		7.4187E-001
	Cs-134	563.23	8.38	1.3895E+000	1.31E-001	1.4998E+000
		569.32	15.43	7.4804E-001		-6.9117E-001
		604.70	97.60	1.4470E-001		-2.1358E-002
		795.84	85.40	1.3128E-001		1.4907E-002
		801.93	8.73	1.2417E+000		-9.2359E-001
	Cs-137	661.65	85.12	1.3836E-001	1.38E-001	4.1324E-002
	Eu-152	121.78	28.40	8.5802E-001	3.85E-001	-1.8427E-001
		244.69	7.49	2.0327E+000		-3.8391E+000
		344.27	26.50	4.9990E-001		-2.3089E-001
		778.89	12.74	8.4785E-001		-1.4867E-001
		867.32	4.16	2.5759E+000		6.2325E-001
		964.01	14.40	9.3110E-001		-5.4347E-002
		1085.78	10.00	1.0405E+000		-2.9164E-001
		1112.02	13.30	8.1401E-001		1.4438E-001
		1407.95	20.70	3.8540E-001		-1.3018E-001
	Eu-154	123.07	40.50	5.9656E-001	2.71E-001	-3.8004E-001
		247.94	6.60	2.2063E+000		-1.5179E+000
		591.81	4.83	2.4205E+000		-1.6331E-001
		723.30	19.70	6.0186E-001		-4.1090E-001
		756.87	4.33	2.4800E+000		-6.9501E-001
		873.19	11.50	8.8105E-001		-2.0283E-001
		996.32	10.30	1.0248E+000		-1.8312E-001
		1004.76	17.90	5.8940E-001		3.2098E-001
		1274.45	35.50	2.7122E-001		-1.1500E-001
+	Eu-155	86.54*	30.90	7.7181E-001	7.72E-001	5.1256E-001
		105.31	20.70	1.4192E+000		1.6593E+000
	Am-241	59.54	35.90	1.5895E+000	1.59E+000	-8.2574E-001
	Cm-243	228.19	10.56	1.4965E+000	1.01E+000	-1.0109E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	1.0104E+000	1.01E+000	7.3963E-002

+ = 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

Report Generated On 12/6/2005 4:09:46 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: RED6264

Spectrum File: RED6264
Sample ID:
Sample Title: NOL-05-02-179-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/6/2005 3:59:44 PM
Live Time: 600.0 seconds
Real Time: 601.3 seconds

Energy Calibration Date: 6/13/2005
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number:
Title: NOL-05-02-179-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	282-	309	291.37	72.80	1.14	5.17E+002	71.01	1.85E+003
m	2	282-	309	300.14	74.99	1.14	1.03E+003	84.76	1.75E+003
F	3	330-	345	339.93	84.94	1.09	3.20E+002	69.76	1.77E+003
F	4	948-	960	954.44	238.58	0.99	3.28E+002	47.78	3.68E+002
F	5	1347-	1359	1353.01	338.23	1.40	7.69E+001	28.84	1.76E+002
F	6	1401-	1416	1407.41	351.83	1.37	1.64E+002	31.90	1.64E+002
F	7	2033-	2054	2042.28	510.56	1.60	1.45E+002	29.68	1.73E+002
F	8	2323-	2343	2332.54	583.14	1.60	2.01E+002	31.49	1.20E+002
F	9	2424-	2447	2436.56	609.14	1.73	2.19E+002	30.97	9.61E+001
F	10	2903-	2916	2909.19	727.31	1.10	4.86E+001	20.21	6.81E+001
F	11	3635-	3656	3645.42	911.38	1.55	1.84E+002	29.36	6.84E+001
M	12	3852-	3886	3859.99	965.03	1.57	4.44E+001	17.58	5.40E+001
m	13	3852-	3886	3876.41	969.13	1.57	9.93E+001	23.17	6.30E+001
F	14	4475-	4490	4482.28	1120.61	1.30	5.78E+001	20.65	6.04E+001
F	15	5325-	5338	5332.02	1333.07	1.49	3.31E+001	15.74	2.75E+001
F	16	5832-	5860	5846.26	1461.64	1.99	1.21E+003	67.53	1.43E+001
F	17	7055-	7070	7062.90	1765.82	2.10	4.62E+001	15.48	1.20E+001

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	0.994	511.00*	100.00	2.04003E-001	5.00725E-002
K-40	0.980	1460.81*	10.67	2.09630E+001	2.06056E+000
TL-208	0.751	277.35	6.80		
		510.84*	21.60	9.44461E-001	2.44312E-001
		583.14*	84.20	3.51429E-001	7.15154E-002
		860.37	12.46		
Bi-212	0.999	727.17*	11.80	6.43239E-001	2.78005E-001
Pb-212	0.521	74.81* @	10.70	1.52375E+001	3.24033E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	8.23072E-001	1.76171E-001
Bi-214	0.988	609.31*	46.30	7.03983E-001	1.32150E-001
		1120.29*	15.10	6.64845E-001	2.47794E-001
		1764.49*	15.80	5.60771E-001	1.96017E-001
Ac-228	0.998	338.32*	11.40	8.33908E-001	3.38971E-001
		911.07*	27.70	1.08625E+000	2.13892E-001
		969.11*	16.60	9.97346E-001	2.55072E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		0.994	1.280947E-001	5.234268E-002
K-40		0.980	2.096305E+001	2.060559E+000
TL-208		0.751	3.514294E-001	7.059241E-002
Bi-212		0.999	6.432390E-001	2.780049E-001
Pb-212	@	0.521	8.230719E-001	1.761712E-001
Bi-214		0.988	6.601497E-001	1.002134E-001
Ac-228		0.998	1.008684E+000	1.475525E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.80	8.6135E-001	13.74
F 3	84.94	5.3293E-001	21.82
F 6	351.83	2.7285E-001	19.49
M 12	965.03	7.4073E-002	39.56
F 15	1333.07	5.5194E-002	47.53

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Co-60	1173.22	100.00	1.2054E-001	1.02E-001	6.3344E-002
	1332.49	100.00	1.0180E-001		9.5619E-002
Nb-94	702.63	100.00	1.1694E-001	1.05E-001	9.9437E-002
	871.10	100.00	1.0530E-001		-7.4988E-002
Ag-108m	79.20	7.10	6.1153E+000	1.37E-001	-6.7542E+000
	433.93	89.90	1.4043E-001		1.1269E-001
	614.37	90.40	1.6088E-001		2.5688E-002
	722.95	90.50	1.3746E-001		-4.5865E-003
Sb-125	176.33	6.89	2.5748E+000	4.12E-001	6.1978E-001
	427.89	29.33	4.1215E-001		3.7628E-002
	463.38	10.35	1.2135E+000		7.5003E-002
	600.56	17.80	6.4445E-001		-1.0051E-002
	606.64	5.02	2.9818E+000		5.6714E+000
	635.90	11.32	9.6651E-001		8.6675E-001
Cs-134	563.23	8.38	1.3847E+000	1.39E-001	-7.5933E-001
	569.32	15.43	7.7946E-001		3.2944E-001
	604.70	97.60	1.5371E-001		3.7160E-002
	795.84	85.40	1.3936E-001		1.0055E-001
	801.93	8.73	1.2537E+000		-1.6409E+000
Cs-137	661.65	85.12	1.3836E-001	1.38E-001	-3.5306E-002
Eu-152	121.78	28.40	8.7036E-001	4.04E-001	9.8379E-002
	244.69	7.49	2.1382E+000		-1.8711E+000
	344.27	26.50	5.1195E-001		-1.4383E-002
	778.89	12.74	8.8603E-001		-1.5033E+000
	867.32	4.16	2.6089E+000		4.4646E-001
	964.01	14.40	9.7195E-001		-1.2927E-001
	1085.78	10.00	1.0659E+000		2.7873E-001
	1112.02	13.30	8.1636E-001		-5.9408E-001
	1407.95	20.70	4.0371E-001		5.4393E-001
Eu-154	123.07	40.50	6.0692E-001	2.40E-001	3.7880E-001
	247.94	6.60	2.2872E+000		-1.4683E+000
	591.81	4.83	2.4248E+000		2.3843E+000
	723.30	19.70	6.3264E-001		8.0103E-001
	756.87	4.33	2.6597E+000		8.8277E-001
	873.19	11.50	9.2097E-001		-1.0398E+000
	996.32	10.30	9.6732E-001		-7.1548E-001
	1004.76	17.90	5.9278E-001		7.7044E-001
	1274.45	35.50	2.4040E-001		3.9120E-003
Eu-155	86.54	30.90	1.2231E+000	1.22E+000	2.5375E-001
	105.31	20.70	1.3916E+000		8.0612E-002
Am-241	59.54	35.90	1.5676E+000	1.57E+000	3.6631E-001
Cm-243	228.19	10.56	1.5038E+000	1.06E+000	1.4515E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	1.0625E+000	1.06E+000	1.4783E-001

+ = 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

Report Generated On 12/8/2005 3:35:49 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID:
Sample Title: NOL-05-02-180-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/8/2005 3:25:47 PM
Live Time: 600.0 seconds
Real Time: 601.2 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number:
Title: NOL-05-02-180-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	282-	307	291.75	72.79	0.79	3.56E+002	65.27	1.34E+003
m	2	282-	307	300.15	74.89	0.79	7.54E+002	82.47	1.33E+003
F	3	335-	345	339.59	84.79	1.05	3.77E+002	72.50	1.18E+003
M	4	947-	972	954.66	238.98	1.10	4.14E+002	48.61	3.17E+002
m	5	947-	972	967.36	242.17	1.10	9.03E+001	29.79	2.34E+002
F	6	1174-	1189	1180.92	295.66	0.99	9.70E+001	30.22	2.36E+002
F	7	1345-	1360	1352.81	338.71	1.39	1.05E+002	30.23	1.97E+002
F	8	1396-	1415	1407.82	352.48	1.22	2.08E+002	34.70	2.05E+002
F	9	2034-	2055	2044.44	511.78	2.29	1.90E+002	29.25	1.07E+002
F	10	2325-	2344	2332.98	583.93	1.33	2.20E+002	31.97	8.30E+001
F	11	2427-	2447	2436.84	609.90	1.42	2.03E+002	31.38	1.03E+002
F	12	2641-	2653	2646.74	662.36	1.01	2.55E+001	16.65	5.71E+001
F	13	2904-	2918	2909.38	727.99	1.89	6.89E+001	22.16	4.92E+001
F	14	3635-	3654	3645.26	911.77	1.53	1.50E+002	26.94	5.76E+001
M	15	3855-	3882	3860.76	965.57	1.53	2.31E+001	14.84	3.91E+001
m	16	3855-	3882	3876.30	969.45	1.53	9.35E+001	21.73	3.91E+001
F	17	4475-	4489	4482.19	1120.66	1.49	4.85E+001	18.23	3.76E+001
F	18	5830-	5861	5845.61	1460.78	1.99	1.33E+003	70.75	3.18E+001
F	19	6368-	6381	6374.51	1592.70	1.18	1.75E+001	9.63	6.21E+000
F	20	7055-	7069	7061.87	1764.17	1.19	4.76E+001	15.32	1.32E+001

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	0.982	511.00*		100.00	2.59700E-001	5.31949E-002
K-40	1.000	1460.81*		10.67	2.23348E+001	2.16291E+000
Cs-137	0.985	661.65*		85.12	4.44712E-002	2.95438E-002
TL-208	0.734	277.35		6.80		
		510.84*		21.60	1.20231E+000	2.65125E-001
		583.14*		84.20	3.72492E-001	7.26577E-002
		860.37		12.46		
Bi-212	0.980	727.17*		11.80	8.84516E-001	3.02745E-001
Pb-212	0.518	74.81*	@	10.70	1.07866E+001	2.42138E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	1.00703E+000	1.97258E-001
Bi-214	0.992	609.31*		46.30	6.33158E-001	1.25235E-001
		1120.29*		15.10	5.40931E-001	2.11251E-001
		1764.49*		15.80	5.59474E-001	1.88485E-001
PB-214	0.726	74.82*	@	6.21	1.85857E+001	4.38483E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98*		7.49	1.31226E+000	4.84837E-001
		295.21*		19.20	5.82632E-001	2.06268E-001
		351.92*		37.20	6.76522E-001	1.59922E-001
Ac-228	0.991	338.32*		11.40	1.10093E+000	3.61671E-001
		911.07*		27.70	8.60856E-001	1.83213E-001
		969.11*		16.60	9.09152E-001	2.31792E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		0.982	1.792414E-001	5.539968E-002
K-40		1.000	2.233481E+001	2.162905E+000
Cs-137		0.985	4.447115E-002	2.954375E-002
TL-208		0.734	3.724918E-001	7.163650E-002
Bi-212		0.980	8.845161E-001	3.027445E-001
Pb-212	@	0.518	1.007026E+000	1.972577E-001
Bi-214		0.992	5.969369E-001	9.352922E-002
PB-214	@	0.726	6.839667E-001	1.222987E-001
Ac-228		0.991	9.096395E-001	1.335729E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.79	5.9271E-001	18.35
F 3	84.79	6.2778E-001	19.25
M 15	965.57	3.8526E-002	64.20
F 19	1592.70	2.9094E-002	55.19

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
	Co-60	1173.22	100.00	1.1200E-001	8.36E-002	6.5961E-002
		1332.49	100.00	8.3640E-002		4.7070E-003
	Nb-94	702.63	100.00	1.0521E-001	9.60E-002	-1.2114E-001
		871.10	100.00	9.6020E-002		1.1210E-002
	Ag-108m	79.20	7.10	5.7545E+000	1.26E-001	1.4902E+000
		433.93	89.90	1.2575E-001		4.2716E-002
		614.37	90.40	1.6298E-001		2.0888E-002
		722.95	90.50	1.3274E-001		-1.0231E-001
	Sb-125	176.33	6.89	2.4324E+000	3.95E-001	1.7404E+000
		427.89	29.33	3.9523E-001		1.5844E-001
		463.38	10.35	1.1703E+000		2.9413E-001
		600.56	17.80	6.2014E-001		4.9919E-001
		606.64	5.02	2.9164E+000		-7.4776E-001
		635.90	11.32	1.0107E+000		-4.2391E-001
	Cs-134	563.23	8.38	1.3187E+000	1.26E-001	-7.9088E-001
		569.32	15.43	7.1613E-001		-2.1019E-001
		604.70	97.60	1.4690E-001		1.8556E-002
		795.84	85.40	1.2570E-001		1.0193E-001
		801.93	8.73	1.1729E+000		-1.0687E+000
+	Cs-137	661.65*	85.12	7.5231E-002	7.52E-002	4.4471E-002
	Eu-152	121.78	28.40	8.3097E-001	3.69E-001	-5.1930E-001
		244.69	7.49	2.0916E+000		-1.2922E-001
		344.27	26.50	4.8686E-001		-3.2584E-001
		778.89	12.74	8.1930E-001		3.0606E-001
		867.32	4.16	2.3884E+000		-3.0837E+000
		964.01	14.40	8.6988E-001		1.9109E+000
		1085.78	10.00	1.0421E+000		-9.1589E-001
		1112.02	13.30	8.0482E-001		6.3904E-001
		1407.95	20.70	3.6911E-001		2.5008E-001
	Eu-154	123.07	40.50	5.7907E-001	2.56E-001	-3.1917E-001
		247.94	6.60	2.2416E+000		-5.5310E-001
		591.81	4.83	2.1263E+000		-3.0782E-001
		723.30	19.70	6.1094E-001		-5.4161E-001
		756.87	4.33	2.2459E+000		-9.1550E-001
		873.19	11.50	8.3028E-001		3.3650E-001
		996.32	10.30	9.7820E-001		1.0698E+000
		1004.76	17.90	5.5586E-001		-7.5868E-002
		1274.45	35.50	2.5563E-001		-8.3914E-003
	Eu-155	86.54	30.90	1.1686E+000	1.17E+000	1.9439E+000
		105.31	20.70	1.3451E+000		3.8923E-001
	Am-241	59.54	35.90	1.5111E+000	1.51E+000	7.8887E-001
	Cm-243	228.19	10.56	1.4346E+000	9.97E-001	-9.7319E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	9.9728E-001	9.97E-001	1.0166E-001

+ = 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

Report Generated On 12/8/2005 3:18:32 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID:
Sample Title: NOL-05-02-181-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/8/2005 3:08:30 PM
Live Time: 600.0 seconds
Real Time: 601.3 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number:
Title: NOL-05-02-181-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	282-	314	292.01	72.85	0.94	5.29E+002	73.09	1.57E+003
m	2	282-	314	300.34	74.94	0.95	9.30E+002	84.99	1.46E+003
m	3	282-	314	308.35	76.95	0.95	1.82E+002	62.53	1.58E+003
M	4	332-	355	339.53	84.77	1.19	3.21E+002	72.90	1.80E+003
m	5	332-	355	349.43	87.26	1.19	1.62E+002	66.11	1.90E+003
F	6	944-	961	954.50	238.94	1.17	3.54E+002	47.28	4.11E+002
F	7	1172-	1188	1180.13	295.47	1.36	7.48E+001	30.21	2.58E+002
F	8	1348-	1358	1353.25	338.82	0.88	9.06E+001	28.10	1.37E+002
F	9	1401-	1413	1407.94	352.51	1.02	1.32E+002	31.30	1.53E+002
F	10	1981-	1992	1986.31	497.24	0.81	2.96E+001	16.86	6.23E+001
F	11	2034-	2052	2043.39	511.52	1.43	1.41E+002	30.24	1.58E+002
F	12	2322-	2341	2332.74	583.87	1.51	2.04E+002	31.37	1.00E+002
F	13	2428-	2447	2437.23	609.99	1.30	1.81E+002	30.25	1.02E+002
F	14	2904-	2916	2909.67	728.06	0.68	3.57E+001	16.09	5.48E+001
F	15	3083-	3094	3088.50	772.74	0.85	2.14E+001	14.14	4.03E+001
F	16	3174-	3186	3179.25	795.40	1.10	3.49E+001	17.20	4.52E+001
F	17	3436-	3448	3442.04	861.03	1.04	2.96E+001	16.52	4.70E+001
F	18	3635-	3654	3645.58	911.85	1.50	1.41E+002	26.81	6.75E+001
F	19	3732-	3745	3737.81	934.87	1.47	3.77E+001	15.76	2.45E+001
F	20	3868-	3883	3876.63	969.53	1.28	6.83E+001	21.44	6.20E+001
F	21	4474-	4493	4483.09	1120.88	1.79	6.12E+001	20.03	5.65E+001
F	22	4687-	4703	4694.23	1173.56	1.60	7.58E+001	22.16	5.42E+001
F	23	5324-	5340	5332.76	1332.86	1.57	6.24E+001	18.78	3.16E+001
F	24	5829-	5859	5845.67	1460.79	1.93	1.23E+003	68.32	1.91E+001
F	25	7055-	7070	7062.17	1764.25	1.34	3.76E+001	14.52	1.60E+001

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	0.992	511.00*	100.00	1.93073E-001	4.88527E-002
K-40	1.000	1460.81*	10.67	2.06039E+001	2.02383E+000
Co-60	0.996	1173.22*	100.00	1.29265E-001	3.91417E-002
		1332.49*	100.00	1.09682E-001	3.41130E-002
Eu-155	0.324	86.54*	30.90	6.49304E-001	2.94510E-001
		105.31	20.70		
TL-208	0.888	277.35	6.80		
		510.84*	21.60	8.93857E-001	2.37659E-001
		583.14*	84.20	3.45165E-001	6.95495E-002
		860.37*	12.46	3.71500E-001	2.12456E-001
Bi-212	0.976	727.17*	11.80	4.57866E-001	2.13331E-001
Pb-212	0.998	74.81* @	10.70	1.32942E+001	2.87521E+000
		77.11* @	18.00	1.49449E+000	5.90397E-001
		87.30* @	8.00	2.50794E+000	1.13755E+000
		238.63*	44.60	8.61558E-001	1.77411E-001
Bi-214	0.989	609.31*	46.30	5.64604E-001	1.17286E-001
		1120.29*	15.10	6.82834E-001	2.34761E-001
		1764.49*	15.80	4.41631E-001	1.76221E-001
PB-214	0.845	74.82* @	6.21	2.29062E+001	5.22568E+000
		77.11* @	10.50	2.56199E+000	1.03003E+000
		87.30* @	4.67	4.29625E+000	1.97553E+000
		241.98	7.49		
		295.21*	19.20	4.48850E-001	1.96444E-001
		351.92*	37.20	4.29375E-001	1.24716E-001
Ac-228	0.988	338.32*	11.40	9.52135E-001	3.31023E-001
		911.07*	27.70	8.06781E-001	1.79307E-001
		969.11*	16.60	6.63763E-001	2.19789E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		0.992	1.179783E-001	5.084813E-002
K-40		1.000	2.060390E+001	2.023829E+000
Co-60		0.996	1.181352E-001	2.571689E-002
Eu-155		0.324	3.605209E-001	2.984806E-001
TL-208		0.888	3.476612E-001	6.530014E-002
Bi-212		0.976	4.578658E-001	2.133314E-001
Pb-212	@	0.998	8.615581E-001	1.774110E-001
Bi-214		0.989	5.498551E-001	9.015134E-002
PB-214	@	0.845	4.348866E-001	1.034790E-001
Ac-228		0.988	7.799617E-001	1.281104E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.85	8.8147E-001	13.82
M 4	84.77	5.3550E-001	22.69
F 10	497.24	4.9267E-002	57.05
F 15	772.74	3.5600E-002	66.18
F 16	795.40	5.8195E-002	49.26
F 19	934.87	6.2859E-002	41.77

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
+	Co-60	1173.22*	100.00	7.7722E-002	6.25E-002	1.2926E-001
		1332.49*	100.00	6.2457E-002		1.0968E-001
	Nb-94	702.63	100.00	1.1268E-001	9.97E-002	2.6445E-002
		871.10	100.00	9.9721E-002		9.6790E-003
	Ag-108m	79.20	7.10	6.0564E+000	1.28E-001	2.4443E+000
		433.93	89.90	1.2847E-001		6.6475E-003
		614.37	90.40	1.5488E-001		-2.0542E-003
		722.95	90.50	1.3060E-001		2.8295E-002
	Sb-125	176.33	6.89	2.4305E+000	4.05E-001	-4.2550E-001
		427.89	29.33	4.0488E-001		1.2523E-001
		463.38	10.35	1.1531E+000		-1.3741E-001
		600.56	17.80	6.4106E-001		2.6835E-001
		606.64	5.02	2.8397E+000		-8.9454E-002
		635.90	11.32	9.7075E-001		-1.4716E-001
	Cs-134	563.23	8.38	1.3163E+000	1.30E-001	7.4299E-001
		569.32	15.43	7.2657E-001		3.1704E-002
		604.70	97.60	1.4524E-001		4.0002E-002
		795.84	85.40	1.3000E-001		-8.3159E-002
		801.93	8.73	1.2258E+000		2.7184E-001
	Cs-137	661.65	85.12	1.3107E-001	1.31E-001	6.4222E-002
	Eu-152	121.78	28.40	8.6990E-001	3.30E-001	8.8873E-001
		244.69	7.49	2.0162E+000		1.6761E-002
		344.27	26.50	4.7057E-001		-3.5406E-001
		778.89	12.74	7.9290E-001		-4.3988E-001
		867.32	4.16	2.3816E+000		-1.0799E+000
		964.01	14.40	8.7310E-001		2.4301E-001
		1085.78	10.00	9.0591E-001		-6.9589E-001
		1112.02	13.30	8.0033E-001		-1.7251E-001
		1407.95	20.70	3.3001E-001		-7.0563E-003
	Eu-154	123.07	40.50	6.0641E-001	2.51E-001	6.1900E-001
		247.94	6.60	2.2170E+000		-1.2874E+000
		591.81	4.83	2.2657E+000		-4.4164E-001
		723.30	19.70	6.0223E-001		3.2496E-001
		756.87	4.33	2.5659E+000		6.7722E-001
		873.19	11.50	8.8200E-001		2.4375E-001
		996.32	10.30	9.4588E-001		1.3165E-001
		1004.76	17.90	5.4561E-001		7.3241E-002
		1274.45	35.50	2.5131E-001		-6.1435E-002
+	Eu-155	86.54*	30.90	8.2568E-001	8.26E-001	6.4930E-001
		105.31	20.70	1.3743E+000		-3.3815E-001
	Am-241	59.54	35.90	1.6061E+000	1.61E+000	6.4570E-002
	Cm-243	228.19	10.56	1.4440E+000	1.02E+000	-7.5381E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	1.0188E+000	1.02E+000	-3.7093E-001

+ = 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

Report Generated On 12/8/2005 1:10:04 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID:
Sample Title: NOL-05-02-182-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/8/2005 1:00:02 PM
Live Time: 600.0 seconds
Real Time: 601.4 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number:
Title: NOL-05-02-182-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	282-	317	291.98	72.84	1.09	6.56E+002	80.78	2.04E+003
m	2	282-	317	300.49	74.98	1.10	1.21E+003	94.01	2.13E+003
m	3	282-	317	309.93	77.35	1.10	2.16E+002	68.32	1.96E+003
M	4	335-	359	339.63	84.80	1.09	3.78E+002	78.67	1.66E+003
m	5	335-	359	350.53	87.53	1.09	2.08E+002	69.22	2.15E+003
F	6	949-	961	955.12	239.10	1.14	2.89E+002	46.31	3.50E+002
F	7	1346-	1359	1353.26	338.82	0.72	6.28E+001	24.92	1.79E+002
F	8	1401-	1415	1407.99	352.52	1.31	1.48E+002	32.39	1.75E+002
F	9	2034-	2055	2044.40	511.77	2.44	1.91E+002	30.02	1.29E+002
F	10	2325-	2342	2333.41	584.04	1.21	1.72E+002	29.85	9.39E+001
F	11	2429-	2448	2437.41	610.04	1.52	2.06E+002	31.44	9.30E+001
F	12	2903-	2918	2909.72	728.07	1.51	4.95E+001	20.22	6.47E+001
F	13	3175-	3187	3181.30	795.91	1.05	3.31E+001	15.99	3.96E+001
F	14	3637-	3657	3646.39	912.05	1.65	1.46E+002	26.67	6.22E+001
M	15	3852-	3887	3859.98	965.37	1.61	3.79E+001	16.25	4.41E+001
m	16	3852-	3887	3878.21	969.92	1.62	1.04E+002	22.94	4.91E+001
F	17	4474-	4490	4483.01	1120.86	1.37	3.50E+001	17.96	5.56E+001
F	18	5326-	5342	5333.02	1332.92	1.99	4.99E+001	16.49	1.88E+001
F	19	5833-	5861	5847.18	1461.17	2.03	1.06E+003	63.15	2.18E+001
F	20	7059-	7075	7065.29	1765.03	1.82	4.69E+001	15.13	8.74E+000

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	0.982	511.00*	100.00	2.60988E-001	5.41088E-002
K-40	0.996	1460.81*	10.67	1.77956E+001	1.78823E+000
Eu-155	0.315	86.54*	30.90	8.31981E-001	3.21327E-001
		105.31	20.70		
TL-208	0.731	277.35	6.80		
		510.84*	21.60	1.20828E+000	2.69238E-001
		583.14*	84.20	2.90420E-001	6.31024E-002
		860.37	12.46		
Bi-212	0.976	727.17*	11.80	6.34985E-001	2.70068E-001
Pb-212	0.996	74.81* @	10.70	1.72821E+001	3.64403E+000
		77.11* @	18.00	1.76095E+000	6.54493E-001
		87.30* @	8.00	3.21352E+000	1.24113E+000
		238.63*	44.60	7.03264E-001	1.57634E-001
Bi-214	0.987	609.31*	46.30	6.42713E-001	1.26119E-001
		1120.29*	15.10	3.90451E-001	2.04488E-001
		1764.49*	15.80	5.51092E-001	1.86074E-001
PB-214	0.472	74.82* @	6.21	2.97776E+001	6.64045E+000
		77.11* @	10.50	3.01877E+000	1.14441E+000
		87.30* @	4.67	5.50497E+000	2.16642E+000
		241.98	7.49		
		295.21	19.20		
		351.92*	37.20	4.80998E-001	1.32681E-001
Ac-228	0.978	338.32*	11.40	6.60482E-001	2.81700E-001
		911.07*	27.70	8.38124E-001	1.80483E-001
		969.11*	16.60	1.00905E+000	2.46799E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		0.982	1.982573E-001	5.576169E-002
K-40		0.996	1.779564E+001	1.788226E+000
Eu-155		0.315	5.772111E-001	3.245014E-001
TL-208		0.731	2.904201E-001	6.238855E-002
Bi-212		0.976	6.349850E-001	2.700680E-001
Pb-212	@	0.996	7.032643E-001	1.576338E-001
Bi-214		0.987	5.676785E-001	9.298152E-002
PB-214	@	0.472	4.809983E-001	1.297195E-001
Ac-228		0.978	8.476288E-001	1.294030E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.84	1.0928E+000	12.32
M 4	84.80	6.2988E-001	20.82
F 13	795.91	5.5184E-002	48.28
M 15	965.37	6.3086E-002	42.94
F 18	1332.92	8.3166E-002	33.04

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
	Co-60	1173.22	100.00	1.0376E-001	9.58E-002	5.1158E-002
		1332.49	100.00	9.5843E-002		1.2121E-001
	Nb-94	702.63	100.00	1.1245E-001	1.03E-001	6.0522E-002
		871.10	100.00	1.0274E-001		8.6651E-002
	Ag-108m	79.20	7.10	6.4189E+000	1.30E-001	-1.7379E-001
		433.93	89.90	1.3043E-001		3.2350E-002
		614.37	90.40	1.6051E-001		-6.3269E-003
		722.95	90.50	1.2988E-001		-2.6317E-002
	Sb-125	176.33	6.89	2.5973E+000	3.93E-001	-4.8112E-001
		427.89	29.33	3.9305E-001		5.3721E-004
		463.38	10.35	1.1468E+000		-3.1008E-001
		600.56	17.80	6.2836E-001		4.4865E-001
		606.64	5.02	2.9290E+000		-8.1423E-003
		635.90	11.32	9.6881E-001		4.9658E-002
	Cs-134	563.23	8.38	1.2871E+000	1.22E-001	-3.7286E-001
		569.32	15.43	6.8383E-001		1.2116E-001
		604.70	97.60	1.4406E-001		-8.0400E-002
		795.84	85.40	1.2185E-001		8.6647E-002
		801.93	8.73	1.1577E+000		-2.8902E-001
	Cs-137	661.65	85.12	1.2409E-001	1.24E-001	1.5231E-002
	Eu-152	121.78	28.40	9.1731E-001	3.33E-001	3.7084E-001
		244.69	7.49	2.2262E+000		-4.4261E-001
		344.27	26.50	4.9247E-001		-8.5070E-002
		778.89	12.74	7.7829E-001		2.2531E-001
		867.32	4.16	2.4546E+000		-3.9248E+000
		964.01	14.40	9.1547E-001		1.6268E-001
		1085.78	10.00	9.9886E-001		-1.5165E-001
		1112.02	13.30	7.1184E-001		-7.5154E-001
		1407.95	20.70	3.3260E-001		1.3949E-001
	Eu-154	123.07	40.50	6.2977E-001	2.79E-001	-1.1611E-001
		247.94	6.60	2.3723E+000		-2.3533E+000
		591.81	4.83	2.2916E+000		1.1065E+000
		723.30	19.70	6.0003E-001		-7.6150E-002
		756.87	4.33	2.4489E+000		-9.2171E-001
		873.19	11.50	8.5532E-001		-3.6864E-001
		996.32	10.30	1.0094E+000		6.4502E-001
		1004.76	17.90	5.5416E-001		2.2365E-001
		1274.45	35.50	2.7916E-001		2.1134E-001
+	Eu-155	86.54*	30.90	8.7442E-001	8.74E-001	8.3198E-001
		105.31	20.70	1.4812E+000		-2.0073E-001
	Am-241	59.54	35.90	1.7105E+000	1.71E+000	-3.9845E-001
	Cm-243	228.19	10.56	1.4889E+000	1.02E+000	3.2733E-002

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	1.0245E+000	1.02E+000	5.3847E-001

+ = 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

Report Generated On 12/8/2005 2:17:42 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID:
Sample Title: NOL-05-02-183-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/8/2005 2:07:39 PM
Live Time: 600.0 seconds
Real Time: 601.4 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number:
Title: NOL-05-02-183-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	282-	307	291.55	72.74	0.97	5.24E+002	81.33	2.20E+003
m	2	282-	307	300.47	74.98	0.97	1.16E+003	100.97	2.29E+003
F	3	334-	344	339.38	84.74	1.11	4.06E+002	85.56	1.78E+003
F	4	950-	962	954.98	239.07	0.78	2.43E+002	42.60	3.60E+002
F	5	1177-	1189	1181.15	295.72	0.79	6.10E+001	28.58	2.29E+002
F	6	1305-	1318	1312.12	328.52	1.10	5.39E+001	25.08	1.52E+002
F	7	1350-	1359	1354.20	339.05	0.63	4.53E+001	22.79	1.35E+002
F	8	1400-	1419	1407.75	352.46	1.46	1.35E+002	29.89	1.85E+002
F	9	1678-	1687	1682.34	421.19	0.81	2.47E+001	18.26	7.08E+001
F	10	2325-	2342	2333.13	583.97	1.30	1.46E+002	28.29	9.71E+001
F	11	2427-	2446	2437.56	610.08	1.47	2.02E+002	30.06	6.75E+001
F	12	3637-	3654	3645.80	911.90	1.64	9.80E+001	23.09	5.14E+001
F	13	3868-	3886	3877.09	969.64	1.80	7.21E+001	19.83	4.20E+001
F	14	4476-	4490	4482.17	1120.65	1.51	5.07E+001	19.32	4.50E+001
F	15	5833-	5860	5846.89	1461.10	1.95	8.37E+002	56.31	2.45E+001
F	16	6351-	6364	6356.99	1588.33	0.52	1.06E+001	2.65	8.76E+000
F	17	7057-	7071	7063.63	1764.61	1.97	5.42E+001	15.35	5.83E+000
F	18	7388-	7401	7394.85	1847.25	1.27	1.01E+001	8.53	5.24E+000

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
K-40	0.998	1460.81*	10.67	1.40332E+001	1.47749E+000
TL-208	0.457	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	2.47246E-001	5.76926E-002
		860.37	12.46		
Pb-212	0.517	74.81* @	10.70	1.65279E+001	3.54635E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	5.91638E-001	1.39073E-001
Bi-214	0.989	609.31*	46.30	6.32160E-001	1.21950E-001
		1120.29*	15.10	5.64750E-001	2.23548E-001
		1764.49*	15.80	6.36230E-001	1.91268E-001
PB-214	0.577	74.82* @	6.21	2.84781E+001	6.45069E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	3.66365E-001	1.82350E-001
		351.92*	37.20	4.39806E-001	1.22034E-001
Ac-228	0.984	338.32*	11.40	4.76331E-001	2.50989E-001
		911.07*	27.70	5.60772E-001	1.47075E-001
		969.11*	16.60	7.01308E-001	2.06305E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
K-40		0.998	1.403323E+001	1.477490E+000
TL-208		0.457	2.472464E-001	5.769261E-002
Pb-212	@	0.517	5.916381E-001	1.390730E-001
Bi-214		0.989	6.213590E-001	9.341865E-002
PB-214	@	0.577	4.170884E-001	1.014181E-001
Ac-228		0.984	5.836870E-001	1.080850E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.74	8.7401E-001	15.51
F 3	84.74	6.7584E-001	21.10
F 6	328.52	8.9843E-002	46.52
F 9	421.19	4.1199E-002	73.85
F 16	1588.33	1.7662E-002	25.01
F 18	1847.25	1.6833E-002	84.46

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Co-60	1173.22	100.00	9.7185E-002	8.28E-002	4.4657E-002
	1332.49	100.00	8.2787E-002		-4.2985E-004
Nb-94	702.63	100.00	9.4750E-002	8.65E-002	-1.2208E-002
	871.10	100.00	8.6526E-002		-3.6317E-002
Ag-108m	79.20	7.10	6.8931E+000	1.05E-001	-4.2899E+000
	433.93	89.90	1.1480E-001		-3.4642E-002
	614.37	90.40	1.5377E-001		5.9157E-002
	722.95	90.50	1.0499E-001		-7.5192E-003
Sb-125	176.33	6.89	2.7405E+000	3.58E-001	-1.4932E+000
	427.89	29.33	3.5814E-001		9.3328E-002
	463.38	10.35	1.0882E+000		1.2163E+000
	600.56	17.80	5.2930E-001		-4.7238E-002
	606.64	5.02	2.6343E+000		5.2255E+000
	635.90	11.32	8.4146E-001		6.4012E-002
Cs-134	563.23	8.38	1.1488E+000	1.05E-001	9.8030E-001
	569.32	15.43	6.2767E-001		2.3341E-002
	604.70	97.60	1.2984E-001		-1.6308E-002
	795.84	85.40	1.0495E-001		-3.3716E-002
	801.93	8.73	1.0688E+000		-1.3414E+000
Cs-137	661.65	85.12	1.1186E-001	1.12E-001	-3.4746E-002
Eu-152	121.78	28.40	9.7733E-001	3.25E-001	-1.8251E-001
	244.69	7.49	2.1697E+000		-2.2635E-001
	344.27	26.50	4.6813E-001		-2.1597E-001
	778.89	12.74	6.8142E-001		-1.0140E+000
	867.32	4.16	2.1694E+000		-2.1085E+000
	964.01	14.40	7.8484E-001		3.3750E-001
	1085.78	10.00	8.9535E-001		-2.9192E-001
	1112.02	13.30	7.1692E-001		-9.7281E-001
	1407.95	20.70	3.2476E-001		6.2987E-002
Eu-154	123.07	40.50	6.8302E-001	2.28E-001	2.2307E-001
	247.94	6.60	2.3851E+000		-1.8977E+000
	591.81	4.83	2.0505E+000		-4.8853E-001
	723.30	19.70	4.8374E-001		8.0127E-002
	756.87	4.33	1.9793E+000		-2.8917E+000
	873.19	11.50	7.6671E-001		1.9547E-002
	996.32	10.30	8.1707E-001		1.6725E-001
	1004.76	17.90	5.0053E-001		3.0347E-001
	1274.45	35.50	2.2836E-001		-1.9234E-001
Eu-155	86.54	30.90	1.4079E+000	1.41E+000	3.3361E+000
	105.31	20.70	1.5878E+000		6.1666E-001
Am-241	59.54	35.90	1.7953E+000	1.80E+000	7.5121E-001
Cm-243	228.19	10.56	1.5703E+000	1.04E+000	-2.9121E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	1.0350E+000	1.04E+000	6.5505E-001

+ = 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

Report Generated On 12/8/2005 12:22:49 AM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-02-184
Sample Title: NOL-05-02-184-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/8/2005 12:12:47 AM
Live Time: 600.0 seconds
Real Time: 601.2 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-02-184
Title: NOL-05-02-184-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	287-	309	292.10	72.88	1.38	3.41E+002	79.19	1.92E+003
m	2	287-	309	300.31	74.93	1.38	7.61E+002	88.39	2.69E+003
F	3	944-	965	955.11	239.10	1.85	2.22E+002	41.47	4.95E+002
F	4	1348-	1359	1354.53	339.14	1.01	3.91E+001	25.05	1.51E+002
F	5	1401-	1415	1408.13	352.56	1.46	7.83E+001	28.42	1.80E+002
F	6	2321-	2345	2333.80	584.14	2.02	1.63E+002	28.24	1.21E+002
F	7	2428-	2447	2438.34	610.27	1.96	1.17E+002	25.62	1.00E+002
F	8	2637-	2656	2646.85	662.39	1.63	7.75E+001	24.34	1.18E+002
F	9	3638-	3656	3646.16	912.00	1.93	9.31E+001	24.44	8.33E+001
F	10	3869-	3885	3876.94	969.61	1.36	4.51E+001	20.80	8.07E+001
F	11	5323-	5341	5332.82	1332.87	2.26	6.37E+001	17.00	1.60E+001
F	12	5831-	5863	5847.07	1461.14	2.72	8.94E+002	56.71	9.13E+001

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
K-40	0.997	1460.81*	10.67	1.50004E+001	1.54265E+000
Cs-137	0.984	661.65*	85.12	1.35253E-001	4.53860E-002
TL-208	0.451	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	2.75689E-001	5.97713E-002
		860.37	12.46		
Pb-212	0.517	74.81* @	10.70	1.08818E+001	2.47940E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	5.40502E-001	1.31747E-001
Bi-214	0.381	609.31*	46.30	3.66060E-001	9.18385E-002
		1120.29	15.10		
		1764.49	15.80		
Ac-228	0.981	338.32*	11.40	4.11381E-001	2.71178E-001
		911.07*	27.70	5.32882E-001	1.52698E-001
		969.11*	16.60	4.38999E-001	2.07434E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
K-40		0.997	1.500043E+001	1.542647E+000
Cs-137		0.984	1.352533E-001	4.538600E-002
TL-208		0.451	2.756891E-001	5.977131E-002
Pb-212	@	0.517	5.405025E-001	1.317465E-001
Bi-214		0.381	3.660600E-001	9.183854E-002
Ac-228		0.981	4.847916E-001	1.119952E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.88	5.6806E-001	23.23
F 5	352.56	1.3057E-001	36.27
F 11	1332.87	1.0624E-001	26.67

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
	Co-60	1173.22	100.00	1.0719E-001	9.66E-002	6.3286E-003
		1332.49	100.00	9.6574E-002		1.2686E-001
	Nb-94	702.63	100.00	1.0251E-001	9.25E-002	6.2846E-002
		871.10	100.00	9.2466E-002		7.7493E-003
	Ag-108m	79.20	7.10	6.1058E+000	1.13E-001	-4.4263E+000
		433.93	89.90	1.2520E-001		8.4580E-002
		614.37	90.40	1.4173E-001		-5.2407E-002
		722.95	90.50	1.1309E-001		2.7590E-002
	Sb-125	176.33	6.89	2.3800E+000	3.91E-001	-7.3990E-001
		427.89	29.33	3.9086E-001		1.6785E-001
		463.38	10.35	1.1146E+000		6.9029E-001
		600.56	17.80	5.8732E-001		-7.9579E-002
		606.64	5.02	2.5452E+000		-1.4470E+000
		635.90	11.32	8.5042E-001		-5.5362E-001
	Cs-134	563.23	8.38	1.2239E+000	1.16E-001	-3.6054E-001
		569.32	15.43	6.8245E-001		-3.9738E-002
		604.70	97.60	1.2348E-001		-6.8113E-002
		795.84	85.40	1.1597E-001		5.1641E-002
		801.93	8.73	1.0820E+000		-9.0259E-001
+	Cs-137	661.65*	85.12	1.2158E-001	1.22E-001	1.3525E-001
	Eu-152	121.78	28.40	8.5237E-001	2.82E-001	1.6277E-001
		244.69	7.49	2.0021E+000		-1.4638E+000
		344.27	26.50	4.7783E-001		-1.7724E-001
		778.89	12.74	7.4600E-001		-3.6006E-001
		867.32	4.16	2.4217E+000		-1.0114E+000
		964.01	14.40	8.2680E-001		2.9041E-001
		1085.78	10.00	9.6674E-001		-1.0998E+000
		1112.02	13.30	7.1692E-001		-1.1297E+000
		1407.95	20.70	2.8206E-001		-1.4225E-001
	Eu-154	123.07	40.50	5.9124E-001	2.50E-001	-1.0282E-001
		247.94	6.60	2.1142E+000		-1.7271E+000
		591.81	4.83	2.3088E+000		-9.1437E-001
		723.30	19.70	5.2465E-001		3.1242E-001
		756.87	4.33	2.3075E+000		3.3568E-001
		873.19	11.50	8.1228E-001		6.1327E-001
		996.32	10.30	8.9985E-001		2.6459E-001
		1004.76	17.90	5.2087E-001		-7.0316E-002
		1274.45	35.50	2.5021E-001		-1.0010E-001
	Eu-155	86.54	30.90	1.2001E+000	1.20E+000	2.1511E+000
		105.31	20.70	1.3837E+000		1.4682E+000
	Am-241	59.54	35.90	1.6290E+000	1.63E+000	5.0336E-001
	Cm-243	228.19	10.56	1.3209E+000	9.77E-001	7.1690E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	9.7674E-001	9.77E-001	-1.6358E-001

+ = 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

Report Generated On 12/8/2005 12:36:31 AM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-02-185
Sample Title: NOL-05-02-185-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/8/2005 12:26:28 AM
Live Time: 600.0 seconds
Real Time: 601.2 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-02-185
Title: NOL-05-02-185-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	286-	306	292.03	72.86	0.91	3.87E+002	72.45	1.68E+003
m	2	286-	306	300.27	74.93	0.92	6.99E+002	86.12	1.80E+003
M	3	333-	357	339.38	84.74	1.12	3.47E+002	74.30	1.68E+003
m	4	333-	357	349.68	87.32	1.13	1.14E+002	62.71	1.89E+003
F	5	948-	960	955.45	239.18	0.94	1.94E+002	39.75	2.94E+002
F	6	1176-	1185	1181.37	295.78	1.27	6.41E+001	28.22	1.46E+002
F	7	1343-	1360	1354.31	339.08	1.26	6.94E+001	27.59	2.02E+002
F	8	1402-	1414	1408.39	352.62	1.31	1.31E+002	29.25	1.14E+002
F	9	2033-	2056	2044.03	511.68	1.83	1.74E+002	29.38	1.30E+002
F	10	2324-	2341	2333.04	583.95	1.31	1.73E+002	30.12	9.92E+001
F	11	2431-	2446	2437.80	610.14	1.35	1.43E+002	27.86	7.91E+001
F	12	2639-	2656	2646.99	662.42	1.86	7.86E+001	20.93	5.18E+001
F	13	3635-	3654	3645.95	911.94	1.45	1.11E+002	24.95	7.50E+001
F	14	3869-	3885	3877.19	969.67	1.60	5.38E+001	20.06	5.97E+001
F	15	4478-	4489	4482.93	1120.84	1.23	2.60E+001	16.60	4.37E+001
F	16	5326-	5341	5333.93	1333.14	1.61	4.82E+001	16.57	2.43E+001
F	17	5508-	5521	5514.46	1378.18	1.19	1.14E+001	9.66	1.21E+001
F	18	5832-	5862	5847.33	1461.21	1.97	1.34E+003	71.20	2.69E+001
F	19	7057-	7074	7065.22	1765.01	1.37	3.59E+001	12.63	4.50E+000

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	0.986	511.00*	100.00	2.37673E-001	5.14098E-002
K-40	0.995	1460.81*	10.67	2.23925E+001	2.17095E+000
Cs-137	0.982	661.65*	85.12	1.37213E-001	3.99474E-002
Eu-155	0.322	86.54*	30.90	4.57656E-001	2.67180E-001
		105.31	20.70		
TL-208	0.735	277.35	6.80		
		510.84*	21.60	1.10034E+000	2.54407E-001
		583.14*	84.20	2.92964E-001	6.36637E-002
		860.37	12.46		
Pb-212	0.672	74.81* @	10.70	9.99611E+000	2.31439E+000
		77.11 @	18.00		
		87.30* @	8.00	1.76770E+000	1.03198E+000
		238.63*	44.60	4.72854E-001	1.21860E-001
Bi-214	0.984	609.31*	46.30	4.45339E-001	1.02862E-001
		1120.29*	15.10	2.89455E-001	1.87655E-001
		1764.49*	15.80	4.21282E-001	1.54212E-001
PB-214	0.661	74.82* @	6.21	1.72236E+001	4.17918E+000
		77.11 @	10.50		
		87.30* @	4.67	3.02817E+000	1.78259E+000
		241.98	7.49		
		295.21*	19.20	3.84768E-001	1.81387E-001
		351.92*	37.20	4.25426E-001	1.18913E-001
Ac-228	0.982	338.32*	11.40	7.30212E-001	3.11871E-001
		911.07*	27.70	6.36171E-001	1.60435E-001
		969.11*	16.60	5.23583E-001	2.02583E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		0.986	1.743926E-001	5.317720E-002
K-40		0.995	2.239247E+001	2.170950E+000
Cs-137		0.982	1.372130E-001	3.994738E-002
Eu-155		0.322	2.727508E-001	2.694409E-001
TL-208		0.735	2.929638E-001	6.294377E-002
Pb-212	@	0.672	4.728536E-001	1.218600E-001
Bi-214		0.984	4.123710E-001	7.785945E-002
PB-214	@	0.661	4.134335E-001	9.767711E-002
Ac-228		0.982	6.120006E-001	1.166435E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.86	6.4542E-001	18.71
M 3	84.74	5.7803E-001	21.42
F 16	1333.14	8.0336E-002	34.37
F 17	1378.18	1.8957E-002	84.97

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
	Co-60	1173.22	100.00	1.1799E-001	9.91E-002	1.3740E-001
		1332.49	100.00	9.9090E-002		1.0653E-001
	Nb-94	702.63	100.00	1.0424E-001	9.22E-002	6.5464E-002
		871.10	100.00	9.2163E-002		-1.2995E-001
	Ag-108m	79.20	7.10	6.0376E+000	1.16E-001	-5.3323E+000
		433.93	89.90	1.1620E-001		-1.5659E-002
		614.37	90.40	1.4729E-001		-1.5340E-002
		722.95	90.50	1.1957E-001		4.6941E-002
	Sb-125	176.33	6.89	2.4069E+000	3.75E-001	1.1963E+000
		427.89	29.33	3.7458E-001		1.7213E-001
		463.38	10.35	1.1163E+000		-5.6884E-001
		600.56	17.80	5.4441E-001		1.3655E-002
		606.64	5.02	2.6413E+000		4.1489E+000
		635.90	11.32	9.0642E-001		8.0165E-001
	Cs-134	563.23	8.38	1.3259E+000	1.27E-001	1.4294E+000
		569.32	15.43	6.7968E-001		-9.1681E-002
		604.70	97.60	1.2795E-001		-4.4370E-002
		795.84	85.40	1.2715E-001		2.5199E-002
		801.93	8.73	1.2113E+000		-1.8416E+000
+	Cs-137	661.65*	85.12	7.9268E-002	7.93E-002	1.3721E-001
	Eu-152	121.78	28.40	8.4781E-001	3.40E-001	5.1787E-002
		244.69	7.49	1.9353E+000		-2.3517E+000
		344.27	26.50	4.9108E-001		-1.3594E-001
		778.89	12.74	7.3936E-001		-8.0144E-001
		867.32	4.16	2.4415E+000		-5.1954E-001
		964.01	14.40	8.4530E-001		-2.2709E-002
		1085.78	10.00	9.9886E-001		-4.6514E-001
		1112.02	13.30	8.0482E-001		-6.9364E-001
		1407.95	20.70	3.4024E-001		1.5158E-001
	Eu-154	123.07	40.50	5.8894E-001	2.71E-001	-1.7076E-001
		247.94	6.60	2.0557E+000		-7.7570E-001
		591.81	4.83	1.8946E+000		-1.5422E+000
		723.30	19.70	5.5417E-001		5.9813E-001
		756.87	4.33	2.2271E+000		-3.0697E-001
		873.19	11.50	8.0180E-001		1.5678E-001
		996.32	10.30	9.6658E-001		2.8118E-001
		1004.76	17.90	5.5586E-001		-5.0782E-003
		1274.45	35.50	2.7122E-001		1.7353E-001
+	Eu-155	86.54*	30.90	8.2240E-001	8.22E-001	4.5766E-001
		105.31	20.70	1.3790E+000		-2.2521E-001
	Am-241	59.54	35.90	1.5989E+000	1.60E+000	-3.4220E-001
	Cm-243	228.19	10.56	1.3839E+000	9.42E-001	5.9526E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	9.4201E-001	9.42E-001	-4.4287E-001

+ = 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

Report Generated On 12/8/2005 1:14:36 AM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-05-02-186
Sample Title: NOL-05-02-186-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/8/2005 1:04:34 AM
Live Time: 600.0 seconds
Real Time: 601.2 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number: NOL-05-02-186
Title: NOL-05-02-186-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	282-	305	292.09	72.87	0.98	3.65E+002	71.58	1.78E+003
m	2	282-	305	300.24	74.92	0.99	7.45E+002	87.00	1.87E+003
M	3	331-	379	340.27	84.96	1.11	3.63E+002	71.73	1.69E+003
m	4	331-	379	349.54	87.28	1.11	1.63E+002	61.40	1.75E+003
m	5	331-	379	374.83	93.63	1.12	9.97E+001	59.24	1.44E+003
F	6	948-	959	954.42	238.92	1.03	2.75E+002	43.28	2.57E+002
F	7	1173-	1187	1180.66	295.60	1.00	5.72E+001	26.39	1.93E+002
F	8	1349-	1359	1354.29	339.08	0.94	4.43E+001	25.08	1.39E+002
F	9	1401-	1416	1407.38	352.37	1.72	1.44E+002	29.32	1.20E+002
M	10	1847-	1881	1852.01	463.64	1.08	3.98E+001	18.78	6.07E+001
m	11	1847-	1881	1875.94	469.63	1.08	2.81E+001	16.93	6.77E+001
F	12	2034-	2053	2042.80	511.37	1.99	1.47E+002	28.74	1.32E+002
F	13	2324-	2341	2333.15	583.97	1.49	1.94E+002	29.98	6.77E+001
F	14	2429-	2447	2438.37	610.28	1.36	1.31E+002	26.69	8.93E+001
F	15	2639-	2654	2646.72	662.36	1.48	5.73E+001	20.72	6.85E+001
F	16	2904-	2918	2910.23	728.20	1.61	4.64E+001	18.93	5.09E+001
F	17	3636-	3655	3645.91	911.93	1.76	1.54E+002	26.32	4.52E+001
F	18	3869-	3887	3878.66	970.04	1.51	6.51E+001	20.42	5.83E+001
F	19	5832-	5860	5847.12	1461.15	1.97	1.11E+003	64.88	2.87E+001
F	20	7056-	7071	7063.47	1764.57	1.71	4.39E+001	13.90	3.68E+000

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	0.996	511.00*	100.00	2.00855E-001	4.77238E-002
K-40	0.996	1460.81*	10.67	1.85880E+001	1.85719E+000
Cs-137	0.985	661.65*	85.12	1.00015E-001	3.80427E-002
Eu-155	0.323	86.54*	30.90	6.54029E-001	2.77872E-001
		105.31	20.70		
TL-208	0.736	277.35	6.80		
		510.84*	21.60	9.29882E-001	2.33630E-001
		583.14*	84.20	3.29135E-001	6.64027E-002
		860.37	12.46		
Bi-212	0.968	727.17*	11.80	5.96042E-001	2.52840E-001
Pb-212	0.675	74.81* @	10.70	1.06600E+001	2.43207E+000
		77.11 @	18.00		
		87.30* @	8.00	2.52619E+000	1.07328E+000
		238.63*	44.60	6.68993E-001	1.48604E-001
Bi-214	0.682	609.31*	46.30	4.09235E-001	9.74206E-002
		1120.29	15.10		
		1764.49*	15.80	5.15274E-001	1.71196E-001
PB-214	0.666	74.82* @	6.21	1.83675E+001	4.39753E+000
		77.11 @	10.50		
		87.30* @	4.67	4.32751E+000	1.86744E+000
		241.98	7.49		
		295.21*	19.20	3.43225E-001	1.68632E-001
		351.92*	37.20	4.69954E-001	1.23672E-001
Ac-228	0.978	338.32*	11.40	4.65796E-001	2.73671E-001
		911.07*	27.70	8.83799E-001	1.81688E-001
		969.11*	16.60	6.33096E-001	2.09358E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		0.996	1.297614E-001	4.977863E-002
K-40		0.996	1.858796E+001	1.857189E+000
Cs-137		0.985	1.000151E-001	3.804274E-002
Eu-155		0.323	4.163523E-001	2.809127E-001
TL-208		0.736	3.291347E-001	6.553067E-002
Bi-212		0.968	5.960416E-001	2.528398E-001
Pb-212	@	0.675	6.689935E-001	1.486043E-001
Bi-214		0.682	4.351734E-001	8.467105E-002
PB-214	@	0.666	4.266075E-001	9.785356E-002
Ac-228		0.978	7.137594E-001	1.226645E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.87	6.0784E-001	19.63
M 3	84.96	6.0425E-001	19.78
m 5	93.63	1.6623E-001	59.39
M 10	463.64	6.6309E-002	47.21
m 11	469.63	4.6840E-002	60.24

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
	Co-60	1173.22	100.00	1.0932E-001	8.94E-002	1.2580E-001
		1332.49	100.00	8.9369E-002		3.7798E-002
	Nb-94	702.63	100.00	9.7671E-002	9.12E-002	-3.2230E-002
		871.10	100.00	9.1249E-002		-3.8694E-002
	Ag-108m	79.20	7.10	6.0051E+000	1.13E-001	-8.7731E+000
		433.93	89.90	1.1317E-001		1.7523E-002
		614.37	90.40	1.3886E-001		-3.2789E-002
		722.95	90.50	1.2621E-001		-1.7431E-003
	Sb-125	176.33	6.89	2.2756E+000	3.68E-001	-1.0094E+000
		427.89	29.33	3.6763E-001		4.3811E-002
		463.38	10.35	1.0713E+000		-1.3596E-001
		600.56	17.80	5.2087E-001		-1.9149E-001
		606.64	5.02	2.4678E+000		1.0892E-002
		635.90	11.32	8.9804E-001		-2.2973E-001
	Cs-134	563.23	8.38	1.2597E+000	1.13E-001	1.6648E-001
		569.32	15.43	6.6282E-001		-9.4856E-001
		604.70	97.60	1.1739E-001		-8.8252E-002
		795.84	85.40	1.1340E-001		-1.8670E-002
		801.93	8.73	1.1577E+000		-1.7673E+000
+	Cs-137	661.65*	85.12	8.7790E-002	8.78E-002	1.0002E-001
	Eu-152	121.78	28.40	8.2310E-001	3.11E-001	1.4838E-001
		244.69	7.49	1.9974E+000		-4.1135E+000
		344.27	26.50	4.5419E-001		-1.6876E-001
		778.89	12.74	8.1730E-001		7.2556E-002
		867.32	4.16	2.3476E+000		-2.1969E+000
		964.01	14.40	8.5028E-001		2.2450E-001
		1085.78	10.00	9.7649E-001		-3.2233E-001
		1112.02	13.30	7.8439E-001		-1.0782E+000
		1407.95	20.70	3.1123E-001		2.5740E-001
	Eu-154	123.07	40.50	5.7057E-001	2.55E-001	1.0013E-001
		247.94	6.60	2.1128E+000		-1.4392E+000
		591.81	4.83	2.1309E+000		-3.2854E-001
		723.30	19.70	5.8327E-001		-3.3233E-002
		756.87	4.33	2.3437E+000		1.2482E+000
		873.19	11.50	8.0706E-001		2.2706E-002
		996.32	10.30	8.7750E-001		4.7982E-001
		1004.76	17.90	4.8907E-001		1.2308E-001
		1274.45	35.50	2.5456E-001		9.5088E-002
+	Eu-155	86.54*	30.90	7.9166E-001	7.92E-001	6.5403E-001
		105.31	20.70	1.3467E+000		-1.7877E-001
	Am-241	59.54	35.90	1.6297E+000	1.63E+000	6.1034E-001
	Cm-243	228.19	10.56	1.3773E+000	9.24E-001	1.1760E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	9.2414E-001	9.24E-001	-1.0319E-001

+ = 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

Report Generated On 12/8/2005 10:14:36 AM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID:
Sample Title: NOL-05-02-187-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/8/2005 10:04:31 AM
Live Time: 600.0 seconds
Real Time: 601.2 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number:
Title: NOL-05-02-187-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	284-	306	291.82	72.81	1.25	4.56E+002	78.05	2.22E+003
m	2	284-	306	300.38	74.95	1.25	8.08E+002	88.85	2.39E+003
F	3	333-	347	339.41	84.74	1.23	2.91E+002	75.72	1.90E+003
F	4	736-	749	743.64	186.10	0.93	6.25E+001	34.95	4.00E+002
F	5	944-	962	954.63	238.98	1.48	2.53E+002	44.09	4.58E+002
F	6	1174-	1187	1181.43	295.79	1.41	9.02E+001	28.54	1.69E+002
F	7	1399-	1419	1407.72	352.45	1.67	1.43E+002	29.62	1.79E+002
F	8	2324-	2342	2332.99	583.93	1.64	1.89E+002	30.43	8.96E+001
F	9	2430-	2445	2437.70	610.11	1.57	1.18E+002	27.44	9.90E+001
F	10	3635-	3654	3644.61	911.61	1.48	1.16E+002	25.68	8.24E+001
F	11	3869-	3886	3876.55	969.51	1.54	9.18E+001	22.81	5.20E+001
F	12	4685-	4701	4692.64	1173.16	2.22	6.50E+001	20.83	4.95E+001
F	13	5325-	5339	5332.10	1332.69	1.51	5.52E+001	18.41	2.98E+001
F	14	5830-	5861	5845.72	1460.80	2.21	1.05E+003	62.03	1.94E+001

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
K-40	1.000	1460.81*	10.67	1.76190E+001	1.76560E+000
Co-60	0.999	1173.22*	100.00	1.10809E-001	3.65771E-002
		1332.49*	100.00	9.71238E-002	3.32509E-002
TL-208	0.458	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.20639E-001	6.62875E-002
		860.37	12.46		
Pb-212	0.518	74.81* @	10.70	1.15556E+001	2.59690E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	6.14193E-001	1.44131E-001
Bi-214	0.386	609.31*	46.30	3.68396E-001	9.69825E-002
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.576	74.82* @	6.21	1.99106E+001	4.70217E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	5.41716E-001	1.94117E-001
		351.92*	37.20	4.64726E-001	1.23895E-001
Ac-228	0.628	338.32	11.40		
		911.07*	27.70	6.63006E-001	1.65570E-001
		969.11*	16.60	8.92753E-001	2.40712E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
K-40		1.000	1.761903E+001	1.765600E+000
Co-60		0.999	1.033158E-001	2.460402E-002
TL-208		0.458	3.206394E-001	6.628750E-002
Pb-212	@	0.518	6.141933E-001	1.441310E-001
Bi-214		0.386	3.683959E-001	9.698250E-002
PB-214	@	0.576	4.870105E-001	1.044359E-001
Ac-228		0.628	7.367933E-001	1.364154E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.81	7.6024E-001	17.11
F 3	84.74	4.8478E-001	26.03
F 4	186.10	1.0414E-001	55.94

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
+	Co-60	1173.22*	100.00	7.5248E-002	5.83E-002	1.1081E-001
		1332.49*	100.00	5.8257E-002		9.7124E-002
	Nb-94	702.63	100.00	1.0473E-001	9.06E-002	9.8083E-002
		871.10	100.00	9.0634E-002		-5.7489E-002
	Ag-108m	79.20	7.10	6.1584E+000	1.23E-001	-1.0586E+001
		433.93	89.90	1.2593E-001		5.9112E-002
		614.37	90.40	1.4942E-001		-7.6842E-002
		722.95	90.50	1.2319E-001		1.1515E-002
	Sb-125	176.33	6.89	2.3412E+000	3.71E-001	-1.7699E-001
		427.89	29.33	3.7112E-001		-1.0877E-001
		463.38	10.35	1.0932E+000		-5.2136E-001
		600.56	17.80	5.9847E-001		1.5210E-001
		606.64	5.02	2.6863E+000		3.2828E+000
		635.90	11.32	9.1265E-001		8.0155E-002
	Cs-134	563.23	8.38	1.2394E+000	1.17E-001	-3.3157E-001
		569.32	15.43	6.3516E-001		-6.4164E-001
		604.70	97.60	1.3354E-001		-3.1822E-003
		795.84	85.40	1.1660E-001		8.3179E-003
		801.93	8.73	1.1608E+000		-1.4646E-001
	Cs-137	661.65	85.12	1.1958E-001	1.20E-001	-3.1006E-002
	Eu-152	121.78	28.40	8.4699E-001	3.25E-001	3.5309E-001
		244.69	7.49	2.0531E+000		-7.1595E-003
		344.27	26.50	4.6419E-001		-2.0304E-001
		778.89	12.74	7.5475E-001		-5.0897E-001
		867.32	4.16	2.2781E+000		-2.7842E+000
		964.01	14.40	8.6340E-001		-4.3660E-001
		1085.78	10.00	9.3006E-001		1.0426E-001
		1112.02	13.30	7.8439E-001		-8.3299E-001
		1407.95	20.70	3.2476E-001		8.0193E-003
	Eu-154	123.07	40.50	5.8455E-001	2.66E-001	1.4950E-001
		247.94	6.60	2.0808E+000		-2.3350E+000
		591.81	4.83	2.1448E+000		1.7887E+000
		723.30	19.70	5.6011E-001		-4.5666E-001
		756.87	4.33	2.2708E+000		-1.5496E+000
		873.19	11.50	7.6947E-001		-4.4348E-001
		996.32	10.30	8.6774E-001		-6.2486E-001
		1004.76	17.90	5.2985E-001		1.4720E-001
		1274.45	35.50	2.6613E-001		1.4865E-001
	Eu-155	86.54	30.90	1.2344E+000	1.23E+000	2.5740E+000
		105.31	20.70	1.3859E+000		-1.2184E+000
	Am-241	59.54	35.90	1.6649E+000	1.66E+000	1.3961E+000
	Cm-243	228.19	10.56	1.3937E+000	9.57E-001	1.4309E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	9.5727E-001	9.57E-001	9.8945E-001

+ = 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

Report Generated On 12/8/2005 10:30:03 AM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID:
Sample Title: NOL-05-02-188-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/8/2005 10:20:01 AM
Live Time: 600.0 seconds
Real Time: 601.3 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number:
Title: NOL-05-02-188-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	287-	306	291.78	72.79	1.02	3.73E+002	74.45	1.62E+003
m	2	287-	306	300.40	74.96	1.02	8.22E+002	90.75	2.17E+003
M	3	330-	357	339.51	84.77	1.30	4.25E+002	76.57	2.19E+003
m	4	330-	357	349.77	87.34	1.31	1.57E+002	67.16	2.28E+003
F	5	945-	962	954.82	239.02	1.09	2.67E+002	43.45	4.12E+002
F	6	1174-	1186	1181.06	295.70	0.56	4.45E+001	22.57	2.00E+002
F	7	1342-	1359	1352.95	338.74	1.54	8.51E+001	27.01	1.80E+002
F	8	1400-	1416	1407.59	352.42	1.50	1.52E+002	30.68	1.55E+002
F	9	2030-	2055	2043.06	511.44	2.67	2.14E+002	29.68	1.21E+002
F	10	2323-	2343	2332.30	583.76	1.57	1.82E+002	29.83	1.00E+002
F	11	2430-	2445	2437.06	609.95	0.99	1.18E+002	26.59	9.79E+001
F	12	3633-	3655	3645.19	911.75	1.48	1.26E+002	25.78	7.99E+001
F	13	3868-	3886	3876.78	969.57	1.41	8.23E+001	21.75	5.42E+001
F	14	4474-	4487	4481.53	1120.49	1.60	3.80E+001	15.96	2.80E+001
F	15	4687-	4700	4693.87	1173.47	1.73	4.12E+001	17.43	3.44E+001
F	16	5326-	5339	5332.43	1332.77	1.46	4.38E+001	15.81	1.79E+001
F	17	5831-	5862	5846.00	1460.87	2.11	1.05E+003	62.25	1.17E+001

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	0.994	511.00*	100.00	2.91765E-001	5.65808E-002
K-40	1.000	1460.81*	10.67	1.76881E+001	1.77225E+000
Co-60	0.998	1173.22*	100.00	7.02391E-002	3.02390E-002
		1332.49*	100.00	7.70683E-002	2.84512E-002
Eu-155	0.321	86.54*	30.90	6.29331E-001	2.96328E-001
		105.31	20.70		
TL-208	0.742	277.35	6.80		
		510.84*	21.60	1.35077E+000	2.84228E-001
		583.14*	84.20	3.07780E-001	6.44529E-002
		860.37	12.46		
Pb-212	0.674	74.81* @	10.70	1.17500E+001	2.64330E+000
		77.11 @	18.00		
		87.30* @	8.00	2.43079E+000	1.14457E+000
		238.63*	44.60	6.50376E-001	1.46856E-001
Bi-214	0.692	609.31*	46.30	3.69198E-001	9.46699E-002
		1120.29*	15.10	4.23449E-001	1.83494E-001
		1764.49	15.80		
PB-214	0.665	74.82* @	6.21	2.02455E+001	4.78572E+000
		77.11 @	10.50		
		87.30* @	4.67	4.16410E+000	1.98579E+000
		241.98	7.49		
		295.21*	19.20	2.67330E-001	1.42800E-001
		351.92*	37.20	4.95422E-001	1.29816E-001
Ac-228	0.990	338.32*	11.40	8.94469E-001	3.16736E-001
		911.07*	27.70	7.20607E-001	1.69212E-001
		969.11*	16.60	8.00778E-001	2.27529E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		0.994	2.252849E-001	5.822807E-002
K-40		1.000	1.768813E+001	1.772249E+000
Co-60		0.998	7.386154E-002	2.072127E-002
Eu-155		0.321	4.013577E-001	2.990976E-001
TL-208		0.742	3.077800E-001	6.366771E-002
Pb-212	@	0.674	6.503756E-001	1.468556E-001
Bi-214		0.692	3.806027E-001	8.413253E-002
PB-214	@	0.665	3.942977E-001	9.445540E-002
Ac-228		0.990	7.717159E-001	1.247960E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.79	6.2114E-001	19.98
M 3	84.77	7.0886E-001	18.00

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
+	Co-60	1173.22*	100.00	5.9325E-002	4.55E-002	7.0239E-002
		1332.49*	100.00	4.5466E-002		7.7068E-002
	Nb-94	702.63	100.00	1.0025E-001	1.00E-001	5.4508E-002
		871.10	100.00	1.0515E-001		1.2019E-001
	Ag-108m	79.20	7.10	6.2253E+000	1.20E-001	-2.5020E+000
		433.93	89.90	1.2050E-001		2.3677E-003
		614.37	90.40	1.4768E-001		-3.7503E-002
		722.95	90.50	1.2867E-001		1.5359E-001
	Sb-125	176.33	6.89	2.4315E+000	3.48E-001	1.7225E+000
		427.89	29.33	3.4777E-001		-2.4997E-001
		463.38	10.35	1.1388E+000		1.1014E+000
		600.56	17.80	5.8481E-001		1.4526E-003
		606.64	5.02	2.6273E+000		3.4443E+000
		635.90	11.32	8.7889E-001		-5.4693E-002
	Cs-134	563.23	8.38	1.2722E+000	1.17E-001	-2.6651E-003
		569.32	15.43	7.0018E-001		-5.8638E-001
		604.70	97.60	1.3059E-001		-1.7299E-002
		795.84	85.40	1.1692E-001		-2.3483E-002
		801.93	8.73	1.1142E+000		-1.2136E+000
	Cs-137	661.65	85.12	1.1987E-001	1.20E-001	4.3027E-002
	Eu-152	121.78	28.40	8.6222E-001	3.22E-001	8.9244E-002
		244.69	7.49	1.9714E+000		2.8760E-001
		344.27	26.50	4.4962E-001		-1.1421E-001
		778.89	12.74	8.0519E-001		-9.7577E-002
		867.32	4.16	2.4999E+000		-1.1350E+000
		964.01	14.40	8.5193E-001		7.1658E-001
		1085.78	10.00	9.9253E-001		-3.7532E-002
		1112.02	13.30	7.2945E-001		5.1870E-002
		1407.95	20.70	3.2211E-001		1.7708E-001
	Eu-154	123.07	40.50	5.9444E-001	2.17E-001	1.6286E-001
		247.94	6.60	2.1027E+000		-8.1641E-001
		591.81	4.83	2.2873E+000		1.5766E+000
		723.30	19.70	5.9227E-001		7.2372E-001
		756.87	4.33	2.2208E+000		-1.2019E+000
		873.19	11.50	8.9620E-001		8.3442E-001
		996.32	10.30	9.2163E-001		1.6586E-001
		1004.76	17.90	5.6258E-001		1.6653E-001
		1274.45	35.50	2.1720E-001		-2.3142E-001
+	Eu-155	86.54*	30.90	9.0180E-001	9.02E-001	6.2933E-001
		105.31	20.70	1.4101E+000		-2.8792E-001
	Am-241	59.54	35.90	1.6907E+000	1.69E+000	2.0071E-001
	Cm-243	228.19	10.56	1.3166E+000	9.32E-001	-1.0543E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	9.3195E-001	9.32E-001	5.2166E-001

+ = 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

Report Generated On 12/8/2005 10:46:31 AM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID:
Sample Title: NOL-05-02-189-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/8/2005 10:36:28 AM
Live Time: 600.0 seconds
Real Time: 601.2 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number:
Title: NOL-05-02-189-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	284-	313	291.67	72.77	1.09	5.03E+002	75.53	1.91E+003
m	2	284-	313	300.42	74.96	1.10	9.94E+002	88.12	1.86E+003
m	3	284-	313	309.13	77.15	1.10	2.03E+002	65.94	1.57E+003
F	4	331-	344	339.33	84.72	1.07	2.43E+002	73.35	1.74E+003
F	5	949-	961	955.02	239.07	1.10	2.32E+002	42.72	3.14E+002
F	6	1176-	1186	1180.29	295.50	0.99	4.52E+001	25.95	1.46E+002
F	7	1348-	1358	1353.74	338.94	1.18	7.85E+001	27.42	1.22E+002
F	8	1400-	1415	1408.18	352.57	1.33	1.19E+002	29.06	1.53E+002
F	9	2031-	2053	2042.53	511.30	2.60	1.79E+002	28.92	1.27E+002
F	10	2323-	2341	2332.75	583.87	1.29	1.69E+002	29.69	9.97E+001
F	11	2427-	2445	2437.52	610.07	1.20	1.61E+002	27.10	5.44E+001
F	12	3637-	3654	3645.63	911.86	1.34	9.54E+001	24.48	7.98E+001
F	13	3868-	3887	3877.48	969.74	2.21	1.12E+002	22.95	4.49E+001
F	14	4685-	4703	4694.50	1173.63	1.64	8.36E+001	21.26	4.27E+001
F	15	5324-	5341	5333.22	1332.97	1.58	8.23E+001	19.98	2.25E+001
F	16	5831-	5860	5846.08	1460.89	2.06	1.15E+003	65.65	1.50E+001
F	17	7056-	7069	7062.83	1764.41	2.06	3.70E+001	13.21	6.76E+000

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	0.997	511.00*	100.00	2.44113E-001	5.14816E-002
K-40	1.000	1460.81*	10.67	1.93303E+001	1.91358E+000
Co-60	0.994	1173.22*	100.00	1.42694E-001	3.79563E-002
		1332.49*	100.00	1.44647E-001	3.69073E-002
TL-208	0.740	277.35	6.80		
		510.84*	21.60	1.13015E+000	2.55587E-001
		583.14*	84.20	2.86494E-001	6.25754E-002
		860.37	12.46		
Pb-212	0.840	74.81* @	10.70	1.42116E+001	3.05713E+000
		77.11* @	18.00	1.66032E+000	6.29322E-001
		87.30 @	8.00		
		238.63*	44.60	5.64374E-001	1.36492E-001
Bi-214	0.688	609.31*	46.30	5.03843E-001	1.04934E-001
		1120.29	15.10		
		1764.49*	15.80	4.34871E-001	1.61117E-001
PB-214	0.757	74.82* @	6.21	2.44870E+001	5.55937E+000
		77.11* @	10.50	2.84626E+000	1.09957E+000
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	2.71585E-001	1.62350E-001
		351.92*	37.20	3.86174E-001	1.14597E-001
Ac-228	0.985	338.32*	11.40	8.25299E-001	3.16017E-001
		911.07*	27.70	5.46006E-001	1.53560E-001
		969.11*	16.60	1.08804E+000	2.50595E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		0.997	1.822301E-001	5.318813E-002
K-40		1.000	1.933025E+001	1.913575E+000
Co-60		0.994	1.436980E-001	2.646047E-002
TL-208		0.740	2.864945E-001	6.187497E-002
Pb-212	@	0.840	5.643743E-001	1.364916E-001
Bi-214		0.688	4.833002E-001	8.792957E-002
PB-214	@	0.757	3.480669E-001	9.362311E-002
Ac-228		0.985	7.132168E-001	1.209614E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.77	8.3807E-001	15.02
F 4	84.72	4.0441E-001	30.23

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
+	Co-60	1173.22*	100.00	7.2043E-002	5.42E-002	1.4269E-001
		1332.49*	100.00	5.4232E-002		1.4465E-001
	Nb-94	702.63	100.00	1.0521E-001	1.04E-001	4.9704E-002
		871.10	100.00	1.0355E-001		1.5991E-001
	Ag-108m	79.20	7.10	6.0528E+000	1.25E-001	-3.0456E+000
		433.93	89.90	1.2501E-001		7.0398E-002
		614.37	90.40	1.4474E-001		6.2919E-002
		722.95	90.50	1.2818E-001		1.9871E-002
	Sb-125	176.33	6.89	2.3451E+000	3.77E-001	1.2557E+000
		427.89	29.33	3.7687E-001		-2.3696E-001
		463.38	10.35	1.1388E+000		-2.2693E-001
		600.56	17.80	5.9724E-001		3.9671E-001
		606.64	5.02	2.6587E+000		6.0009E+000
		635.90	11.32	9.5312E-001		2.5417E-001
	Cs-134	563.23	8.38	1.2187E+000	1.30E-001	-1.1450E-001
		569.32	15.43	6.8521E-001		-6.3420E-001
		604.70	97.60	1.3517E-001		-1.2317E-002
		795.84	85.40	1.2972E-001		7.4665E-002
		801.93	8.73	1.2401E+000		-6.3234E-001
	Cs-137	661.65	85.12	1.4038E-001	1.40E-001	9.7316E-002
	Eu-152	121.78	28.40	8.4846E-001	3.11E-001	1.9771E-001
		244.69	7.49	1.9450E+000		-6.5881E-001
		344.27	26.50	4.6567E-001		-7.1284E-001
		778.89	12.74	8.0316E-001		2.8266E-001
		867.32	4.16	2.5695E+000		5.7128E-001
		964.01	14.40	8.6988E-001		7.8241E-002
		1085.78	10.00	9.6347E-001		-2.9892E-001
		1112.02	13.30	8.6310E-001		-1.9274E+000
		1407.95	20.70	3.1123E-001		-1.6524E-001
	Eu-154	123.07	40.50	5.8536E-001	2.52E-001	-2.5375E-001
		247.94	6.60	2.0764E+000		-1.1919E-001
		591.81	4.83	2.1949E+000		1.4792E-001
		723.30	19.70	5.9450E-001		3.7238E-001
		756.87	4.33	2.4317E+000		-8.2474E-001
		873.19	11.50	8.9855E-001		8.3142E-001
		996.32	10.30	9.2470E-001		-1.0911E+000
		1004.76	17.90	5.6425E-001		5.0581E-001
		1274.45	35.50	2.5240E-001		1.5498E-001
	Eu-155	86.54	30.90	1.2119E+000	1.21E+000	-6.6068E-001
		105.31	20.70	1.3980E+000		7.3229E-002
	Am-241	59.54	35.90	1.6258E+000	1.63E+000	6.4345E-002
	Cm-243	228.19	10.56	1.3732E+000	9.63E-001	7.2315E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	9.6255E-001	9.63E-001	4.6313E-001

+ = 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

Report Generated On 12/8/2005 11:00:15 AM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID:
Sample Title: NOL-05-02-190-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/8/2005 10:50:13 AM
Live Time: 600.0 seconds
Real Time: 601.2 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number:
Title: NOL-05-02-190-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	286-	306	292.01	72.85	0.94	4.58E+002	74.13	1.63E+003
m	2	286-	306	300.34	74.94	0.94	7.93E+002	87.14	1.73E+003
M	3	332-	358	339.80	84.84	1.02	2.83E+002	71.07	1.71E+003
m	4	332-	358	350.19	87.45	1.03	1.46E+002	61.93	1.60E+003
F	5	946-	962	955.01	239.07	1.01	2.67E+002	42.79	3.74E+002
F	6	1175-	1186	1180.73	295.61	0.90	6.56E+001	27.48	1.71E+002
F	7	1348-	1358	1353.17	338.80	0.93	6.60E+001	25.64	1.22E+002
F	8	1400-	1414	1407.89	352.49	1.27	1.37E+002	31.30	1.65E+002
F	9	1669-	1678	1672.93	418.83	0.94	2.80E+001	16.61	7.11E+001
F	10	2034-	2055	2044.46	511.79	2.38	1.91E+002	28.91	1.01E+002
F	11	2323-	2341	2332.47	583.81	1.59	1.92E+002	29.72	7.35E+001
F	12	2429-	2448	2437.52	610.07	1.36	1.74E+002	29.05	7.53E+001
F	13	2637-	2657	2647.14	662.46	1.59	1.37E+002	26.58	8.68E+001
F	14	2904-	2920	2910.64	728.30	1.42	3.87E+001	19.15	7.04E+001
F	15	3068-	3080	3074.08	769.13	0.92	1.90E+001	14.31	4.53E+001
F	16	3437-	3448	3442.11	861.05	0.79	1.49E+001	13.32	3.17E+001
F	17	3637-	3656	3646.21	912.01	1.64	1.61E+002	27.50	5.60E+001
M	18	3854-	3884	3859.21	965.18	1.25	1.81E+001	14.86	5.05E+001
m	19	3854-	3884	3876.42	969.48	1.25	8.36E+001	21.77	4.65E+001
F	20	4477-	4490	4483.64	1121.02	1.67	3.99E+001	17.19	3.27E+001
F	21	4685-	4705	4695.12	1173.78	1.98	8.30E+001	20.60	3.90E+001
F	22	5324-	5339	5331.46	1332.53	1.18	6.58E+001	18.46	2.60E+001
F	23	5830-	5859	5845.88	1460.84	2.10	9.31E+002	59.05	1.89E+001
F	24	7055-	7068	7061.11	1763.98	0.53	2.01E+001	1.26	1.73E+001

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	0.981	511.00*		100.00	2.61299E-001	5.29996E-002
K-40	1.000	1460.81*		10.67	1.56165E+001	1.60608E+000
Co-60	0.995	1173.22*		100.00	1.41685E-001	3.68648E-002
		1332.49*		100.00	1.15751E-001	3.36917E-002
Cs-137	0.980	661.65*		85.12	2.39854E-001	5.43313E-002
Eu-155	0.318	86.54*		30.90	5.86178E-001	2.73367E-001
		105.31		20.70		
TL-208	0.888	277.35		6.80		
		510.84*		21.60	1.20972E+000	2.64511E-001
		583.14*		84.20	3.25481E-001	6.57676E-002
		860.37*		12.46	1.86860E-001	1.68947E-001
Bi-212	0.962	727.17*		11.80	4.96627E-001	2.52631E-001
Pb-212	0.674	74.81*	@	10.70	1.13439E+001	2.54880E+000
		77.11	@	18.00		
		87.30*	@	8.00	2.26411E+000	1.05588E+000
		238.63*		44.60	6.49458E-001	1.45607E-001
Bi-214	0.985	609.31*		46.30	5.44554E-001	1.12808E-001
		1120.29*		15.10	4.44811E-001	1.97410E-001
		1764.49*		15.80	2.36141E-001	2.78660E-002
PB-214	0.664	74.82*	@	6.21	1.95459E+001	4.61518E+000
		77.11	@	10.50		
		87.30*	@	4.67	3.87857E+000	1.83237E+000
		241.98		7.49		
		295.21*		19.20	3.93837E-001	1.77784E-001
		351.92*		37.20	4.47607E-001	1.26483E-001
Ac-228	0.984	338.32*		11.40	6.93541E-001	2.90621E-001
		911.07*		27.70	9.21088E-001	1.89681E-001
		969.11*		16.60	8.12812E-001	2.28179E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		0.981	1.948506E-001	5.459122E-002
K-40		1.000	1.561650E+001	1.606084E+000
Co-60		0.995	1.275539E-001	2.486989E-002
Cs-137		0.980	2.398544E-001	5.433126E-002
Eu-155		0.318	3.530729E-001	2.763783E-001
TL-208		0.888	3.076314E-001	6.058383E-002
Bi-212		0.962	4.966266E-001	2.526308E-001
Pb-212	@	0.674	6.494575E-001	1.456068E-001
Bi-214		0.985	2.573973E-001	2.680234E-002
PB-214	@	0.664	4.298290E-001	1.012820E-001
Ac-228		0.984	8.399582E-001	1.303652E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.85	7.6289E-001	16.19
M 3	84.84	4.7209E-001	25.09
F 9	418.83	4.6600E-002	59.40
F 15	769.13	3.1616E-002	75.41
M 18	965.18	3.0121E-002	82.25

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
+	Co-60	1173.22*	100.00	7.1304E-002	5.59E-002	1.4168E-001
		1332.49*	100.00	5.5940E-002		1.1575E-001
	Nb-94	702.63	100.00	9.6620E-002	9.60E-002	-4.7458E-002
		871.10	100.00	9.6020E-002		5.1831E-002
	Ag-108m	79.20	7.10	6.0894E+000	1.21E-001	-7.1215E+000
		433.93	89.90	1.2278E-001		5.6561E-002
		614.37	90.40	1.5227E-001		3.1755E-002
		722.95	90.50	1.2088E-001		-5.2634E-002
	Sb-125	176.33	6.89	2.4154E+000	3.65E-001	1.0842E-001
		427.89	29.33	3.6469E-001		-1.5386E-002
		463.38	10.35	1.0998E+000		1.7089E-002
		600.56	17.80	5.7976E-001		1.2734E-001
		606.64	5.02	2.6518E+000		1.5105E-002
		635.90	11.32	8.7240E-001		-1.9499E-002
	Cs-134	563.23	8.38	1.2343E+000	1.10E-001	8.9437E-002
		569.32	15.43	7.0820E-001		4.9596E-001
		604.70	97.60	1.3077E-001		-1.4373E-002
		795.84	85.40	1.1044E-001		-4.7236E-002
		801.93	8.73	1.0453E+000		-4.3664E-001
+	Cs-137	661.65*	85.12	1.0678E-001	1.07E-001	2.3985E-001
	Eu-152	121.78	28.40	8.3629E-001	3.43E-001	1.9274E-001
		244.69	7.49	1.9232E+000		-8.1032E-001
		344.27	26.50	4.6320E-001		-2.5747E-001
		778.89	12.74	7.5909E-001		-6.0523E-001
		867.32	4.16	2.3131E+000		1.1643E+000
		964.01	14.40	8.6827E-001		-3.2286E-001
		1085.78	10.00	8.2127E-001		-3.9651E-001
		1112.02	13.30	7.5145E-001		-7.3655E-002
		1407.95	20.70	3.4274E-001		5.7003E-002
	Eu-154	123.07	40.50	5.8106E-001	2.42E-001	-3.0976E-001
		247.94	6.60	2.0675E+000		-2.9429E+000
		591.81	4.83	2.0982E+000		-1.2663E-001
		723.30	19.70	5.5774E-001		-3.0813E-001
		756.87	4.33	2.2459E+000		1.7173E+000
		873.19	11.50	8.2518E-001		6.2880E-001
		996.32	10.30	9.1236E-001		-1.0383E+000
		1004.76	17.90	5.0053E-001		6.1504E-002
		1274.45	35.50	2.4240E-001		-6.2844E-002
+	Eu-155	86.54*	30.90	7.5626E-001	7.56E-001	5.8618E-001
		105.31	20.70	1.3790E+000		4.6954E-001
	Am-241	59.54	35.90	1.6411E+000	1.64E+000	1.5909E+000
	Cm-243	228.19	10.56	1.3657E+000	9.25E-001	-9.1309E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	9.2492E-001	9.25E-001	-4.9050E-001

+ = 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

Report Generated On 12/8/2005 11:18:22 AM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID:
Sample Title: NOL-05-02-191-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/8/2005 11:08:19 AM
Live Time: 600.0 seconds
Real Time: 602.0 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number:
Title: NOL-05-02-191-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	282-	305	292.00	72.85	1.00	8.67E+002	97.18	2.81E+003
m	2	282-	305	300.60	75.01	1.00	1.50E+003	114.19	2.91E+003
F	3	333-	348	339.79	84.84	0.99	5.12E+002	94.20	3.44E+003
F	4	947-	961	954.83	239.03	1.00	2.83E+002	51.17	6.11E+002
F	5	1402-	1413	1407.49	352.40	0.95	8.70E+001	31.98	2.22E+002
F	6	2033-	2054	2043.24	511.48	2.30	1.45E+002	30.17	1.90E+002
F	7	2323-	2343	2332.42	583.79	1.55	1.88E+002	32.28	1.52E+002
F	8	2426-	2445	2437.20	609.99	1.40	1.41E+002	28.85	1.25E+002
F	9	2903-	2916	2909.64	728.05	0.92	2.82E+001	17.21	6.99E+001
F	10	3636-	3653	3645.67	911.87	1.15	1.18E+002	24.85	5.86E+001
F	11	3871-	3885	3876.65	969.53	1.24	7.85E+001	21.27	4.12E+001
F	12	4476-	4489	4482.66	1120.77	0.47	3.11E+001	9.24	3.87E+001
F	13	5831-	5859	5845.98	1460.87	1.97	9.79E+002	60.87	2.22E+001
F	14	7057-	7070	7063.47	1764.57	2.22	4.42E+001	14.75	6.69E+000

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	0.993	511.00*	100.00	1.97717E-001	4.91161E-002
K-40	1.000	1460.81*	10.67	1.64267E+001	1.67664E+000
TL-208	0.741	277.35	6.80		
		510.84*	21.60	9.15356E-001	2.39362E-001
		583.14*	84.20	3.18442E-001	6.85770E-002
		860.37	12.46		
Bi-212	0.977	727.17*	11.80	3.62081E-001	2.24936E-001
Pb-212	0.518	74.81* @	10.70	2.14873E+001	4.51632E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	6.88184E-001	1.64720E-001
Bi-214	0.990	609.31*	46.30	4.39704E-001	1.05122E-001
		1120.29*	15.10	3.47148E-001	1.09387E-001
		1764.49*	15.80	5.18727E-001	1.80883E-001
Ac-228	0.622	338.32	11.40		
		911.07*	27.70	6.75256E-001	1.62025E-001
		969.11*	16.60	7.63706E-001	2.21725E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		0.993	1.289335E-001	5.125211E-002
K-40		1.000	1.642674E+001	1.676639E+000
TL-208		0.741	3.184418E-001	6.778723E-002
Bi-212		0.977	3.620814E-001	2.249359E-001
Pb-212	@	0.518	6.881837E-001	1.647201E-001
Bi-214		0.990	4.137060E-001	6.990640E-002
Ac-228		0.622	7.060463E-001	1.308190E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.85	1.4453E+000	11.21
F 3	84.84	8.5314E-001	18.40
F 5	352.40	1.4497E-001	36.77

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Co-60	1173.22	100.00	9.6844E-002	7.46E-002	-3.8549E-002
	1332.49	100.00	7.4645E-002		-6.7492E-003
Nb-94	702.63	100.00	1.0737E-001	9.60E-002	-8.0987E-002
	871.10	100.00	9.6020E-002		4.3501E-003
Ag-108m	79.20	7.10	7.9056E+000	1.24E-001	-3.1371E+001
	433.93	89.90	1.4529E-001		3.9480E-002
	614.37	90.40	1.5817E-001		-6.7056E-002
	722.95	90.50	1.2446E-001		-1.1308E-002
Sb-125	176.33	6.89	3.3106E+000	4.56E-001	-5.1519E-001
	427.89	29.33	4.5563E-001		2.7915E-001
	463.38	10.35	1.2911E+000		2.1039E-001
	600.56	17.80	6.4106E-001		3.7186E-001
	606.64	5.02	2.8847E+000		6.5153E+000
	635.90	11.32	9.2906E-001		-1.7220E+000
Cs-134	563.23	8.38	1.4293E+000	1.22E-001	-9.6226E-001
	569.32	15.43	7.6193E-001		3.7355E-001
	604.70	97.60	1.4236E-001		-1.7830E-002
	795.84	85.40	1.2245E-001		3.3214E-002
	801.93	8.73	1.2286E+000		2.9450E-001
Cs-137	661.65	85.12	1.3211E-001	1.32E-001	1.0181E-001
Eu-152	121.78	28.40	1.1360E+000	3.35E-001	-8.0936E-001
	244.69	7.49	2.6835E+000		7.9918E-001
	344.27	26.50	5.9620E-001		-1.3245E+000
	778.89	12.74	7.4600E-001		-4.9417E-001
	867.32	4.16	2.3613E+000		1.1431E-001
	964.01	14.40	8.0959E-001		-6.2337E-001
	1085.78	10.00	9.2665E-001		-2.7673E-002
	1112.02	13.30	6.9898E-001		-6.7567E-001
	1407.95	20.70	3.3516E-001		1.2735E-002
Eu-154	123.07	40.50	7.9158E-001	2.39E-001	-2.5076E-001
	247.94	6.60	2.9188E+000		-2.8906E+000
	591.81	4.83	2.3427E+000		-2.8689E-001
	723.30	19.70	5.7872E-001		-1.1982E-001
	756.87	4.33	2.2769E+000		-8.1198E-001
	873.19	11.50	8.5778E-001		1.6913E-001
	996.32	10.30	8.3773E-001		4.6204E-001
	1004.76	17.90	4.5700E-001		-1.1600E-001
	1274.45	35.50	2.3897E-001		-6.3756E-003
Eu-155	86.54	30.90	1.5995E+000	1.60E+000	4.7066E+000
	105.31	20.70	1.8243E+000		-1.6129E+000
Am-241	59.54	35.90	2.1698E+000	2.17E+000	-3.0596E+000
Cm-243	228.19	10.56	1.8627E+000	1.24E+000	-1.8443E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	1.2382E+000	1.24E+000	1.4152E-002

+ = 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

Report Generated On 12/8/2005 1:23:07 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID:
Sample Title: NOL-05-02-192-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/8/2005 1:13:05 PM
Live Time: 600.0 seconds
Real Time: 601.4 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number:
Title: NOL-05-02-192-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	285-	314	292.12	72.88	0.90	4.87E+002	78.82	1.96E+003
m	2	285-	314	300.59	75.00	0.91	1.03E+003	93.66	2.02E+003
m	3	285-	314	309.74	77.30	0.91	1.10E+002	64.98	1.79E+003
M	4	330-	357	339.89	84.86	1.22	3.14E+002	78.90	2.66E+003
m	5	330-	357	350.18	87.44	1.22	1.63E+002	72.09	2.44E+003
F	6	949-	962	955.02	239.07	0.98	2.98E+002	46.65	3.82E+002
F	7	1175-	1186	1181.56	295.82	0.78	5.46E+001	26.39	1.83E+002
F	8	1346-	1361	1352.74	338.69	1.38	7.00E+001	27.72	1.90E+002
F	9	1402-	1417	1408.15	352.56	1.56	1.65E+002	32.78	1.67E+002
F	10	2032-	2056	2044.28	511.74	2.28	2.00E+002	29.89	1.28E+002
F	11	2325-	2341	2333.33	584.02	1.23	1.63E+002	29.47	9.18E+001
F	12	2428-	2447	2437.55	610.07	1.43	1.62E+002	29.02	1.01E+002
F	13	2905-	2917	2910.40	728.24	0.42	2.88E+001	6.55	6.56E+001
F	14	3636-	3654	3646.05	911.97	1.59	1.18E+002	24.20	4.99E+001
F	15	3869-	3884	3877.62	969.78	1.05	6.97E+001	19.95	4.43E+001
F	16	4476-	4489	4483.12	1120.89	1.50	4.74E+001	18.44	3.82E+001
F	17	4689-	4703	4695.48	1173.87	1.11	5.29E+001	17.52	3.00E+001
F	18	5833-	5861	5847.30	1461.20	2.08	9.85E+002	60.50	3.69E+000
F	19	7057-	7072	7064.39	1764.80	1.45	4.13E+001	13.97	9.08E+000

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	0.984	511.00*	100.00	2.72397E-001	5.49951E-002
K-40	0.995	1460.81*	10.67	1.65247E+001	1.67921E+000
Eu-155	0.318	86.54*	30.90	6.54273E-001	3.15944E-001
		105.31	20.70		
TL-208	0.732	277.35	6.80		
		510.84*	21.60	1.26110E+000	2.74648E-001
		583.14*	84.20	2.76741E-001	6.15268E-002
		860.37	12.46		
Bi-212	0.966	727.17*	11.80	3.69668E-001	9.46581E-002
Pb-212	0.996	74.81* @	10.70	1.47493E+001	3.18545E+000
		77.11* @	18.00	8.97936E-001	5.57857E-001
		87.30* @	8.00	2.52713E+000	1.22033E+000
		238.63*	44.60	7.25799E-001	1.60716E-001
Bi-214	0.987	609.31*	46.30	5.04724E-001	1.09897E-001
		1120.29*	15.10	5.27940E-001	2.13059E-001
		1764.49*	15.80	4.85620E-001	1.71189E-001
PB-214	0.842	74.82* @	6.21	2.54134E+001	5.79036E+000
		77.11* @	10.50	1.53932E+000	9.63209E-001
		87.30* @	4.67	4.32913E+000	2.11593E+000
		241.98	7.49		
		295.21*	19.20	3.28112E-001	1.67819E-001
		351.92*	37.20	5.37262E-001	1.39549E-001
Ac-228	0.983	338.32*	11.40	7.36076E-001	3.13398E-001
		911.07*	27.70	6.74037E-001	1.58715E-001
		969.11*	16.60	6.77830E-001	2.06605E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		0.984	2.126208E-001	5.654455E-002
K-40		0.995	1.652469E+001	1.679209E+000
Eu-155		0.318	3.978084E-001	3.190696E-001
TL-208		0.732	2.767406E-001	6.086221E-002
Bi-212		0.966	3.696681E-001	9.465810E-002
Pb-212	@	0.996	7.257995E-001	1.607159E-001
Bi-214		0.987	5.037132E-001	8.483345E-002
PB-214	@	0.842	4.536072E-001	1.053712E-001
Ac-228		0.983	6.838658E-001	1.167965E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.88	8.1161E-001	16.19
M 4	84.86	5.2377E-001	25.11
F 17	1173.87	8.8160E-002	33.13

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
	Co-60	1173.22	100.00	1.1052E-001	9.17E-002	1.0975E-001
		1332.49	100.00	9.1709E-002		1.1326E-001
	Nb-94	702.63	100.00	9.9227E-002	9.57E-002	5.6952E-002
		871.10	100.00	9.5729E-002		3.0402E-002
	Ag-108m	79.20	7.10	6.6002E+000	1.20E-001	9.0142E-001
		433.93	89.90	1.2050E-001		-5.8210E-002
		614.37	90.40	1.5488E-001		6.6314E-002
		722.95	90.50	1.2916E-001		2.6763E-002
	Sb-125	176.33	6.89	2.5698E+000	3.79E-001	1.0889E+000
		427.89	29.33	3.7858E-001		-4.3532E-002
		463.38	10.35	1.1276E+000		5.9600E-001
		600.56	17.80	5.8481E-001		2.1562E-001
		606.64	5.02	2.6966E+000		-8.0888E-001
		635.90	11.32	9.2294E-001		7.1249E-002
	Cs-134	563.23	8.38	1.3283E+000	1.12E-001	-5.8416E-001
		569.32	15.43	7.0687E-001		-2.6181E-001
		604.70	97.60	1.3317E-001		-2.0081E-002
		795.84	85.40	1.1176E-001		-2.6860E-002
		801.93	8.73	1.0521E+000		-5.6648E-001
	Cs-137	661.65	85.12	1.3619E-001	1.36E-001	8.7848E-002
	Eu-152	121.78	28.40	9.0485E-001	3.19E-001	-4.8124E-001
		244.69	7.49	2.0938E+000		1.8449E+000
		344.27	26.50	4.8639E-001		-9.0421E-002
		778.89	12.74	7.7195E-001		2.7347E-002
		867.32	4.16	2.3884E+000		-3.5502E+000
		964.01	14.40	8.4197E-001		-1.4937E-001
		1085.78	10.00	9.5358E-001		-8.0176E-001
		1112.02	13.30	7.6101E-001		2.9980E-001
		1407.95	20.70	3.1943E-001		5.7747E-002
	Eu-154	123.07	40.50	6.2923E-001	2.39E-001	-1.1922E-001
		247.94	6.60	2.2253E+000		-2.1557E+000
		591.81	4.83	2.2083E+000		5.6137E-001
		723.30	19.70	5.9561E-001		-2.4162E-002
		756.87	4.33	2.3075E+000		-7.1653E-001
		873.19	11.50	8.1488E-001		-5.1665E-001
		996.32	10.30	8.6774E-001		5.2522E-001
		1004.76	17.90	5.1541E-001		1.9879E-001
		1274.45	35.50	2.3897E-001		1.2389E-001
+	Eu-155	86.54*	30.90	9.3085E-001	9.31E-001	6.5427E-001
		105.31	20.70	1.4879E+000		8.2180E-001
	Am-241	59.54	35.90	1.7966E+000	1.80E+000	-1.0024E+000
	Cm-243	228.19	10.56	1.4526E+000	1.02E+000	-3.5494E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	1.0160E+000	1.02E+000	-3.9485E-002

+ = 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

Report Generated On 12/8/2005 2:04:11 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID:
Sample Title: NOL-05-02-193-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/8/2005 1:54:09 PM
Live Time: 600.0 seconds
Real Time: 601.3 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number:
Title: NOL-05-02-193-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	285-	305	292.09	72.87	0.87	4.39E+002	76.00	1.92E+003
m	2	285-	305	300.49	74.98	0.88	9.06E+002	93.42	2.01E+003
M	3	336-	356	339.78	84.84	0.99	3.15E+002	75.87	1.34E+003
m	4	336-	356	350.00	87.40	0.99	1.59E+002	65.59	1.71E+003
F	5	950-	961	954.88	239.04	0.97	3.04E+002	45.43	2.88E+002
M	6	1175-	1209	1181.40	295.78	1.09	9.02E+001	28.70	1.77E+002
m	7	1175-	1209	1201.27	300.76	1.09	6.84E+001	24.65	1.43E+002
F	8	1348-	1362	1353.65	338.92	1.09	5.97E+001	25.49	1.53E+002
F	9	1399-	1414	1407.80	352.47	1.20	1.52E+002	30.74	1.42E+002
F	10	2033-	2055	2044.54	511.80	2.36	1.52E+002	28.25	1.43E+002
F	11	2326-	2342	2332.97	583.93	1.28	1.48E+002	29.33	1.07E+002
F	12	2429-	2447	2437.57	610.08	1.32	1.59E+002	28.66	9.07E+001
F	13	2903-	2918	2909.76	728.08	1.32	3.64E+001	18.35	6.40E+001
F	14	3636-	3654	3646.31	912.03	1.61	1.51E+002	26.88	5.47E+001
F	15	4475-	4492	4484.02	1121.11	1.40	5.67E+001	18.51	4.05E+001
F	16	4949-	4962	4955.92	1238.85	1.08	2.23E+001	13.07	2.60E+001
F	17	5326-	5339	5332.44	1332.77	1.47	3.13E+001	13.37	1.38E+001
F	18	5834-	5861	5846.87	1461.09	1.97	8.61E+002	57.03	2.04E+001
F	19	7055-	7072	7064.30	1764.78	1.75	5.12E+001	14.70	4.50E+000

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	0.981	511.00*	100.00	2.06974E-001	4.76588E-002
K-40	0.998	1460.81*	10.67	1.44423E+001	1.51066E+000
Eu-155	0.320	86.54*	30.90	6.38773E-001	2.91181E-001
		105.31	20.70		
TL-208	0.734	277.35	6.80		
		510.84*	21.60	9.58213E-001	2.34109E-001
		583.14*	84.20	2.51328E-001	5.94600E-002
		860.37	12.46		
Bi-212	0.975	727.17*	11.80	4.67228E-001	2.41869E-001
Pb-212	0.674	74.81* @	10.70	1.29542E+001	2.86861E+000
		77.11 @	18.00		
		87.30* @	8.00	2.46726E+000	1.12469E+000
		238.63*	44.60	7.40284E-001	1.60268E-001
Bi-214	0.985	609.31*	46.30	4.96639E-001	1.08414E-001
		1120.29*	15.10	6.32243E-001	2.17048E-001
		1764.49*	15.80	6.01476E-001	1.82869E-001
PB-214	0.663	74.82* @	6.21	2.23204E+001	5.20149E+000
		77.11 @	10.50		
		87.30* @	4.67	4.22657E+000	1.95294E+000
		241.98	7.49		
		295.21*	19.20	5.41591E-001	1.94965E-001
		351.92*	37.20	4.95505E-001	1.29970E-001
Ac-228	0.524	338.32*	11.40	6.27924E-001	2.85520E-001
		911.07*	27.70	8.66079E-001	1.83264E-001
		969.11	16.60		

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		0.981	1.526871E-001	4.932734E-002
K-40		0.998	1.444232E+001	1.510663E+000
Eu-155		0.320	3.701146E-001	2.945573E-001
TL-208		0.734	2.513285E-001	5.889318E-002
Bi-212		0.975	4.672281E-001	2.418687E-001
Pb-212	@	0.674	7.402843E-001	1.602677E-001
Bi-214		0.985	5.407867E-001	8.568278E-002
PB-214	@	0.663	5.094820E-001	1.058040E-001
Ac-228		0.524	7.965903E-001	1.542278E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.87	7.3233E-001	17.30
M 3	84.84	5.2565E-001	24.06
m 7	300.76	1.1407E-001	36.02
F 16	1238.85	3.7148E-002	58.62
F 17	1332.77	5.2116E-002	42.74

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
	Co-60	1173.22	100.00	1.0020E-001	8.70E-002	3.4391E-002
		1332.49	100.00	8.6962E-002		4.6379E-002
	Nb-94	702.63	100.00	1.0202E-001	8.91E-002	4.3445E-002
		871.10	100.00	8.9078E-002		1.1173E-002
	Ag-108m	79.20	7.10	6.5372E+000	1.20E-001	-1.4107E+001
		433.93	89.90	1.2315E-001		-3.5844E-002
		614.37	90.40	1.4354E-001		1.5339E-002
		722.95	90.50	1.1957E-001		-6.2473E-003
	Sb-125	176.33	6.89	2.4828E+000	3.71E-001	1.4324E-001
		427.89	29.33	3.7054E-001		2.7392E-001
		463.38	10.35	1.0662E+000		6.2223E-001
		600.56	17.80	5.7467E-001		1.8189E-002
		606.64	5.02	2.7034E+000		-3.4104E-001
		635.90	11.32	8.9170E-001		-9.8152E-002
	Cs-134	563.23	8.38	1.1977E+000	1.17E-001	-2.2733E-001
		569.32	15.43	6.4549E-001		-1.2965E-001
		604.70	97.60	1.3463E-001		-9.7865E-003
		795.84	85.40	1.1692E-001		1.3887E-001
		801.93	8.73	1.0950E+000		-9.6765E-001
	Cs-137	661.65	85.12	1.2546E-001	1.25E-001	7.8114E-002
	Eu-152	121.78	28.40	8.8645E-001	3.22E-001	3.8928E-001
		244.69	7.49	2.0197E+000		-1.7051E-001
		344.27	26.50	4.3980E-001		1.0022E-001
		778.89	12.74	7.6982E-001		-9.3187E-001
		867.32	4.16	2.2136E+000		-2.4426E+000
		964.01	14.40	7.7944E-001		1.2012E+000
		1085.78	10.00	9.0240E-001		-3.7734E-001
		1112.02	13.30	7.5385E-001		-3.6941E-001
		1407.95	20.70	3.2211E-001		2.4043E-001
	Eu-154	123.07	40.50	6.1562E-001	2.23E-001	1.1318E-001
		247.94	6.60	2.1585E+000		-2.4994E+000
		591.81	4.83	2.1263E+000		6.6559E-001
		723.30	19.70	5.5057E-001		-2.3877E-001
		756.87	4.33	2.3616E+000		1.7511E+000
		873.19	11.50	7.8311E-001		-2.0052E-001
		996.32	10.30	8.5120E-001		-3.9096E-001
		1004.76	17.90	5.0988E-001		1.6618E-001
		1274.45	35.50	2.2347E-001		-3.6969E-002
+	Eu-155	86.54*	30.90	7.8204E-001	7.82E-001	6.3877E-001
		105.31	20.70	1.4517E+000		-7.2989E-001
	Am-241	59.54	35.90	1.7860E+000	1.79E+000	5.6662E-001
	Cm-243	228.19	10.56	1.4195E+000	9.55E-001	-5.1983E-002

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	9.5499E-001	9.55E-001	-2.5858E-001

+ = 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

Report Generated On 12/8/2005 11:32:13 AM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID:
Sample Title: NOL-05-02-194-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/8/2005 11:22:10 AM
Live Time: 600.0 seconds
Real Time: 601.3 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number:
Title: NOL-05-02-194-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	282-	307	291.86	72.82	0.99	5.16E+002	79.44	2.02E+003
m	2	282-	307	300.31	74.93	0.99	8.77E+002	91.85	2.23E+003
F	3	332-	345	340.00	84.89	0.93	3.54E+002	78.39	2.00E+003
F	4	948-	960	955.02	239.07	1.15	2.68E+002	42.80	2.81E+002
F	5	1398-	1414	1407.62	352.43	1.10	1.50E+002	32.14	1.88E+002
F	6	2030-	2055	2043.31	511.50	1.98	1.49E+002	28.32	1.59E+002
F	7	2324-	2343	2332.93	583.92	1.24	1.45E+002	26.95	7.48E+001
F	8	2427-	2446	2437.04	609.95	1.58	1.65E+002	27.69	6.74E+001
F	9	3638-	3656	3646.15	911.99	1.47	1.04E+002	24.56	6.93E+001
F	10	3869-	3888	3877.72	969.80	2.08	9.00E+001	20.76	3.37E+001
F	11	4479-	4491	4483.42	1120.96	1.26	2.50E+001	16.19	2.93E+001
F	12	4687-	4701	4693.82	1173.46	1.37	4.43E+001	17.55	3.80E+001
F	13	5325-	5341	5333.43	1333.02	1.94	4.90E+001	15.53	1.45E+001
F	14	5833-	5860	5846.12	1460.90	1.93	7.80E+002	54.55	3.22E+001
F	15	7054-	7071	7062.75	1764.39	2.16	4.99E+001	15.67	1.29E+001

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	0.993	511.00*	100.00	2.02943E-001	4.74256E-002
K-40	1.000	1460.81*	10.67	1.30885E+001	1.40004E+000
Co-60	0.995	1173.22*	100.00	7.55371E-002	3.05213E-002
		1332.49*	100.00	8.62367E-002	2.81252E-002
TL-208	0.737	277.35	6.80		
		510.84*	21.60	9.39552E-001	2.32584E-001
		583.14*	84.20	2.44731E-001	5.56402E-002
		860.37	12.46		
Pb-212	0.517	74.81* @	10.70	1.25379E+001	2.78658E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	6.51741E-001	1.45891E-001
Bi-214	0.990	609.31*	46.30	5.16604E-001	1.07342E-001
		1120.29*	15.10	2.78419E-001	1.82965E-001
		1764.49*	15.80	5.86474E-001	1.93256E-001
Ac-228	0.617	338.32	11.40		
		911.07*	27.70	5.92931E-001	1.56212E-001
		969.11*	16.60	8.74964E-001	2.21671E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		0.993	1.500814E-001	4.889433E-002
K-40		1.000	1.308848E+001	1.400044E+000
Co-60		0.995	8.132331E-002	2.068277E-002
TL-208		0.737	2.447314E-001	5.506560E-002
Pb-212	@	0.517	6.517406E-001	1.458913E-001
Bi-214		0.990	4.800422E-001	8.349698E-002
Ac-228		0.617	6.865156E-001	1.276913E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.82	8.6052E-001	15.39
F 3	84.89	5.9030E-001	22.13
F 5	352.43	2.4962E-001	21.46

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
+	Co-60	1173.22*	100.00	6.3453E-002	4.38E-002	7.5537E-002
		1332.49*	100.00	4.3773E-002		8.6237E-002
	Nb-94	702.63	100.00	1.0076E-001	9.43E-002	4.1786E-002
		871.10	100.00	9.4261E-002		1.0858E-001
	Ag-108m	79.20	7.10	6.4338E+000	1.17E-001	-3.1215E+000
		433.93	89.90	1.1739E-001		-1.2977E-001
		614.37	90.40	1.4274E-001		5.4906E-002
		722.95	90.50	1.2471E-001		8.3229E-002
	Sb-125	176.33	6.89	2.4531E+000	3.78E-001	2.4087E+000
		427.89	29.33	3.7801E-001		4.0072E-002
		463.38	10.35	1.0315E+000		-7.9083E-001
		600.56	17.80	5.7082E-001		1.9259E-001
		606.64	5.02	2.5955E+000		5.3047E+000
		635.90	11.32	9.0433E-001		-2.0662E-001
	Cs-134	563.23	8.38	1.2368E+000	1.11E-001	1.9334E-001
		569.32	15.43	6.8245E-001		-4.8710E-001
		604.70	97.60	1.3040E-001		-1.6290E-002
		795.84	85.40	1.1110E-001		5.0309E-002
		801.93	8.73	1.0419E+000		-6.1000E-001
	Cs-137	661.65	85.12	1.2949E-001	1.29E-001	9.4020E-002
	Eu-152	121.78	28.40	8.9128E-001	3.55E-001	-3.3602E-002
		244.69	7.49	1.9462E+000		-2.9468E+000
		344.27	26.50	4.6171E-001		-5.9322E-001
		778.89	12.74	7.5692E-001		1.0840E-001
		867.32	4.16	2.2639E+000		-3.1368E+000
		964.01	14.40	7.9908E-001		8.4016E-002
		1085.78	10.00	8.6652E-001		-9.9565E-001
		1112.02	13.30	7.6101E-001		-4.0679E-001
		1407.95	20.70	3.5499E-001		1.6092E-001
	Eu-154	123.07	40.50	6.1551E-001	2.56E-001	-1.0168E-001
		247.94	6.60	2.1099E+000		-2.3728E+000
		591.81	4.83	2.2038E+000		7.2377E-001
		723.30	19.70	5.7065E-001		4.2064E-001
		756.87	4.33	2.3015E+000		1.6300E+000
		873.19	11.50	7.9651E-001		-3.5346E-002
		996.32	10.30	8.4449E-001		-8.7111E-001
		1004.76	17.90	4.8907E-001		-7.5933E-004
		1274.45	35.50	2.5563E-001		5.6886E-002
	Eu-155	86.54	30.90	1.3186E+000	1.32E+000	1.6788E+000
		105.31	20.70	1.4519E+000		2.2184E-001
	Am-241	59.54	35.90	1.7683E+000	1.77E+000	5.9799E-001
	Cm-243	228.19	10.56	1.3624E+000	9.39E-001	6.5419E-002

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	9.3892E-001	9.39E-001	6.8861E-002

+ = 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

Report Generated On 12/8/2005 1:35:45 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID:
Sample Title: NOL-05-02-195-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/8/2005 1:25:42 PM
Live Time: 600.0 seconds
Real Time: 601.4 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number:
Title: NOL-05-02-195-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	282-	309	291.62	72.76	1.22	5.57E+002	82.34	2.55E+003
m	2	282-	309	300.64	75.02	1.23	9.62E+002	94.55	2.65E+003
F	3	333-	346	339.82	84.85	1.16	3.59E+002	82.28	2.08E+003
F	4	569-	577	573.27	143.39	0.75	5.77E+001	42.75	4.94E+002
F	5	946-	961	954.82	239.03	1.09	2.28E+002	42.84	3.96E+002
F	6	1176-	1187	1181.11	295.71	0.92	4.65E+001	27.96	2.06E+002
F	7	1349-	1358	1353.12	338.78	1.11	6.71E+001	26.91	1.19E+002
F	8	1403-	1414	1408.50	352.65	1.20	1.41E+002	31.31	1.29E+002
F	9	2324-	2341	2333.53	584.07	1.36	1.41E+002	29.42	1.28E+002
F	10	2428-	2459	2437.59	610.09	1.52	1.46E+002	27.50	1.50E+002
F	11	3639-	3655	3646.77	912.15	1.68	1.37E+002	26.36	5.41E+001
F	12	3870-	3888	3877.77	969.81	1.94	7.66E+001	21.51	5.27E+001
F	13	4688-	4703	4696.38	1174.10	1.51	3.26E+001	18.05	5.39E+001
F	14	5325-	5343	5333.59	1333.06	2.00	8.38E+001	18.85	1.10E+001
F	15	5833-	5862	5847.57	1461.27	2.12	8.73E+002	56.96	1.14E+001

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
K-40	0.994	1460.81*	10.67	1.46414E+001	1.52245E+000
Co-60	0.983	1173.22*	100.00	5.56375E-002	3.11123E-002
		1332.49*	100.00	1.47273E-001	3.51003E-002
TL-208	0.453	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	2.39512E-001	5.87537E-002
		860.37	12.46		
Pb-212	0.518	74.81* @	10.70	1.37393E+001	3.01246E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	5.54289E-001	1.35685E-001
Bi-214	0.387	609.31*	46.30	4.55673E-001	1.02601E-001
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.574	74.82* @	6.21	2.36731E+001	5.46764E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	2.79215E-001	1.74356E-001
		351.92*	37.20	4.58170E-001	1.27586E-001
Ac-228	0.977	338.32*	11.40	7.05404E-001	3.03785E-001
		911.07*	27.70	7.84377E-001	1.75746E-001
		969.11*	16.60	7.44490E-001	2.23237E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
K-40		0.994	1.464136E+001	1.522451E+000
Co-60		0.983	9.595584E-002	2.328259E-002
TL-208		0.453	2.395123E-001	5.875366E-002
Pb-212	@	0.518	5.542895E-001	1.356846E-001
Bi-214		0.387	4.556734E-001	1.026012E-001
PB-214	@	0.574	3.957633E-001	1.029632E-001
Ac-228		0.977	7.582051E-001	1.257106E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.76	9.2895E-001	14.77
F 3	84.85	5.9862E-001	22.91
F 4	143.39	9.6108E-002	74.13

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
+	Co-60	1173.22*	100.00	7.6031E-002	3.95E-002	5.5637E-002
		1332.49*	100.00	3.9526E-002		1.4727E-001
	Nb-94	702.63	100.00	1.0473E-001	1.03E-001	4.4541E-002
		871.10	100.00	1.0328E-001		1.3347E-002
	Ag-108m	79.20	7.10	6.5909E+000	1.17E-001	-8.5690E+000
		433.93	89.90	1.2685E-001		1.3294E-002
		614.37	90.40	1.4942E-001		1.7419E-003
		722.95	90.50	1.1745E-001		-7.8082E-002
	Sb-125	176.33	6.89	2.4911E+000	3.86E-001	1.9589E+000
		427.89	29.33	3.8589E-001		-2.5030E-002
		463.38	10.35	1.1015E+000		4.0132E-001
		600.56	17.80	5.9847E-001		1.4885E-001
		606.64	5.02	2.6657E+000		2.9512E-001
		635.90	11.32	9.7075E-001		7.0147E-002
	Cs-134	563.23	8.38	1.2747E+000	1.25E-001	-3.8838E-001
		569.32	15.43	7.2137E-001		1.1991E-001
		604.70	97.60	1.3096E-001		-1.4961E-002
		795.84	85.40	1.2512E-001		6.6659E-002
		801.93	8.73	1.1547E+000		-1.3678E+000
	Cs-137	661.65	85.12	1.3028E-001	1.30E-001	-1.2212E-002
	Eu-152	121.78	28.40	9.0561E-001	3.22E-001	-9.5117E-003
		244.69	7.49	1.9845E+000		-6.7266E-001
		344.27	26.50	4.7252E-001		-4.6605E-001
		778.89	12.74	7.9290E-001		6.6813E-002
		867.32	4.16	2.6970E+000		2.3447E+000
		964.01	14.40	8.5850E-001		-1.5059E-001
		1085.78	10.00	9.6674E-001		-2.8825E-001
		1112.02	13.30	7.2945E-001		-1.7509E+000
		1407.95	20.70	3.2211E-001		2.3606E-001
	Eu-154	123.07	40.50	6.2415E-001	2.31E-001	2.4900E-001
		247.94	6.60	2.0910E+000		-2.7615E+000
		591.81	4.83	2.2394E+000		5.8972E-001
		723.30	19.70	5.4573E-001		-8.0927E-002
		756.87	4.33	2.3734E+000		-3.3554E+000
		873.19	11.50	8.6268E-001		-7.5898E-001
		996.32	10.30	9.8967E-001		8.4296E-001
		1004.76	17.90	5.1906E-001		2.1962E-001
		1274.45	35.50	2.3076E-001		-9.0820E-002
	Eu-155	86.54	30.90	1.3258E+000	1.33E+000	2.2254E+000
		105.31	20.70	1.4837E+000		1.4904E-001
	Am-241	59.54	35.90	1.7788E+000	1.78E+000	-5.2903E-001
	Cm-243	228.19	10.56	1.3806E+000	9.99E-001	-4.4831E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	9.9873E-001	9.99E-001	8.6980E-001

+ = 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

Report Generated On 12/8/2005 1:51:00 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID:
Sample Title: NOL-05-02-196-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/8/2005 1:40:58 PM
Live Time: 600.0 seconds
Real Time: 601.3 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number:
Title: NOL-05-02-196-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	285-	305	291.92	72.83	0.92	5.06E+002	76.92	1.76E+003
m	2	285-	305	300.36	74.95	0.92	8.59E+002	90.90	1.88E+003
F	3	334-	346	339.76	84.83	0.96	2.54E+002	76.12	1.83E+003
F	4	948-	960	955.10	239.09	1.09	2.73E+002	44.53	3.22E+002
F	5	1399-	1416	1408.14	352.56	1.25	1.39E+002	30.27	1.71E+002
F	6	2034-	2055	2043.99	511.67	2.44	1.92E+002	30.04	1.29E+002
F	7	2326-	2341	2333.28	584.01	1.12	1.60E+002	29.88	9.94E+001
F	8	2429-	2445	2437.43	610.04	1.39	1.48E+002	29.81	1.11E+002
F	9	2639-	2653	2647.51	662.55	1.51	4.69E+001	20.08	7.13E+001
F	10	2734-	2746	2739.53	685.55	1.07	2.85E+001	15.76	4.17E+001
F	11	3636-	3656	3645.98	911.95	1.80	1.48E+002	27.68	8.40E+001
F	12	3869-	3885	3877.20	969.67	1.68	7.86E+001	21.53	5.06E+001
F	13	4475-	4491	4482.94	1120.84	1.55	4.97E+001	18.09	3.95E+001
F	14	4686-	4705	4695.51	1173.88	1.48	2.12E+002	31.50	6.18E+001
F	15	5323-	5344	5333.18	1332.96	1.70	1.92E+002	29.56	4.40E+001
F	16	5833-	5861	5847.17	1461.17	1.93	8.19E+002	55.66	7.43E+000
F	17	6351-	6364	6357.38	1588.43	0.71	1.55E+001	8.22	3.50E+000
F	18	7056-	7072	7062.87	1764.42	2.03	4.13E+001	14.18	9.02E+000

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	0.987	511.00*	100.00	2.62696E-001	5.42765E-002
K-40	0.996	1460.81*	10.67	1.37437E+001	1.45246E+000
Co-60	0.990	1173.22*	100.00	3.61977E-001	6.07837E-002
		1332.49*	100.00	3.36909E-001	5.83055E-002
Cs-137	0.976	661.65*	85.12	8.18518E-002	3.63617E-002
TL-208	0.733	277.35	6.80		
		510.84*	21.60	1.21618E+000	2.70197E-001
		583.14*	84.20	2.71209E-001	6.16832E-002
		860.37	12.46		
Pb-212	0.517	74.81* @	10.70	1.22781E+001	2.73515E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	6.64321E-001	1.50282E-001
Bi-214	0.988	609.31*	46.30	4.61804E-001	1.09105E-001
		1120.29*	15.10	5.54567E-001	2.10082E-001
		1764.49*	15.80	4.85092E-001	1.73557E-001
Ac-228	0.619	338.32	11.40		
		911.07*	27.70	8.45799E-001	1.85897E-001
		969.11*	16.60	7.64379E-001	2.24153E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		0.987	2.041149E-001	5.585530E-002
K-40		0.996	1.374373E+001	1.452457E+000
Co-60		0.990	3.489216E-001	4.207707E-002
Cs-137		0.976	8.185177E-002	3.636169E-002
TL-208		0.733	2.712086E-001	6.104668E-002
Pb-212	@	0.517	6.643211E-001	1.502824E-001
Bi-214		0.988	4.823598E-001	8.455716E-002
Ac-228		0.619	8.126199E-001	1.430912E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.83	8.4409E-001	15.19
F 3	84.83	4.2261E-001	30.02
F 5	352.56	2.3193E-001	21.75
F 10	685.55	4.7562E-002	55.22
F 17	1588.43	2.5800E-002	53.13

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
+	Co-60	1173.22*	100.00	8.7078E-002	7.93E-002	3.6198E-001
		1332.49*	100.00	7.9263E-002		3.3691E-001
	Nb-94	702.63	100.00	1.0424E-001	1.04E-001	8.3013E-003
		871.10	100.00	1.0646E-001		5.7162E-002
	Ag-108m	79.20	7.10	6.3321E+000	1.19E-001	-9.7680E+000
		433.93	89.90	1.1895E-001		-2.3522E-001
		614.37	90.40	1.5799E-001		-5.6913E-002
		722.95	90.50	1.2166E-001		-1.6632E-002
	Sb-125	176.33	6.89	2.4362E+000	3.81E-001	7.4698E-001
		427.89	29.33	3.8084E-001		1.8291E-001
		463.38	10.35	1.1404E+000		7.0657E-001
		600.56	17.80	5.9601E-001		6.8749E-002
		606.64	5.02	2.7972E+000		5.2163E+000
		635.90	11.32	9.5509E-001		9.2193E-001
	Cs-134	563.23	8.38	1.2772E+000	1.24E-001	-6.3841E-001
		569.32	15.43	7.0286E-001		-2.5815E-001
		604.70	97.60	1.3409E-001		1.6205E-002
		795.84	85.40	1.2394E-001		5.6367E-003
		801.93	8.73	1.2372E+000		-9.9840E-001
+	Cs-137	661.65*	85.12	8.6997E-002	8.70E-002	8.1852E-002
	Eu-152	121.78	28.40	8.8097E-001	2.82E-001	4.8205E-001
		244.69	7.49	2.0347E+000		-3.8085E+000
		344.27	26.50	4.8827E-001		-3.0031E-001
		778.89	12.74	7.7407E-001		-9.1767E-001
		867.32	4.16	2.4871E+000		-2.3523E+000
		964.01	14.40	8.9846E-001		-2.3122E-001
		1085.78	10.00	1.0299E+000		8.5073E-001
		1112.02	13.30	7.2945E-001		-3.5362E-001
		1407.95	20.70	2.8206E-001		-1.3458E-001
	Eu-154	123.07	40.50	6.0608E-001	2.49E-001	-1.3277E-001
		247.94	6.60	2.1472E+000		-2.9802E+000
		591.81	4.83	2.2128E+000		-5.8554E-001
		723.30	19.70	5.6482E-001		5.1675E-001
		756.87	4.33	2.3317E+000		-1.3179E+000
		873.19	11.50	9.1708E-001		3.7457E-001
		996.32	10.30	8.6445E-001		-3.2945E-001
		1004.76	17.90	5.3162E-001		-1.4217E-001
		1274.45	35.50	2.4911E-001		-4.5570E-003
	Eu-155	86.54	30.90	1.2593E+000	1.26E+000	1.3602E+000
		105.31	20.70	1.4114E+000		2.1502E-001
	Am-241	59.54	35.90	1.6743E+000	1.67E+000	6.0758E-002
	Cm-243	228.19	10.56	1.4026E+000	9.39E-001	6.3283E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	9.3892E-001	9.39E-001	2.4474E-001

+ = 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

Report Generated On 12/13/2005 8:43:20 AM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: RED6264

Spectrum File: RED6264
Sample ID:
Sample Title: NOL-05-02-196-F-I-G-001
Description:

Sample Type:
Geometry:

Acquisition Started: 12/13/2005 8:33:16 AM
Live Time: 600.0 seconds
Real Time: 601.3 seconds

Energy Calibration Date: 6/13/2005
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number:
Title: NOL-05-02-196-F-I-G-001
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	284-	307	291.46	72.82	0.97	4.75E+002	74.89	2.01E+003
m	2	284-	307	300.11	74.99	0.98	9.30E+002	89.40	1.93E+003
M	3	335-	355	339.98	84.95	1.07	2.70E+002	72.08	1.64E+003
m	4	335-	355	349.79	87.41	1.08	1.80E+002	65.41	1.89E+003
F	5	947-	960	953.82	238.43	0.99	2.10E+002	40.96	3.48E+002
F	6	1177-	1189	1181.40	295.33	1.40	6.91E+001	29.98	1.81E+002
F	7	1349-	1359	1353.18	338.28	1.17	6.24E+001	26.81	1.27E+002
F	8	1399-	1412	1406.31	351.56	1.03	1.32E+002	31.80	1.86E+002
F	9	2028-	2051	2040.80	510.19	2.01	1.62E+002	28.42	1.30E+002
F	10	2322-	2339	2331.12	582.78	1.22	1.39E+002	28.13	1.04E+002
F	11	2427-	2445	2435.64	608.91	1.32	1.45E+002	27.45	8.74E+001
F	12	2639-	2652	2644.93	661.24	0.63	3.63E+001	16.91	7.84E+001
F	13	2901-	2915	2908.33	727.09	1.05	3.24E+001	16.99	5.64E+001
F	14	3634-	3652	3643.15	910.81	1.89	1.36E+002	26.33	6.65E+001
M	15	3851-	3884	3857.70	964.46	1.55	2.25E+001	15.36	4.90E+001
m	16	3851-	3884	3874.50	968.66	1.55	6.60E+001	19.94	5.21E+001
F	17	4471-	4488	4478.56	1119.68	1.77	7.30E+001	20.75	4.25E+001
F	18	4679-	4701	4691.47	1172.92	2.02	2.50E+002	32.27	4.51E+001
F	19	4946-	4959	4952.75	1238.24	0.68	1.73E+001	11.97	3.70E+001
F	20	5319-	5341	5329.23	1332.37	1.64	2.08E+002	29.90	3.39E+001
F	21	5829-	5856	5842.78	1460.77	2.11	8.53E+002	56.40	1.40E+001
F	22	7051-	7069	7060.58	1765.24	2.11	4.75E+001	14.49	4.85E+000

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	0.981	511.00*	100.00	2.28087E-001	5.05445E-002
K-40	1.000	1460.81*	10.67	1.47572E+001	1.54264E+000
Co-60	0.998	1173.22*	100.00	4.39791E-001	6.64272E-002
		1332.49*	100.00	3.77455E-001	6.17473E-002
Cs-137	0.995	661.65*	85.12	6.53523E-002	3.13867E-002
Eu-155	0.320	86.54*	30.90	7.45151E-001	3.08292E-001
		105.31	20.70		
TL-208	0.747	277.35	6.80		
		510.84*	21.60	1.05596E+000	2.49387E-001
		583.14*	84.20	2.42843E-001	5.84028E-002
		860.37	12.46		
Bi-212	1.000	727.17*	11.80	4.29113E-001	2.30480E-001
Pb-212	0.677	74.81* @	10.70	1.37992E+001	3.01226E+000
		77.11 @	18.00		
		87.30* @	8.00	2.87815E+000	1.19078E+000
		238.63*	44.60	5.26595E-001	1.31829E-001
Bi-214	0.992	609.31*	46.30	4.65742E-001	1.05382E-001
		1120.29*	15.10	8.39667E-001	2.54703E-001
		1764.49*	15.80	5.76747E-001	1.85059E-001
PB-214	0.668	74.82* @	6.21	2.37763E+001	5.46968E+000
		77.11 @	10.50		
		87.30* @	4.67	4.93044E+000	2.07360E+000
		241.98	7.49		
		295.21*	19.20	4.27997E-001	1.99177E-001
		351.92*	37.20	4.44379E-001	1.30117E-001
Ac-228	0.997	338.32*	11.40	6.76827E-001	3.09474E-001
		911.07*	27.70	8.05424E-001	1.81195E-001
		969.11*	16.60	6.62457E-001	2.11936E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		0.981	1.756332E-001	5.206689E-002
K-40		1.000	1.475724E+001	1.542639E+000
Co-60		0.998	4.063498E-001	4.522596E-002
Cs-137		0.995	6.535232E-002	3.138667E-002
Eu-155		0.320	5.423843E-001	3.105978E-001
TL-208		0.747	2.428427E-001	5.786407E-002
Bi-212		1.000	4.291133E-001	2.304804E-001
Pb-212	@	0.677	5.265951E-001	1.318289E-001
Bi-214		0.992	5.326154E-001	8.617464E-002
PB-214	@	0.668	4.395558E-001	1.071343E-001
Ac-228		0.997	7.337741E-001	1.258255E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.82	7.9190E-001	15.76
M 3	84.95	4.4990E-001	26.70
M 15	964.46	3.7541E-002	68.20
F 19	1238.24	2.8820E-002	69.23

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
+	Co-60	1173.22*	100.00	8.0990E-002	7.31E-002	4.3979E-001
		1332.49*	100.00	7.3114E-002		3.7745E-001
	Nb-94	702.63	100.00	1.1437E-001	1.09E-001	8.6624E-002
		871.10	100.00	1.0917E-001		5.2994E-002
	Ag-108m	79.20	7.10	6.6669E+000	1.24E-001	-5.2212E+000
		433.93	89.90	1.3973E-001		-4.9893E-002
		614.37	90.40	1.4554E-001		-4.0654E-002
		722.95	90.50	1.2419E-001		4.1312E-002
	Sb-125	176.33	6.89	2.4967E+000	4.12E-001	6.3535E-001
		427.89	29.33	4.1215E-001		-5.8840E-002
		463.38	10.35	1.2088E+000		9.0023E-002
		600.56	17.80	6.5047E-001		2.3482E-001
		606.64	5.02	2.7635E+000		3.4561E+000
		635.90	11.32	9.6235E-001		-1.8199E-001
	Cs-134	563.23	8.38	1.4442E+000	1.36E-001	1.3983E+000
		569.32	15.43	7.5602E-001		5.0074E-002
		604.70	97.60	1.4380E-001		-4.4668E-002
		795.84	85.40	1.3625E-001		1.0834E-001
		801.93	8.73	1.2326E+000		-2.3607E+000
+	Cs-137	661.65*	85.12	9.1871E-002	9.19E-002	6.5352E-002
	Eu-152	121.78	28.40	9.0553E-001	3.64E-001	8.1543E-002
		244.69	7.49	2.1206E+000		4.0614E-001
		344.27	26.50	4.7536E-001		-1.3618E-001
		778.89	12.74	8.3751E-001		-1.9155E-001
		867.32	4.16	2.6543E+000		7.5035E-001
		964.01	14.40	8.9670E-001		2.4738E-001
		1085.78	10.00	9.9758E-001		-6.2138E-002
		1112.02	13.30	7.6277E-001		-4.5996E-001
		1407.95	20.70	3.6362E-001		1.7771E-001
	Eu-154	123.07	40.50	6.2931E-001	2.66E-001	-2.0222E-001
		247.94	6.60	2.3070E+000		-1.0405E+000
		591.81	4.83	2.3502E+000		-2.4941E+000
		723.30	19.70	5.7552E-001		1.9623E-001
		756.87	4.33	2.4498E+000		-2.6583E+000
		873.19	11.50	9.7078E-001		3.3076E-002
		996.32	10.30	9.6419E-001		1.3342E-001
		1004.76	17.90	5.7215E-001		-1.6421E-001
		1274.45	35.50	2.6579E-001		9.0405E-003
+	Eu-155	86.54*	30.90	8.5193E-001	8.52E-001	7.4515E-001
		105.31	20.70	1.4760E+000		-7.0083E-001
	Am-241	59.54	35.90	1.7868E+000	1.79E+000	-9.0131E-001
	Cm-243	228.19	10.56	1.4581E+000	1.01E+000	1.9992E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	1.0097E+000	1.01E+000	1.0196E-001

+ = 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

Report Generated On 12/13/2005 10:45:37 AM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: RED6264

Spectrum File: RED6264
Sample ID:
Sample Title: NOL-05-02-196-F-I-G-002
Description:

Sample Type:
Geometry:

Acquisition Started: 12/13/2005 10:30:35 AM
Live Time: 900.0 seconds
Real Time: 901.0 seconds

Energy Calibration Date: 6/13/2005
Eff Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number:
Title: NOL-05-02-196-F-I-G-002
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	287-	306	292.71	73.14	0.94	2.05E+002	58.06	1.23E+003
m	2	287-	306	300.61	75.11	0.94	5.21E+002	71.11	1.33E+003
M	3	332-	355	339.21	84.76	1.24	2.73E+002	59.44	1.20E+003
m	4	332-	355	350.02	87.46	1.24	1.79E+002	55.05	1.19E+003
F	5	948-	960	954.55	238.61	0.91	1.54E+002	33.14	1.92E+002
F	6	1173-	1185	1180.07	294.99	0.88	4.10E+001	21.66	1.17E+002
F	7	1346-	1358	1354.00	338.48	0.70	3.83E+001	18.51	9.34E+001
F	8	1402-	1416	1408.22	352.04	0.90	6.73E+001	24.19	1.40E+002
F	9	2031-	2051	2042.84	510.70	2.22	1.21E+002	25.36	1.05E+002
F	10	2326-	2342	2332.86	583.22	1.22	9.00E+001	23.14	7.32E+001
F	11	2427-	2444	2436.46	609.12	1.46	1.02E+002	24.75	8.78E+001
F	12	3638-	3653	3644.93	911.26	1.44	9.19E+001	22.13	3.85E+001
F	13	3868-	3886	3877.29	969.35	1.82	6.65E+001	19.62	4.50E+001
F	14	4476-	4489	4482.42	1120.65	1.10	2.68E+001	14.32	2.97E+001
F	15	4687-	4703	4695.37	1173.89	1.65	5.43E+001	18.47	3.62E+001
F	16	5325-	5342	5332.71	1333.24	1.49	6.79E+001	18.27	1.75E+001
F	17	5835-	5862	5847.15	1461.86	1.91	5.76E+002	46.95	2.10E+001
F	18	7057-	7070	7063.73	1766.03	1.24	1.41E+001	10.43	1.23E+001

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	0.997	511.00*	100.00	3.65795E-001	9.20973E-002
K-40	0.968	1460.81*	10.67	2.12747E+001	2.44514E+000
Co-60	0.985	1173.22*	100.00	2.04780E-001	7.14463E-002
		1332.49*	100.00	2.62740E-001	7.36260E-002
Eu-155	0.318	86.54*	30.90	1.71418E+000	6.25239E-001
		105.31	20.70		
TL-208	0.753	277.35	6.80		
		510.84*	21.60	1.69349E+000	4.48246E-001
		583.14*	84.20	3.35520E-001	9.70055E-002
		860.37	12.46		
Pb-212	0.679	74.81* @	10.70	1.76478E+001	4.21542E+000
		77.11 @	18.00		
		87.30* @	8.00	6.62102E+000	2.41499E+000
		238.63*	44.60	8.65537E-001	2.30493E-001
Bi-214	0.984	609.31*	46.30	6.98830E-001	1.91000E-001
		1120.29*	15.10	6.60456E-001	3.59305E-001
		1764.49*	15.80	3.65053E-001	2.73200E-001
PB-214	0.673	74.82* @	6.21	3.04076E+001	7.59130E+000
		77.11 @	10.50		
		87.30* @	4.67	1.13422E+001	4.22482E+000
		241.98	7.49		
		295.21*	19.20	5.60468E-001	3.10979E-001
		351.92*	37.20	4.93766E-001	1.95836E-001
Ac-228	0.999	338.32*	11.40	9.09918E-001	4.62311E-001
		911.07*	27.70	1.15863E+000	3.09170E-001
		969.11*	16.60	1.42481E+000	4.46268E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		0.997	2.933223E-001	9.442124E-002
K-40		0.968	2.127472E+001	2.445141E+000
Co-60		0.985	2.328892E-001	5.127347E-002
Eu-155		0.318	1.412624E+000	6.285699E-001
TL-208		0.753	3.355197E-001	9.638725E-002
Pb-212	@	0.679	8.655369E-001	2.304931E-001
Bi-214		0.984	6.006084E-001	1.435095E-001
PB-214	@	0.673	5.125808E-001	1.641521E-001
Ac-228		0.999	1.167203E+000	2.227081E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	73.14	2.2757E-001	28.35
M 3	84.76	3.0318E-001	21.78

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
+	Co-60	1173.22*	100.00	1.4230E-001	1.06E-001	2.0478E-001
		1332.49*	100.00	1.0631E-001		2.6274E-001
	Nb-94	702.63	100.00	2.1281E-001	1.97E-001	3.3732E-002
		871.10	100.00	1.9749E-001		-1.0654E-002
	Ag-108m	79.20	7.10	1.2467E+001	2.56E-001	-1.5288E+001
		433.93	89.90	2.5681E-001		2.1768E-001
		614.37	90.40	2.8174E-001		-1.0702E-001
		722.95	90.50	2.5570E-001		2.4385E-001
	Sb-125	176.33	6.89	4.2923E+000	7.57E-001	-4.3104E+000
		427.89	29.33	7.5665E-001		-1.2425E-001
		463.38	10.35	2.1621E+000		1.2213E+000
		600.56	17.80	1.2479E+000		-7.0730E-001
		606.64	5.02	5.2884E+000		6.4174E+000
		635.90	11.32	1.7784E+000		1.3689E+000
	Cs-134	563.23	8.38	2.5698E+000	2.32E-001	4.3077E-001
		569.32	15.43	1.3014E+000		-1.8970E+000
		604.70	97.60	2.7043E-001		5.1711E-003
		795.84	85.40	2.3238E-001		8.3397E-002
		801.93	8.73	2.2157E+000		-4.6924E+000
	Cs-137	661.65	85.12	2.4418E-001	2.44E-001	-3.2892E-002
	Eu-152	121.78	28.40	1.6467E+000	7.33E-001	1.1866E+000
		244.69	7.49	3.6487E+000		-3.9431E+000
		344.27	26.50	8.3900E-001		-1.0179E+000
		778.89	12.74	1.6453E+000		-8.7466E-001
		867.32	4.16	4.7924E+000		-3.6745E+000
		964.01	14.40	1.7019E+000		2.3444E-001
		1085.78	10.00	2.0374E+000		9.2592E-001
		1112.02	13.30	1.4844E+000		-5.7114E-001
		1407.95	20.70	7.3252E-001		5.5708E-001
	Eu-154	123.07	40.50	1.1231E+000	5.11E-001	-1.1614E+000
		247.94	6.60	3.9804E+000		-1.4021E+000
		591.81	4.83	4.8529E+000		3.4202E+000
		723.30	19.70	1.1721E+000		3.8574E-001
		756.87	4.33	5.1653E+000		1.2819E+000
		873.19	11.50	1.7419E+000		2.4941E-001
		996.32	10.30	1.9560E+000		3.5580E-001
		1004.76	17.90	1.1037E+000		9.0252E-001
		1274.45	35.50	5.1115E-001		-1.4144E-002
+	Eu-155	86.54*	30.90	1.5661E+000	1.57E+000	1.7142E+000
		105.31	20.70	2.6487E+000		2.6936E-001
	Am-241	59.54	35.90	3.4177E+000	3.42E+000	5.3207E-001
	Cm-243	228.19	10.56	2.5340E+000	1.86E+000	1.4670E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	1.8572E+000	1.86E+000	1.7689E+000

+ = 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

Report Generated On 12/13/2005 11:07:06 AM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: RED6264

Spectrum File: RED6264
Sample ID:
Sample Title: NOL-05-02-196-F-I-G-003
Description:

Sample Type:
Geometry:

Acquisition Started: 12/13/2005 10:52:04 AM
Live Time: 900.0 seconds
Real Time: 901.0 seconds

Energy Calibration Date: 6/13/2005
Eff Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number:
Title: NOL-05-02-196-F-I-G-003
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	285-	309	291.73	72.89	1.08	3.62E+002	64.21	1.37E+003
m	2	285-	309	300.61	75.11	1.08	6.10E+002	71.90	1.53E+003
M	3	334-	355	339.97	84.95	0.89	2.36E+002	58.58	1.04E+003
m	4	334-	355	349.09	87.23	0.89	1.21E+002	51.35	1.02E+003
F	5	949-	961	954.76	238.66	1.06	1.54E+002	33.12	1.88E+002
F	6	1400-	1412	1407.47	351.85	0.81	6.34E+001	22.49	1.02E+002
F	7	2033-	2054	2043.80	510.94	2.57	1.59E+002	27.25	1.12E+002
F	8	2325-	2341	2332.10	583.03	1.57	7.48E+001	23.70	9.91E+001
F	9	2428-	2443	2436.92	609.23	1.21	7.72E+001	23.58	9.17E+001
F	10	3638-	3651	3645.09	911.30	0.82	5.08E+001	18.45	5.79E+001
F	11	4690-	4703	4696.14	1174.08	0.90	2.10E+001	13.87	4.04E+001
F	12	5322-	5342	5331.91	1333.04	2.36	8.30E+001	18.16	7.70E+000
F	13	5832-	5860	5846.27	1461.64	2.04	5.82E+002	46.92	1.46E+001
F	14	7057-	7070	7063.74	1766.03	1.88	3.71E+001	13.59	8.34E+000

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	1.000	511.00*	100.00	4.80364E-001	1.06281E-001
K-40	0.980	1460.81*	10.67	2.15183E+001	2.45806E+000
Co-60	0.984	1173.22*	100.00	7.91150E-002	5.26429E-002
		1332.49*	100.00	3.21148E-001	7.46384E-002
Eu-155	0.325	86.54*	30.90	1.16290E+000	5.43699E-001
		105.31	20.70		
TL-208	0.753	277.35	6.80		
		510.84*	21.60	2.22391E+000	5.24489E-001
		583.14*	84.20	2.78818E-001	9.57318E-002
		860.37	12.46		
Pb-212	0.679	74.81* @	10.70	2.06685E+001	4.72709E+000
		77.11 @	18.00		
		87.30* @	8.00	4.49171E+000	2.10004E+000
		238.63*	44.60	8.64330E-001	2.30302E-001
Bi-214	0.684	609.31*	46.30	5.30726E-001	1.74962E-001
		1120.29	15.10		
		1764.49*	15.80	9.62475E-001	3.65530E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		1.000	4.201393E-001	1.082557E-001
K-40		0.980	2.151831E+001	2.458063E+000
Co-60		0.984	1.595186E-001	4.301925E-002
Eu-155		0.325	9.391268E-001	5.469585E-001
TL-208		0.753	2.788183E-001	9.529963E-002
Pb-212	@	0.679	8.643302E-001	2.303015E-001
Bi-214		0.684	6.112054E-001	1.578154E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.89	4.0227E-001	17.74
M 3	84.95	2.6252E-001	24.79
F 6	351.85	7.0456E-002	35.47
F 10	911.30	5.6422E-002	36.33

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
+	Co-60	1173.22*	100.00	1.4169E-001	7.74E-002	7.9115E-002
		1332.49*	100.00	7.7384E-002		3.2115E-001
	Nb-94	702.63	100.00	2.1454E-001	2.15E-001	-5.2434E-002
		871.10	100.00	2.2798E-001		-7.9369E-004
	Ag-108m	79.20	7.10	1.2810E+001	2.48E-001	-2.1269E+000
		433.93	89.90	2.6896E-001		1.3027E-001
		614.37	90.40	2.9242E-001		-1.4027E-001
		722.95	90.50	2.4847E-001		-2.7629E-002
	Sb-125	176.33	6.89	4.3369E+000	7.65E-001	-1.6276E+000
		427.89	29.33	7.6506E-001		8.9935E-002
		463.38	10.35	2.2476E+000		5.1359E-001
		600.56	17.80	1.2450E+000		-3.2493E-001
		606.64	5.02	5.2714E+000		4.1169E+000
		635.90	11.32	1.9028E+000		-1.5732E-002
	Cs-134	563.23	8.38	2.6527E+000	2.58E-001	2.0680E+000
		569.32	15.43	1.4390E+000		3.9849E-001
		604.70	97.60	2.6779E-001		6.2455E-002
		795.84	85.40	2.5785E-001		2.7767E-001
		801.93	8.73	2.4508E+000		-3.2620E-001
	Cs-137	661.65	85.12	2.5868E-001	2.59E-001	-2.5261E-002
	Eu-152	121.78	28.40	1.6481E+000	6.28E-001	2.4465E-001
		244.69	7.49	3.6141E+000		-4.4052E+000
		344.27	26.50	8.8407E-001		-1.0397E+000
		778.89	12.74	1.6975E+000		-1.4661E-001
		867.32	4.16	5.3606E+000		-8.5205E+000
		964.01	14.40	1.7456E+000		-6.2001E-001
		1085.78	10.00	2.0600E+000		9.0345E-001
		1112.02	13.30	1.4482E+000		-4.7218E-001
		1407.95	20.70	6.2797E-001		-3.5316E-001
	Eu-154	123.07	40.50	1.1602E+000	5.32E-001	2.4990E-001
		247.94	6.60	3.9558E+000		-3.2349E+000
		591.81	4.83	4.8033E+000		3.9701E+000
		723.30	19.70	1.1303E+000		-6.2220E-001
		756.87	4.33	5.0592E+000		2.0986E+000
		873.19	11.50	1.9576E+000		4.9928E-002
		996.32	10.30	1.9700E+000		4.6848E-001
		1004.76	17.90	1.1445E+000		-4.4482E-001
		1274.45	35.50	5.3167E-001		-3.0053E-001
+	Eu-155	86.54*	30.90	1.4516E+000	1.45E+000	1.1629E+000
		105.31	20.70	2.7163E+000		9.9438E-001
	Am-241	59.54	35.90	3.4557E+000	3.46E+000	-1.7370E+000
	Cm-243	228.19	10.56	2.7543E+000	1.84E+000	4.1025E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	1.8448E+000	1.84E+000	6.9165E-001

+ = 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

Report Generated On 12/13/2005 11:27:52 AM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: RED6264

Spectrum File: RED6264
Sample ID:
Sample Title: NOL-05-02-196-F-I-G-004
Description:

Sample Type:
Geometry:

Acquisition Started: 12/13/2005 11:12:50 AM
Live Time: 900.0 seconds
Real Time: 901.0 seconds

Energy Calibration Date: 6/13/2005
Eff Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number:
Title: NOL-05-02-196-F-I-G-004
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	287-	306	292.07	72.98	0.79	2.91E+002	60.15	1.05E+003
m	2	287-	306	300.74	75.14	0.80	4.87E+002	68.66	1.13E+003
F	3	334-	346	339.51	84.84	0.97	2.58E+002	61.51	1.14E+003
F	4	946-	963	954.69	238.64	1.05	1.63E+002	33.59	2.65E+002
F	5	1176-	1187	1181.18	295.27	1.08	3.90E+001	22.87	1.19E+002
F	6	1346-	1360	1354.14	338.52	1.15	5.69E+001	21.91	1.03E+002
F	7	1401-	1414	1407.95	351.97	1.34	9.68E+001	25.27	9.87E+001
F	8	1996-	2007	2000.38	500.09	0.45	2.42E+001	13.71	5.78E+001
F	9	2325-	2339	2332.70	583.17	1.24	1.08E+002	24.53	5.99E+001
F	10	2428-	2447	2437.69	609.43	1.78	1.13E+002	23.70	6.92E+001
F	11	3637-	3654	3645.56	911.42	1.61	1.04E+002	22.35	3.57E+001
F	12	3873-	3887	3879.16	969.82	1.28	3.58E+001	16.65	4.00E+001
F	13	4477-	4491	4484.30	1121.12	1.53	3.27E+001	15.00	2.47E+001
F	14	5325-	5342	5333.51	1333.44	1.62	7.39E+001	18.89	1.99E+001
F	15	5834-	5862	5847.53	1461.95	2.05	5.47E+002	45.26	1.45E+001

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
K-40	0.962	1460.81*	10.67	2.02021E+001	2.33951E+000
TL-208	0.472	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	4.04348E-001	1.05948E-001
		860.37	12.46		
Pb-212	0.524	74.81* @	10.70	1.64952E+001	3.98223E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	9.15136E-001	2.37189E-001
Bi-214	0.696	609.31*	46.30	7.74443E-001	1.89254E-001
		1120.29*	15.10	8.03734E-001	3.79018E-001
		1764.49	15.80		
PB-214	0.588	74.82* @	6.21	2.84217E+001	7.16498E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	5.34170E-001	3.25698E-001
		351.92*	37.20	7.10368E-001	2.20256E-001
Ac-228	0.993	338.32*	11.40	1.35106E+000	5.61997E-001
		911.07*	27.70	1.30677E+000	3.19362E-001
		969.11*	16.60	7.68041E-001	3.65919E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
K-40		0.962	2.020212E+001	2.339514E+000
TL-208		0.472	4.043480E-001	1.059481E-001
Pb-212	@	0.524	9.151362E-001	2.371889E-001
Bi-214		0.696	7.802888E-001	1.693192E-001
PB-214	@	0.588	6.550751E-001	1.824524E-001
Ac-228		0.993	1.116780E+000	2.211908E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.98	3.2282E-001	20.70
F 3	84.84	2.8672E-001	23.84
F 8	500.09	2.6873E-002	56.68
F 14	1333.44	8.2076E-002	25.58

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Co-60	1173.22	100.00	2.2420E-001	2.21E-001	6.6066E-003
	1332.49	100.00	2.2119E-001		3.3778E-001
Nb-94	702.63	100.00	2.2242E-001	2.19E-001	1.7154E-001
	871.10	100.00	2.1893E-001		-1.5465E-002
Ag-108m	79.20	7.10	1.2592E+001	2.59E-001	-2.9939E+000
	433.93	89.90	2.5946E-001		-2.5042E-003
	614.37	90.40	2.8075E-001		-2.7252E-002
	722.95	90.50	2.6616E-001		2.7668E-001
Sb-125	176.33	6.89	4.4822E+000	7.83E-001	1.1280E+000
	427.89	29.33	7.8296E-001		-1.8198E-001
	463.38	10.35	2.1828E+000		-5.5127E-001
	600.56	17.80	1.2621E+000		-3.4044E-001
	606.64	5.02	5.2458E+000		4.9901E+000
	635.90	11.32	1.9361E+000		1.2212E+000
Cs-134	563.23	8.38	2.6116E+000	2.54E-001	1.9588E-001
	569.32	15.43	1.4197E+000		-9.5978E-001
	604.70	97.60	2.6867E-001		-1.1333E-001
	795.84	85.40	2.5367E-001		-1.2216E-001
	801.93	8.73	2.3583E+000		-4.6304E+000
Cs-137	661.65	85.12	2.6994E-001	2.70E-001	2.4820E-002
Eu-152	121.78	28.40	1.6341E+000	6.92E-001	5.9458E-001
	244.69	7.49	3.6796E+000		2.6811E+000
	344.27	26.50	8.3196E-001		-2.7638E-001
	778.89	12.74	1.7068E+000		7.9131E-001
	867.32	4.16	5.3606E+000		1.1743E+000
	964.01	14.40	1.6978E+000		-3.5481E-001
	1085.78	10.00	2.1903E+000		2.4104E+000
	1112.02	13.30	1.6320E+000		1.1673E+000
	1407.95	20.70	6.9154E-001		4.8022E-001
Eu-154	123.07	40.50	1.1290E+000	5.14E-001	-5.6687E-001
	247.94	6.60	4.0655E+000		-1.9186E+000
	591.81	4.83	4.7733E+000		1.1015E+000
	723.30	19.70	1.2229E+000		1.4026E+000
	756.87	4.33	5.0860E+000		-5.3051E+000
	873.19	11.50	1.8168E+000		-5.5976E-001
	996.32	10.30	1.8841E+000		1.0013E+000
	1004.76	17.90	1.0869E+000		-6.0727E-001
	1274.45	35.50	5.1376E-001		-7.2892E-002
Eu-155	86.54	30.90	2.4767E+000	2.48E+000	3.2582E+000
	105.31	20.70	2.7307E+000		-9.1158E-001
Am-241	59.54	35.90	3.5175E+000	3.52E+000	3.5167E-001
Cm-243	228.19	10.56	2.6056E+000	1.73E+000	2.9019E-002

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	1.7273E+000	1.73E+000	9.3324E-002

+ = 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

Report Generated On 12/6/2005 9:41:07 AM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: BLUE6279

Spectrum File: C:\GENIE2K\CAMFILES\NOL-05-02-197-F-G.CNF
Sample ID:
Sample Title: NOL-05-02-197-F-G
Description:

Sample Type:
Geometry: GM

Acquisition Started: 12/5/2005 11:13:35 PM
Live Time: 600.0 seconds
Real Time: 601.6 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: C:\GENIE2K\CAMFILES\NOL-05-02-197-F-G.CNF
Log Number:
Title: NOL-05-02-197-F-G
Description:

Geometry: GM

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	284-	305	291.65	72.76	1.13	4.63E+002	82.26	2.52E+003
m	2	284-	305	300.43	74.97	1.14	1.04E+003	96.86	2.41E+003
F	3	335-	345	339.23	84.70	1.15	3.23E+002	76.17	1.72E+003
F	4	945-	961	954.64	238.98	1.34	2.69E+002	45.82	5.40E+002
F	5	1402-	1418	1407.07	352.29	1.44	1.31E+002	32.18	2.30E+002
F	6	2030-	2052	2041.44	511.03	2.32	1.80E+002	46.43	1.58E+002
F	7	2322-	2339	2330.67	583.35	1.59	1.63E+002	29.80	1.13E+002
F	8	2428-	2445	2435.73	609.62	1.61	1.65E+002	92.56	1.01E+002
F	9	3635-	3652	3643.00	911.21	1.77	1.18E+002	25.05	5.80E+001
F	10	3866-	3881	3873.38	968.72	1.80	6.05E+001	21.05	5.84E+001
F	11	4471-	4487	4479.10	1119.89	1.87	6.22E+001	53.39	3.55E+001
F	12	5320-	5336	5328.77	1331.86	1.96	4.23E+001	15.01	1.70E+001
F	13	5828-	5856	5842.22	1459.93	2.01	1.01E+003	61.88	3.61E+001
F	14	7049-	7067	7058.28	1763.28	2.12	5.42E+001	15.59	9.31E+000

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File: C:\GENIE2K\CAMFILES\NOL-05-02-197-F-G.CNF

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/Unit)	Activity Uncertainty
ANN	1.000	511.00*		100.00	2.57648E-001	7.51120E-002
K-40	0.977	1460.81*		10.67	1.77127E+001	1.80106E+000
TL-208	0.751	277.35		6.80		
		510.84*		21.60	1.19282E+000	3.61127E-001
		583.14*		84.20	2.89449E-001	6.49895E-002
		860.37		12.46		
Pb-212	0.518	74.81*	@	10.70	1.56287E+001	3.39072E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	6.85982E-001	1.58938E-001
Bi-214	0.988	609.31*		46.30	5.40439E-001	3.10769E-001
		1120.29*		15.10	7.27900E-001	6.29607E-001
		1764.49*		15.80	6.68510E-001	2.03582E-001
Ac-228	0.632	338.32		11.40		
		911.07*		27.70	7.09968E-001	1.71287E-001
		969.11*		16.60	6.17676E-001	2.24395E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File:C:\GENIE2K\CAMFILES\NOL-05-02-197-F-G.CNF

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Unit)	Wt mean Activity Uncertainty
ANN	1.000	1.951273E-001	7.638533E-002
K-40	0.977	1.771274E+001	1.801056E+000
TL-208	0.751	2.894485E-001	6.430134E-002
Pb-212	@ 0.518	6.859824E-001	1.589381E-001
Bi-214	0.988	6.367229E-001	1.643875E-001
Ac-228	0.632	6.759907E-001	1.361535E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.76	7.7242E-001	17.75
F 3	84.70	5.3915E-001	23.55
F 5	352.29	2.1852E-001	24.54
F 12	1331.86	7.0434E-002	35.51

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:C:\GENIE2K\CAMFILES\NOL-05-02-197-F-G.CNF
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Unit)	Nuclide MDA (pCi/Unit)	Activity (pCi/Unit)
Co-60	1173.22	100.00	1.1093E-001	9.13E-002	-5.1279E-002
	1332.49	100.00	9.1310E-002		6.0943E-002
Nb-94	702.63	100.00	1.0842E-001	1.00E-001	2.4266E-002
	871.10	100.00	1.0021E-001		6.0736E-002
Ag-108m	79.20	7.10	6.9073E+000	1.28E-001	-1.9598E+001
	433.93	89.90	1.3508E-001		-8.3176E-002
	614.37	90.40	1.6185E-001		2.1020E-002
	722.95	90.50	1.2828E-001		6.7595E-002
Sb-125	176.33	6.89	3.0245E+000	4.27E-001	6.6657E-001
	427.89	29.33	4.2679E-001		2.1520E-001
	463.38	10.35	1.2434E+000		4.4315E-001
	600.56	17.80	6.4866E-001		2.8354E-001
	606.64	5.02	3.0122E+000		5.3847E+000
	635.90	11.32	9.7977E-001		2.2214E-001
Cs-134	563.23	8.38	1.3720E+000	1.26E-001	-2.8791E-001
	569.32	15.43	7.5332E-001		-2.2253E-001
	604.70	97.60	1.5197E-001		8.5452E-003
	795.84	85.40	1.2602E-001		-3.8501E-002
	801.93	8.73	1.2092E+000		-1.0485E+000
Cs-137	661.65	85.12	1.3485E-001	1.35E-001	1.5338E-002
Eu-152	121.78	28.40	1.0217E+000	3.21E-001	-8.1160E-002
	244.69	7.49	2.4029E+000		-2.6413E-002
	344.27	26.50	5.5659E-001		-1.0123E+000
	778.89	12.74	8.5183E-001		-7.3544E-001
	867.32	4.16	2.3846E+000		-2.8224E+000
	964.01	14.40	9.1168E-001		8.8259E-001
	1085.78	10.00	9.3639E-001		-6.5115E-001
	1112.02	13.30	8.6136E-001		-3.2632E-001
	1407.95	20.70	3.2092E-001		2.0866E-002
Eu-154	123.07	40.50	7.1079E-001	2.57E-001	3.9826E-001
	247.94	6.60	2.6640E+000		-4.6197E-001
	591.81	4.83	2.4152E+000		1.1011E+000
	723.30	19.70	5.8687E-001		1.8766E-001
	756.87	4.33	2.3778E+000		-4.3402E-001
	873.19	11.50	8.7712E-001		8.2552E-001
	996.32	10.30	8.7961E-001		-5.9015E-001
	1004.76	17.90	5.3147E-001		1.5814E-001
	1274.45	35.50	2.5689E-001		1.5224E-001
Eu-155	86.54	30.90	1.4101E+000	1.41E+000	2.9157E+000
	105.31	20.70	1.6150E+000		9.6664E-001
Am-241	59.54	35.90	1.8827E+000	1.88E+000	-1.2872E-001
Cm-243	228.19	10.56	1.7551E+000	1.18E+000	-1.1997E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Unit)	Nuclide MDA (pCi/Unit)	Activity (pCi/Unit)
Cm-243	277.60	14.00	1.1836E+000	1.18E+000	3.5373E-001

+ = 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

Report Generated On 12/6/2005 9:41:29 AM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: BLUE6279

Spectrum File: C:\GENIE2K\CAMFILES\NOL-05-02-198-F-G.CNF
Sample ID:
Sample Title: NOL-05-02-198-F-G
Description:

Sample Type:
Geometry: GM

Acquisition Started: 12/5/2005 11:31:04 PM
Live Time: 600.0 seconds
Real Time: 601.2 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: C:\GENIE2K\CAMFILES\NOL-05-02-198-F-G.CNF
Log Number:
Title: NOL-05-02-198-F-G
Description:

Geometry: GM

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	282-	306	291.52	72.73	1.13	4.52E+002	109.38	1.80E+003
m	2	282-	306	300.33	74.94	1.14	7.95E+002	144.75	1.90E+003
M	3	332-	359	339.54	84.78	1.15	3.80E+002	151.17	1.53E+003
m	4	332-	359	350.81	87.60	1.16	2.13E+002	91.20	1.97E+003
F	5	947-	962	954.13	238.85	1.34	3.04E+002	46.14	4.51E+002
F	6	1168-	1186	1179.61	295.33	1.39	8.21E+001	29.68	3.04E+002
F	7	1345-	1358	1352.53	338.63	1.43	8.70E+001	47.75	1.64E+002
F	8	1397-	1413	1406.76	352.21	1.44	1.99E+002	88.46	1.81E+002
F	9	1845-	1858	1850.49	463.26	1.52	4.83E+001	20.34	8.30E+001
F	10	2035-	2054	2043.05	511.43	2.32	1.59E+002	30.91	1.50E+002
F	11	2323-	2340	2331.10	583.46	1.59	2.06E+002	31.97	1.06E+002
F	12	2428-	2445	2436.25	609.75	1.61	1.59E+002	28.57	8.96E+001
F	13	3634-	3651	3643.23	911.26	1.77	1.39E+002	26.36	6.08E+001
F	14	3851-	3883	3874.35	968.96	1.80	7.58E+001	21.39	1.12E+002
F	15	4472-	4489	4479.72	1120.04	1.87	5.77E+001	55.04	4.32E+001
F	16	5826-	5856	5842.08	1459.90	2.01	1.19E+003	106.17	1.95E+001
F	17	7049-	7065	7057.92	1763.19	2.12	5.34E+001	15.39	8.50E+000

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File: C:\GENIE2K\CAMFILES\NOL-05-02-198-F-G.CNF

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Unit)	Activity Uncertainty
ANN	0.994	511.00*	100.00	2.27786E-001	5.39671E-002
K-40	0.975	1460.81*	10.67	2.09832E+001	2.52613E+000
Eu-155	0.313	86.54*	30.90	8.94920E-001	4.20905E-001
		105.31	20.70		
TL-208	0.748	277.35	6.80		
		510.84*	21.60	1.05456E+000	2.64275E-001
		583.14*	84.20	3.65519E-001	7.41003E-002
		860.37	12.46		
Pb-212	0.676	74.81* @	10.70	1.19375E+001	3.19362E+000
		77.11 @	18.00		
		87.30* @	8.00	3.45663E+000	1.62574E+000
		238.63*	44.60	7.76194E-001	1.69386E-001
Bi-214	0.986	609.31*	46.30	5.21237E-001	1.13575E-001
		1120.29*	15.10	6.74898E-001	6.48231E-001
		1764.49*	15.80	6.58306E-001	2.00954E-001
PB-214	0.668	74.82* @	6.21	2.05686E+001	5.70167E+000
		77.11 @	10.50		
		87.30* @	4.67	5.92142E+000	2.82070E+000
		241.98	7.49		
		295.21*	19.20	5.17655E-001	2.06360E-001
		351.92*	37.20	6.80697E-001	3.23259E-001
Ac-228	0.999	338.32*	11.40	9.60534E-001	5.48100E-001
		911.07*	27.70	8.33872E-001	1.85214E-001
		969.11*	16.60	7.73916E-001	2.32900E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File:C:\GENIE2K\CAMFILES\NOL-05-02-198-F-G.CNF

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Unit)	Wt mean Activity Uncertainty
ANN		0.994	1.488333E-001	5.623179E-002
K-40		0.975	2.098322E+001	2.526132E+000
Eu-155		0.313	6.086393E-001	4.239816E-001
TL-208		0.748	3.655193E-001	7.313658E-002
Pb-212	@	0.676	7.761938E-001	1.693859E-001
Bi-214		0.986	5.571602E-001	9.774539E-002
PB-214	@	0.668	5.645634E-001	1.720945E-001
Ac-228		0.999	8.204438E-001	1.401441E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.73	7.5348E-001	24.19
M 3	84.78	6.3282E-001	39.81
F 9	463.26	8.0537E-002	42.10

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:C:\GENIE2K\CAMFILES\NOL-05-02-198-F-G.CNF
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Unit)	Nuclide MDA (pCi/Unit)	Activity (pCi/Unit)
	Co-60	1173.22	100.00	1.1126E-001	7.79E-002	1.2045E-001
		1332.49	100.00	7.7873E-002		4.7712E-002
	Nb-94	702.63	100.00	1.0500E-001	1.01E-001	-5.2574E-002
		871.10	100.00	1.0143E-001		1.0437E-002
	Ag-108m	79.20	7.10	6.0446E+000	1.30E-001	-6.8346E+000
		433.93	89.90	1.2970E-001		-1.0008E-001
		614.37	90.40	1.5384E-001		-4.0450E-002
		722.95	90.50	1.3174E-001		4.5475E-003
	Sb-125	176.33	6.89	2.5550E+000	4.23E-001	-9.5659E-001
		427.89	29.33	4.2290E-001		1.8730E-001
		463.38	10.35	1.2157E+000		3.4365E-001
		600.56	17.80	6.3352E-001		-5.0183E-001
		606.64	5.02	2.9337E+000		5.8954E+000
		635.90	11.32	9.6909E-001		3.1924E-001
	Cs-134	563.23	8.38	1.3280E+000	1.28E-001	1.0238E+000
		569.32	15.43	7.4640E-001		1.1050E-001
		604.70	97.60	1.5037E-001		-2.2480E-002
		795.84	85.40	1.2794E-001		-2.3434E-002
		801.93	8.73	1.1799E+000		-1.3314E+000
	Cs-137	661.65	85.12	1.2706E-001	1.27E-001	-1.0775E-001
	Eu-152	121.78	28.40	8.6071E-001	3.47E-001	-4.0000E-001
		244.69	7.49	2.1784E+000		-4.2845E-001
		344.27	26.50	5.0473E-001		-1.6814E-001
		778.89	12.74	8.0382E-001		-1.2448E+000
		867.32	4.16	2.3846E+000		-8.8167E-001
		964.01	14.40	9.1676E-001		5.2344E-002
		1085.78	10.00	1.0653E+000		3.2594E-001
		1112.02	13.30	8.5674E-001		-7.6042E-001
		1407.95	20.70	3.4651E-001		3.1500E-001
	Eu-154	123.07	40.50	5.9610E-001	2.60E-001	9.3968E-002
		247.94	6.60	2.3061E+000		-2.6461E+000
		591.81	4.83	2.2665E+000		-2.3190E-001
		723.30	19.70	6.0885E-001		5.9246E-001
		756.87	4.33	2.5952E+000		5.0891E-001
		873.19	11.50	8.8504E-001		3.9286E-001
		996.32	10.30	9.3486E-001		-3.2308E-001
		1004.76	17.90	5.4692E-001		-2.8805E-001
		1274.45	35.50	2.6041E-001		7.1078E-002
+	Eu-155	86.54*	30.90	8.7815E-001	8.78E-001	8.9492E-001
		105.31	20.70	1.3894E+000		6.1389E-001
	Am-241	59.54	35.90	1.5772E+000	1.58E+000	-1.4632E-001
	Cm-243	228.19	10.56	1.5013E+000	1.05E+000	-1.1730E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Unit)	Nuclide MDA (pCi/Unit)	Activity (pCi/Unit)
Cm-243	277.60	14.00	1.0525E+000	1.05E+000	-8.9995E-001

+ = 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

Report Generated On 12/8/2005 11:52:29 AM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID:
Sample Title: NOL-05-02-199-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/8/2005 11:42:26 AM
Live Time: 600.0 seconds
Real Time: 601.3 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number:
Title: NOL-05-02-199-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	284-	305	291.95	72.84	0.96	5.40E+002	73.69	1.54E+003
m	2	284-	305	300.57	75.00	0.96	9.00E+002	87.53	1.57E+003
F	3	330-	344	339.80	84.84	1.07	2.75E+002	72.97	1.80E+003
F	4	948-	965	954.91	239.05	1.22	3.24E+002	46.29	4.42E+002
F	5	1176-	1188	1180.86	295.65	0.79	7.15E+001	27.19	1.89E+002
F	6	1347-	1360	1353.86	338.97	0.88	6.82E+001	26.49	1.79E+002
F	7	1401-	1419	1408.77	352.72	1.58	1.61E+002	31.29	1.69E+002
F	8	2031-	2056	2043.19	511.47	2.60	1.98E+002	29.31	1.31E+002
F	9	2323-	2342	2332.83	583.90	1.40	1.92E+002	30.97	1.03E+002
F	10	2429-	2445	2437.00	609.94	1.39	1.31E+002	28.07	1.03E+002
F	11	3438-	3449	3443.29	861.34	0.83	2.27E+001	15.03	4.83E+001
F	12	3638-	3655	3645.99	911.95	1.41	1.42E+002	26.13	4.80E+001
M	13	3854-	3887	3860.83	965.59	1.39	4.31E+001	17.47	4.84E+001
m	14	3854-	3887	3877.67	969.79	1.39	6.93E+001	19.34	3.90E+001
F	15	4474-	4493	4483.75	1121.05	1.81	6.11E+001	19.73	5.14E+001
F	16	5832-	5861	5846.68	1461.04	2.00	1.09E+003	64.03	2.25E+001

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	0.993	511.00*		100.00	2.70502E-001	5.42388E-002
K-40	0.998	1460.81*		10.67	1.82643E+001	1.82760E+000
TL-208	0.886	277.35		6.80		
		510.84*		21.60	1.25232E+000	2.71134E-001
		583.14*		84.20	3.24538E-001	6.73223E-002
		860.37*		12.46	2.85781E-001	1.92039E-001
Pb-212	0.517	74.81*	@	10.70	1.28540E+001	2.81260E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	7.87376E-001	1.67092E-001
Bi-214	0.689	609.31*		46.30	4.08977E-001	1.01106E-001
		1120.29*		15.10	6.81552E-001	2.31556E-001
		1764.49		15.80		
PB-214	0.573	74.82*	@	6.21	2.21478E+001	5.10592E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	4.29402E-001	1.78530E-001
		351.92*		37.20	5.23574E-001	1.34374E-001
Ac-228	0.982	338.32*		11.40	7.16843E-001	3.00324E-001
		911.07*		27.70	8.11100E-001	1.76220E-001
		969.11*		16.60	6.73758E-001	2.00878E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		0.993	2.012996E-001	5.591032E-002
K-40		0.998	1.826426E+001	1.827602E+000
TL-208		0.886	3.203804E-001	6.281943E-002
Pb-212	@	0.517	7.873757E-001	1.670916E-001
Bi-214		0.689	4.526229E-001	9.265797E-002
PB-214	@	0.573	4.895180E-001	1.073615E-001
Ac-228		0.982	7.457477E-001	1.212041E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.84	8.9964E-001	13.65
F 3	84.84	4.5872E-001	26.51
M 13	965.59	7.1845E-002	40.52

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Co-60	1173.22	100.00	1.0627E-001	9.09E-002	3.6071E-002
	1332.49	100.00	9.0936E-002		4.9506E-002
Nb-94	702.63	100.00	1.0177E-001	9.94E-002	-9.0943E-002
	871.10	100.00	9.9441E-002		-3.5727E-002
Ag-108m	79.20	7.10	6.0058E+000	1.19E-001	-1.6520E+001
	433.93	89.90	1.3078E-001		1.7620E-002
	614.37	90.40	1.5672E-001		4.1739E-002
	722.95	90.50	1.1878E-001		1.8423E-002
Sb-125	176.33	6.89	2.4865E+000	3.88E-001	1.0269E-001
	427.89	29.33	3.8811E-001		1.1610E-001
	463.38	10.35	1.1420E+000		1.1986E-001
	600.56	17.80	5.6694E-001		-2.7647E-001
	606.64	5.02	2.6795E+000		4.0588E+000
	635.90	11.32	9.5903E-001		7.5656E-001
Cs-134	563.23	8.38	1.3235E+000	1.20E-001	-5.2587E-002
	569.32	15.43	7.2137E-001		4.9737E-001
	604.70	97.60	1.3096E-001		-5.7803E-002
	795.84	85.40	1.1972E-001		1.7623E-002
	801.93	8.73	1.1485E+000		-1.3728E+000
Cs-137	661.65	85.12	1.2682E-001	1.27E-001	4.5852E-002
Eu-152	121.78	28.40	8.5949E-001	3.71E-001	-2.8152E-001
	244.69	7.49	2.0312E+000		-2.0413E+000
	344.27	26.50	4.7735E-001		-2.1998E-001
	778.89	12.74	8.3315E-001		-7.8185E-001
	867.32	4.16	2.4806E+000		-1.7256E+000
	964.01	14.40	8.7471E-001		1.5872E-001
	1085.78	10.00	9.5025E-001		-5.9224E-001
	1112.02	13.30	8.0258E-001		5.5330E-001
	1407.95	20.70	3.7141E-001		-1.1803E-002
Eu-154	123.07	40.50	6.0035E-001	2.65E-001	1.0232E+000
	247.94	6.60	2.1400E+000		-3.8799E+000
	591.81	4.83	2.1813E+000		-7.9186E-001
	723.30	19.70	5.4329E-001		-2.8897E-001
	756.87	4.33	2.2208E+000		-5.0347E-002
	873.19	11.50	8.9855E-001		9.3488E-001
	996.32	10.30	9.0613E-001		-1.0282E+000
	1004.76	17.90	5.0242E-001		2.4942E-001
	1274.45	35.50	2.6510E-001		1.7668E-001
Eu-155	86.54	30.90	1.2074E+000	1.21E+000	-3.3849E-001
	105.31	20.70	1.3911E+000		-1.0477E+000
Am-241	59.54	35.90	1.5327E+000	1.53E+000	-9.5317E-002
Cm-243	228.19	10.56	1.4115E+000	9.71E-001	1.7158E-002

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	9.7079E-001	9.71E-001	6.9879E-001

+ = 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

Report Generated On 12/8/2005 2:31:22 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID:
Sample Title: NOL-05-02-200-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/8/2005 2:21:19 PM
Live Time: 600.0 seconds
Real Time: 601.6 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number:
Title: NOL-05-02-200-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	285-	356	291.94	72.83	1.00	7.27E+002	85.83	2.01E+003
m	2	285-	356	300.45	74.97	1.01	1.35E+003	99.75	2.15E+003
m	3	285-	356	320.27	79.94	1.02	1.16E+002	65.97	2.10E+003
m	4	285-	356	339.82	84.85	1.02	4.83E+002	77.51	2.07E+003
m	5	285-	356	349.41	87.25	1.03	2.15E+002	70.70	2.05E+003
F	6	945-	960	954.74	239.00	1.00	3.55E+002	50.91	5.06E+002
F	7	1175-	1186	1181.15	295.72	0.89	9.10E+001	32.24	2.41E+002
F	8	1344-	1364	1353.19	338.80	1.11	8.06E+001	29.79	3.11E+002
F	9	1403-	1416	1408.31	352.60	1.16	1.61E+002	33.48	1.74E+002
F	10	2032-	2055	2043.42	511.53	2.15	2.08E+002	32.07	1.68E+002
F	11	2326-	2341	2332.97	583.93	1.34	1.90E+002	33.04	1.24E+002
F	12	2428-	2446	2437.06	609.95	1.42	1.63E+002	29.63	1.03E+002
F	13	2638-	2653	2647.22	662.48	1.36	1.68E+002	28.89	6.80E+001
F	14	2900-	2915	2909.74	728.08	1.72	5.23E+001	20.28	7.07E+001
F	15	3070-	3081	3074.66	769.28	0.82	2.04E+001	15.04	5.17E+001
F	16	3636-	3655	3645.08	911.72	1.30	1.61E+002	29.10	9.03E+001
F	17	3868-	3886	3876.74	969.56	1.51	9.04E+001	23.90	7.80E+001
F	18	4278-	4289	4283.79	1071.15	0.46	1.73E+001	1.37	3.53E+001
F	19	4683-	4705	4694.62	1173.66	1.89	3.00E+002	35.89	6.61E+001
F	20	5322-	5344	5332.72	1332.84	1.96	2.66E+002	32.94	3.27E+001
F	21	5833-	5860	5846.71	1461.05	1.98	1.10E+003	64.45	3.79E+001
F	22	7054-	7069	7062.95	1764.44	2.52	5.09E+001	15.20	8.00E+000

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	0.992	511.00*		100.00	2.84415E-001	5.82951E-002
K-40	0.998	1460.81*		10.67	1.83902E+001	1.83993E+000
Co-60	0.995	1173.22*		100.00	5.11174E-001	7.31849E-002
		1332.49*		100.00	4.67661E-001	6.85487E-002
Cs-137	0.979	661.65*		85.12	2.93306E-001	6.11365E-002
Eu-155	0.324	86.54*		30.90	8.64096E-001	3.30686E-001
		105.31		20.70		
TL-208	0.737	277.35		6.80		
		510.84*		21.60	1.31673E+000	2.90519E-001
		583.14*		84.20	3.22250E-001	6.99103E-002
		860.37		12.46		
Bi-212	0.975	727.17*		11.80	6.71003E-001	2.71909E-001
Pb-212	0.674	74.81*	@	10.70	1.93367E+001	4.04932E+000
		77.11	@	18.00		
		87.30*	@	8.00	3.33757E+000	1.27728E+000
		238.63*		44.60	8.62975E-001	1.83424E-001
Bi-214	0.691	609.31*		46.30	5.08010E-001	1.11693E-001
		1120.29		15.10		
		1764.49*		15.80	5.98552E-001	1.88372E-001
PB-214	0.662	74.82*	@	6.21	3.33177E+001	7.38441E+000
		77.11	@	10.50		
		87.30*	@	4.67	5.71747E+000	2.23028E+000
		241.98		7.49		
		295.21*		19.20	5.46230E-001	2.14294E-001
		351.92*		37.20	5.25381E-001	1.40057E-001
Ac-228	0.990	338.32*		11.40	8.47078E-001	3.40148E-001
		911.07*		27.70	9.23583E-001	1.97505E-001
		969.11*		16.60	8.79042E-001	2.49985E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		0.992	2.148087E-001	6.017641E-002
K-40		0.998	1.839019E+001	1.839929E+000
Co-60		0.995	4.879956E-001	5.003003E-002
Cs-137		0.979	2.933064E-001	6.113646E-002
Eu-155		0.324	5.603422E-001	3.345292E-001
TL-208		0.737	3.222499E-001	6.911698E-002
Bi-212		0.975	6.710028E-001	2.719094E-001
Pb-212	@	0.674	8.629754E-001	1.834242E-001
Bi-214		0.691	5.315624E-001	9.607410E-002
PB-214	@	0.662	5.315182E-001	1.148378E-001
Ac-228		0.990	8.962571E-001	1.410263E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.83	1.2111E+000	11.81
m 3	79.94	1.9290E-001	57.00
m 4	84.85	8.0470E-001	16.05
F 15	769.28	3.3955E-002	73.83
F 18	1071.15	2.8808E-002	7.94

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
+	Co-60	1173.22*	100.00	9.4565E-002	7.11E-002	5.1117E-001
		1332.49*	100.00	7.1071E-002		4.6766E-001
	Nb-94	702.63	100.00	1.1245E-001	1.12E-001	-5.8337E-002
		871.10	100.00	1.1279E-001		4.6684E-002
	Ag-108m	79.20	7.10	6.7984E+000	1.34E-001	-5.6220E+001
		433.93	89.90	1.3681E-001		-4.3695E-002
		614.37	90.40	1.5525E-001		2.9067E-002
		722.95	90.50	1.3391E-001		7.1726E-002
	Sb-125	176.33	6.89	2.9433E+000	4.16E-001	1.4272E+000
		427.89	29.33	4.1637E-001		1.9601E-001
		463.38	10.35	1.2381E+000		1.2225E+000
		600.56	17.80	6.5350E-001		4.6079E-001
		606.64	5.02	2.8783E+000		6.5816E+000
		635.90	11.32	1.0668E+000		7.3620E-001
	Cs-134	563.23	8.38	1.4159E+000	1.27E-001	-5.8676E-001
		569.32	15.43	7.6439E-001		1.3042E-001
		604.70	97.60	1.4372E-001		4.0267E-002
		795.84	85.40	1.2744E-001		-7.0659E-002
		801.93	8.73	1.2200E+000		-1.4609E+000
+	Cs-137	661.65*	85.12	8.6884E-002	8.69E-002	2.9331E-001
	Eu-152	121.78	28.40	9.9138E-001	3.38E-001	-1.0441E-001
		244.69	7.49	2.3748E+000		-1.5002E+000
		344.27	26.50	5.2749E-001		-1.9991E-001
		778.89	12.74	8.6016E-001		-4.4007E-001
		867.32	4.16	2.8016E+000		-1.5024E-001
		964.01	14.40	9.5296E-001		4.9521E-001
		1085.78	10.00	1.0689E+000		6.0023E-001
		1112.02	13.30	8.2908E-001		-1.8086E+000
		1407.95	20.70	3.3771E-001		1.2059E-001
	Eu-154	123.07	40.50	6.8924E-001	2.41E-001	3.7721E-001
		247.94	6.60	2.5455E+000		-4.0456E+000
		591.81	4.83	2.4131E+000		3.2408E-001
		723.30	19.70	6.1632E-001		3.3109E-001
		756.87	4.33	2.4374E+000		-1.5266E+000
		873.19	11.50	9.7907E-001		-2.3515E-001
		996.32	10.30	1.0122E+000		4.4624E-001
		1004.76	17.90	5.7252E-001		-1.6855E-001
		1274.45	35.50	2.4127E-001		-1.8639E-001
+	Eu-155	86.54*	30.90	8.5787E-001	8.58E-001	8.6410E-001
		105.31	20.70	1.5982E+000		-4.4126E-002
	Am-241	59.54	35.90	1.7526E+000	1.75E+000	-5.8624E-001
	Cm-243	228.19	10.56	1.7163E+000	1.11E+000	1.7597E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	1.1124E+000	1.11E+000	-4.4914E-001

+ = 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

Report Generated On 12/13/2005 9:01:21 AM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: RED6264

Spectrum File: RED6264
Sample ID:
Sample Title: NOL-05-02-200-F-I-G-001
Description:

Sample Type:
Geometry:

Acquisition Started: 12/13/2005 8:51:20 AM
Live Time: 600.0 seconds
Real Time: 601.7 seconds

Energy Calibration Date: 6/13/2005
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number:
Title: NOL-05-02-200-F-I-G-001
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	285-	309	291.81	72.91	1.07	6.84E+002	86.78	2.49E+003
m	2	285-	309	299.93	74.94	1.07	1.26E+003	100.60	2.88E+003
M	3	334-	359	339.24	84.77	0.88	4.28E+002	80.01	1.78E+003
m	4	334-	359	349.74	87.39	0.89	1.84E+002	66.52	1.98E+003
F	5	947-	960	953.88	238.44	1.13	3.73E+002	51.89	4.93E+002
F	6	1348-	1364	1353.13	338.26	1.13	7.39E+001	29.64	2.42E+002
F	7	1401-	1418	1406.89	351.70	1.21	1.66E+002	33.89	2.42E+002
F	8	2031-	2053	2041.65	510.41	1.80	1.45E+002	30.95	2.25E+002
F	9	2325-	2338	2330.89	582.72	1.26	1.56E+002	31.08	1.13E+002
F	10	2428-	2445	2435.23	608.81	1.05	1.54E+002	29.44	1.17E+002
F	11	2635-	2651	2644.69	661.18	1.43	1.19E+002	26.72	9.28E+001
F	12	3632-	3653	3642.65	910.69	1.59	1.64E+002	28.89	8.78E+001
F	13	3866-	3883	3874.09	968.55	1.66	8.73E+001	22.15	5.09E+001
F	14	4473-	4487	4480.01	1120.05	1.46	4.15E+001	19.69	5.88E+001
F	15	4680-	4703	4691.66	1172.96	1.84	2.17E+002	31.35	6.46E+001
F	16	5317-	5338	5328.61	1332.21	1.70	2.41E+002	32.25	4.15E+001
F	17	5827-	5855	5842.30	1460.65	2.03	9.64E+002	60.40	2.21E+001
F	18	7049-	7065	7058.70	1764.77	2.04	4.86E+001	16.05	1.40E+001

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	0.990	511.00*	100.00	2.03923E-001	5.15725E-002
K-40	0.999	1460.81*	10.67	1.66783E+001	1.70746E+000
Co-60	0.998	1173.22*	100.00	3.81168E-001	6.27387E-002
		1332.49*	100.00	4.36494E-001	6.77317E-002
Cs-137	0.993	661.65*	85.12	2.13753E-001	5.42811E-002
Eu-155	0.320	86.54*	30.90	7.62774E-001	3.14018E-001
		105.31	20.70		
TL-208	0.747	277.35	6.80		
		510.84*	21.60	9.44086E-001	2.50901E-001
		583.14*	84.20	2.71521E-001	6.47400E-002
		860.37	12.46		
Pb-212	0.677	74.81* @	10.70	1.86390E+001	3.94675E+000
		77.11 @	18.00		
		87.30* @	8.00	2.94621E+000	1.21290E+000
		238.63*	44.60	9.34776E-001	1.96061E-001
Bi-214	0.995	609.31*	46.30	4.97068E-001	1.12862E-001
		1120.29*	15.10	4.77018E-001	2.32080E-001
		1764.49*	15.80	5.89154E-001	2.03409E-001
Ac-228	0.995	338.32*	11.40	8.01098E-001	3.45065E-001
		911.07*	27.70	9.70575E-001	2.04105E-001
		969.11*	16.60	8.76868E-001	2.40639E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		0.990	1.452741E-001	5.340050E-002
K-40		0.999	1.667835E+001	1.707460E+000
Co-60		0.998	4.067169E-001	4.602703E-002
Cs-137		0.993	2.137527E-001	5.428111E-002
Eu-155		0.320	5.207606E-001	3.180946E-001
TL-208		0.747	2.715206E-001	6.413239E-002
Pb-212	@	0.677	9.347758E-001	1.960613E-001
Bi-214		0.995	5.123544E-001	9.081845E-002
Ac-228		0.995	9.093420E-001	1.418874E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.91	1.1400E+000	12.69
M 3	84.77	7.1372E-001	18.68
F 7	351.70	2.7639E-001	20.43

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
+	Co-60	1173.22*	100.00	9.7755E-002	7.95E-002	3.8117E-001
		1332.49*	100.00	7.9492E-002		4.3649E-001
	Nb-94	702.63	100.00	1.2103E-001	1.12E-001	5.7329E-002
		871.10	100.00	1.1159E-001		1.0076E-001
	Ag-108m	79.20	7.10	7.4259E+000	1.37E-001	-4.3328E+000
		433.93	89.90	1.4921E-001		-2.4788E-002
		614.37	90.40	1.6276E-001		-5.4668E-002
		722.95	90.50	1.3722E-001		3.5510E-002
	Sb-125	176.33	6.89	3.0496E+000	4.48E-001	-1.1012E+000
		427.89	29.33	4.4819E-001		1.1669E-001
		463.38	10.35	1.3660E+000		1.5486E+000
		600.56	17.80	7.0115E-001		-4.9344E-002
		606.64	5.02	3.0722E+000		6.2092E+000
		635.90	11.32	1.0210E+000		9.1474E-001
	Cs-134	563.23	8.38	1.4348E+000	1.45E-001	1.5626E-001
		569.32	15.43	7.8074E-001		-3.9898E-002
		604.70	97.60	1.5834E-001		-2.4688E-002
		795.84	85.40	1.4457E-001		5.8536E-002
		801.93	8.73	1.2921E+000		-1.4418E+000
+	Cs-137	661.65*	85.12	1.0566E-001	1.06E-001	2.1375E-001
	Eu-152	121.78	28.40	1.0469E+000	3.48E-001	1.1735E+000
		244.69	7.49	2.3877E+000		-1.1557E+000
		344.27	26.50	5.6489E-001		1.7920E-001
		778.89	12.74	9.1878E-001		2.1564E-001
		867.32	4.16	2.6672E+000		-7.6149E-001
		964.01	14.40	9.5175E-001		2.3345E-001
		1085.78	10.00	1.0969E+000		1.3760E-003
		1112.02	13.30	7.9247E-001		-1.0194E+000
		1407.95	20.70	3.4829E-001		2.7887E-001
	Eu-154	123.07	40.50	7.2099E-001	2.71E-001	-6.1471E-002
		247.94	6.60	2.5892E+000		-2.7567E+000
		591.81	4.83	2.5957E+000		4.2299E-001
		723.30	19.70	6.2706E-001		-4.8960E-002
		756.87	4.33	2.6202E+000		-5.5491E-001
		873.19	11.50	9.4266E-001		-5.4798E-001
		996.32	10.30	1.0509E+000		1.0428E+000
		1004.76	17.90	5.4704E-001		-4.4665E-001
		1274.45	35.50	2.7122E-001		-1.4580E-001
+	Eu-155	86.54*	30.90	8.7066E-001	8.71E-001	7.6277E-001
		105.31	20.70	1.6853E+000		1.3122E+000
	Am-241	59.54	35.90	2.0105E+000	2.01E+000	-6.3555E-001
	Cm-243	228.19	10.56	1.7916E+000	1.18E+000	-1.0687E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	1.1812E+000	1.18E+000	-2.9030E-001

+ = 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

Report Generated On 12/13/2005 11:51:50 AM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: RED6264

Spectrum File: RED6264
Sample ID:
Sample Title: NOL-05-02-200-F-I-G-002
Description:

Sample Type:
Geometry:

Acquisition Started: 12/13/2005 11:36:48 AM
Live Time: 900.0 seconds
Real Time: 901.0 seconds

Energy Calibration Date: 6/13/2005
Eff Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number:
Title: NOL-05-02-200-F-I-G-002
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	285-	315	292.24	73.02	1.13	3.87E+002	61.38	1.14E+003
m	2	285-	315	300.59	75.10	1.13	6.89E+002	70.30	1.36E+003
m	3	285-	315	309.81	77.41	1.13	1.65E+002	54.25	1.18E+003
F	4	335-	344	339.63	84.87	1.06	2.57E+002	60.22	8.07E+002
F	5	944-	961	954.98	238.72	1.09	1.32E+002	33.26	2.82E+002
F	6	1177-	1186	1181.11	295.25	0.53	3.69E+001	19.11	1.03E+002
F	7	1403-	1416	1407.51	351.86	0.90	6.50E+001	22.94	1.06E+002
F	8	2035-	2053	2044.83	511.20	1.81	1.17E+002	26.08	1.14E+002
F	9	2326-	2343	2333.47	583.37	1.40	9.90E+001	23.66	7.32E+001
F	10	2426-	2445	2437.58	609.40	1.70	1.02E+002	22.78	6.24E+001
F	11	2641-	2654	2647.67	661.92	1.35	4.41E+001	18.07	4.76E+001
F	12	3638-	3654	3646.23	911.59	2.24	7.04E+001	21.43	6.21E+001
F	13	3872-	3886	3878.89	969.76	1.42	3.41E+001	17.13	4.35E+001
F	14	4688-	4706	4696.61	1174.20	1.70	1.33E+002	25.98	5.12E+001
F	15	5324-	5345	5334.84	1333.77	1.71	1.60E+002	26.30	2.76E+001
F	16	5834-	5862	5848.76	1462.26	1.96	5.86E+002	47.33	1.79E+001
F	17	7059-	7072	7065.41	1766.45	0.99	2.49E+001	11.42	8.77E+000

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	0.999	511.00*	100.00	3.52105E-001	9.28820E-002
K-40	0.939	1460.81*	10.67	2.16659E+001	2.47737E+000
Co-60	0.962	1173.22*	100.00	5.00621E-001	1.05501E-001
		1332.49*	100.00	6.20022E-001	1.12778E-001
Cs-137	0.998	661.65*	85.12	1.68954E-001	7.20581E-002
TL-208	0.751	277.35	6.80		
		510.84*	21.60	1.63011E+000	4.50145E-001
		583.14*	84.20	3.69134E-001	1.00825E-001
		860.37	12.46		
Pb-212	0.844	74.81* @	10.70	2.33578E+001	5.16092E+000
		77.11* @	18.00	3.18444E+000	1.22120E+000
		87.30 @	8.00		
		238.63*	44.60	7.40512E-001	2.20104E-001
Bi-214	0.676	609.31*	46.30	7.03937E-001	1.79369E-001
		1120.29	15.10		
		1764.49*	15.80	6.45648E-001	3.03239E-001
PB-214	0.765	74.82* @	6.21	4.02461E+001	9.36005E+000
		77.11* @	10.50	5.45903E+000	2.13279E+000
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	5.05535E-001	2.75021E-001
		351.92*	37.20	4.77033E-001	1.86338E-001
Ac-228	0.630	338.32	11.40		
		911.07*	27.70	8.88113E-001	2.88850E-001
		969.11*	16.60	7.31688E-001	3.75065E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		0.999	2.723716E-001	9.536560E-002
K-40		0.939	2.166594E+001	2.477370E+000
Co-60		0.962	5.563444E-001	7.704468E-002
Cs-137		0.998	1.689537E-001	7.205813E-002
TL-208		0.751	3.691341E-001	1.001052E-001
Pb-212	@	0.844	7.405124E-001	2.201038E-001
Bi-214		0.676	6.888289E-001	1.543830E-001
PB-214	@	0.765	4.860008E-001	1.542638E-001
Ac-228		0.630	8.298774E-001	2.288496E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	73.02	4.3045E-001	15.84
F 4	84.87	2.8512E-001	23.47

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
+	Co-60	1173.22*	100.00	1.7299E-001	1.40E-001	5.0062E-001
		1332.49*	100.00	1.4019E-001		6.2002E-001
	Nb-94	702.63	100.00	1.9902E-001	1.93E-001	-4.1997E-002
		871.10	100.00	1.9333E-001		1.2178E-002
	Ag-108m	79.20	7.10	1.2230E+001	2.29E-001	2.7375E+000
		433.93	89.90	2.5902E-001		-2.8576E-002
		614.37	90.40	2.8026E-001		-1.0348E-001
		722.95	90.50	2.2869E-001		-9.8505E-002
	Sb-125	176.33	6.89	4.7754E+000	7.52E-001	-1.8479E+000
		427.89	29.33	7.5241E-001		4.5591E-002
		463.38	10.35	2.2635E+000		5.9528E-001
		600.56	17.80	1.2306E+000		6.3619E-001
		606.64	5.02	5.0275E+000		4.4743E+000
		635.90	11.32	1.8688E+000		-8.3984E-001
	Cs-134	563.23	8.38	2.2476E+000	2.33E-001	-2.8329E+000
		569.32	15.43	1.3259E+000		3.8301E-001
		604.70	97.60	2.5603E-001		-6.5467E-003
		795.84	85.40	2.3315E-001		4.0169E-002
		801.93	8.73	2.2157E+000		-1.6796E+000
+	Cs-137	661.65*	85.12	1.5564E-001	1.56E-001	1.6895E-001
	Eu-152	121.78	28.40	1.6568E+000	6.98E-001	4.7715E-001
		244.69	7.49	3.8270E+000		2.8807E-001
		344.27	26.50	9.3193E-001		-1.4416E+000
		778.89	12.74	1.5862E+000		5.8767E-003
		867.32	4.16	4.7924E+000		-1.1480E+000
		964.01	14.40	1.6022E+000		-4.8297E-001
		1085.78	10.00	1.9364E+000		-6.7159E-001
		1112.02	13.30	1.4664E+000		-6.2725E-001
		1407.95	20.70	6.9755E-001		2.9076E-001
	Eu-154	123.07	40.50	1.1423E+000	4.76E-001	-5.1426E-001
		247.94	6.60	4.1292E+000		-4.5220E+000
		591.81	4.83	4.7127E+000		2.7084E+000
		723.30	19.70	1.0415E+000		-4.7868E-001
		756.87	4.33	4.9782E+000		2.2162E+000
		873.19	11.50	1.7062E+000		-1.5663E-001
		996.32	10.30	1.8767E+000		-4.0052E-001
		1004.76	17.90	1.1644E+000		5.6021E-001
		1274.45	35.50	4.7580E-001		-8.9275E-001
	Eu-155	86.54	30.90	2.3953E+000	2.40E+000	3.9902E+000
		105.31	20.70	2.6474E+000		1.0188E+000
	Am-241	59.54	35.90	3.2815E+000	3.28E+000	-2.7895E+000
	Cm-243	228.19	10.56	2.7252E+000	1.92E+000	4.2500E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	1.9198E+000	1.92E+000	3.0643E-001

+ = 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

Report Generated On 12/13/2005 12:10:46 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: RED6264

Spectrum File: RED6264
Sample ID:
Sample Title: NOL-05-02-200-F-I-G-003
Description:

Sample Type:
Geometry:

Acquisition Started: 12/13/2005 11:55:48 AM
Live Time: 900.0 seconds
Real Time: 901.0 seconds

Energy Calibration Date: 6/13/2005
Eff Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number:
Title: NOL-05-02-200-F-I-G-003
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	283-	307	292.19	73.01	1.00	3.92E+002	61.90	1.19E+003
m	2	283-	307	300.56	75.10	1.01	5.97E+002	70.78	1.28E+003
M	3	333-	354	340.31	85.04	1.13	3.15E+002	59.35	1.11E+003
m	4	333-	354	350.29	87.53	1.14	1.31E+002	50.74	9.99E+002
F	5	948-	962	955.04	238.73	1.00	1.35E+002	32.80	2.41E+002
F	6	1403-	1413	1408.47	352.10	1.02	5.76E+001	24.38	1.10E+002
F	7	1598-	1607	1602.47	400.60	0.70	2.60E+001	15.35	4.68E+001
F	8	2037-	2055	2045.03	511.25	1.70	9.57E+001	25.37	1.25E+002
F	9	2327-	2341	2333.72	583.43	0.99	8.06E+001	21.54	5.83E+001
F	10	2431-	2448	2439.12	609.78	1.15	7.87E+001	22.44	8.14E+001
F	11	3640-	3655	3647.60	911.93	1.41	7.42E+001	19.07	2.57E+001
F	12	3873-	3887	3879.55	969.92	1.70	4.40E+001	16.57	2.41E+001
F	13	4690-	4705	4697.36	1174.39	1.76	3.62E+001	16.24	3.12E+001
F	14	5328-	5343	5334.85	1333.77	1.63	4.45E+001	15.93	2.00E+001
F	15	5837-	5864	5850.05	1462.59	2.03	5.27E+002	44.96	1.73E+001

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	0.998	511.00*	100.00	2.88556E-001	8.65755E-002
K-40	0.910	1460.81*	10.67	1.94966E+001	2.29199E+000
Co-60	0.956	1173.22*	100.00	1.36510E-001	6.21449E-002
		1332.49*	100.00	1.72171E-001	6.31092E-002
Eu-155	0.316	86.54*	30.90	1.25307E+000	5.44143E-001
		105.31	20.70		
TL-208	0.751	277.35	6.80		
		510.84*	21.60	1.33591E+000	4.15396E-001
		583.14*	84.20	3.00594E-001	8.96305E-002
		860.37	12.46		
Pb-212	0.679	74.81* @	10.70	2.02289E+001	4.63397E+000
		77.11 @	18.00		
		87.30* @	8.00	4.83997E+000	2.10175E+000
		238.63*	44.60	7.60473E-001	2.19598E-001
Bi-214	0.395	609.31*	46.30	5.41176E-001	1.68266E-001
		1120.29	15.10		
		1764.49	15.80		
Ac-228	0.621	338.32	11.40		
		911.07*	27.70	9.35363E-001	2.63361E-001
		969.11*	16.60	9.42587E-001	3.68641E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		0.998	2.236279E-001	8.868858E-002
K-40		0.910	1.949660E+001	2.291989E+000
Co-60		0.956	1.540657E-001	4.428006E-002
Eu-155		0.316	1.056180E+000	5.471047E-001
TL-208		0.751	3.005945E-001	8.909356E-002
Pb-212	@	0.679	7.604735E-001	2.195983E-001
Bi-214		0.395	5.411761E-001	1.682660E-001
Ac-228		0.621	9.378042E-001	2.142931E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	73.01	4.3586E-001	15.78
M 3	85.04	3.4954E-001	18.87
F 6	352.10	6.3981E-002	42.33
F 7	400.60	2.8891E-002	59.02

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
+	Co-60	1173.22*	100.00	1.3044E-001	1.10E-001	1.3651E-001
		1332.49*	100.00	1.0963E-001		1.7217E-001
	Nb-94	702.63	100.00	1.9902E-001	1.99E-001	-2.0214E-001
		871.10	100.00	2.0556E-001		9.7169E-002
	Ag-108m	79.20	7.10	1.2057E+001	2.40E-001	-1.7125E+000
		433.93	89.90	2.5232E-001		-3.7945E-002
		614.37	90.40	2.7422E-001		-6.8301E-002
		722.95	90.50	2.3975E-001		3.3250E-002
	Sb-125	176.33	6.89	4.7161E+000	7.37E-001	3.6393E+000
		427.89	29.33	7.3664E-001		1.9535E-002
		463.38	10.35	2.1746E+000		1.7754E+000
		600.56	17.80	1.1434E+000		-6.5758E-001
		606.64	5.02	5.0720E+000		7.8115E+000
		635.90	11.32	1.8392E+000		1.8677E-001
	Cs-134	563.23	8.38	2.5149E+000	2.38E-001	-8.1330E-001
		569.32	15.43	1.3432E+000		7.1699E-001
		604.70	97.60	2.5089E-001		-4.8999E-002
		795.84	85.40	2.3845E-001		-5.5745E-002
		801.93	8.73	2.2844E+000		-1.6597E+000
	Cs-137	661.65	85.12	2.6123E-001	2.61E-001	1.4180E-002
	Eu-152	121.78	28.40	1.6258E+000	6.98E-001	-6.7025E-001
		244.69	7.49	3.8401E+000		-1.2862E+000
		344.27	26.50	9.2561E-001		-1.7453E+000
		778.89	12.74	1.5196E+000		-5.1895E-001
		867.32	4.16	5.0771E+000		9.2150E-001
		964.01	14.40	1.5364E+000		-4.3090E-001
		1085.78	10.00	1.9364E+000		-3.3075E-001
		1112.02	13.30	1.5657E+000		1.6980E-001
		1407.95	20.70	6.9755E-001		2.9697E-001
	Eu-154	123.07	40.50	1.1399E+000	4.22E-001	4.4261E-001
		247.94	6.60	4.1567E+000		-5.5319E+000
		591.81	4.83	4.3082E+000		5.8121E-001
		723.30	19.70	1.1189E+000		1.1817E+000
		756.87	4.33	4.5502E+000		-4.0925E+000
		873.19	11.50	1.8392E+000		1.1647E+000
		996.32	10.30	1.9060E+000		2.1301E-001
		1004.76	17.90	1.0698E+000		5.7099E-001
		1274.45	35.50	4.2164E-001		-1.7645E-001
+	Eu-155	86.54*	30.90	1.4333E+000	1.43E+000	1.2531E+000
		105.31	20.70	2.6574E+000		-9.6250E-001
	Am-241	59.54	35.90	3.2041E+000	3.20E+000	-1.0070E+000
	Cm-243	228.19	10.56	2.6407E+000	1.92E+000	-1.7636E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	1.9158E+000	1.92E+000	-1.6409E+000

+ = 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

Report Generated On 12/13/2005 2:01:42 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: RED6264

Spectrum File: RED6264
Sample ID:
Sample Title: NOL-05-02-200-F-I-G-004
Description:

Sample Type:
Geometry:

Acquisition Started: 12/13/2005 1:46:40 PM
Live Time: 900.0 seconds
Real Time: 900.9 seconds

Energy Calibration Date: 6/13/2005
Eff Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number:
Title: NOL-05-02-200-F-I-G-004
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	283-	305	292.38	73.05	0.84	1.93E+002	50.97	9.44E+002
m	2	283-	305	300.72	75.14	0.84	4.79E+002	65.55	8.91E+002
F	3	335-	346	339.73	84.89	0.76	1.67E+002	52.08	8.55E+002
F	4	950-	963	955.62	238.88	1.06	1.57E+002	33.24	2.01E+002
F	5	1400-	1415	1408.22	352.04	1.15	8.72E+001	24.14	1.06E+002
F	6	2035-	2057	2046.14	511.53	2.51	1.61E+002	25.59	7.40E+001
F	7	2327-	2341	2334.43	583.61	1.25	1.06E+002	24.47	6.20E+001
F	8	2430-	2447	2438.25	609.57	1.35	8.87E+001	22.76	6.96E+001
F	9	3637-	3657	3646.95	911.76	2.06	9.77E+001	21.67	4.23E+001
F	10	3872-	3887	3879.44	969.89	1.78	5.58E+001	18.04	3.04E+001
F	11	4479-	4494	4486.41	1121.65	1.30	3.33E+001	16.98	4.28E+001
F	12	4690-	4706	4698.15	1174.59	1.72	6.39E+001	18.32	2.32E+001
F	13	5331-	5344	5337.42	1334.42	1.28	4.39E+001	16.06	2.14E+001
F	14	5837-	5863	5850.77	1462.77	2.00	5.91E+002	47.88	3.38E+001

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	0.992	511.00*	100.00	4.86906E-001	1.03047E-001
K-40	0.892	1460.81*	10.67	2.18315E+001	2.50127E+000
Co-60	0.920	1173.22*	100.00	2.40852E-001	7.15802E-002
		1332.49*	100.00	1.70024E-001	6.35725E-002
TL-208	0.746	277.35	6.80		
		510.84*	21.60	2.25419E+000	5.11356E-001
		583.14*	84.20	3.97065E-001	1.05269E-001
		860.37	12.46		
Pb-212	0.523	74.81* @	10.70	1.62322E+001	3.87954E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	8.80644E-001	2.32396E-001
Bi-214	0.688	609.31*	46.30	6.09746E-001	1.73845E-001
		1120.29*	15.10	8.20937E-001	4.26992E-001
		1764.49	15.80		
Ac-228	0.625	338.32	11.40		
		911.07*	27.70	1.23191E+000	3.07747E-001
		969.11*	16.60	1.19512E+000	4.06327E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		0.992	4.011400E-001	1.054888E-001
K-40		0.892	2.183148E+001	2.501270E+000
Co-60		0.920	2.012560E-001	4.753261E-002
TL-208		0.746	3.970647E-001	1.044710E-001
Pb-212	@	0.523	8.806437E-001	2.323961E-001
Bi-214		0.688	6.397756E-001	1.610120E-001
Ac-228		0.625	1.218497E+000	2.453248E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	73.05	2.1421E-001	26.44
F 3	84.89	1.8572E-001	31.16
F 5	352.04	9.6937E-002	27.67

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
+	Co-60	1173.22*	100.00	1.1578E-001	1.09E-001	2.4085E-001
		1332.49*	100.00	1.0930E-001		1.7002E-001
	Nb-94	702.63	100.00	2.0513E-001	1.88E-001	-1.5724E-001
		871.10	100.00	1.8762E-001		9.6292E-002
	Ag-108m	79.20	7.10	1.1264E+001	2.39E-001	-2.0036E+001
		433.93	89.90	2.4309E-001		-1.4195E-001
		614.37	90.40	2.8859E-001		8.9558E-002
		722.95	90.50	2.3911E-001		-2.0088E-001
	Sb-125	176.33	6.89	4.3517E+000	7.32E-001	-3.9781E-002
		427.89	29.33	7.3228E-001		1.5264E-001
		463.38	10.35	2.1704E+000		7.9220E-001
		600.56	17.80	1.1863E+000		-2.6493E-001
		606.64	5.02	4.9827E+000		6.0575E+000
		635.90	11.32	1.9124E+000		5.6391E-001
	Cs-134	563.23	8.38	2.5878E+000	2.29E-001	-7.2757E-002
		569.32	15.43	1.3703E+000		5.5039E-001
		604.70	97.60	2.5371E-001		-8.2811E-003
		795.84	85.40	2.2928E-001		5.2023E-002
		801.93	8.73	2.1844E+000		-1.8037E+000
	Cs-137	661.65	85.12	2.4621E-001	2.46E-001	2.2582E-001
	Eu-152	121.78	28.40	1.5247E+000	5.64E-001	-1.3182E-001
		244.69	7.49	3.7507E+000		1.5102E+000
		344.27	26.50	8.0018E-001		-1.2552E+000
		778.89	12.74	1.5300E+000		-1.7309E+000
		867.32	4.16	4.4535E+000		-6.3723E+000
		964.01	14.40	1.4863E+000		-3.5274E-001
		1085.78	10.00	1.8547E+000		-3.8732E-001
		1112.02	13.30	1.3790E+000		-2.5090E-001
		1407.95	20.70	5.6407E-001		-2.0435E-001
	Eu-154	123.07	40.50	1.0603E+000	4.64E-001	4.3088E-001
		247.94	6.60	4.1252E+000		-5.6870E+000
		591.81	4.83	4.3305E+000		-2.0685E-001
		723.30	19.70	1.1160E+000		-1.9416E-001
		756.87	4.33	4.8399E+000		-6.8787E-001
		873.19	11.50	1.6449E+000		-2.3583E-001
		996.32	10.30	1.8092E+000		-9.2783E-001
		1004.76	17.90	1.1037E+000		1.2005E+000
		1274.45	35.50	4.6435E-001		-2.6792E-001
	Eu-155	86.54	30.90	2.2081E+000	2.21E+000	1.4208E+000
		105.31	20.70	2.4358E+000		9.5958E-001
	Am-241	59.54	35.90	3.0434E+000	3.04E+000	2.5053E-001
	Cm-243	228.19	10.56	2.4603E+000	1.78E+000	1.0894E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	1.7774E+000	1.78E+000	2.1832E-001

+ = 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

Report Generated On 12/8/2005 3:06:01 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: BLUE6279

Spectrum File: BLUE6279
Sample ID:
Sample Title: NOL-05-02-201-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/8/2005 2:55:59 PM
Live Time: 600.0 seconds
Real Time: 601.3 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 10/4/2005
Calibration Efficiency: BLUE_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: BLUE6279
Log Number:
Title: NOL-05-02-201-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	274-	313	277.53	69.22	0.97	1.16E+002	58.77	1.12E+003
m	2	274-	313	291.79	72.80	0.98	5.95E+002	74.23	1.51E+003
m	3	274-	313	300.34	74.94	0.98	1.08E+003	88.88	1.68E+003
m	4	274-	313	308.74	77.05	0.98	1.58E+002	63.47	1.48E+003
F	5	336-	344	339.77	84.83	0.91	2.74E+002	73.51	1.16E+003
F	6	947-	960	954.70	238.99	0.85	2.92E+002	47.37	4.27E+002
F	7	1171-	1189	1180.73	295.61	1.42	1.08E+002	32.44	2.95E+002
F	8	1345-	1359	1353.09	338.78	1.42	1.12E+002	30.05	1.74E+002
F	9	1397-	1413	1407.75	352.46	0.97	1.15E+002	30.39	2.10E+002
F	10	1865-	1875	1870.88	468.36	1.24	2.84E+001	18.17	5.91E+001
F	11	2031-	2053	2042.67	511.34	1.77	1.32E+002	28.24	1.58E+002
F	12	2325-	2340	2332.78	583.88	1.22	1.84E+002	31.37	9.97E+001
F	13	2429-	2447	2437.30	610.01	1.41	2.18E+002	31.96	8.39E+001
F	14	3176-	3189	3181.26	795.90	1.16	3.15E+001	16.53	4.49E+001
F	15	3338-	3349	3343.45	836.41	0.52	2.08E+001	11.88	3.46E+001
F	16	3637-	3655	3645.19	911.75	1.42	1.57E+002	27.17	5.06E+001
F	17	3867-	3884	3876.01	969.37	1.31	1.04E+002	24.68	6.91E+001
F	18	4475-	4488	4482.22	1120.66	1.23	4.98E+001	17.98	3.66E+001
F	19	5832-	5861	5845.79	1460.82	1.91	1.13E+003	65.91	2.73E+001
F	20	7054-	7070	7061.38	1764.05	2.24	5.23E+001	15.27	4.25E+000

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File: BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	0.997	511.00*		100.00	1.80446E-001	4.56265E-002
K-40	1.000	1460.81*		10.67	1.89933E+001	1.89386E+000
TL-208	0.739	277.35		6.80		
		510.84*		21.60	8.35400E-001	2.21978E-001
		583.14*		84.20	3.11458E-001	6.68055E-002
		860.37		12.46		
Pb-212	0.841	74.81*	@	10.70	1.54280E+001	3.28019E+000
		77.11*	@	18.00	1.29639E+000	5.78181E-001
		87.30	@	8.00		
		238.63*		44.60	7.10090E-001	1.60218E-001
Bi-214	0.989	609.31*		46.30	6.81052E-001	1.30361E-001
		1120.29*		15.10	5.54923E-001	2.08978E-001
		1764.49*		15.80	6.14541E-001	1.89595E-001
PB-214	0.758	74.82*	@	6.21	2.65828E+001	5.97221E+000
		77.11*	@	10.50	2.22238E+000	1.00496E+000
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	6.50141E-001	2.23413E-001
		351.92*		37.20	3.74783E-001	1.17177E-001
Ac-228	0.991	338.32*		11.40	1.18011E+000	3.66147E-001
		911.07*		27.70	8.96687E-001	1.86579E-001
		969.11*		16.60	1.01602E+000	2.62550E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)

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

Spectrum File:BLUE6279

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		0.997	1.131714E-001	4.780369E-002
K-40		1.000	1.899326E+001	1.893863E+000
TL-208		0.739	3.114579E-001	6.602990E-002
Pb-212	@	0.841	7.100902E-001	1.602177E-001
Bi-214		0.989	6.378033E-001	9.553664E-002
PB-214	@	0.758	4.341886E-001	1.037704E-001
Ac-228		0.991	9.725413E-001	1.404528E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	69.22	1.9350E-001	50.62
m 2	72.80	9.9096E-001	12.48
F 5	84.83	4.5651E-001	26.84
F 10	468.36	4.7350E-002	63.94
F 14	795.90	5.2562E-002	52.42
F 15	836.41	3.4648E-002	57.13

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(B L U E R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Co-60	1173.22	100.00	1.1111E-001	7.84E-002	6.2191E-002
	1332.49	100.00	7.8375E-002		1.7141E-002
Nb-94	702.63	100.00	1.0076E-001	1.01E-001	2.0994E-002
	871.10	100.00	1.0301E-001		-3.8737E-003
Ag-108m	79.20	7.10	6.0578E+000	1.30E-001	-1.8005E+000
	433.93	89.90	1.3096E-001		5.2885E-002
	614.37	90.40	1.5781E-001		3.8479E-003
	722.95	90.50	1.3012E-001		1.1156E-001
Sb-125	176.33	6.89	2.7120E+000	4.02E-001	7.5711E-001
	427.89	29.33	4.0223E-001		7.5918E-002
	463.38	10.35	1.1811E+000		1.4182E+000
	600.56	17.80	6.1659E-001		1.5725E-001
	606.64	5.02	2.9384E+000		1.0715E-001
	635.90	11.32	9.2702E-001		6.2456E-001
Cs-134	563.23	8.38	1.3115E+000	1.31E-001	3.6020E-001
	569.32	15.43	7.0152E-001		-4.2069E-001
	604.70	97.60	1.4440E-001		-8.1489E-003
	795.84	85.40	1.3084E-001		1.4116E-001
	801.93	8.73	1.1729E+000		4.0440E-001
Cs-137	661.65	85.12	1.2298E-001	1.23E-001	-6.0947E-002
Eu-152	121.78	28.40	8.8567E-001	3.45E-001	-1.3421E-001
	244.69	7.49	2.1172E+000		-2.6429E+000
	344.27	26.50	4.9061E-001		-1.6189E-002
	778.89	12.74	8.0722E-001		-1.7017E-001
	867.32	4.16	2.4677E+000		-3.3545E+000
	964.01	14.40	9.2309E-001		-1.9204E-002
	1085.78	10.00	9.6674E-001		2.0588E-001
	1112.02	13.30	7.8669E-001		-2.5942E-001
	1407.95	20.70	3.4523E-001		-6.1144E-002
Eu-154	123.07	40.50	6.1253E-001	2.59E-001	-2.4135E-001
	247.94	6.60	2.2673E+000		-3.7949E+000
	591.81	4.83	2.2394E+000		1.2272E+000
	723.30	19.70	5.9672E-001		2.5732E-001
	756.87	4.33	2.3377E+000		-1.1724E+000
	873.19	11.50	8.5532E-001		2.3397E-002
	996.32	10.30	9.4288E-001		9.1407E-001
	1004.76	17.90	4.9674E-001		-6.3433E-001
	1274.45	35.50	2.5883E-001		1.4870E-002
Eu-155	86.54	30.90	1.2318E+000	1.23E+000	2.3852E+000
	105.31	20.70	1.4037E+000		3.5924E-001
Am-241	59.54	35.90	1.5081E+000	1.51E+000	9.4620E-002
Cm-243	228.19	10.56	1.5434E+000	1.01E+000	-2.0943E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	1.0117E+000	1.01E+000	1.7434E-001

+ = 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

Report Generated On 12/8/2005 7:29:11 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: RED6264

Spectrum File: RED6264
Sample ID:
Sample Title: NOL-05-02-202-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/8/2005 7:19:08 PM
Live Time: 600.0 seconds
Real Time: 601.4 seconds

Energy Calibration Date: 6/13/2005
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number:
Title: NOL-05-02-202-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
F	1	208-	221	214.22	53.51	0.92	2.15E+002	60.41	1.30E+003
M	2	273-	321	277.85	69.42	0.79	2.16E+002	65.91	1.49E+003
m	3	273-	321	291.52	72.84	0.79	1.75E+002	61.17	1.54E+003
m	4	273-	321	300.33	75.04	0.80	4.36E+002	72.28	1.46E+003
m	5	273-	321	314.71	78.64	0.80	1.01E+002	56.00	1.34E+003
F	6	335-	347	339.14	84.74	0.93	1.78E+002	65.91	1.53E+003
F	7	878-	890	882.47	220.59	1.04	1.02E+002	37.98	3.83E+002
F	8	948-	960	954.17	238.51	1.15	1.84E+002	39.98	3.24E+002
F	9	1175-	1186	1180.31	295.05	0.94	5.74E+001	27.83	1.91E+002
F	10	1244-	1255	1249.09	312.25	0.97	4.25E+001	25.27	1.60E+002
F	11	1403-	1413	1407.43	351.84	1.14	5.99E+001	27.77	1.48E+002
F	12	1454-	1464	1459.22	364.79	0.86	3.29E+001	22.38	1.23E+002
F	13	2033-	2051	2042.47	510.61	2.06	9.95E+001	26.87	1.53E+002
F	14	2145-	2164	2153.47	538.36	1.80	9.31E+001	24.79	1.21E+002
F	15	2242-	2263	2251.23	562.81	1.95	1.03E+002	25.52	1.32E+002
F	16	2326-	2343	2333.17	583.29	1.67	9.23E+001	25.49	1.14E+002
F	17	2429-	2443	2436.82	609.21	1.09	5.45E+001	23.57	1.15E+002
F	18	3360-	3375	3367.26	841.84	1.38	5.67E+001	20.76	6.57E+001
F	19	3639-	3651	3644.99	911.27	1.19	7.56E+001	21.78	4.58E+001
F	20	3869-	3887	3877.92	969.51	1.81	7.54E+001	20.48	4.68E+001
F	21	5327-	5340	5333.45	1333.42	1.33	3.06E+001	13.61	1.71E+001
F	22	5389-	5414	5400.31	1350.14	2.07	4.50E+002	41.69	3.26E+001
F	23	5834-	5860	5846.54	1461.71	2.03	5.75E+002	46.73	1.71E+001

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	0.996	511.00*	100.00	1.39910E-001	4.22856E-002
K-40	0.976	1460.81*	10.67	9.95136E+000	1.14143E+000
TL-208	0.751	277.35	6.80		
		510.84*	21.60	6.47729E-001	2.02787E-001
		583.14*	84.20	1.61138E-001	4.91894E-002
		860.37	12.46		
Pb-212	0.521	74.81* @	10.70	6.46800E+000	1.65965E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	4.60807E-001	1.23630E-001
Bi-214	0.398	609.31*	46.30	1.75402E-001	7.89199E-002
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.582	74.82* @	6.21	1.11445E+001	2.97186E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	3.55592E-001	1.82467E-001
		351.92*	37.20	2.01175E-001	9.91943E-002
Ac-228	0.631	338.32	11.40		
		911.07*	27.70	4.47241E-001	1.38686E-001
		969.11*	16.60	7.57577E-001	2.20461E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		0.996	1.051037E-001	4.358525E-002
K-40		0.976	9.951355E+000	1.141433E+000
TL-208		0.751	1.611379E-001	4.890830E-002
Pb-212	@	0.521	4.608072E-001	1.236305E-001
Bi-214		0.398	1.754024E-001	7.891995E-002
PB-214	@	0.582	2.364000E-001	8.714899E-002
Ac-228		0.631	5.352305E-001	1.173902E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
F 1	53.51	3.5752E-001	28.16
M 2	69.42	3.5972E-001	30.54
m 3	72.84	2.9089E-001	35.05
m 5	78.64	1.6789E-001	55.59
F 6	84.74	2.9618E-001	37.09
F 7	220.59	1.6921E-001	37.41
F 10	312.25	7.0865E-002	59.44
F 12	364.79	5.4761E-002	68.12
F 14	538.36	1.5520E-001	26.62
F 15	562.81	1.7220E-001	24.70
F 18	841.84	9.4427E-002	36.64
F 21	1333.42	5.1056E-002	44.44
F 22	1350.14	7.4938E-001	9.27

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Co-60	1173.22	100.00	1.0766E-001	9.09E-002	-1.0395E-002
	1332.49	100.00	9.0909E-002		3.1162E-002
Nb-94	702.63	100.00	1.1901E-001	1.01E-001	5.9171E-003
	871.10	100.00	1.0098E-001		-4.3863E-002
Ag-108m	79.20	7.10	6.1802E+000	1.30E-001	8.8847E-001
	433.93	89.90	1.4455E-001		-1.7824E-001
	614.37	90.40	1.4721E-001		-8.2703E-003
	722.95	90.50	1.3023E-001		9.2279E-003
Sb-125	176.33	6.89	2.5710E+000	4.34E-001	2.5606E-002
	427.89	29.33	4.3372E-001		-2.9654E-001
	463.38	10.35	1.2619E+000		-1.5426E-002
	600.56	17.80	6.8203E-001		-3.7859E-001
	606.64	5.02	2.7061E+000		4.4182E+000
	635.90	11.32	1.0462E+000		9.4264E-001
Cs-134	563.23	8.38	1.6502E+000	1.32E-001	1.9980E+000
	569.32	15.43	7.7818E-001		8.8704E-002
	604.70	97.60	1.3735E-001		-6.7773E-002
	795.84	85.40	1.3247E-001		2.7386E-002
	801.93	8.73	1.2597E+000		-2.0208E+000
Cs-137	661.65	85.12	1.4726E-001	1.47E-001	1.1842E-001
Eu-152	121.78	28.40	8.6798E-001	3.21E-001	2.8467E-001
	244.69	7.49	2.2129E+000		-9.6097E-001
	344.27	26.50	5.1858E-001		-8.0450E-001
	778.89	12.74	8.9385E-001		-5.6330E-001
	867.32	4.16	2.5425E+000		4.0902E-001
	964.01	14.40	8.5035E-001		2.7036E-001
	1085.78	10.00	1.1000E+000		-9.6709E-001
	1112.02	13.30	8.3726E-001		-1.0528E-001
	1407.95	20.70	3.2098E-001		-1.4258E-002
Eu-154	123.07	40.50	6.0176E-001	2.55E-001	6.9828E-003
	247.94	6.60	2.4344E+000		-1.4678E+000
	591.81	4.83	2.4634E+000		-1.1105E+000
	723.30	19.70	6.0652E-001		3.6794E-001
	756.87	4.33	2.6653E+000		3.7246E-002
	873.19	11.50	8.9121E-001		2.1908E-001
	996.32	10.30	1.0394E+000		8.6849E-001
	1004.76	17.90	5.9783E-001		-1.1759E-002
	1274.45	35.50	2.5458E-001		4.8124E-004
Eu-155	86.54	30.90	1.1888E+000	1.19E+000	1.8075E+000
	105.31	20.70	1.3726E+000		4.0838E-001
Am-241	59.54	35.90	1.6675E+000	1.67E+000	8.2917E-001
Cm-243	228.19	10.56	1.5582E+000	1.11E+000	-4.1198E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	1.1141E+000	1.11E+000	2.7254E-001

+ = 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

Report Generated On 12/8/2005 8:12:26 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: RED6264

Spectrum File: RED6264
Sample ID:
Sample Title: NOL-05-02-203-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/8/2005 8:02:23 PM
Live Time: 600.0 seconds
Real Time: 601.2 seconds

Energy Calibration Date: 6/13/2005
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number:
Title: NOL-05-02-203-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	284-	313	291.84	72.92	1.04	4.57E+002	67.53	1.55E+003
m	2	284-	313	300.21	75.01	1.04	8.65E+002	78.69	1.52E+003
m	3	284-	313	308.97	77.20	1.05	1.86E+002	58.73	1.29E+003
M	4	335-	356	339.34	84.79	0.68	2.08E+002	60.66	1.02E+003
m	5	335-	356	350.06	87.48	0.68	7.98E+001	48.81	1.06E+003
F	6	948-	962	954.80	238.67	1.00	2.68E+002	43.42	3.71E+002
F	7	1176-	1189	1181.14	295.26	1.04	5.27E+001	27.19	2.06E+002
F	8	1348-	1359	1353.38	338.32	1.09	5.11E+001	25.04	1.34E+002
F	9	1399-	1415	1407.47	351.85	0.95	1.13E+002	27.71	1.59E+002
F	10	2030-	2055	2042.58	510.64	2.32	1.88E+002	29.13	1.37E+002
F	11	2326-	2342	2332.51	583.13	1.33	1.72E+002	29.00	6.72E+001
F	12	2430-	2444	2436.96	609.24	1.06	1.27E+002	26.51	7.20E+001
F	13	2903-	2916	2909.36	727.35	1.42	3.69E+001	16.88	3.96E+001
F	14	3175-	3186	3180.51	795.14	0.73	2.31E+001	12.95	3.09E+001
F	15	3638-	3654	3645.59	911.43	1.46	1.27E+002	24.78	4.01E+001
F	16	3870-	3886	3876.93	969.26	1.55	8.47E+001	21.02	3.44E+001
F	17	4949-	4962	4955.10	1238.83	0.97	2.54E+001	13.43	2.95E+001
F	18	5832-	5859	5846.22	1461.63	1.95	9.01E+002	58.60	2.10E+001
F	19	7056-	7072	7062.24	1765.66	2.44	4.87E+001	15.56	1.35E+001

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	0.996	511.00*	100.00	2.64104E-001	5.44137E-002
K-40	0.980	1460.81*	10.67	1.55895E+001	1.61899E+000
TL-208	0.752	277.35	6.80		
		510.84*	21.60	1.22270E+000	2.70984E-001
		583.14*	84.20	2.99685E-001	6.39145E-002
		860.37	12.46		
Bi-212	0.999	727.17*	11.80	4.88148E-001	2.30787E-001
Pb-212	1.000	74.81* @	10.70	1.28246E+001	2.77118E+000
		77.11* @	18.00	1.57244E+000	5.85054E-001
		87.30* @	8.00	1.27753E+000	8.20763E-001
		238.63*	44.60	6.71450E-001	1.51540E-001
Bi-214	0.690	609.31*	46.30	4.07995E-001	9.90670E-002
		1120.29	15.10		
		1764.49*	15.80	5.90678E-001	1.97833E-001
PB-214	0.850	74.82* @	6.21	2.20971E+001	5.03706E+000
		77.11* @	10.50	2.69561E+000	1.02295E+000
		87.30* @	4.67	2.18849E+000	1.41571E+000
		241.98	7.49		
		295.21*	19.20	3.26681E-001	1.77184E-001
		351.92*	37.20	3.80796E-001	1.12795E-001
Ac-228	0.998	338.32*	11.40	5.53556E-001	2.85075E-001
		911.07*	27.70	7.52799E-001	1.70220E-001
		969.11*	16.60	8.50176E-001	2.29115E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
	ANN		0.996	1.993720E-001	5.609809E-002
	K-40		0.980	1.558949E+001	1.618990E+000
X	Eu-155		0.317		
	TL-208		0.752	2.996845E-001	6.316388E-002
	Bi-212		0.999	4.881477E-001	2.307868E-001
	Pb-212	@	1.000	6.714503E-001	1.515399E-001
	Bi-214		0.690	4.446205E-001	8.858125E-002
	PB-214	@	0.850	3.651897E-001	9.515051E-002
	Ac-228		0.998	7.437407E-001	1.232152E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.92	7.6171E-001	14.78
M 4	84.79	3.4657E-001	29.17
F 14	795.14	3.8534E-002	56.00
F 17	1238.83	4.2347E-002	52.84

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Co-60	1173.22	100.00	9.9879E-002	7.08E-002	3.8445E-002
	1332.49	100.00	7.0772E-002		-3.1957E-002
Nb-94	702.63	100.00	9.6913E-002	9.69E-002	8.9201E-003
	871.10	100.00	9.7986E-002		4.0827E-002
Ag-108m	79.20	7.10	5.8455E+000	1.17E-001	-4.8348E+000
	433.93	89.90	1.2410E-001		1.1490E-001
	614.37	90.40	1.4279E-001		2.9849E-002
	722.95	90.50	1.1698E-001		-3.2163E-002
Sb-125	176.33	6.89	2.4100E+000	3.61E-001	-4.3008E-001
	427.89	29.33	3.6128E-001		-1.6647E-002
	463.38	10.35	1.0802E+000		4.3571E-001
	600.56	17.80	5.8605E-001		3.3575E-001
	606.64	5.02	2.5721E+000		4.9861E+000
	635.90	11.32	8.3464E-001		2.4324E-001
Cs-134	563.23	8.38	1.2104E+000	1.12E-001	2.1095E-001
	569.32	15.43	6.1546E-001		-4.3044E-001
	604.70	97.60	1.3196E-001		2.4499E-002
	795.84	85.40	1.1193E-001		-1.9493E-002
	801.93	8.73	1.0863E+000		7.4827E-001
Cs-137	661.65	85.12	1.2854E-001	1.29E-001	8.4745E-002
Eu-152	121.78	28.40	8.1935E-001	3.21E-001	-3.9764E-002
	244.69	7.49	1.9727E+000		2.8573E-001
	344.27	26.50	4.6020E-001		-1.6981E-001
	778.89	12.74	7.2317E-001		-3.8154E-001
	867.32	4.16	2.3165E+000		-2.0835E+000
	964.01	14.40	8.7126E-001		1.9079E-002
	1085.78	10.00	9.0169E-001		-6.3356E-001
	1112.02	13.30	6.7972E-001		4.0964E-002
	1407.95	20.70	3.2098E-001		1.3675E-001
Eu-154	123.07	40.50	5.6907E-001	2.67E-001	-2.0049E-001
	247.94	6.60	2.1252E+000		-1.0175E+000
	591.81	4.83	2.2591E+000		1.9534E+000
	723.30	19.70	5.3081E-001		2.5988E-001
	756.87	4.33	2.1435E+000		-2.3617E+000
	873.19	11.50	8.4717E-001		1.1598E-001
	996.32	10.30	8.1054E-001		4.7042E-001
	1004.76	17.90	4.3372E-001		-2.4132E-001
	1274.45	35.50	2.6689E-001		1.9349E-001
Eu-155	86.54*	30.90	6.4016E-001	6.40E-001	3.3075E-001
	105.31	20.70	1.3022E+000		-3.9017E-002
Am-241	59.54	35.90	1.5525E+000	1.55E+000	1.8474E+000
Cm-243	228.19	10.56	1.4048E+000	9.52E-001	2.1459E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	9.5221E-001	9.52E-001	3.2960E-001

+ = 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

Report Generated On 12/8/2005 8:35:19 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

G A M M A S P E C T R U M A N A L Y S I S

Detector ID: RED6264

Spectrum File: RED6264
Sample ID:
Sample Title: NOL-05-02-204-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 12/8/2005 8:25:16 PM
Live Time: 600.0 seconds
Real Time: 601.3 seconds

Energy Calibration Date: 6/13/2005
Eff Calibration Date: 10/3/2005
Calibration Efficiency: RED_1M180D_SOIL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

P E A K A N A L Y S I S R E P O R T

Filename: RED6264
Log Number:
Title: NOL-05-02-204-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	283-	306	291.71	72.89	0.93	4.38E+002	70.74	1.68E+003
m	2	283-	306	300.18	75.00	0.94	8.95E+002	86.71	1.77E+003
F	3	331-	345	339.61	84.86	0.98	2.20E+002	70.64	1.88E+003
F	4	947-	963	954.53	238.60	1.21	3.59E+002	47.61	4.42E+002
F	5	1171-	1185	1179.87	294.94	1.34	8.20E+001	30.31	2.40E+002
F	6	1345-	1357	1352.35	338.07	1.26	6.28E+001	26.52	1.57E+002
F	7	1396-	1416	1407.37	351.82	1.28	1.59E+002	32.40	2.44E+002
F	8	1844-	1858	1851.00	462.74	1.05	5.93E+001	20.39	7.30E+001
F	9	2033-	2055	2043.80	510.94	2.23	1.64E+002	28.52	1.38E+002
F	10	2325-	2339	2332.31	583.08	1.17	1.49E+002	29.67	1.01E+002
F	11	2426-	2446	2437.05	609.27	1.37	1.58E+002	29.07	1.10E+002
F	12	2902-	2914	2908.36	727.10	1.27	3.86E+001	18.40	5.19E+001
F	13	3635-	3655	3645.41	911.38	1.68	1.73E+002	28.24	6.05E+001
F	14	3868-	3884	3875.86	969.00	1.38	9.24E+001	23.70	6.40E+001
F	15	5831-	5861	5846.57	1461.72	2.04	1.24E+003	68.51	3.10E+001
F	16	7054-	7070	7063.25	1765.91	2.99	5.05E+001	15.66	1.02E+001

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File: RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/GM)	Activity Uncertainty
ANN	1.000	511.00*	100.00	2.30307E-001	5.08296E-002
K-40	0.976	1460.81*	10.67	2.14950E+001	2.10564E+000
TL-208	0.752	277.35	6.80		
		510.84*	21.60	1.06624E+000	2.50916E-001
		583.14*	84.20	2.60422E-001	6.18952E-002
		860.37	12.46		
Bi-212	1.000	727.17*	11.80	5.11374E-001	2.50956E-001
Pb-212	0.521	74.81* @	10.70	1.32646E+001	2.90045E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	9.00987E-001	1.85026E-001
Bi-214	0.686	609.31*	46.30	5.09146E-001	1.12669E-001
		1120.29	15.10		
		1764.49*	15.80	6.12956E-001	1.99695E-001
PB-214	0.582	74.82* @	6.21	2.28552E+001	5.26576E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	5.07815E-001	2.06217E-001
		351.92*	37.20	5.33672E-001	1.40744E-001
Ac-228	0.998	338.32*	11.40	6.80462E-001	3.06628E-001
		911.07*	27.70	1.02401E+000	2.04349E-001
		969.11*	16.60	9.27849E-001	2.57019E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.250 FWHM
Nuclide confidence index threshold = 0.30
Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)

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

Spectrum File:RED6264

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GM)	Wt mean Activity Uncertainty
ANN		1.000	1.740559E-001	5.252643E-002
K-40		0.976	2.149501E+001	2.105635E+000
TL-208		0.752	2.604219E-001	6.131062E-002
Bi-212		1.000	5.113739E-001	2.509562E-001
Pb-212	@	0.521	9.009873E-001	1.850256E-001
Bi-214		0.686	5.342119E-001	9.812775E-002
PB-214	@	0.582	5.254549E-001	1.162494E-001
Ac-228		0.998	9.212415E-001	1.418173E-001

? = 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 1.960 sigma

U N I D E N T I F I E D P E A K S

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M 1	72.89	7.2929E-001	16.17
F 3	84.86	3.6741E-001	32.05
F 8	462.74	9.8847E-002	34.38

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.960 sigma

Y A N K E E R O W E P O R T A B L E I S O C S
(R E D R O V E R S Y S T E M)
N U C L I D E M D A R E P O R T

Spectrum File:RED6264
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Co-60	1173.22	100.00	1.1459E-001	8.80E-002	7.9526E-002
	1332.49	100.00	8.7964E-002		2.2311E-002
Nb-94	702.63	100.00	1.0779E-001	9.61E-002	4.6165E-002
	871.10	100.00	9.6145E-002		-1.2878E-001
Ag-108m	79.20	7.10	6.2884E+000	1.29E-001	-5.4443E+000
	433.93	89.90	1.3743E-001		-4.5685E-002
	614.37	90.40	1.5704E-001		7.1680E-002
	722.95	90.50	1.2869E-001		6.2401E-002
Sb-125	176.33	6.89	2.6032E+000	3.97E-001	2.1973E-001
	427.89	29.33	3.9748E-001		8.7841E-002
	463.38	10.35	1.1697E+000		-3.3224E-001
	600.56	17.80	6.3592E-001		4.9108E-002
	606.64	5.02	2.8474E+000		6.2053E+000
	635.90	11.32	9.4551E-001		2.7337E-001
Cs-134	563.23	8.38	1.3122E+000	1.32E-001	1.0328E+000
	569.32	15.43	7.0814E-001		-4.9949E-001
	604.70	97.60	1.4523E-001		-5.7244E-002
	795.84	85.40	1.3158E-001		1.5813E-002
	801.93	8.73	1.2627E+000		-1.9841E-001
Cs-137	661.65	85.12	1.2625E-001	1.26E-001	-4.6540E-002
Eu-152	121.78	28.40	8.9567E-001	3.29E-001	-1.5452E-001
	244.69	7.49	2.1592E+000		8.0754E-001
	344.27	26.50	4.8804E-001		-2.3192E-001
	778.89	12.74	8.2913E-001		-6.1168E-001
	867.32	4.16	2.5825E+000		-2.0380E+000
	964.01	14.40	9.1324E-001		-3.3296E-002
	1085.78	10.00	1.0596E+000		1.4895E-001
	1112.02	13.30	7.6277E-001		-7.4183E-001
	1407.95	20.70	3.2943E-001		4.2333E-001
Eu-154	123.07	40.50	6.1851E-001	2.61E-001	-7.7012E-002
	247.94	6.60	2.3239E+000		-2.2167E+000
	591.81	4.83	2.2730E+000		-2.6388E+000
	723.30	19.70	5.9123E-001		4.5862E-001
	756.87	4.33	2.6541E+000		1.1193E+000
	873.19	11.50	8.3104E-001		-4.1271E-001
	996.32	10.30	9.7043E-001		-1.6310E-001
	1004.76	17.90	5.3213E-001		-4.9694E-001
	1274.45	35.50	2.6137E-001		-1.2555E-001
Eu-155	86.54	30.90	1.2553E+000	1.26E+000	5.1892E-001
	105.31	20.70	1.4181E+000		-1.3999E+000
Am-241	59.54	35.90	1.6085E+000	1.61E+000	2.1696E-001
Cm-243	228.19	10.56	1.4876E+000	1.01E+000	2.5035E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GM)	Nuclide MDA (pCi/GM)	Activity (pCi/GM)
Cm-243	277.60	14.00	1.0150E+000	1.01E+000	6.9500E-001

+ = 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