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

Filename: C:\6279 Test\SFP\NOL-02-01\NOL-02-01-001-F-G.CNF
Log Number: NOL-02-01
Title: NOL-02-01-001-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/9/2005 3:32:20 PM

Live Time : 900.0 seconds
Real Time : 900.8 seconds

Energy Calibration Date: 6/13/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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:\6279 Test\SFP\NOL-02-01\NOL-02-01-001-F-G.CNF
Log Number: NOL-02-01
Title: NOL-02-01-001-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	291.51	72.84	1.13	3.16E+002	119.31	1.17E+003
m	2	282-	307	300.50	75.08	1.13	5.01E+002	165.76	1.33E+003
F	3	330-	346	339.31	84.79	1.15	1.53E+002	49.03	1.12E+003
F	4	366-	378	371.59	92.86	1.16	1.04E+002	44.29	7.23E+002
F	5	947-	959	954.14	238.51	1.34	1.62E+002	34.11	2.12E+002
F	6	1175-	1186	1180.00	294.98	1.39	4.61E+001	22.50	1.12E+002
F	7	1348-	1364	1353.77	338.42	1.43	4.17E+001	21.38	1.39E+002
F	8	1401-	1414	1408.05	351.99	1.44	6.71E+001	23.87	1.19E+002
F	9	2034-	2055	2043.67	510.91	2.33	9.52E+001	23.14	1.00E+002
F	10	2326-	2343	2333.26	583.31	1.60	1.14E+002	23.89	5.78E+001
F	11	2428-	2445	2437.23	609.31	1.62	1.02E+002	57.99	5.57E+001
F	12	3638-	3655	3645.71	911.45	1.79	9.79E+001	21.15	2.66E+001
F	13	3869-	3885	3877.32	969.36	1.81	5.72E+001	16.87	2.33E+001
F	14	5324-	5340	5332.73	1333.25	1.98	4.89E+001	14.68	8.50E+000
F	15	5833-	5860	5847.40	1461.92	2.03	6.38E+002	49.43	2.82E+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
(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

Filename: C:\6279 Test\SFP\NOL-02-01\NOL-02-01-001-F-G.CNF

Log Number: NOL-02-01
Title: NOL-02-01-001-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLandrev0.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/Gram)	Activity Uncertainty
ANN	1.000	511.00*		100.00	2.87170E-001	8.05977E-002
K-40	0.964	1460.81*		10.67	2.35835E+001	2.64256E+000
TL-208	0.753	277.35		6.80		
		510.84*		21.60	1.32949E+000	3.88613E-001
		583.14*		84.20	4.23627E-001	1.05243E-001
		860.37		12.46		
Pb-212	0.524	74.81*	@	10.70	1.69847E+001	6.53120E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	9.10776E-001	2.39086E-001
Bi-214	0.399	609.31*		46.30	7.03962E-001	4.07969E-001
		1120.29		15.10		
		1764.49		15.80		
PB-214	0.587	74.82*	@	6.21	2.92651E+001	1.14522E+001
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	6.31136E-001	3.25729E-001
		351.92*		37.20	4.92514E-001	1.93632E-001
Ac-228	0.997	338.32*		11.40	9.91131E-001	5.31052E-001
		911.07*		27.70	1.23423E+000	3.02093E-001
		969.11*		16.60	1.22554E+000	3.83764E-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 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

Filename: C:\6279 Test\SFP\NOL-02-01\NOL-02-01-001-F-G.CNF

Log Number: NOL-02-01
Title: NOL-02-01-001-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLandrev0.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Gram)	Wt mean Activity Uncertainty
ANN		1.000	1.956668E-001	8.368907E-002
K-40		0.964	2.358346E+001	2.642557E+000
TL-208		0.753	4.236268E-001	1.043334E-001
Pb-212	@	0.524	9.107760E-001	2.390861E-001
Bi-214		0.399	7.039616E-001	4.079694E-001
PB-214	@	0.587	5.287096E-001	1.664436E-001
Ac-228		0.997	1.190974E+000	2.167082E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	3.5141E-001	37.72
F 3	84.79	1.7043E-001	31.97
F 4	92.86	1.1591E-001	42.46
F 14	1333.25	5.4363E-002	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
(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

Filename: C:\6279 Test\SFP\NOL-02-01\NOL-02-01-001-F-G.CNF

Log Number: NOL-02-01
Title: NOL-02-01-001-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLandrev0.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Co-60	1173.22	100.00	2.0542E-001	1.88E-001	2.2843E-001
	1332.49	100.00	1.8778E-001		7.1882E-002
Nb-94	702.63	100.00	1.9334E-001	1.89E-001	1.7503E-001
	871.10	100.00	1.8907E-001		5.6762E-002
Ag-108m	79.20	7.10	1.0827E+001	2.11E-001	-4.4122E+000
	433.93	89.90	2.2033E-001		-1.0984E-001
	614.37	90.40	2.7166E-001		-1.0521E-001
	722.95	90.50	2.1133E-001		2.0608E-002
Sb-125	176.33	6.89	4.4765E+000	7.01E-001	-2.3787E+000
	427.89	29.33	7.0096E-001		6.5586E-001
	463.38	10.35	2.0989E+000		1.8175E+000
	600.56	17.80	1.0986E+000		6.5370E-001
	606.64	5.02	4.7614E+000		6.2955E+000
	635.90	11.32	1.5579E+000		8.5688E-002
Cs-134	563.23	8.38	2.4079E+000	2.35E-001	1.0171E+000
	569.32	15.43	1.2727E+000		1.0332E+000
	604.70	97.60	2.4173E-001		-3.4281E-002
	795.84	85.40	2.3468E-001		1.2166E-001
	801.93	8.73	2.1527E+000		-1.2519E+000
Cs-137	661.65	85.12	2.3016E-001	2.30E-001	1.5455E-001
Eu-152	121.78	28.40	1.4360E+000	6.41E-001	-2.1423E+000
	244.69	7.49	3.7373E+000		-4.9390E+000
	344.27	26.50	8.8540E-001		7.1607E-002
	778.89	12.74	1.3702E+000		-1.2664E+000
	867.32	4.16	4.4535E+000		-3.2612E+000
	964.01	14.40	1.5364E+000		1.2722E+000
	1085.78	10.00	1.7690E+000		-7.1329E-001
	1112.02	13.30	1.3660E+000		6.4422E-001
	1407.95	20.70	6.4123E-001		1.3087E-001
Eu-154	123.07	40.50	1.0033E+000	4.87E-001	-1.1350E+000
	247.94	6.60	4.0212E+000		-1.8300E+000
	591.81	4.83	4.2064E+000		-4.1907E-001

723.30	19.70	9.7424E-001	3.7591E-002
756.87	4.33	4.0415E+000	1.3208E+000
873.19	11.50	1.6197E+000	7.4825E-001

	996.32	10.30	1.8244E+000		1.6329E+000
	1004.76	17.90	9.4611E-001		2.4071E-001
	1274.45	35.50	4.8697E-001		-1.6888E-001
Eu-155	86.54	30.90	2.1444E+000	2.14E+000	8.2231E-001
	105.31	20.70	2.3706E+000		-1.0514E+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

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

Filename: C:\6279 Test\SFP\NOL-02-01\NOL-02-01-002-F-G.CNF
Log Number: NOL-02-01
Title: NOL-02-01-002-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/9/2005 3:52:38 PM

Live Time : 900.0 seconds
Real Time : 900.8 seconds

Energy Calibration Date: 6/13/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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:\6279 Test\SFP\NOL-02-01\NOL-02-01-002-F-G.CNF
Log Number: NOL-02-01
Title: NOL-02-01-002-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	1.13	2.63E+002	53.21	8.15E+002
m	2	286-	306	300.24	75.02	1.13	4.60E+002	61.74	1.10E+003
F	3	332-	345	340.07	84.98	1.15	1.77E+002	61.84	9.06E+002
F	4	944-	960	954.84	238.68	1.34	1.83E+002	26.67	2.31E+002
F	5	1176-	1187	1180.79	295.17	1.39	6.55E+001	23.23	9.68E+001
F	6	1348-	1359	1353.58	338.37	1.43	5.95E+001	22.67	9.58E+001
F	7	1400-	1413	1408.36	352.07	1.44	5.64E+001	54.33	9.26E+001
F	8	2033-	2054	2043.98	510.99	2.33	1.29E+002	81.58	6.05E+001
F	9	2324-	2342	2332.70	583.17	1.60	1.18E+002	53.32	4.79E+001
F	10	2429-	2447	2437.18	609.30	1.62	9.84E+001	22.26	5.65E+001
F	11	3638-	3654	3645.97	911.52	1.79	7.31E+001	21.10	5.14E+001
F	12	3870-	3885	3878.12	969.56	1.82	5.18E+001	18.04	3.61E+001
F	13	5834-	5862	5848.10	1462.10	2.03	6.46E+002	50.16	2.47E+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 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

Filename: C:\6279 Test\SFP\NOL-02-01\NOL-02-01-002-F-G.CNF

Log Number: NOL-02-01
Title: NOL-02-01-002-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLandrev0.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/Gram)	Activity Uncertainty
ANN	1.000	511.00*		100.00	3.90382E-001	2.52072E-001
K-40	0.952	1460.81*		10.67	2.38800E+001	2.67865E+000
TL-208	0.753	277.35		6.80		
		510.84*		21.60	1.80733E+000	1.17630E+000
		583.14*		84.20	4.39488E-001	2.07104E-001
		860.37		12.46		
Pb-212	0.525	74.81*	@	10.70	1.56195E+001	3.70981E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	1.02955E+000	2.20315E-001
Bi-214	0.399	609.31*		46.30	6.76083E-001	1.74549E-001
		1120.29		15.10		
		1764.49		15.80		
PB-214	0.588	74.82*	@	6.21	2.69128E+001	6.68400E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	8.96792E-001	3.51876E-001
		351.92*		37.20	4.13773E-001	4.04851E-001
Ac-228	0.995	338.32*		11.40	1.41226E+000	5.82148E-001
		911.07*		27.70	9.21948E-001	2.86426E-001
		969.11*		16.60	1.10969E+000	4.03720E-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 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

Filename: C:\6279 Test\SFP\NOL-02-01\NOL-02-01-002-F-G.CNF

Log Number: NOL-02-01
Title: NOL-02-01-002-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLandrev0.NLB

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Gram)	Wt mean Activity Uncertainty
ANN	1.000	2.954529E-001	2.559921E-001
K-40	0.952	2.387996E+001	2.678649E+000
TL-208	0.753	4.394876E-001	2.066084E-001
Pb-212 @	0.525	1.029552E+000	2.203151E-001
Bi-214	0.399	6.760828E-001	1.745488E-001
PB-214 @	0.588	6.889310E-001	2.655825E-001
Ac-228	0.995	1.044091E+000	2.168013E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.9190E-001	20.25
F 3	84.98	1.9706E-001	34.87

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
(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

Filename: C:\6279 Test\SFP\NOL-02-01\NOL-02-01-002-F-G.CNF

Log Number: NOL-02-01
Title: NOL-02-01-002-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLandrev0.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Co-60	1173.22	100.00	2.0699E-001	1.76E-001	-9.5097E-003
	1332.49	100.00	1.7645E-001		2.4206E-002
Nb-94	702.63	100.00	1.9076E-001	1.61E-001	-1.8598E-001
	871.10	100.00	1.6099E-001		3.9633E-002
Ag-108m	79.20	7.10	1.0463E+001	2.13E-001	-7.8747E+000
	433.93	89.90	2.3150E-001		-4.9279E-002
	614.37	90.40	2.6063E-001		4.9213E-002
	722.95	90.50	2.1277E-001		-8.4285E-002
Sb-125	176.33	6.89	4.2923E+000	6.82E-001	-2.3814E+000
	427.89	29.33	6.8239E-001		-1.2086E-001
	463.38	10.35	2.0023E+000		3.0008E-001
	600.56	17.80	1.1212E+000		1.0888E-001
	606.64	5.02	4.7329E+000		2.4344E+000
	635.90	11.32	1.6330E+000		5.4223E-001
Cs-134	563.23	8.38	2.3557E+000	2.27E-001	6.6844E-001
	569.32	15.43	1.2835E+000		-8.3567E-002
	604.70	97.60	2.4515E-001		-7.4706E-004
	795.84	85.40	2.2693E-001		1.1641E-001
	801.93	8.73	2.0794E+000		-2.2841E+000
Cs-137	661.65	85.12	2.4075E-001	2.41E-001	6.3079E-002
Eu-152	121.78	28.40	1.4421E+000	6.79E-001	2.6013E-001
	244.69	7.49	3.7137E+000		-3.1282E+000
	344.27	26.50	8.0459E-001		-5.8596E-001
	778.89	12.74	1.4984E+000		-1.5251E+000
	867.32	4.16	4.2550E+000		-1.9067E+000
	964.01	14.40	1.6065E+000		-1.4280E-001
	1085.78	10.00	1.8796E+000		6.6978E-001
	1112.02	13.30	1.3790E+000		-8.4186E-002
	1407.95	20.70	6.7934E-001		-1.8906E-001
Eu-154	123.07	40.50	9.9820E-001	4.31E-001	-4.4752E-001
	247.94	6.60	3.8766E+000		-5.6644E+000
	591.81	4.83	4.3416E+000		2.6809E+000

723.30	19.70	9.9393E-001	5.2217E-001
756.87	4.33	4.2719E+000	3.5668E+000
873.19	11.50	1.4007E+000	4.6740E-001

	996.32	10.30	1.6737E+000		-1.3201E+000
	1004.76	17.90	9.7504E-001		6.9802E-002
	1274.45	35.50	4.3118E-001		-6.1726E-001
Eu-155	86.54	30.90	2.0907E+000	2.09E+000	3.4724E+000
	105.31	20.70	2.2708E+000		-9.1315E-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

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

Filename: C:\6279 Test\SFP\NOL-02-01\NOL-02-01-003-F-G.CNF
Log Number: NOL-02-01
Title: NOL-02-01-003-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/9/2005 4:13:11 PM

Live Time : 900.0 seconds
Real Time : 900.7 seconds

Energy Calibration Date: 6/13/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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:\6279 Test\SFP\NOL-02-01\NOL-02-01-003-F-G.CNF
Log Number: NOL-02-01
Title: NOL-02-01-003-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	291.96	72.95	1.13	1.90E+002	49.08	6.26E+002
m	2	288-	305	300.57	75.10	1.13	4.64E+002	59.75	8.99E+002
F	3	334-	344	339.88	84.93	1.15	1.60E+002	46.37	6.16E+002
F	4	948-	961	955.16	238.76	1.34	1.74E+002	34.59	2.13E+002
F	5	1175-	1186	1181.07	295.24	1.39	4.39E+001	113.34	1.03E+002
F	6	1349-	1358	1353.75	338.42	1.43	3.74E+001	20.18	7.05E+001
F	7	1404-	1418	1408.86	352.20	1.44	7.57E+001	23.89	1.02E+002
F	8	2324-	2341	2333.25	583.31	1.60	8.14E+001	21.61	6.98E+001
F	9	2428-	2446	2438.42	609.61	1.62	1.00E+002	46.92	4.31E+001
F	10	3638-	3654	3646.38	911.62	1.79	9.80E+001	22.68	4.90E+001
F	11	3872-	3885	3878.92	969.76	1.82	4.97E+001	17.94	3.67E+001
F	12	4478-	4492	4484.71	1121.22	1.89	1.73E+001	11.86	2.83E+001
F	13	4687-	4703	4695.59	1173.95	1.91	6.54E+001	19.29	3.83E+001
F	14	5327-	5342	5334.09	1333.58	1.98	6.37E+001	18.10	1.85E+001
F	15	5835-	5861	5848.47	1462.19	2.03	6.38E+002	80.31	1.69E+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
(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

Filename: C:\6279 Test\SFP\NOL-02-01\NOL-02-01-003-F-G.CNF

Log Number: NOL-02-01
Title: NOL-02-01-003-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLandrev0.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Gram)	Activity Uncertainty
K-40	0.945	1460.81*	10.67	2.35733E+001	3.52908E+000
Co-60	0.974	1173.22*	100.00	2.46550E-001	7.52239E-002
		1332.49*	100.00	2.46486E-001	7.26604E-002
TL-208	0.472	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.03500E-001	9.00041E-002
		860.37	12.46		
Pb-212	0.524	74.81* @	10.70	1.57264E+001	3.68800E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	9.80033E-001	2.47851E-001
Bi-214	0.693	609.31*	46.30	6.87709E-001	3.33623E-001
		1120.29*	15.10	4.26218E-001	2.95331E-001
		1764.49	15.80		
PB-214	0.587	74.82* @	6.21	2.70971E+001	6.65201E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	6.00986E-001	1.55436E+000
		351.92*	37.20	5.56100E-001	1.98519E-001
Ac-228	0.992	338.32*	11.40	8.87651E-001	4.99186E-001
		911.07*	27.70	1.23578E+000	3.19297E-001
		969.11*	16.60	1.06457E+000	4.00418E-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 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

Filename: C:\6279 Test\SFP\NOL-02-01\NOL-02-01-003-F-G.CNF

Log Number: NOL-02-01
Title: NOL-02-01-003-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLandrev0.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Gram)	Wt mean Activity Uncertainty
K-40		0.945	2.357335E+001	3.529081E+000
Co-60		0.974	2.465169E-001	5.226144E-002
TL-208		0.472	3.035002E-001	9.000411E-002
Pb-212	@	0.524	9.800330E-001	2.478505E-001
Bi-214		0.693	5.411024E-001	2.211352E-001
PB-214	@	0.587	5.568203E-001	1.969192E-001
Ac-228		0.992	1.112896E+000	2.232795E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.1165E-001	25.77
F 3	84.93	1.7762E-001	29.01

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
(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

Filename: C:\6279 Test\SFP\NOL-02-01\NOL-02-01-003-F-G.CNF

Log Number: NOL-02-01
Title: NOL-02-01-003-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLandrev0.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
+	Co-60	1173.22*	100.00	1.4576E-001	1.07E-001	2.4655E-001
		1332.49*	100.00	1.0664E-001		2.4649E-001
	Nb-94	702.63	100.00	2.0633E-001	1.76E-001	-5.7974E-002
		871.10	100.00	1.7562E-001		-2.6621E-002
	Ag-108m	79.20	7.10	9.8497E+000	2.24E-001	-2.2017E+001
		433.93	89.90	2.2395E-001		2.0133E-002
		614.37	90.40	2.6171E-001		-4.7032E-002
		722.95	90.50	2.2869E-001		3.0692E-002
	Sb-125	176.33	6.89	4.0714E+000	6.60E-001	-4.6419E+000
		427.89	29.33	6.6004E-001		-3.8518E-001
		463.38	10.35	2.0730E+000		1.5677E+000
		600.56	17.80	1.0587E+000		-2.7580E-001
		606.64	5.02	4.6563E+000		4.2718E+000
		635.90	11.32	1.7047E+000		2.9170E-001
	Cs-134	563.23	8.38	2.3358E+000	2.32E-001	1.6651E+000
		569.32	15.43	1.2618E+000		-9.8608E-001
		604.70	97.60	2.3727E-001		-5.8449E-002
		795.84	85.40	2.3238E-001		2.5331E-001
		801.93	8.73	2.0459E+000		-3.4353E+000
	Cs-137	661.65	85.12	2.3728E-001	2.37E-001	8.0465E-002
	Eu-152	121.78	28.40	1.4091E+000	6.14E-001	1.8960E-001
		244.69	7.49	3.6106E+000		1.8638E-001
		344.27	26.50	7.7926E-001		-9.0081E-001
		778.89	12.74	1.5609E+000		-5.2073E-001
		867.32	4.16	4.2735E+000		-7.0144E+000
		964.01	14.40	1.5979E+000		-3.6976E-001
		1085.78	10.00	1.8547E+000		1.3027E+000
		1112.02	13.30	1.3918E+000		2.0726E-001
		1407.95	20.70	6.1440E-001		5.1414E-002
	Eu-154	123.07	40.50	9.8245E-001	5.03E-001	2.7496E-001
		247.94	6.60	3.9392E+000		-3.3285E-002
		591.81	4.83	4.0666E+000		-1.1781E+000

723.30	19.70	1.0415E+000	-7.0212E-001
756.87	4.33	4.5051E+000	2.7672E+000
873.19	11.50	1.5143E+000	-4.9057E-001

	996.32	10.30	1.8841E+000		5.2042E-001
	1004.76	17.90	1.0168E+000		3.7032E-001
	1274.45	35.50	5.0323E-001		1.7648E-001
Eu-155	86.54	30.90	1.9898E+000	1.99E+000	4.3061E+000
	105.31	20.70	2.2605E+000		8.1926E-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

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

Filename: C:\6279 Test\SFP\NOL-02-01\NOL-02-01-004-F-G.CNF
Log Number: NOL-02-01
Title: NOL-02-01-004-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/9/2005 4:34:01 PM

Live Time : 900.0 seconds
Real Time : 900.8 seconds

Energy Calibration Date: 6/13/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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:\6279 Test\SFP\NOL-02-01\NOL-02-01-004-F-G.CNF
Log Number: NOL-02-01
Title: NOL-02-01-004-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-	307	292.02	72.96	1.13	3.52E+002	57.74	1.07E+003
m	2	283-	307	300.40	75.06	1.13	5.36E+002	65.29	1.26E+003
M	3	336-	353	339.93	84.94	1.15	2.05E+002	52.24	7.19E+002
m	4	336-	353	349.60	87.36	1.15	8.97E+001	46.44	9.00E+002
F	5	949-	963	954.79	238.67	1.34	1.74E+002	34.65	2.45E+002
F	6	1403-	1416	1408.43	352.09	1.44	8.42E+001	25.18	1.12E+002
F	7	2033-	2054	2044.47	511.11	2.33	1.30E+002	24.13	7.84E+001
F	8	2325-	2340	2333.04	583.26	1.60	1.03E+002	24.25	6.80E+001
F	9	2432-	2443	2437.58	609.40	1.62	5.92E+001	105.82	5.23E+001
F	10	3637-	3653	3645.90	911.50	1.79	1.06E+002	22.31	2.96E+001
M	11	3853-	3886	3858.92	964.76	1.81	1.57E+001	12.74	3.33E+001
m	12	3853-	3886	3877.72	969.46	1.81	4.25E+001	17.85	6.85E+001
F	13	4687-	4702	4694.69	1173.72	1.91	4.23E+001	17.07	3.41E+001
F	14	5324-	5340	5333.36	1333.40	1.98	5.61E+001	19.36	1.63E+001
F	15	5834-	5860	5847.65	1461.98	2.03	6.48E+002	49.47	1.69E+001
F	16	7057-	7073	7065.82	1766.55	2.15	4.28E+001	39.67	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
(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

Filename: C:\6279 Test\SFP\NOL-02-01\NOL-02-01-004-F-G.CNF

Log Number: NOL-02-01
Title: NOL-02-01-004-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLandrev0.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Gram)	Activity Uncertainty
ANN	1.000	511.00*	100.00	3.93573E-001	9.13433E-002
K-40	0.960	1460.81*	10.67	2.39540E+001	2.66540E+000
Co-60	0.984	1173.22*	100.00	1.59528E-001	6.55394E-002
		1332.49*	100.00	2.17104E-001	7.68486E-002
Eu-155	0.321	86.54*	30.90	8.60342E-001	4.76369E-001
		105.31	20.70		
TL-208	0.753	277.35	6.80		
		510.84*	21.60	1.82210E+000	4.48303E-001
		583.14*	84.20	3.83439E-001	1.03680E-001
		860.37	12.46		
Pb-212	0.679	74.81* @	10.70	1.81788E+001	4.19510E+000
		77.11 @	18.00		
		87.30* @	8.00	3.32307E+000	1.83998E+000
		238.63*	44.60	9.77009E-001	2.47821E-001
Bi-214	0.673	609.31*	46.30	4.06472E-001	7.28837E-001
		1120.29	15.10		
		1764.49*	15.80	1.10989E+000	1.03542E+000
Ac-228	0.633	338.32	11.40		
		911.07*	27.70	1.34106E+000	3.20822E-001
		969.11*	16.60	9.11944E-001	3.94317E-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 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

Filename: C:\6279 Test\SFP\NOL-02-01\NOL-02-01-004-F-G.CNF

Log Number: NOL-02-01
Title: NOL-02-01-004-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLandrev0.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Gram)	Wt mean Activity Uncertainty
ANN		1.000	3.107507E-001	9.400983E-002
K-40		0.960	2.395396E+001	2.665396E+000
Co-60		0.984	1.837717E-001	4.986715E-002
Eu-155		0.321	6.073950E-001	4.806705E-001
TL-208		0.753	3.834390E-001	1.029243E-001
Pb-212	@	0.679	9.770093E-001	2.478206E-001
Bi-214		0.673	6.395276E-001	5.959917E-001
Ac-228		0.633	1.170143E+000	2.488587E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	72.96	3.9099E-001	16.41
M 3	84.94	2.2750E-001	25.51
F 6	352.09	9.3545E-002	29.91
M 11	964.76	1.7448E-002	81.16

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
(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

Filename: C:\6279 Test\SFP\NOL-02-01\NOL-02-01-004-F-G.CNF

Log Number: NOL-02-01
Title: NOL-02-01-004-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLandrev0.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
+	Co-60	1173.22*	100.00	1.3564E-001	1.01E-001	1.5953E-001
		1332.49*	100.00	1.0105E-001		2.1710E-001
	Nb-94	702.63	100.00	1.8482E-001	1.76E-001	9.0858E-002
		871.10	100.00	1.7562E-001		-2.7340E-002
	Ag-108m	79.20	7.10	1.0909E+001	2.45E-001	-1.3824E-002
		433.93	89.90	2.4543E-001		-1.9973E-002
		614.37	90.40	2.5739E-001		-9.1112E-003
		722.95	90.50	2.4786E-001		-2.9200E-002
	Sb-125	176.33	6.89	4.4160E+000	6.89E-001	-3.8517E+000
		427.89	29.33	6.8863E-001		-2.6505E-001
		463.38	10.35	2.1455E+000		1.6437E-001
		600.56	17.80	1.0954E+000		-3.0272E-001
		606.64	5.02	4.7424E+000		5.8923E+000
		635.90	11.32	1.7629E+000		2.5401E-001
	Cs-134	563.23	8.38	2.4207E+000	2.40E-001	-1.2187E+000
		569.32	15.43	1.2835E+000		-3.8644E-001
		604.70	97.60	2.4025E-001		-1.8539E-001
		795.84	85.40	2.4069E-001		5.9788E-002
		801.93	8.73	2.2311E+000		-2.8194E+000
	Cs-137	661.65	85.12	2.4006E-001	2.40E-001	1.1455E-001
	Eu-152	121.78	28.40	1.5588E+000	7.04E-001	3.5694E-001
		244.69	7.49	3.7841E+000		8.3765E-002
		344.27	26.50	9.0638E-001		-1.6792E+000
		778.89	12.74	1.4770E+000		-1.9603E+000
		867.32	4.16	4.3824E+000		-2.5040E+000
		964.01	14.40	1.5893E+000		-3.8634E-001
		1085.78	10.00	1.8294E+000		9.7679E-001
		1112.02	13.30	1.4844E+000		-3.5515E-001
		1407.95	20.70	7.0351E-001		2.0882E-001
	Eu-154	123.07	40.50	1.0702E+000	4.79E-001	-1.2219E+000
		247.94	6.60	4.1489E+000		-6.5611E-001
		591.81	4.83	4.1255E+000		-4.7332E-001

723.30	19.70	1.1217E+000	5.1621E-001
756.87	4.33	4.8118E+000	8.0742E-001
873.19	11.50	1.5745E+000	7.4391E-001

		996.32	10.30	1.8694E+000		2.6121E-002
		1004.76	17.90	1.0258E+000		-4.9438E-001
		1274.45	35.50	4.7862E-001		-1.2925E-001
+	Eu-155	86.54*	30.90	1.3655E+000	1.37E+000	8.6034E-001
		105.31	20.70	2.4570E+000		4.6320E-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

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

Filename: C:\6279 Test\SFP\NOL-02-01\NOL-02-01-005-F-G.CNF
Log Number: NOL-02-01
Title: NOL-02-01-005-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/9/2005 4:56:32 PM

Live Time : 900.0 seconds
Real Time : 900.8 seconds

Energy Calibration Date: 6/13/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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:\6279 Test\SFP\NOL-02-01\NOL-02-01-005-F-G.CNF
Log Number: NOL-02-01
Title: NOL-02-01-005-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	292.10	72.98	1.13	2.44E+002	54.62	7.42E+002
m	2	288-	305	300.50	75.08	1.13	5.23E+002	64.90	1.08E+003
F	3	332-	346	339.76	84.90	1.15	2.29E+002	213.59	9.72E+002
F	4	944-	961	954.55	238.61	1.34	2.03E+002	96.95	2.87E+002
F	5	1077-	1087	1081.80	270.42	1.37	3.69E+001	21.79	1.06E+002
F	6	1173-	1186	1180.25	295.04	1.39	5.16E+001	62.73	1.12E+002
F	7	1349-	1358	1353.66	338.40	1.43	6.20E+001	58.64	7.57E+001
F	8	1397-	1415	1407.68	351.90	1.44	9.95E+001	38.94	1.45E+002
F	9	2033-	2054	2043.88	510.96	2.33	1.08E+002	80.42	9.99E+001
F	10	2326-	2342	2333.24	583.31	1.60	1.11E+002	23.97	5.72E+001
F	11	2430-	2445	2438.02	609.51	1.62	7.77E+001	22.32	7.19E+001
F	12	3639-	3656	3646.95	911.77	1.79	9.38E+001	21.16	3.15E+001
F	13	3870-	3885	3877.99	969.53	1.82	5.85E+001	50.98	3.41E+001
F	14	5327-	5341	5334.58	1333.71	1.98	2.74E+001	13.75	1.89E+001
F	15	5834-	5861	5848.47	1462.19	2.03	7.66E+002	81.35	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
(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

Filename: C:\6279 Test\SFP\NOL-02-01\NOL-02-01-005-F-G.CNF

Log Number: NOL-02-01
Title: NOL-02-01-005-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLandrev0.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Gram)	Activity Uncertainty
ANN	1.000	511.00*	100.00	3.25716E-001	2.46837E-001
K-40	0.945	1460.81*	10.67	2.82998E+001	3.78037E+000
TL-208	0.753	277.35	6.80		
		510.84*	21.60	1.50794E+000	1.14938E+000
		583.14*	84.20	4.14851E-001	1.04853E-001
		860.37	12.46		
Pb-212	0.525	74.81* @	10.70	1.77339E+001	4.11356E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.14142E+000	5.73664E-001
Bi-214	0.398	609.31*	46.30	5.33997E-001	1.67187E-001
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.588	74.82* @	6.21	3.05559E+001	7.42675E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	7.05601E-001	8.66596E-001
		351.92*	37.20	7.30221E-001	3.10867E-001
Ac-228	0.991	338.32*	11.40	1.47301E+000	1.41189E+000
		911.07*	27.70	1.18328E+000	2.99492E-001
		969.11*	16.60	1.25410E+000	1.10064E+000

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

Errors quoted at 1.960 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 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

Filename: C:\6279 Test\SFP\NOL-02-01\NOL-02-01-005-F-G.CNF

Log Number: NOL-02-01
Title: NOL-02-01-005-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLandrev0.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Gram)	Wt mean Activity Uncertainty
ANN		1.000	2.361081E-001	2.478570E-001
K-40		0.945	2.829976E+001	3.780369E+000
TL-208		0.753	4.148513E-001	1.039778E-001
Pb-212	@	0.525	1.141419E+000	5.736636E-001
Bi-214		0.398	5.339974E-001	1.671872E-001
PB-214	@	0.588	7.274142E-001	2.926098E-001
Ac-228		0.991	1.199617E+000	2.831153E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.7158E-001	22.35
F 3	84.90	2.5478E-001	93.15
F 5	270.42	4.0965E-002	59.10
F 14	1333.71	3.0496E-002	50.11

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 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

Filename: C:\6279 Test\SFP\NOL-02-01\NOL-02-01-005-F-G.CNF

Log Number: NOL-02-01
Title: NOL-02-01-005-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLandrev0.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Co-60	1173.22	100.00	2.1465E-001	1.86E-001	2.6974E-001
	1332.49	100.00	1.8594E-001		1.2535E-002
Nb-94	702.63	100.00	1.9777E-001	1.93E-001	-1.3422E-001
	871.10	100.00	1.9263E-001		1.1863E-001
Ag-108m	79.20	7.10	1.0686E+001	2.44E-001	-1.8759E+001
	433.93	89.90	2.4403E-001		1.2977E-001
	614.37	90.40	2.6960E-001		-5.3629E-003
	722.95	90.50	2.4847E-001		2.7892E-001
Sb-125	176.33	6.89	4.5643E+000	7.01E-001	-3.6542E+000
	427.89	29.33	7.0096E-001		-8.4574E-002
	463.38	10.35	2.0335E+000		1.6828E+000
	600.56	17.80	1.1276E+000		-5.3303E-001
	606.64	5.02	4.9192E+000		5.3002E+000
	635.90	11.32	1.8040E+000		3.3111E-001
Cs-134	563.23	8.38	2.3557E+000	2.41E-001	-4.6532E-001
	569.32	15.43	1.2835E+000		-1.8848E+000
	604.70	97.60	2.4946E-001		7.0959E-002
	795.84	85.40	2.4143E-001		1.4810E-001
	801.93	8.73	2.0959E+000		-1.6371E+000
Cs-137	661.65	85.12	2.2725E-001	2.27E-001	6.7714E-002
Eu-152	121.78	28.40	1.5153E+000	6.54E-001	3.6255E-001
	244.69	7.49	3.8401E+000		-1.5965E+000
	344.27	26.50	8.6116E-001		-1.3340E+000
	778.89	12.74	1.4877E+000		-3.5711E-001
	867.32	4.16	4.6934E+000		1.3955E+000
	964.01	14.40	1.6235E+000		-1.6125E+000
	1085.78	10.00	1.9203E+000		-3.9573E-001
	1112.02	13.30	1.4543E+000		1.0557E+000
	1407.95	20.70	6.5420E-001		5.4404E-002
Eu-154	123.07	40.50	1.0492E+000	4.64E-001	-6.2432E-001
	247.94	6.60	4.0935E+000		-4.7433E+000
	591.81	4.83	4.1950E+000		6.8755E-001

723.30	19.70	1.1444E+000	1.2234E+000
756.87	4.33	4.7976E+000	2.1598E+000
873.19	11.50	1.6449E+000	-1.2504E-001

	996.32	10.30	1.8395E+000		3.4828E-001
	1004.76	17.90	1.0031E+000		-4.0817E-002
	1274.45	35.50	4.6435E-001		-4.2115E-001
Eu-155	86.54	30.90	2.1507E+000	2.15E+000	4.0000E+000
	105.31	20.70	2.4519E+000		-6.3654E-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 9/14/2005 8:21:18 AM

Y A N K E E R O W E P O R T A B L E I S O C S
(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\Transferred\NOL-02-01-005-R-G.CNF
Sample ID:
Sample Title: NOL-02-01-005-R-G
Description:

Sample Type:
Geometry:

Acquisition Started: 9/14/2005 8:01:04 AM
Live Time: 900.0 seconds
Real Time: 902.1 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev0.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 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\Transferred\NOL-02-01-005-R-G.CNF
Log Number:
Title: NOL-02-01-005-R-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	72.86	0.86	1.63E+002	46.54	7.10E+002
m	2	285-	307	300.71	75.03	0.87	3.68E+002	57.70	6.58E+002
F	3	948-	963	954.50	238.94	0.98	1.39E+002	32.04	2.24E+002
F	4	1174-	1187	1180.64	295.59	1.08	4.24E+001	22.92	1.30E+002
F	5	1245-	1254	1249.46	312.83	0.44	2.32E+001	14.56	6.50E+001
M	6	1344-	1377	1353.39	338.85	0.71	4.15E+001	17.58	5.25E+001
m	7	1344-	1377	1372.54	343.65	0.71	2.44E+001	15.19	5.37E+001
F	8	1400-	1413	1407.82	352.48	0.90	6.82E+001	22.96	1.08E+002
F	9	1706-	1716	1710.91	428.34	0.96	2.06E+001	14.31	3.48E+001
F	10	2030-	2052	2042.05	511.18	2.11	1.13E+002	25.11	1.15E+002
F	11	2326-	2341	2332.32	583.77	1.06	1.14E+002	24.85	6.59E+001
F	12	2428-	2444	2436.00	609.69	1.15	8.21E+001	21.87	5.95E+001
F	13	2641-	2654	2646.75	662.36	1.14	4.19E+001	17.48	4.40E+001
F	14	3637-	3652	3644.45	911.57	1.41	8.87E+001	21.11	3.03E+001
F	15	3868-	3884	3875.26	969.19	1.46	6.03E+001	18.30	3.04E+001
F	16	5324-	5337	5330.25	1332.23	0.63	1.88E+001	10.19	1.62E+001
F	17	5830-	5858	5844.20	1460.43	2.09	6.86E+002	50.44	1.47E+001
F	18	7053-	7066	7059.20	1763.51	1.80	2.52E+001	12.24	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: C:\GENIE2K\CAMFILES\Transferred\NOL-02-01-005-R-G.CNF

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev0.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/g)	Activity Uncertainty
ANN	0.999	511.00*	100.00	3.30121E-001	8.65025E-002
K-40	0.996	1460.81*	10.67	2.43861E+001	2.66655E+000
Cs-137	0.985	661.65*	85.12	1.53284E-001	6.64677E-002
TL-208	0.744	277.35	6.80		
		510.84*	21.60	1.52834E+000	4.19474E-001
		583.14*	84.20	4.07959E-001	1.04018E-001
		860.37	12.46		
Pb-212	0.523	74.81* @	10.70	1.20792E+001	3.03303E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	7.56394E-001	2.11382E-001
Bi-214	0.690	609.31*	46.30	5.40768E-001	1.58942E-001
		1120.29	15.10		
		1764.49*	15.80	6.30655E-001	3.12300E-001
PB-214	0.583	74.82* @	6.21	2.08127E+001	5.44000E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	5.63815E-001	3.19136E-001
		351.92*	37.20	4.86190E-001	1.82844E-001
Ac-228	0.994	338.32*	11.40	9.57348E-001	4.32436E-001
		911.07*	27.70	1.06488E+000	2.81559E-001
		969.11*	16.60	1.23336E+000	3.95756E-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\Transferred\NOL-02-01-005-R-G.CNF

Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev0.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/g)	Wt mean Activity Uncertainty
ANN		0.999	2.420023E-001	8.932665E-002
K-40		0.996	2.438609E+001	2.666553E+000
Cs-137		0.985	1.532836E-001	6.646769E-002
TL-208		0.744	4.079586E-001	1.031652E-001
Pb-212	@	0.523	7.563939E-001	2.113819E-001
Bi-214		0.690	5.592610E-001	1.416522E-001
PB-214	@	0.583	5.053738E-001	1.586499E-001
Ac-228		0.994	1.085443E+000	2.026660E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	1.8087E-001	28.59
F 5	312.83	2.5822E-002	62.66
m 7	343.65	2.7156E-002	62.16
F 9	428.34	2.2854E-002	69.56
F 16	1332.23	2.0909E-002	54.15

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\Transferred\NOL-02-01-005-R-G.CNF
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev0.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/g)	Nuclide MDA (pCi/g)	Activity (pCi/g)
	Co-60	1173.22	100.00	2.0574E-001	1.80E-001	1.6485E-001
		1332.49	100.00	1.7955E-001		1.6515E-001
	Nb-94	702.63	100.00	1.7638E-001	1.72E-001	6.7249E-003
		871.10	100.00	1.7235E-001		3.6941E-002
	Ag-108m	79.20	7.10	9.1080E+000	2.10E-001	-1.6133E+000
		433.93	89.90	2.0989E-001		-5.0535E-002
		614.37	90.40	2.5470E-001		-8.2972E-004
		722.95	90.50	2.1106E-001		1.2625E-001
	Sb-125	176.33	6.89	4.0053E+000	6.33E-001	-3.5842E+000
		427.89	29.33	6.3308E-001		-4.2981E-001
		463.38	10.35	1.9352E+000		5.7530E-001
		600.56	17.80	9.8854E-001		2.3227E-001
		606.64	5.02	4.3870E+000		4.7190E+000
		635.90	11.32	1.5401E+000		1.6438E-001
	Cs-134	563.23	8.38	2.2577E+000	2.09E-001	2.2339E+000
		569.32	15.43	1.1433E+000		-1.1562E-001
		604.70	97.60	2.2252E-001		5.4538E-003
		795.84	85.40	2.0863E-001		1.4869E-001
		801.93	8.73	1.8677E+000		-1.7305E+000
+	Cs-137	661.65*	85.12	1.4332E-001	1.43E-001	1.5328E-001
	Eu-152	121.78	28.40	1.3299E+000	7.20E-001	1.7440E-002
		244.69	7.49	3.4345E+000		-2.7409E+000
		344.27	26.50	7.8848E-001		-4.3808E-001
		778.89	12.74	1.3007E+000		-2.7906E+000
		867.32	4.16	4.0523E+000		-4.5491E-001
		964.01	14.40	1.4908E+000		-4.0580E-001
		1085.78	10.00	1.7822E+000		-6.5132E-001
		1112.02	13.30	1.3013E+000		-2.0147E+000
		1407.95	20.70	7.2035E-001		4.0992E-001
	Eu-154	123.07	40.50	9.2386E-001	4.29E-001	-1.9297E-001
		247.94	6.60	3.6609E+000		-5.7282E+000
		591.81	4.83	3.8317E+000		1.4244E+000
		723.30	19.70	9.6666E-001		5.7187E-001
		756.87	4.33	4.2673E+000		-1.0326E+000
		873.19	11.50	1.5484E+000		1.6673E+000
		996.32	10.30	1.4992E+000		8.3943E-001
		1004.76	17.90	9.1261E-001		2.8562E-001
		1274.45	35.50	4.2873E-001		5.4202E-002
	Eu-155	86.54	30.90	1.8594E+000	1.86E+000	1.9547E+000
		105.31	20.70	2.1535E+000		-1.6853E+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 8/16/2005 8:41:38 AM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-006-F-G.CNF
Log Number:
Title: NOL-02-01-006-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/10/2005 8:06:03 AM

Live Time : 900.0 seconds
Real Time : 900.8 seconds

Energy Calibration Date: 6/13/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-006-F-G.CNF
Log Number:
Title: NOL-02-01-006-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	291.65	72.87	1.13	2.48E+002	52.73	1.03E+003
m	2	282-	306	300.32	75.04	1.13	4.57E+002	61.49	1.10E+003
F	3	332-	344	338.95	84.70	1.15	1.59E+002	47.90	7.79E+002
F	4	948-	961	954.39	238.57	1.34	1.85E+002	35.93	2.55E+002
F	5	1401-	1413	1406.70	351.66	1.44	6.08E+001	22.45	9.66E+001
F	6	2030-	2054	2042.67	510.66	2.33	1.51E+002	67.69	1.22E+002
F	7	2323-	2340	2331.66	582.91	1.60	1.35E+002	26.48	8.53E+001
F	8	2428-	2445	2436.58	609.15	1.62	1.07E+002	22.96	5.42E+001
F	9	2903-	2915	2909.16	727.30	1.69	3.06E+001	16.84	4.58E+001
F	10	3636-	3654	3644.38	911.12	1.79	1.08E+002	22.28	3.22E+001
F	11	5832-	5859	5845.10	1461.35	2.03	7.39E+002	52.71	1.63E+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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-006-F-G.CNF

Log Number:
Title: NOL-02-01-006-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/Gram)	Activity Uncertainty
ANN	0.997	511.00*	100.00	4.54466E-001	2.13855E-001
K-40	0.991	1460.81*	10.67	2.73009E+001	2.94639E+000
TL-208	0.752	277.35	6.80		
		510.84*	21.60	2.10401E+000	1.00487E+000
		583.14*	84.20	5.02505E-001	1.19016E-001
		860.37	12.46		
Bi-212	0.999	727.17*	11.80	8.62225E-001	4.85479E-001
Pb-212	0.525	74.81* @	10.70	1.55063E+001	3.68626E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.04004E+000	2.59593E-001
Bi-214	0.398	609.31*	46.30	7.33533E-001	1.82261E-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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-006-F-G.CNF

Log Number:
Title: NOL-02-01-006-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Gram)	Wt mean Activity Uncertainty
ANN	0.997	3.459249E-001	2.153654E-001
K-40	0.991	2.730090E+001	2.946392E+000
TL-208	0.752	5.025055E-001	1.178837E-001
Bi-212	0.999	8.622246E-001	4.854785E-001
Pb-212 @	0.525	1.040041E+000	2.595933E-001
Bi-214	0.398	7.335333E-001	1.822609E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.7543E-001	21.27
F 3	84.70	1.7652E-001	30.15
F 5	351.66	6.7540E-002	36.93
F 10	911.12	1.1969E-001	20.68

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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-006-F-G.CNF

Log Number:
Title: NOL-02-01-006-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Co-60	1173.22	100.00	2.1085E-001	1.84E-001	2.1934E-001
	1332.49	100.00	1.8409E-001		1.3658E-001
Nb-94	702.63	100.00	2.0271E-001	1.82E-001	2.2107E-002
	871.10	100.00	1.8173E-001		-1.2869E-001
Ag-108m	79.20	7.10	1.0240E+001	2.50E-001	-4.0321E+000
	433.93	89.90	2.5858E-001		2.2113E-001
	614.37	90.40	2.7826E-001		4.2163E-002
	722.95	90.50	2.4969E-001		-6.4899E-002
Sb-125	176.33	6.89	4.5503E+000	7.15E-001	-8.8428E-001
	427.89	29.33	7.1456E-001		2.1639E-001
	463.38	10.35	2.1031E+000		1.9253E-001
	600.56	17.80	1.1276E+000		2.3472E-001
	606.64	5.02	4.8733E+000		1.9107E+000
	635.90	11.32	1.7681E+000		6.3144E-001
Cs-134	563.23	8.38	2.4462E+000	2.45E-001	-2.2186E-001
	569.32	15.43	1.3500E+000		1.1084E+000
	604.70	97.60	2.5277E-001		4.3775E-004
	795.84	85.40	2.4510E-001		1.8085E-001
	801.93	8.73	2.1606E+000		-2.9478E+000
Cs-137	661.65	85.12	2.4553E-001	2.46E-001	1.2510E-001
Eu-152	121.78	28.40	1.4792E+000	6.67E-001	4.8121E-001
	244.69	7.49	3.8204E+000		-2.0058E+000
	344.27	26.50	8.3900E-001		-1.0806E+000
	778.89	12.74	1.4552E+000		-1.1646E+000
	867.32	4.16	4.7100E+000		-2.6614E+000
	964.01	14.40	1.7019E+000		2.5980E+000
	1085.78	10.00	1.9203E+000		8.5124E-001
	1112.02	13.30	1.3918E+000		-1.4095E+000
	1407.95	20.70	6.6690E-001		2.2378E-002
Eu-154	123.07	40.50	1.0312E+000	4.81E-001	7.4826E-001
	247.94	6.60	4.1410E+000		-7.1895E-001
	591.81	4.83	4.3305E+000		-8.4434E-001

723.30	19.70	1.1472E+000	1.0500E+000
756.87	4.33	4.7550E+000	9.6185E-001
873.19	11.50	1.5547E+000	-2.6198E-001

	996.32	10.30	1.7704E+000		7.4668E-001
	1004.76	17.90	9.6069E-001		-6.2278E-001
	1274.45	35.50	4.8142E-001		-5.8254E-001
Eu-155	86.54	30.90	2.0558E+000	2.06E+000	3.7345E+000
	105.31	20.70	2.3676E+000		1.8361E+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 9/14/2005 10:37:48 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-02-01-006-R-G
Description:

Sample Type:
Geometry:

Acquisition Started: 9/14/2005 10:22:45 AM
Live Time: 900.0 seconds
Real Time: 900.7 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev0.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 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-02-01-006-R-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	292.33	72.93	1.05	2.69E+002	50.52	7.09E+002
m	2	283-	314	300.55	74.99	1.06	4.88E+002	59.30	7.20E+002
m	3	283-	314	310.07	77.38	1.06	8.38E+001	42.83	6.78E+002
F	4	332-	345	338.94	84.62	1.07	1.32E+002	50.23	7.93E+002
F	5	950-	962	954.72	239.00	0.93	1.63E+002	34.38	2.04E+002
M	6	1175-	1206	1181.30	295.76	1.00	6.62E+001	23.33	1.02E+002
m	7	1175-	1206	1201.38	300.79	1.01	2.45E+001	18.01	9.85E+001
F	8	1345-	1359	1352.95	338.74	1.30	6.26E+001	22.23	9.35E+001
F	9	1402-	1416	1408.12	352.55	1.19	9.72E+001	26.76	1.24E+002
F	10	2034-	2055	2044.03	511.68	2.05	1.09E+002	24.34	9.97E+001
F	11	2326-	2342	2333.38	584.03	1.39	1.37E+002	25.40	4.49E+001
F	12	2430-	2449	2438.25	610.25	1.45	1.01E+002	22.05	4.66E+001
F	13	2901-	2917	2908.88	727.86	1.61	3.87E+001	14.73	4.55E+001
F	14	3638-	3655	3646.51	912.08	1.43	7.41E+001	20.41	4.47E+001
F	15	3869-	3886	3877.28	969.69	1.52	5.56E+001	17.51	2.85E+001
F	16	4685-	4698	4691.39	1172.85	1.14	1.65E+001	13.11	3.25E+001
F	17	5834-	5861	5846.55	1461.01	1.90	7.38E+002	52.85	1.96E+001
F	18	7058-	7071	7064.78	1764.90	0.80	1.48E+001	9.62	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-rev0.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/g)	Activity Uncertainty
ANN	0.986	511.00*	100.00	3.18463E-001	8.37492E-002
K-40	0.999	1460.81*	10.67	2.62338E+001	2.83531E+000
TL-208	0.733	277.35	6.80		
		510.84*	21.60	1.47436E+000	4.05993E-001
		583.14*	84.20	4.91322E-001	1.11710E-001
		860.37	12.46		
Bi-212	0.986	727.17*	11.80	1.04187E+000	4.14679E-001
Pb-212	0.842	74.81* @	10.70	1.60408E+001	3.69940E+000
		77.11* @	18.00	1.57077E+000	8.60248E-001
		87.30 @	8.00		
		238.63*	44.60	8.88916E-001	2.33848E-001
Bi-214	0.682	609.31*	46.30	6.63682E-001	1.67038E-001
		1120.29	15.10		
		1764.49*	15.80	3.69446E-001	2.43301E-001
PB-214	0.758	74.82* @	6.21	2.76387E+001	6.68248E+000
		77.11* @	10.50	2.69275E+000	1.48835E+000
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	8.80604E-001	3.43755E-001
		351.92*	37.20	6.93505E-001	2.23330E-001
Ac-228	0.981	338.32*	11.40	1.44490E+000	5.60635E-001
		911.07*	27.70	8.89757E-001	2.65617E-001
		969.11*	16.60	1.13653E+000	3.77298E-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-rev0.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/g)	Wt mean Activity Uncertainty
ANN		0.986	2.123372E-001	8.708724E-002
K-40		0.999	2.623376E+001	2.835310E+000
TL-208		0.733	4.913220E-001	1.105567E-001
Bi-212		0.986	1.041875E+000	4.146788E-001
Pb-212	@	0.842	8.889155E-001	2.338481E-001
Bi-214		0.682	5.694222E-001	1.377077E-001
PB-214	@	0.758	7.490365E-001	1.872771E-001
Ac-228		0.981	1.033305E+000	2.025263E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.9913E-001	18.76
F 4	84.62	1.4671E-001	38.04
m 7	300.79	2.7194E-002	73.59
F 16	1172.85	1.8322E-002	79.51

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:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev0.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/g)	Nuclide MDA (pCi/g)	Activity (pCi/g)
Co-60	1173.22	100.00	1.8196E-001	1.60E-001	-9.2441E-003
	1332.49	100.00	1.5987E-001		1.8961E-003
Nb-94	702.63	100.00	1.8390E-001	1.57E-001	2.6531E-001
	871.10	100.00	1.5732E-001		-1.9968E-001
Ag-108m	79.20	7.10	9.2679E+000	2.23E-001	6.8087E-002
	433.93	89.90	2.2339E-001		-8.9543E-002
	614.37	90.40	2.5869E-001		-3.1388E-002
	722.95	90.50	2.2873E-001		-2.7066E-003
Sb-125	176.33	6.89	4.1038E+000	6.64E-001	-8.3213E-002
	427.89	29.33	6.6426E-001		-3.3900E-001
	463.38	10.35	1.8909E+000		-1.0374E+000
	600.56	17.80	9.9520E-001		8.0434E-001
	606.64	5.02	4.4802E+000		-1.6828E+000
	635.90	11.32	1.5125E+000		6.7080E-001
Cs-134	563.23	8.38	2.2955E+000	2.16E-001	2.2538E+000
	569.32	15.43	1.2051E+000		-5.9784E-001
	604.70	97.60	2.1956E-001		-1.1313E-001
	795.84	85.40	2.1554E-001		8.2685E-002
	801.93	8.73	1.9419E+000		-5.2269E+000
Cs-137	661.65	85.12	2.2047E-001	2.20E-001	2.5055E-002
Eu-152	121.78	28.40	1.3490E+000	6.47E-001	5.1418E-001
	244.69	7.49	3.4689E+000		6.7213E-001
	344.27	26.50	7.8565E-001		-4.2831E-001
	778.89	12.74	1.4184E+000		2.3418E-001
	867.32	4.16	3.9813E+000		-1.5398E+000
	964.01	14.40	1.4696E+000		9.1251E-001
	1085.78	10.00	1.5608E+000		6.5215E-001
	1112.02	13.30	1.2696E+000		-1.9744E+000
	1407.95	20.70	6.4710E-001		-2.3853E-001
Eu-154	123.07	40.50	9.4592E-001	4.51E-001	5.6933E-001
	247.94	6.60	3.6902E+000		-1.1116E+000
	591.81	4.83	3.4914E+000		1.0525E-001
	723.30	19.70	1.0453E+000		-1.4868E-001
	756.87	4.33	3.8052E+000		-3.6417E+000
	873.19	11.50	1.4225E+000		9.3173E-001
	996.32	10.30	1.6445E+000		-1.8470E+000
	1004.76	17.90	9.6209E-001		3.2199E-001
	1274.45	35.50	4.5132E-001		5.4999E-002
Eu-155	86.54	30.90	1.9162E+000	1.92E+000	2.5278E+000
	105.31	20.70	2.1613E+000		1.1171E-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 8/15/2005 9:04:47 AM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-007-F-G.CNF
Log Number:
Title: NOL-02-01-007-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/11/2005 11:00:43 AM

Live Time : 900.0 seconds
Real Time : 900.8 seconds

Energy Calibration Date: 6/13/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-007-F-G.CNF
Log Number:
Title: NOL-02-01-007-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	292.61	73.11	1.13	2.69E+002	52.27	7.52E+002
m	2	287-	315	300.47	75.08	1.13	5.94E+002	62.84	9.74E+002
m	3	287-	315	309.66	77.37	1.14	1.45E+002	48.02	9.06E+002
F	4	333-	344	339.58	84.86	1.15	1.81E+002	50.65	7.43E+002
F	5	948-	960	954.84	238.68	1.34	2.05E+002	35.32	1.93E+002
F	6	1177-	1186	1181.04	295.24	1.39	3.56E+001	30.34	9.42E+001
F	7	1347-	1361	1353.74	338.42	1.43	6.20E+001	74.26	1.34E+002
F	8	1401-	1413	1408.01	351.98	1.44	7.65E+001	24.44	1.05E+002
F	9	2034-	2055	2045.07	511.26	2.33	1.37E+002	26.44	1.16E+002
F	10	2325-	2344	2334.20	583.55	1.60	1.23E+002	64.20	6.01E+001
F	11	2430-	2446	2438.98	609.75	1.62	1.12E+002	68.82	5.52E+001
F	12	3637-	3656	3647.55	911.91	1.79	9.47E+001	43.10	3.50E+001
F	13	3873-	3885	3880.36	970.12	1.82	2.51E+001	15.26	3.39E+001
F	14	4690-	4706	4697.68	1174.47	1.91	6.24E+001	18.63	3.17E+001
F	15	5328-	5343	5335.68	1333.98	1.98	7.01E+001	19.29	2.74E+001
F	16	5836-	5863	5849.38	1462.42	2.03	7.63E+002	87.58	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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-007-F-G.CNF

Log Number:
Title: NOL-02-01-007-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gm)	Activity Uncertainty
ANN	0.998	511.00*	100.00	4.12074E-001	9.84839E-002
K-40	0.926	1460.81*	10.67	2.82149E+001	3.96204E+000
Co-60	0.945	1173.22*	100.00	2.35350E-001	7.25999E-002
		1332.49*	100.00	2.71399E-001	7.76345E-002
TL-208	0.749	277.35	6.80		
		510.84*	21.60	1.90775E+000	4.81828E-001
		583.14*	84.20	4.57205E-001	2.46903E-001
		860.37	12.46		
Pb-212	0.845	74.81* @	10.70	2.01415E+001	4.48604E+000
		77.11* @	18.00	2.81601E+000	1.08118E+000
		87.30 @	8.00		
		238.63*	44.60	1.15310E+000	2.68565E-001
Bi-214	0.395	609.31*	46.30	7.67345E-001	4.82526E-001
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.765	74.82* @	6.21	3.47044E+001	8.12976E+000
		77.11* @	10.50	4.82745E+000	1.88818E+000
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	4.86573E-001	4.23152E-001
		351.92*	37.20	5.61676E-001	2.02552E-001
Ac-228	0.980	338.32*	11.40	1.47201E+000	1.77890E+000
		911.07*	27.70	1.19380E+000	5.60512E-001
		969.11*	16.60	5.38239E-001	3.31972E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-007-F-G.CNF

Log Number:
Title: NOL-02-01-007-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
ANN		0.998	3.133181E-001	1.119506E-001
K-40		0.926	2.821487E+001	3.962038E+000
Co-60		0.945	2.521679E-001	5.302645E-002
TL-208		0.749	4.572049E-001	2.464531E-001
Pb-212	@	0.845	1.153104E+000	2.685645E-001
Bi-214		0.395	7.673454E-001	4.825256E-001
PB-214	@	0.765	5.476758E-001	1.826993E-001
Ac-228		0.980	7.276702E-001	2.820210E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	73.11	2.9936E-001	19.40
F 4	84.86	2.0117E-001	27.97

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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-007-F-G.CNF

Log Number:
Title: NOL-02-01-007-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
+	Co-60	1173.22*	100.00	1.3371E-001	1.26E-001	2.3535E-001
		1332.49*	100.00	1.2577E-001		2.7140E-001
	Nb-94	702.63	100.00	2.0026E-001	1.85E-001	8.5755E-002
		871.10	100.00	1.8470E-001		-1.4472E-002
	Ag-108m	79.20	7.10	1.0418E+001	2.35E-001	3.5157E+000
		433.93	89.90	2.4025E-001		-1.4356E-002
		614.37	90.40	2.7725E-001		-1.5156E-001
		722.95	90.50	2.3526E-001		-5.9322E-002
	Sb-125	176.33	6.89	4.3191E+000	6.79E-001	-3.3838E+000
		427.89	29.33	6.7924E-001		-7.5241E-002
		463.38	10.35	2.0202E+000		9.1874E-001
		600.56	17.80	1.0954E+000		2.6774E-002
		606.64	5.02	5.0365E+000		8.3496E+000
		635.90	11.32	1.7836E+000		-4.4871E-001
	Cs-134	563.23	8.38	2.4399E+000	2.38E-001	3.5881E-001
		569.32	15.43	1.2618E+000		-1.0084E+000
		604.70	97.60	2.5136E-001		-1.2520E-001
		795.84	85.40	2.3770E-001		1.1754E-001
		801.93	8.73	2.3510E+000		-1.0605E+000
	Cs-137	661.65	85.12	2.3089E-001	2.31E-001	8.9311E-002
	Eu-152	121.78	28.40	1.4365E+000	6.21E-001	-3.3731E-001
		244.69	7.49	3.6453E+000		-4.3887E+000
		344.27	26.50	8.4041E-001		2.8349E-001
		778.89	12.74	1.5248E+000		4.7710E-001
		867.32	4.16	4.5580E+000		2.3371E+000
		964.01	14.40	1.5675E+000		2.5050E-001
		1085.78	10.00	2.0222E+000		8.8481E-001
		1112.02	13.30	1.5081E+000		5.4076E-001
		1407.95	20.70	6.2122E-001		3.1701E-001
	Eu-154	123.07	40.50	1.0133E+000	5.11E-001	5.0008E-001
		247.94	6.60	3.7568E+000		-7.1209E+000
		591.81	4.83	4.2633E+000		-4.4659E+000

723.30	19.70	1.0898E+000	6.1321E-001
756.87	4.33	4.6097E+000	-2.7671E+000
873.19	11.50	1.5875E+000	-5.3500E-001

	996.32	10.30	1.8841E+000		3.1794E-001
	1004.76	17.90	1.0995E+000		3.8174E-001
	1274.45	35.50	5.1115E-001		-5.4534E-001
Eu-155	86.54	30.90	2.0608E+000	2.06E+000	3.6441E+000
	105.31	20.70	2.2692E+000		-8.8468E-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 9/14/2005 10:55:55 AM

Y A N K E E R O W E P O R T A B L E I S O C S
(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-02-01-007-R-G
Description:

Sample Type:
Geometry:

Acquisition Started: 9/14/2005 10:40:52 AM
Live Time: 900.0 seconds
Real Time: 900.7 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev0.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 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-02-01-007-R-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	291.80	72.80	0.98	2.58E+002	50.35	6.87E+002
m	2	282-	305	300.51	74.98	0.99	4.15E+002	59.67	7.80E+002
F	3	331-	344	339.15	84.68	1.22	1.44E+002	50.97	7.83E+002
F	4	608-	615	611.51	152.98	0.68	4.34E+001	26.36	1.56E+002
F	5	945-	960	954.44	238.93	0.98	1.50E+002	32.34	1.94E+002
F	6	1176-	1185	1180.61	295.58	0.58	3.21E+001	17.15	7.25E+001
F	7	1346-	1358	1353.51	338.88	0.84	4.54E+001	20.27	8.94E+001
F	8	1403-	1413	1407.68	352.44	1.13	8.50E+001	24.56	7.31E+001
F	9	1708-	1717	1712.38	428.71	0.97	2.79E+001	15.33	3.25E+001
F	10	2036-	2054	2043.15	511.46	1.81	8.46E+001	23.45	9.77E+001
F	11	2324-	2341	2332.91	583.92	1.22	1.16E+002	24.81	6.29E+001
F	12	2429-	2444	2437.07	609.95	1.09	8.61E+001	22.63	6.03E+001
F	13	3638-	3654	3645.60	911.86	1.39	7.08E+001	18.88	2.59E+001
F	14	3871-	3886	3878.20	969.92	1.40	3.47E+001	15.15	2.75E+001
F	15	4473-	4490	4482.14	1120.64	1.89	4.46E+001	15.90	2.48E+001
F	16	5832-	5859	5846.22	1460.93	1.96	6.45E+002	49.29	1.74E+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
(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-rev0.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/g)	Activity Uncertainty
ANN	0.994	511.00*		100.00	2.46242E-001	7.65048E-002
K-40	1.000	1460.81*		10.67	2.29102E+001	2.55131E+000
TL-208	0.739	277.35		6.80		
		510.84*		21.60	1.14001E+000	3.66220E-001
		583.14*		84.20	4.14370E-001	1.04326E-001
		860.37		12.46		
Pb-212	0.523	74.81*	@	10.70	1.36614E+001	3.31958E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	8.16434E-001	2.18112E-001
Bi-214	0.692	609.31*		46.30	5.66664E-001	1.64864E-001
		1120.29*		15.10	1.05178E+000	3.90930E-001
		1764.49		15.80		
PB-214	0.583	74.82*	@	6.21	2.35389E+001	5.96952E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	4.27346E-001	2.39014E-001
		351.92*		37.20	6.06420E-001	2.02414E-001
Ac-228	0.983	338.32*		11.40	1.04840E+000	4.95752E-001
		911.07*		27.70	8.49714E-001	2.46851E-001
		969.11*		16.60	7.09521E-001	3.18564E-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-rev0.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/g)	Wt mean Activity Uncertainty
ANN		0.994	1.567384E-001	7.970112E-002
K-40		1.000	2.291016E+001	2.551309E+000
TL-208		0.739	4.143696E-001	1.034481E-001
Pb-212	@	0.523	8.164344E-001	2.181115E-001
Bi-214		0.692	6.399150E-001	1.519083E-001
PB-214	@	0.583	5.316294E-001	1.544653E-001
Ac-228		0.983	8.308239E-001	1.815677E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.8667E-001	19.51
F	3	84.68	1.5995E-001	35.40
F	4	152.98	4.8204E-002	60.75
F	9	428.71	3.1000E-002	54.94

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-rev0.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/g)	Nuclide MDA (pCi/g)	Activity (pCi/g)
Co-60	1173.22	100.00	1.8840E-001	1.63E-001	8.3515E-002
	1332.49	100.00	1.6283E-001		7.8074E-002
Nb-94	702.63	100.00	1.7445E-001	1.72E-001	-9.2852E-002
	871.10	100.00	1.7235E-001		-5.6855E-003
Ag-108m	79.20	7.10	9.3681E+000	1.94E-001	-1.6035E+001
	433.93	89.90	2.0937E-001		-1.1549E-001
	614.37	90.40	2.4703E-001		5.9870E-002
	722.95	90.50	1.9386E-001		3.5061E-002
Sb-125	176.33	6.89	3.9597E+000	6.31E-001	-1.4868E+000
	427.89	29.33	6.3148E-001		-5.5878E-003
	463.38	10.35	1.9482E+000		7.1978E-001
	600.56	17.80	1.0469E+000		9.1393E-001
	606.64	5.02	4.4802E+000		6.6928E+000
	635.90	11.32	1.6660E+000		3.2500E-001
Cs-134	563.23	8.38	2.1734E+000	2.19E-001	3.8781E-001
	569.32	15.43	1.1980E+000		3.9566E-001
	604.70	97.60	2.2105E-001		5.4621E-002
	795.84	85.40	2.1928E-001		1.7087E-001
	801.93	8.73	2.0744E+000		-2.5202E+000
Cs-137	661.65	85.12	2.2724E-001	2.27E-001	1.8748E-001
Eu-152	121.78	28.40	1.3623E+000	5.35E-001	8.7878E-001
	244.69	7.49	3.3220E+000		-1.7585E-001
	344.27	26.50	7.9968E-001		-7.1244E-001
	778.89	12.74	1.2492E+000		-1.9497E-001
	867.32	4.16	4.2246E+000		-1.5439E-001
	964.01	14.40	1.3541E+000		2.5734E-001
	1085.78	10.00	1.8293E+000		1.5231E+000
	1112.02	13.30	1.3625E+000		-2.6685E-002
	1407.95	20.70	5.3493E-001		6.6087E-003
Eu-154	123.07	40.50	9.3928E-001	4.75E-001	1.8393E-001
	247.94	6.60	3.5541E+000		-2.8808E+000
	591.81	4.83	3.9570E+000		1.9338E+000
	723.30	19.70	9.1028E-001		1.7206E-001
	756.87	4.33	4.0123E+000		-5.3933E+000
	873.19	11.50	1.4869E+000		5.4250E-001
	996.32	10.30	1.4992E+000		-1.6997E+000
	1004.76	17.90	9.5329E-001		1.9004E-001
	1274.45	35.50	4.7537E-001		5.2749E-001
Eu-155	86.54	30.90	1.9055E+000	1.91E+000	-2.8631E-001
	105.31	20.70	2.1061E+000		-1.3287E+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 8/15/2005 8:14:53 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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-008-F-G.CNF
Log Number:
Title: NOL-02-01-008-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/11/2005 9:59:28 AM

Live Time : 900.0 seconds
Real Time : 900.8 seconds

Energy Calibration Date: 6/13/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-008-F-G.CNF
Log Number:
Title: NOL-02-01-008-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	291.60	72.86	1.13	2.66E+002	51.40	8.53E+002
m	2	284-	306	300.46	75.07	1.13	4.74E+002	61.35	1.06E+003
	3	332-	345	339.81	84.91	0.98	9.57E+001	93.75	7.95E+002
F	4	949-	961	955.67	238.89	1.34	1.89E+002	35.76	2.15E+002
F	5	1177-	1186	1182.18	295.52	1.39	3.10E+001	21.62	9.90E+001
F	6	1349-	1364	1354.16	338.52	1.43	4.35E+001	21.72	1.34E+002
F	7	1403-	1416	1408.27	352.05	1.44	8.80E+001	24.75	1.01E+002
F	8	2031-	2056	2043.82	510.95	2.33	1.25E+002	71.63	1.27E+002
F	9	2325-	2343	2334.32	583.58	1.60	1.15E+002	61.75	6.76E+001
F	10	2431-	2448	2439.00	609.75	1.62	1.12E+002	24.23	7.02E+001
F	11	3639-	3657	3647.18	911.82	1.79	9.28E+001	21.99	4.71E+001
F	12	3872-	3886	3878.09	969.55	1.82	3.99E+001	19.10	6.05E+001
F	13	4688-	4706	4697.15	1174.34	1.91	8.95E+001	22.71	5.93E+001
F	14	5326-	5345	5334.61	1333.71	1.98	1.35E+002	23.98	1.50E+001
F	15	5836-	5862	5848.98	1462.32	2.03	6.69E+002	81.73	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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-008-F-G.CNF

Log Number:
Title: NOL-02-01-008-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gm)	Activity Uncertainty
ANN	1.000	511.00*	100.00	3.76270E-001	2.22409E-001
K-40	0.934	1460.81*	10.67	2.47303E+001	3.62441E+000
Co-60	0.960	1173.22*	100.00	3.37240E-001	8.95764E-002
		1332.49*	100.00	5.22919E-001	1.01468E-001
TL-208	0.749	277.35	6.80		
		510.84*	21.60	1.74199E+000	1.03945E+000
		583.14*	84.20	4.30337E-001	2.37186E-001
		860.37	12.46		
Pb-212	0.523	74.81* @	10.70	1.60781E+001	3.77603E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.06516E+000	2.61422E-001
Bi-214	0.395	609.31*	46.30	7.70409E-001	1.92120E-001
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.587	74.82* @	6.21	2.77031E+001	6.80991E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	4.24009E-001	3.04388E-001
		351.92*	37.20	6.46065E-001	2.11401E-001
Ac-228	0.990	338.32*	11.40	1.03213E+000	5.40639E-001
		911.07*	27.70	1.17053E+000	3.08148E-001
		969.11*	16.60	8.55882E-001	4.19095E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-008-F-G.CNF

Log Number:
Title: NOL-02-01-008-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
ANN		1.000	2.833170E-001	2.282136E-001
K-40		0.934	2.473033E+001	3.624413E+000
Co-60		0.960	4.185663E-001	6.715271E-002
TL-208		0.749	4.303375E-001	2.367711E-001
Pb-212	@	0.523	1.065165E+000	2.614218E-001
Bi-214		0.395	7.704095E-001	1.921196E-001
PB-214	@	0.587	5.738096E-001	1.736331E-001
Ac-228		0.990	1.055242E+000	2.256124E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.9562E-001	19.32
3	84.91	1.0635E-001	97.95

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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-008-F-G.CNF

Log Number:
Title: NOL-02-01-008-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
+	Co-60	1173.22*	100.00	1.8560E-001	1.03E-001	3.3724E-001
		1332.49*	100.00	1.0336E-001		5.2292E-001
	Nb-94	702.63	100.00	1.9715E-001	1.97E-001	-1.0448E-002
		871.10	100.00	2.0424E-001		8.9613E-002
	Ag-108m	79.20	7.10	1.0291E+001	2.29E-001	-6.0961E+000
		433.93	89.90	2.2901E-001		-3.7625E-001
		614.37	90.40	2.7826E-001		-1.7211E-001
		722.95	90.50	2.3461E-001		-1.2941E-001
	Sb-125	176.33	6.89	4.2443E+000	7.13E-001	-4.2062E-001
		427.89	29.33	7.1306E-001		-9.9889E-002
		463.38	10.35	2.1031E+000		1.3072E-002
		600.56	17.80	1.1465E+000		-5.3108E-001
		606.64	5.02	5.2201E+000		8.8032E+000
		635.90	11.32	1.8392E+000		1.5304E+000
	Cs-134	563.23	8.38	2.3884E+000	2.42E-001	1.1159E+000
		569.32	15.43	1.3329E+000		8.0485E-001
		604.70	97.60	2.6198E-001		-3.2951E-002
		795.84	85.40	2.4217E-001		6.6491E-002
		801.93	8.73	2.3655E+000		-1.5404E+000
	Cs-137	661.65	85.12	2.3304E-001	2.33E-001	1.5395E-001
	Eu-152	121.78	28.40	1.4147E+000	6.67E-001	4.7172E-001
		244.69	7.49	3.8237E+000		-2.1747E+000
		344.27	26.50	8.6932E-001		-2.6362E-001
		778.89	12.74	1.4931E+000		-2.7060E+000
		867.32	4.16	5.1077E+000		-6.1153E+000
		964.01	14.40	1.6486E+000		-1.7802E+000
		1085.78	10.00	1.9123E+000		-7.3764E-001
		1112.02	13.30	1.4904E+000		1.9620E-002
		1407.95	20.70	6.6690E-001		3.3075E-001
	Eu-154	123.07	40.50	9.7127E-001	4.92E-001	1.1302E-001
		247.94	6.60	4.0009E+000		-2.2697E+000
		591.81	4.83	4.3416E+000		2.8114E+000

723.30	19.70	1.0779E+000	-9.9402E-002
756.87	4.33	4.7263E+000	-1.9177E+000
873.19	11.50	1.7941E+000	2.3423E+000

	996.32	10.30	1.8545E+000		-1.1790E+000
	1004.76	17.90	1.0911E+000		7.5138E-002
	1274.45	35.50	4.9245E-001		3.0237E-001
Eu-155	86.54	30.90	2.0017E+000	2.00E+000	2.8979E+000
	105.31	20.70	2.2786E+000		9.5940E-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 9/14/2005 10:15:51 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-02-01-008-R-G
Description:

Sample Type:
Geometry:

Acquisition Started: 9/14/2005 10:00:48 AM
Live Time: 900.0 seconds
Real Time: 900.7 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev0.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 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-02-01-008-R-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	291.74	72.78	1.06	2.11E+002	48.43	7.70E+002
m	2	282-	314	300.56	75.00	1.06	4.06E+002	57.86	7.44E+002
F	3	333-	345	339.66	84.81	0.72	1.61E+002	47.06	7.18E+002
F	4	741-	750	745.28	186.51	0.86	4.80E+001	27.68	1.73E+002
F	5	946-	964	955.02	239.07	0.98	1.49E+002	32.92	2.67E+002
F	6	1173-	1187	1181.02	295.69	1.16	7.65E+001	24.65	1.21E+002
F	7	1348-	1357	1352.30	338.58	0.80	3.59E+001	19.59	7.60E+001
F	8	1399-	1414	1408.12	352.55	1.22	7.32E+001	23.37	1.06E+002
F	9	2324-	2340	2333.10	583.96	1.17	1.10E+002	24.98	7.23E+001
F	10	2429-	2445	2436.97	609.93	1.58	1.23E+002	24.52	5.13E+001
F	11	2640-	2652	2646.59	662.32	1.54	3.72E+001	15.20	2.44E+001
F	12	3635-	3654	3645.00	911.71	2.09	9.57E+001	21.22	3.96E+001
F	13	3868-	3886	3877.71	969.80	1.33	5.91E+001	17.35	2.89E+001
F	14	4688-	4701	4694.57	1173.65	0.99	3.01E+001	13.91	2.54E+001
F	15	5832-	5860	5846.75	1461.06	1.97	6.86E+002	50.78	2.54E+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-rev0.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/g)	Activity Uncertainty
K-40	0.998	1460.81*		10.67	2.43660E+001	2.67371E+000
Cs-137	0.986	661.65*		85.12	1.36185E-001	5.78761E-002
TL-208	0.459	277.35		6.80		
		510.84		21.60		
		583.14*		84.20	3.93091E-001	1.03402E-001
		860.37		12.46		
Pb-212	0.521	74.81*	@	10.70	1.33488E+001	3.23486E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	8.12637E-001	2.20361E-001
Bi-214	0.392	609.31*		46.30	8.10504E-001	1.90356E-001
		1120.29		15.10		
		1764.49		15.80		
PB-214	0.581	74.82*	@	6.21	2.30004E+001	5.81846E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	1.01680E+000	3.69782E-001
		351.92*		37.20	5.22129E-001	1.88152E-001
Ac-228	0.989	338.32*		11.40	8.29253E-001	4.70289E-001
		911.07*		27.70	1.14894E+000	2.87044E-001
		969.11*		16.60	1.20788E+000	3.76515E-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-rev0.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/g)	Wt mean Activity Uncertainty
K-40		0.998	2.436603E+001	2.673712E+000
Cs-137		0.986	1.361848E-001	5.787612E-002
TL-208		0.459	3.930911E-001	1.034024E-001
Pb-212	@	0.521	8.126368E-001	2.203611E-001
Bi-214		0.392	8.105039E-001	1.903564E-001
PB-214	@	0.581	6.238604E-001	1.676927E-001
Ac-228		0.989	1.105519E+000	2.053596E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.3411E-001	22.99
F 3	84.81	1.7935E-001	29.15
F 4	186.51	5.3357E-002	57.63
F 14	1173.65	3.3408E-002	46.27

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
(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-rev0.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/g)	Nuclide MDA (pCi/g)	Activity (pCi/g)
	Co-60	1173.22	100.00	1.9538E-001	1.79E-001	6.1509E-002
		1332.49	100.00	1.7866E-001		1.8683E-001
	Nb-94	702.63	100.00	1.9403E-001	1.68E-001	-5.2578E-002
		871.10	100.00	1.6799E-001		6.1689E-002
	Ag-108m	79.20	7.10	9.1997E+000	2.10E-001	-2.1692E+000
		433.93	89.90	2.1195E-001		-1.4576E-001
		614.37	90.40	2.6841E-001		1.3412E-002
		722.95	90.50	2.0974E-001		2.0540E-001
	Sb-125	176.33	6.89	3.9290E+000	6.85E-001	-4.2066E-001
		427.89	29.33	6.8520E-001		5.4673E-001
		463.38	10.35	1.8999E+000		1.3700E+000
		600.56	17.80	9.4053E-001		4.5564E-002
		606.64	5.02	4.7485E+000		6.1026E+000
		635.90	11.32	1.6610E+000		-9.4210E-002
	Cs-134	563.23	8.38	2.2829E+000	2.13E-001	2.6234E+000
		569.32	15.43	1.1873E+000		-1.3851E+000
		604.70	97.60	2.3447E-001		-1.7909E-001
		795.84	85.40	2.1327E-001		-5.3932E-002
		801.93	8.73	2.0819E+000		1.9237E-001
+	Cs-137	661.65*	85.12	1.0619E-001	1.06E-001	1.3618E-001
	Eu-152	121.78	28.40	1.3047E+000	6.29E-001	3.0290E-001
		244.69	7.49	3.5232E+000		-1.1396E+000
		344.27	26.50	7.9550E-001		-4.4057E-001
		778.89	12.74	1.4336E+000		5.3395E-001
		867.32	4.16	3.9088E+000		-5.9711E+000
		964.01	14.40	1.5281E+000		5.0766E-001
		1085.78	10.00	1.8600E+000		-2.3245E+000
		1112.02	13.30	1.2696E+000		-2.9292E+000
		1407.95	20.70	6.2889E-001		4.4120E-001
	Eu-154	123.07	40.50	9.0777E-001	4.43E-001	6.6100E-001
		247.94	6.60	3.7891E+000		-8.0912E-001
		591.81	4.83	3.7615E+000		2.4104E+000
		723.30	19.70	9.5751E-001		6.2253E-001
		756.87	4.33	4.0123E+000		-3.5212E+000
		873.19	11.50	1.4026E+000		-9.9726E-001
		996.32	10.30	1.6900E+000		3.5699E-001
		1004.76	17.90	1.0458E+000		-1.7542E-001
		1274.45	35.50	4.4299E-001		-9.3615E-001
	Eu-155	86.54	30.90	1.8922E+000	1.89E+000	2.0752E+000
		105.31	20.70	2.1085E+000		1.3955E+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 8/15/2005 8:15:22 AM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-009-F-G.CNF
Log Number:
Title: NOL-02-01-009-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/11/2005 1:59:56 PM

Live Time : 900.0 seconds
Real Time : 900.9 seconds

Energy Calibration Date: 6/13/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-009-F-G.CNF
Log Number:
Title: NOL-02-01-009-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	292.51	73.09	1.13	3.78E+002	58.86	1.12E+003
m	2	284-	309	300.82	75.16	1.13	6.72E+002	67.50	1.13E+003
M	3	332-	355	340.12	84.99	1.15	3.24E+002	148.14	1.03E+003
m	4	332-	355	350.67	87.63	1.15	1.76E+002	86.47	9.83E+002
F	5	950-	960	955.47	238.84	1.34	1.76E+002	35.09	1.83E+002
F	6	1401-	1416	1408.80	352.18	1.44	7.24E+001	24.03	1.35E+002
F	7	2037-	2054	2044.51	511.12	2.33	9.92E+001	24.33	8.26E+001
F	8	2325-	2344	2334.00	583.50	1.60	1.02E+002	22.32	6.00E+001
F	9	2433-	2448	2440.11	610.03	1.62	9.14E+001	22.22	5.06E+001
F	10	3640-	3657	3648.10	912.05	1.79	9.26E+001	22.04	4.48E+001
F	11	3870-	3885	3877.80	969.48	1.81	5.13E+001	19.77	3.58E+001
F	12	4690-	4706	4698.23	1174.61	1.91	5.84E+001	18.01	2.95E+001
F	13	5328-	5344	5335.66	1333.98	1.98	5.03E+001	18.13	3.12E+001
F	14	5835-	5862	5849.73	1462.51	2.03	6.54E+002	87.77	3.47E+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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-009-F-G.CNF

Log Number:
Title: NOL-02-01-009-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gm)	Activity Uncertainty
ANN	1.000	511.00*	100.00	2.99219E-001	8.45495E-002
K-40	0.918	1460.81*	10.67	2.41681E+001	3.78890E+000
Co-60	0.940	1173.22*	100.00	2.20087E-001	7.00396E-002
		1332.49*	100.00	1.94832E-001	7.17966E-002
Eu-155	0.312	86.54*	30.90	1.68461E+000	8.89806E-001
		105.31	20.70		
TL-208	0.750	277.35	6.80		
		510.84*	21.60	1.38527E+000	4.07454E-001
		583.14*	84.20	3.80601E-001	9.72549E-002
		860.37	12.46		
Pb-212	0.678	74.81* @	10.70	2.27467E+001	5.00978E+000
		77.11 @	18.00		
		87.30* @	8.00	6.50680E+000	3.43687E+000
		238.63*	44.60	9.90808E-001	2.51123E-001
Bi-214	0.389	609.31*	46.30	6.28034E-001	1.71560E-001
		1120.29	15.10		
		1764.49	15.80		
Ac-228	0.622	338.32	11.40		
		911.07*	27.70	1.16799E+000	3.08639E-001
		969.11*	16.60	1.09990E+000	4.39033E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-009-F-G.CNF

Log Number:
Title: NOL-02-01-009-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
ANN		1.000	2.170095E-001	8.707894E-002
K-40		0.918	2.416810E+001	3.788905E+000
Co-60		0.940	2.077720E-001	5.013514E-002
Eu-155		0.312	1.428089E+000	8.921778E-001
TL-208		0.750	3.806007E-001	9.646066E-002
Pb-212	@	0.678	9.908080E-001	2.511234E-001
Bi-214		0.389	6.280340E-001	1.715601E-001
Ac-228		0.622	1.145467E+000	2.524911E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	73.09	4.2016E-001	15.57
M 3	84.99	3.6039E-001	45.67
F 6	352.18	8.0482E-002	33.18

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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-009-F-G.CNF

Log Number:
Title: NOL-02-01-009-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
+	Co-60	1173.22*	100.00	1.2925E-001	1.29E-001	2.2009E-001
		1332.49*	100.00	1.3610E-001		1.9483E-001
	Nb-94	702.63	100.00	2.0812E-001	1.86E-001	1.1330E-001
		871.10	100.00	1.8617E-001		-1.0642E-001
	Ag-108m	79.20	7.10	1.1209E+001	2.25E-001	-1.0002E+001
		433.93	89.90	2.3737E-001		1.7098E-002
		614.37	90.40	2.7320E-001		1.0779E-001
		722.95	90.50	2.2533E-001		8.4770E-002
	Sb-125	176.33	6.89	4.7968E+000	6.99E-001	6.9976E-001
		427.89	29.33	6.9943E-001		-1.3144E-001
		463.38	10.35	2.0291E+000		-2.0513E-002
		600.56	17.80	1.0756E+000		-1.8562E-001
		606.64	5.02	4.8641E+000		9.0756E+000
		635.90	11.32	1.8192E+000		1.2455E+000
	Cs-134	563.23	8.38	2.6234E+000	2.31E-001	1.0335E+000
		569.32	15.43	1.2871E+000		3.6280E-001
		604.70	97.60	2.4222E-001		-4.8014E-002
		795.84	85.40	2.3083E-001		1.8288E-001
		801.93	8.73	2.1686E+000		1.8497E-001
	Cs-137	661.65	85.12	2.4889E-001	2.49E-001	1.2275E-001
	Eu-152	121.78	28.40	1.5725E+000	6.48E-001	1.3342E+000
		244.69	7.49	3.9018E+000		-7.6604E+000
		344.27	26.50	8.8805E-001		-1.4696E+000
		778.89	12.74	1.6012E+000		-3.6755E-001
		867.32	4.16	4.7596E+000		-8.8384E-001
		964.01	14.40	1.5675E+000		9.6517E-001
		1085.78	10.00	1.9042E+000		1.3315E-001
		1112.02	13.30	1.4604E+000		-1.4218E+000
		1407.95	20.70	6.4775E-001		2.9304E-001
	Eu-154	123.07	40.50	1.0914E+000	4.53E-001	2.3805E-001
		247.94	6.60	4.2574E+000		-4.0019E+000
		591.81	4.83	3.9093E+000		-7.1117E-001

723.30	19.70	1.0259E+000	-1.8149E-001
756.87	4.33	4.2559E+000	-3.0233E+000
873.19	11.50	1.6133E+000	-6.0865E-001

		996.32	10.30	1.7388E+000		-7.4457E-001
		1004.76	17.90	1.0348E+000		-3.3201E-001
		1274.45	35.50	4.5259E-001		-2.3400E-001
+	Eu-155	86.54*	30.90	1.4198E+000	1.42E+000	1.6846E+000
		105.31	20.70	2.5571E+000		8.2719E-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 9/14/2005 9:03:42 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-02-01-009-R-G
Description:

Sample Type:
Geometry:

Acquisition Started: 9/14/2005 8:48:39 AM
Live Time: 900.0 seconds
Real Time: 900.7 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev0.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 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-02-01-009-R-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-	314	292.02	72.85	0.94	1.73E+002	46.64	6.59E+002
m	2	286-	314	300.57	75.00	0.95	4.39E+002	57.96	6.65E+002
m	3	286-	314	309.77	77.31	0.95	8.73E+001	39.98	5.73E+002
F	4	330-	346	339.56	84.78	1.04	1.33E+002	48.73	9.08E+002
F	5	946-	960	954.73	239.00	0.88	1.59E+002	33.18	2.04E+002
F	6	1173-	1185	1180.61	295.59	1.05	3.87E+001	22.62	1.20E+002
F	7	1348-	1358	1353.17	338.80	0.90	4.87E+001	21.50	8.32E+001
F	8	1401-	1415	1407.19	352.32	1.24	9.83E+001	25.01	9.21E+001
F	9	2034-	2055	2043.75	511.61	2.01	1.11E+002	24.37	9.94E+001
F	10	2324-	2341	2332.37	583.78	1.18	1.12E+002	25.36	8.26E+001
F	11	2427-	2443	2436.81	609.89	1.33	1.08E+002	23.48	4.70E+001
F	12	2639-	2653	2646.38	662.27	1.77	4.60E+001	16.86	3.43E+001
F	13	3636-	3652	3644.31	911.53	1.39	8.16E+001	21.63	4.74E+001
F	14	3869-	3882	3875.52	969.25	1.18	3.89E+001	16.67	3.72E+001
F	15	5324-	5337	5330.20	1332.21	1.54	2.70E+001	13.99	2.12E+001
F	16	5831-	5858	5844.87	1460.59	2.00	6.03E+002	47.48	1.39E+001
F	17	7054-	7069	7060.96	1763.95	1.38	3.06E+001	12.04	5.87E+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-rev0.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/g)	Activity Uncertainty
ANN	0.989	511.00*	100.00	3.23690E-001	8.42130E-002
K-40	0.999	1460.81*	10.67	2.14393E+001	2.42072E+000
Cs-137	0.988	661.65*	85.12	1.68491E-001	6.48145E-002
TL-208	0.742	277.35	6.80		
		510.84*	21.60	1.49857E+000	4.08632E-001
		583.14*	84.20	3.99852E-001	1.05030E-001
		860.37	12.46		
Pb-212	0.843	74.81* @	10.70	1.44435E+001	3.41249E+000
		77.11* @	18.00	1.63883E+000	8.16646E-001
		87.30 @	8.00		
		238.63*	44.60	8.69668E-001	2.26768E-001
Bi-214	0.691	609.31*	46.30	7.11815E-001	1.78160E-001
		1120.29	15.10		
		1764.49*	15.80	7.65492E-001	3.10579E-001
PB-214	0.762	74.82* @	6.21	2.48866E+001	6.15109E+000
		77.11* @	10.50	2.80942E+000	1.41559E+000
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	5.14495E-001	3.12947E-001
		351.92*	37.20	7.00833E-001	2.13406E-001
Ac-228	0.995	338.32*	11.40	1.12431E+000	5.26375E-001
		911.07*	27.70	9.79998E-001	2.83147E-001
		969.11*	16.60	7.95457E-001	3.50905E-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-rev0.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/g)	Wt mean Activity Uncertainty
ANN		0.989	2.373223E-001	8.716987E-002
K-40		0.999	2.143935E+001	2.420717E+000
Cs-137		0.988	1.684905E-001	6.481452E-002
TL-208		0.742	3.998515E-001	1.042186E-001
Pb-212	@	0.843	8.696683E-001	2.267675E-001
Bi-214		0.691	7.251046E-001	1.545389E-001
PB-214	@	0.762	6.416863E-001	1.763133E-001
Ac-228		0.995	9.395970E-001	2.032639E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	1.9185E-001	27.01
F 4	84.78	1.4728E-001	36.76
F 15	1332.21	3.0001E-002	51.80

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
(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-rev0.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/g)	Nuclide MDA (pCi/g)	Activity (pCi/g)
	Co-60	1173.22	100.00	1.8998E-001	1.77E-001	6.3895E-002
		1332.49	100.00	1.7688E-001		1.6357E-001
	Nb-94	702.63	100.00	1.7702E-001	1.67E-001	1.1977E-001
		871.10	100.00	1.6651E-001		1.3626E-002
	Ag-108m	79.20	7.10	8.9971E+000	2.10E-001	-2.4637E-001
		433.93	89.90	2.1041E-001		5.0791E-003
		614.37	90.40	2.6165E-001		-1.4378E-001
		722.95	90.50	2.1755E-001		1.8948E-002
	Sb-125	176.33	6.89	3.9658E+000	6.31E-001	1.3473E+000
		427.89	29.33	6.3148E-001		3.8879E-001
		463.38	10.35	2.0038E+000		1.2204E+000
		600.56	17.80	1.0625E+000		4.9466E-001
		606.64	5.02	4.7831E+000		7.5211E+000
		635.90	11.32	1.4556E+000		-1.8337E+000
	Cs-134	563.23	8.38	2.0717E+000	2.07E-001	-1.5141E-001
		569.32	15.43	1.1508E+000		2.5552E-001
		604.70	97.60	2.4044E-001		-9.3494E-003
		795.84	85.40	2.0707E-001		3.8783E-002
		801.93	8.73	1.8844E+000		-2.9911E+000
+	Cs-137	661.65*	85.12	1.3105E-001	1.31E-001	1.6849E-001
	Eu-152	121.78	28.40	1.3344E+000	5.42E-001	-4.9498E-001
		244.69	7.49	3.2276E+000		-2.8522E+000
		344.27	26.50	8.2160E-001		-5.4473E-001
		778.89	12.74	1.4437E+000		-1.1959E+000
		867.32	4.16	3.9992E+000		-3.1247E+000
		964.01	14.40	1.4950E+000		7.2339E-001
		1085.78	10.00	1.6497E+000		2.2616E-001
		1112.02	13.30	1.4209E+000		-1.6229E+000
		1407.95	20.70	5.4224E-001		-6.2406E-002
	Eu-154	123.07	40.50	9.2942E-001	4.57E-001	-1.0750E-001
		247.94	6.60	3.4751E+000		-1.2790E+000
		591.81	4.83	3.7968E+000		-1.5655E+000
		723.30	19.70	1.0082E+000		5.2015E-001
		756.87	4.33	3.9968E+000		-2.4794E+000
		873.19	11.50	1.4291E+000		-1.9731E-001
		996.32	10.30	1.5160E+000		-9.3232E-001
		1004.76	17.90	9.3994E-001		7.4825E-001
		1274.45	35.50	4.5678E-001		-2.2184E-001
	Eu-155	86.54	30.90	1.8515E+000	1.85E+000	-7.4856E-001
		105.31	20.70	2.1457E+000		1.4975E+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 8/16/2005 8:40:57 AM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-010-F-G.CNF
Log Number:
Title: NOL-02-01-010-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/10/2005 9:44:24 AM

Live Time : 900.0 seconds
Real Time : 900.8 seconds

Energy Calibration Date: 6/13/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-010-F-G.CNF
Log Number:
Title: NOL-02-01-010-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	292.11	72.98	1.13	3.03E+002	81.46	1.01E+003
m	2	283-	306	300.38	75.05	1.13	5.49E+002	102.11	1.10E+003
F	3	330-	345	339.57	84.85	1.15	2.10E+002	125.10	1.01E+003
F	4	740-	749	744.33	186.05	1.28	5.33E+001	28.37	1.91E+002
F	5	948-	960	954.52	238.60	1.34	2.38E+002	37.40	2.02E+002
F	6	1347-	1360	1354.22	338.54	1.43	4.92E+001	21.85	1.16E+002
F	7	1402-	1414	1407.93	351.96	1.44	7.12E+001	23.45	1.01E+002
F	8	2035-	2051	2043.89	510.97	2.33	1.11E+002	25.25	9.33E+001
F	9	2324-	2342	2332.66	583.17	1.60	1.43E+002	25.66	5.48E+001
F	10	2427-	2445	2437.01	609.25	1.62	1.09E+002	54.11	5.67E+001
F	11	3636-	3655	3646.15	911.56	1.79	1.08E+002	27.60	5.00E+001
F	12	3868-	3885	3876.58	969.18	1.81	5.14E+001	17.87	4.26E+001
F	13	5834-	5860	5847.18	1461.87	2.03	8.13E+002	82.63	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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-010-F-G.CNF

Log Number:
Title: NOL-02-01-010-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/Gram)	Activity Uncertainty
ANN	1.000	511.00*		100.00	3.33493E-001	8.93895E-002
K-40	0.967	1460.81*		10.67	3.00659E+001	3.90551E+000
TL-208	0.753	277.35		6.80		
		510.84*		21.60	1.54395E+000	4.32622E-001
		583.14*		84.20	5.33821E-001	1.18886E-001
		860.37		12.46		
Pb-212	0.525	74.81*	@	10.70	1.86215E+001	5.03156E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	1.33735E+000	2.96935E-001
Bi-214	0.398	609.31*		46.30	7.51986E-001	3.83402E-001
		1120.29		15.10		
		1764.49		15.80		
Ac-228	0.996	338.32*		11.40	1.16941E+000	5.50456E-001
		911.07*		27.70	1.36443E+000	3.81754E-001
		969.11*		16.60	1.10141E+000	3.99875E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-010-F-G.CNF

Log Number:
Title: NOL-02-01-010-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/Gram)	Wt mean Activity Uncertainty
ANN	1.000	2.181873E-001	9.292892E-002
K-40	0.967	3.006585E+001	3.905509E+000
TL-208	0.753	5.338206E-001	1.176063E-001
Pb-212 @	0.525	1.337346E+000	2.969349E-001
Bi-214	0.398	7.519860E-001	3.834020E-001
Ac-228	0.996	1.225023E+000	2.468126E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	3.3696E-001	26.86
F 3	84.85	2.3336E-001	59.56
F 4	186.05	5.9208E-002	53.24
F 7	351.96	7.9137E-002	32.93

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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-010-F-G.CNF

Log Number:
Title: NOL-02-01-010-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Co-60	1173.22	100.00	2.2420E-001	1.70E-001	7.8508E-002
	1332.49	100.00	1.7049E-001		-1.0832E-001
Nb-94	702.63	100.00	1.9270E-001	1.76E-001	-1.5201E-001
	871.10	100.00	1.7640E-001		2.0729E-002
Ag-108m	79.20	7.10	1.0477E+001	2.40E-001	-1.0342E+001
	433.93	89.90	2.5187E-001		1.6205E-003
	614.37	90.40	2.6804E-001		-1.6669E-001
	722.95	90.50	2.3975E-001		4.6729E-002
Sb-125	176.33	6.89	4.5727E+000	7.48E-001	4.4876E-001
	427.89	29.33	7.4814E-001		9.5711E-001
	463.38	10.35	2.1117E+000		1.0073E+000
	600.56	17.80	1.2306E+000		-5.4079E-002
	606.64	5.02	5.0007E+000		3.1291E+000
	635.90	11.32	1.7887E+000		-9.3232E-001
Cs-134	563.23	8.38	2.4014E+000	2.32E-001	3.5554E-001
	569.32	15.43	1.3190E+000		-3.2386E-001
	604.70	97.60	2.5971E-001		-1.9028E-001
	795.84	85.40	2.3161E-001		-8.9907E-002
	801.93	8.73	2.3216E+000		-9.6199E-002
Cs-137	661.65	85.12	2.4213E-001	2.42E-001	5.7250E-004
Eu-152	121.78	28.40	1.5111E+000	6.79E-001	-5.3888E-001
	244.69	7.49	3.8727E+000		-4.7496E+000
	344.27	26.50	8.6660E-001		-8.9743E-002
	778.89	12.74	1.5352E+000		-3.2704E-001
	867.32	4.16	4.3824E+000		-4.8244E+000
	964.01	14.40	1.6065E+000		-5.4444E-001
	1085.78	10.00	1.8379E+000		9.3639E-002
	1112.02	13.30	1.4482E+000		-4.7704E-001
	1407.95	20.70	6.7934E-001		4.3270E-001
Eu-154	123.07	40.50	1.0492E+000	4.56E-001	1.3511E-001
	247.94	6.60	4.1880E+000		-3.3834E+000
	591.81	4.83	4.3082E+000		-3.7380E+000

723.30	19.70	1.0986E+000	3.0404E-001
756.87	4.33	4.6974E+000	-2.0613E+000
873.19	11.50	1.5006E+000	6.0916E-001

	996.32	10.30	1.7147E+000		-2.3182E+000
	1004.76	17.90	1.0392E+000		2.5698E-001
	1274.45	35.50	4.5556E-001		-4.5295E-001
Eu-155	86.54	30.90	2.1323E+000	2.13E+000	5.0451E-001
	105.31	20.70	2.3856E+000		3.3323E-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 9/14/2005 11:14:36 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-02-01-010-R-G
Description:

Sample Type:
Geometry:

Acquisition Started: 9/14/2005 10:59:33 AM
Live Time: 900.0 seconds
Real Time: 900.7 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev0.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 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-02-01-010-R-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	291.83	72.81	0.96	2.07E+002	47.72	7.04E+002
m	2	283-	306	300.46	74.97	0.96	3.94E+002	59.16	7.83E+002
F	3	334-	346	339.23	84.70	0.91	1.76E+002	51.07	7.47E+002
F	4	948-	960	954.42	238.92	1.06	1.66E+002	34.47	1.81E+002
F	5	981-	991	986.19	246.88	0.61	2.75E+001	18.65	1.09E+002
F	6	1346-	1359	1353.87	338.97	1.25	5.40E+001	21.71	8.77E+001
F	7	1401-	1414	1408.83	352.73	1.54	9.48E+001	23.91	8.21E+001
F	8	2037-	2053	2043.77	511.61	1.67	9.33E+001	23.48	7.46E+001
F	9	2323-	2340	2332.07	583.71	1.50	1.18E+002	24.56	6.52E+001
F	10	2430-	2445	2437.66	610.10	1.48	9.95E+001	23.05	5.20E+001
F	11	2905-	2916	2910.01	728.14	0.99	3.40E+001	14.97	2.66E+001
F	12	3639-	3654	3645.91	911.93	1.19	5.92E+001	18.46	3.63E+001
F	13	3870-	3883	3876.15	969.41	1.33	4.11E+001	16.58	2.99E+001
F	14	5833-	5860	5846.82	1461.08	2.02	6.82E+002	50.46	1.74E+001
F	15	7056-	7069	7063.00	1764.45	1.69	3.16E+001	12.03	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
(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-rev0.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/g)	Activity Uncertainty
ANN	0.989	511.00*	100.00	2.71490E-001	7.82290E-002
K-40	0.998	1460.81*	10.67	2.42392E+001	2.65850E+000
TL-208	0.743	277.35	6.80		
		510.84*	21.60	1.25690E+000	3.76436E-001
		583.14*	84.20	4.23071E-001	1.04194E-001
		860.37	12.46		
Bi-212	0.972	727.17*	11.80	9.15864E-001	4.16976E-001
Pb-212	0.523	74.81* @	10.70	1.29447E+001	3.19738E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	9.08589E-001	2.36082E-001
Bi-214	0.687	609.31*	46.30	6.55168E-001	1.72286E-001
		1120.29	15.10		
		1764.49*	15.80	7.89385E-001	3.10940E-001
Ac-228	0.985	338.32*	11.40	1.24704E+000	5.37815E-001
		911.07*	27.70	7.10535E-001	2.36224E-001
		969.11*	16.60	8.39944E-001	3.50227E-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-rev0.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/g)	Wt mean Activity Uncertainty
ANN		0.989	1.801068E-001	8.134752E-002
K-40		0.998	2.423920E+001	2.658498E+000
TL-208		0.743	4.230714E-001	1.032781E-001
Bi-212		0.972	9.158640E-001	4.169764E-001
Pb-212	@	0.523	9.085891E-001	2.360821E-001
Bi-214		0.687	6.866949E-001	1.506995E-001
Ac-228		0.985	8.090722E-001	1.840195E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.2976E-001	23.08
F	3	84.70	1.9504E-001	29.10
F	5	246.88	3.0570E-002	67.77
F	7	352.73	1.0529E-001	25.24

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-rev0.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/g)	Nuclide MDA (pCi/g)	Activity (pCi/g)
Co-60	1173.22	100.00	1.9385E-001	1.59E-001	1.6129E-001
	1332.49	100.00	1.5886E-001		6.3203E-002
Nb-94	702.63	100.00	1.7051E-001	1.69E-001	-2.0800E-001
	871.10	100.00	1.6946E-001		1.1336E-001
Ag-108m	79.20	7.10	9.0823E+000	2.09E-001	-6.8087E+000
	433.93	89.90	2.0885E-001		-8.7627E-002
	614.37	90.40	2.4651E-001		-9.0787E-002
	722.95	90.50	2.1945E-001		-4.1542E-002
Sb-125	176.33	6.89	3.9382E+000	6.52E-001	1.7859E-001
	427.89	29.33	6.5197E-001		1.0670E-001
	463.38	10.35	1.9869E+000		-1.5493E-001
	600.56	17.80	1.0182E+000		-2.3354E-001
	606.64	5.02	4.6431E+000		3.8811E+000
	635.90	11.32	1.6252E+000		4.0654E-001
Cs-134	563.23	8.38	2.1800E+000	2.13E-001	1.0253E+000
	569.32	15.43	1.1130E+000		-7.7297E-001
	604.70	97.60	2.2690E-001		-2.0257E-002
	795.84	85.40	2.1327E-001		-5.6621E-002
	801.93	8.73	2.0819E+000		-1.3660E+000
Cs-137	661.65	85.12	2.1489E-001	2.15E-001	6.1019E-002
Eu-152	121.78	28.40	1.3406E+000	6.23E-001	-8.4919E-001
	244.69	7.49	3.4689E+000		-2.2393E+000
	344.27	26.50	8.3501E-001		-3.9944E-001
	778.89	12.74	1.3555E+000		-7.0639E-001
	867.32	4.16	4.2914E+000		-1.5684E+000
	964.01	14.40	1.3817E+000		-4.9559E-001
	1085.78	10.00	1.7662E+000		-1.1327E-001
	1112.02	13.30	1.2696E+000		-2.6013E+000
	1407.95	20.70	6.2269E-001		5.9065E-002
Eu-154	123.07	40.50	9.3653E-001	4.54E-001	1.5384E-001
	247.94	6.60	3.6271E+000		-4.2196E+000
	591.81	4.83	3.6899E+000		-7.5636E-001
	723.30	19.70	1.0140E+000		9.0938E-002
	756.87	4.33	4.1042E+000		4.0794E+000
	873.19	11.50	1.4486E+000		5.6099E-001
	996.32	10.30	1.6900E+000		1.9520E+000
	1004.76	17.90	9.3994E-001		4.8188E-001
	1274.45	35.50	4.5406E-001		6.9978E-002
Eu-155	86.54	30.90	1.9147E+000	1.91E+000	2.9046E+000
	105.31	20.70	2.1101E+000		-2.5028E-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 8/16/2005 8:42:05 AM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-011-F-G.CNF
Log Number:
Title: NOL-02-01-011-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/10/2005 8:45:06 AM

Live Time : 900.0 seconds
Real Time : 901.2 seconds

Energy Calibration Date: 6/13/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-011-F-G.CNF
Log Number:
Title: NOL-02-01-011-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	291.80	72.91	1.13	2.70E+002	27.64	8.15E+002
m	2	286-	309	300.21	75.01	1.13	6.05E+002	46.31	1.38E+003
F	3	335-	345	339.55	84.85	1.15	1.52E+002	49.70	7.19E+002
F	4	948-	962	954.31	238.55	1.34	2.07E+002	37.26	2.75E+002
F	5	1174-	1185	1179.98	294.97	1.39	4.33E+001	22.32	1.16E+002
F	6	1347-	1361	1351.89	337.95	1.43	4.95E+001	22.67	1.39E+002
F	7	1398-	1415	1406.77	351.67	1.44	8.30E+001	24.60	1.48E+002
F	8	2033-	2053	2043.06	510.76	2.33	1.22E+002	96.80	1.07E+002
F	9	2323-	2342	2332.29	583.07	1.60	1.38E+002	25.83	7.59E+001
F	10	2430-	2443	2436.53	609.14	1.62	8.96E+001	23.78	6.98E+001
F	11	3636-	3653	3644.45	911.14	1.79	9.06E+001	21.48	4.26E+001
F	12	3867-	3883	3875.55	968.92	1.81	6.72E+001	55.01	3.93E+001
F	13	4474-	4488	4481.10	1120.32	1.89	1.91E+001	12.89	2.21E+001
F	14	5831-	5858	5845.63	1461.48	2.03	7.94E+002	85.83	1.74E+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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-011-F-G.CNF

Log Number:
Title: NOL-02-01-011-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/Gram)	Activity Uncertainty
ANN	0.998	511.00*		100.00	3.66580E-001	2.96423E-001
K-40	0.987	1460.81*		10.67	2.93610E+001	3.96404E+000
TL-208	0.753	277.35		6.80		
		510.84*		21.60	1.69713E+000	1.37931E+000
		583.14*		84.20	5.13542E-001	1.17856E-001
		860.37		12.46		
Pb-212	0.525	74.81*	@	10.70	2.05234E+001	4.31879E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	1.16398E+000	2.77836E-001
Bi-214	0.699	609.31*		46.30	6.15448E-001	1.80453E-001
		1120.29*		15.10	4.68869E-001	3.21227E-001
		1764.49		15.80		
PB-214	0.587	74.82*	@	6.21	3.53624E+001	7.87173E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	5.92101E-001	3.21236E-001
		351.92*		37.20	6.09439E-001	2.07319E-001
Ac-228	0.999	338.32*		11.40	1.17630E+000	5.68914E-001
		911.07*		27.70	1.14167E+000	3.00942E-001
		969.11*		16.60	1.43962E+000	1.18843E+000

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

Errors quoted at 1.960 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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-011-F-G.CNF

Log Number:
Title: NOL-02-01-011-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/Gram)	Wt mean Activity Uncertainty
ANN		0.998	2.556551E-001	2.974917E-001
K-40		0.987	2.936099E+001	3.964036E+000
TL-208		0.753	5.135423E-001	1.166621E-001
Pb-212	@	0.525	1.163977E+000	2.778358E-001
Bi-214		0.699	5.802872E-001	1.573278E-001
PB-214	@	0.587	6.043411E-001	1.741924E-001
Ac-228		0.999	1.163100E+000	2.595928E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	3.0001E-001	10.24
F 3	84.85	1.6876E-001	32.72

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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-011-F-G.CNF

Log Number:
Title: NOL-02-01-011-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Co-60	1173.22	100.00	2.0854E-001	1.87E-001	1.5886E-001
	1332.49	100.00	1.8686E-001		3.1632E-001
Nb-94	702.63	100.00	1.9462E-001	1.94E-001	-1.2417E-001
	871.10	100.00	1.9403E-001		-3.4077E-002
Ag-108m	79.20	7.10	1.0723E+001	2.19E-001	-3.4063E+000
	433.93	89.90	2.1928E-001		-1.6394E-001
	614.37	90.40	2.7926E-001		-3.7887E-002
	722.95	90.50	2.2869E-001		-1.2386E-001
Sb-125	176.33	6.89	4.4507E+000	7.18E-001	-5.4083E-001
	427.89	29.33	7.1754E-001		4.7488E-001
	463.38	10.35	2.1159E+000		-4.0353E-001
	600.56	17.80	1.1863E+000		-1.3557E-001
	606.64	5.02	5.2029E+000		3.9224E+000
	635.90	11.32	1.6386E+000		5.8840E-001
Cs-134	563.23	8.38	2.5026E+000	2.29E-001	-3.2923E-001
	569.32	15.43	1.3737E+000		1.2347E-001
	604.70	97.60	2.6378E-001		-8.0485E-002
	795.84	85.40	2.2928E-001		2.2533E-001
	801.93	8.73	2.2311E+000		-8.0917E-001
Cs-137	661.65	85.12	2.4418E-001	2.44E-001	1.1878E-001
Eu-152	121.78	28.40	1.5242E+000	6.79E-001	7.9655E-001
	244.69	7.49	3.9465E+000		-9.2013E-002
	344.27	26.50	9.0379E-001		2.9386E-002
	778.89	12.74	1.5609E+000		-7.0951E-001
	867.32	4.16	4.6599E+000		-2.2558E+000
	964.01	14.40	1.7690E+000		1.2894E-001
	1085.78	10.00	2.0675E+000		3.3675E-002
	1112.02	13.30	1.4604E+000		1.4664E+000
	1407.95	20.70	6.7934E-001		5.3028E-001
Eu-154	123.07	40.50	1.0540E+000	5.27E-001	4.4913E-004
	247.94	6.60	4.1213E+000		-4.5175E+000
	591.81	4.83	4.3082E+000		1.7131E+000

723.30	19.70	1.0598E+000	2.5569E-001
756.87	4.33	4.5051E+000	1.2227E+000
873.19	11.50	1.7122E+000	1.1558E+000

	996.32	10.30	1.8168E+000		4.6486E-001
	1004.76	17.90	1.0437E+000		-6.1395E-002
	1274.45	35.50	5.2662E-001		3.0523E-001
Eu-155	86.54	30.90	2.0952E+000	2.10E+000	1.7760E+000
	105.31	20.70	2.3781E+000		7.4902E-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 9/14/2005 11:50:52 AM

Y A N K E E R O W E P O R T A B L E I S O C S
(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-02-01-011-R-G
Description:

Sample Type:
Geometry:

Acquisition Started: 9/14/2005 11:35:49 AM
Live Time: 900.0 seconds
Real Time: 900.6 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev0.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 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-02-01-011-R-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	72.72	0.81	1.63E+002	45.94	6.42E+002
m	2	282-	305	300.52	74.99	0.82	3.06E+002	56.09	7.10E+002
F	3	330-	348	339.50	84.77	1.22	1.78E+002	52.17	1.06E+003
F	4	369-	379	372.96	93.16	0.96	8.88E+001	43.29	4.85E+002
F	5	947-	962	954.79	239.02	0.91	1.65E+002	33.75	2.25E+002
F	6	1173-	1189	1181.31	295.76	0.85	4.78E+001	19.84	1.07E+002
F	7	1400-	1418	1407.75	352.46	1.58	9.69E+001	24.56	1.07E+002
F	8	2032-	2055	2043.70	511.59	2.15	1.31E+002	23.97	7.09E+001
F	9	2326-	2344	2333.44	584.05	1.53	1.07E+002	23.69	6.30E+001
F	10	2431-	2446	2437.87	610.15	1.15	7.78E+001	21.76	6.09E+001
F	11	2905-	2917	2910.46	728.26	1.22	3.02E+001	15.82	3.63E+001
F	12	3173-	3184	3179.44	795.45	0.68	1.67E+001	11.78	2.71E+001
F	13	3638-	3654	3646.42	912.06	1.44	8.41E+001	20.96	3.43E+001
F	14	3868-	3886	3877.58	969.77	1.93	7.13E+001	18.06	2.31E+001
F	15	4476-	4490	4483.30	1120.93	1.55	3.35E+001	15.10	2.45E+001
F	16	5833-	5859	5846.54	1461.01	1.93	6.98E+002	51.38	1.01E+001
F	17	6916-	6929	6922.49	1729.40	1.25	1.54E+001	8.36	0.00E+000
F	18	7056-	7069	7062.97	1764.45	2.01	3.21E+001	12.04	3.55E+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
(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-rev0.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/g)	Activity Uncertainty
ANN	0.989	511.00*	100.00	3.81747E-001	8.79270E-002
K-40	0.999	1460.81*	10.67	2.47948E+001	2.71376E+000
TL-208	0.733	277.35	6.80		
		510.84*	21.60	1.76735E+000	4.31900E-001
		583.14*	84.20	3.81766E-001	9.86824E-002
		860.37	12.46		
Bi-212	0.965	727.17*	11.80	8.11921E-001	4.36268E-001
Pb-212	0.522	74.81* @	10.70	1.00546E+001	2.69916E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	9.01497E-001	2.32275E-001
Bi-214	0.985	609.31*	46.30	5.12001E-001	1.56791E-001
		1120.29*	15.10	7.90335E-001	3.65613E-001
		1764.49*	15.80	8.01542E-001	3.11305E-001
PB-214	0.582	74.82* @	6.21	1.73243E+001	4.81776E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	6.34873E-001	2.84589E-001
		351.92*	37.20	6.90858E-001	2.09819E-001
Ac-228	0.621	338.32	11.40		
		911.07*	27.70	1.00976E+000	2.77228E-001
		969.11*	16.60	1.45715E+000	3.99433E-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-rev0.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/g)	Wt mean Activity Uncertainty
ANN		0.989	2.992857E-001	9.043384E-002
K-40		0.999	2.479477E+001	2.713763E+000
TL-208		0.733	3.817657E-001	9.789497E-002
Bi-212		0.965	8.119206E-001	4.362684E-001
Pb-212	@	0.522	9.014966E-001	2.322754E-001
Bi-214		0.985	5.986997E-001	1.307692E-001
PB-214	@	0.582	6.711430E-001	1.688815E-001
Ac-228		0.621	1.155212E+000	2.277488E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	1.8126E-001	28.16
F 3	84.77	1.9759E-001	29.33
F 4	93.16	9.8626E-002	48.77
F 12	795.45	1.8571E-002	70.50
F 17	1729.40	1.7114E-002	54.25

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-rev0.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/g)	Nuclide MDA (pCi/g)	Activity (pCi/g)
Co-60	1173.22	100.00	2.0789E-001	1.57E-001	2.6499E-001
	1332.49	100.00	1.5684E-001		6.5939E-002
Nb-94	702.63	100.00	1.6985E-001	1.67E-001	-1.6799E-001
	871.10	100.00	1.6651E-001		9.9479E-003
Ag-108m	79.20	7.10	9.1667E+000	1.97E-001	-1.0280E+001
	433.93	89.90	1.9708E-001		-2.0174E-001
	614.37	90.40	2.4962E-001		-1.0136E-002
	722.95	90.50	2.3234E-001		-4.9585E-002
Sb-125	176.33	6.89	3.8856E+000	6.38E-001	-1.8759E-001
	427.89	29.33	6.3786E-001		4.8729E-001
	463.38	10.35	1.9132E+000		9.0159E-001
	600.56	17.80	1.0500E+000		1.2788E+000
	606.64	5.02	4.4524E+000		4.1577E+000
	635.90	11.32	1.7156E+000		4.1521E-001
Cs-134	563.23	8.38	2.1601E+000	2.08E-001	-2.8731E-001
	569.32	15.43	1.1545E+000		-6.9555E-001
	604.70	97.60	2.2055E-001		-5.7923E-002
	795.84	85.40	2.0785E-001		6.0202E-002
	801.93	8.73	1.8164E+000		-1.7921E+000
Cs-137	661.65	85.12	2.2252E-001	2.23E-001	1.8320E-001
Eu-152	121.78	28.40	1.3128E+000	5.84E-001	7.1218E-001
	244.69	7.49	3.3220E+000		7.2895E-001
	344.27	26.50	7.9689E-001		-7.3296E-001
	778.89	12.74	1.3925E+000		1.3544E+000
	867.32	4.16	4.2077E+000		1.4177E+000
	964.01	14.40	1.4866E+000		-7.5593E-002
	1085.78	10.00	1.7173E+000		-1.4268E+000
	1112.02	13.30	1.3261E+000		-1.0022E+000
	1407.95	20.70	5.8398E-001		9.3028E-002
Eu-154	123.07	40.50	9.0980E-001	4.20E-001	9.8822E-002
	247.94	6.60	3.4662E+000		-2.3197E+000
	591.81	4.83	3.8317E+000		3.8225E-001
	723.30	19.70	1.0647E+000		-2.8129E-001
	756.87	4.33	3.7723E+000		-4.2037E-001
	873.19	11.50	1.4742E+000		2.1663E-001
	996.32	10.30	1.7487E+000		3.1149E-001
	1004.76	17.90	1.0173E+000		2.1101E-001
	1274.45	35.50	4.1992E-001		-1.3442E-001
Eu-155	86.54	30.90	1.9152E+000	1.92E+000	-1.0230E-001
	105.31	20.70	2.1504E+000		5.8367E-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 8/15/2005 8:16:03 AM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-012-F-G.CNF
Log Number:
Title: NOL-02-01-012-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/11/2005 11:20:35 AM

Live Time : 900.0 seconds
Real Time : 900.9 seconds

Energy Calibration Date: 6/13/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-012-F-G.CNF
Log Number:
Title: NOL-02-01-012-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	291.97	72.95	1.13	2.42E+002	53.93	9.20E+002
m	2	285-	315	300.58	75.10	1.13	5.63E+002	64.28	1.13E+003
m	3	285-	315	309.34	77.29	1.14	9.70E+001	48.47	1.07E+003
M	4	332-	355	340.56	85.10	1.15	2.41E+002	112.32	9.69E+002
m	5	332-	355	350.64	87.62	1.15	1.47E+002	70.21	1.45E+003
F	6	946-	963	954.81	238.67	1.34	2.36E+002	37.90	3.04E+002
F	7	1350-	1359	1354.33	338.56	1.43	3.71E+001	23.10	1.00E+002
F	8	1402-	1415	1408.84	352.19	1.44	1.02E+002	25.99	1.03E+002
F	9	2032-	2053	2044.06	511.01	2.33	1.63E+002	90.38	1.15E+002
F	10	2325-	2342	2334.12	583.53	1.60	1.35E+002	84.58	1.01E+002
F	11	2430-	2447	2437.92	609.48	1.62	8.29E+001	23.91	1.06E+002
F	12	2963-	2975	2969.50	742.39	1.70	1.89E+001	14.52	3.60E+001
F	13	3639-	3656	3647.44	911.89	1.79	1.21E+002	24.48	4.59E+001
F	14	3871-	3889	3878.86	969.75	1.82	7.69E+001	20.04	4.00E+001
F	15	4687-	4706	4696.71	1174.23	1.91	1.05E+002	21.73	2.73E+001
F	16	5326-	5347	5334.74	1333.75	1.98	1.25E+002	23.27	2.43E+001
F	17	5834-	5862	5848.68	1462.24	2.03	8.45E+002	82.54	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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-012-F-G.CNF

Log Number:
Title: NOL-02-01-012-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gm)	Activity Uncertainty
ANN	1.000	511.00*	100.00	4.92371E-001	2.81234E-001
K-40	0.941	1460.81*	10.67	3.12293E+001	3.96239E+000
Co-60	0.962	1173.22*	100.00	3.94651E-001	8.75371E-002
		1332.49*	100.00	4.81843E-001	9.76432E-002
Eu-155	0.313	86.54*	30.90	1.40042E+000	7.24941E-001
		105.31	20.70		
TL-208	0.750	277.35	6.80		
		510.84*	21.60	2.27950E+000	1.31525E+000
		583.14*	84.20	5.02143E-001	3.22296E-001
		860.37	12.46		
Pb-212	0.999	74.81* @	10.70	1.90698E+001	4.32604E+000
		77.11* @	18.00	1.87981E+000	1.00935E+000
		87.30* @	8.00	5.40912E+000	2.80008E+000
		238.63*	44.60	1.32937E+000	2.98072E-001
Bi-214	0.398	609.31*	46.30	5.69607E-001	1.78920E-001
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.475	74.82* @	6.21	3.28578E+001	7.82622E+000
		77.11* @	10.50	3.22253E+000	1.74696E+000
		87.30* @	4.67	9.26617E+000	4.84753E+000
		241.98	7.49		
		295.21	19.20		
		351.92*	37.20	7.47828E-001	2.28147E-001
Ac-228	0.986	338.32*	11.40	8.81327E-001	5.65907E-001
		911.07*	27.70	1.52869E+000	3.55188E-001
		969.11*	16.60	1.64754E+000	4.62869E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-012-F-G.CNF

Log Number:
Title: NOL-02-01-012-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
ANN		1.000	3.839082E-001	2.897011E-001
K-40		0.941	3.122928E+001	3.962395E+000
Co-60		0.962	4.335029E-001	6.517911E-002
Eu-155		0.313	9.432260E-001	7.298225E-001
TL-208		0.750	5.021427E-001	3.218799E-001
Pb-212	@	0.999	1.329369E+000	2.980722E-001
Bi-214		0.398	5.696069E-001	1.789200E-001
PB-214	@	0.475	7.478279E-001	2.239924E-001
Ac-228		0.986	1.435370E+000	2.522438E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.6863E-001	22.31
M 4	85.10	2.6826E-001	46.52
F 12	742.39	2.1033E-002	76.70

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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-012-F-G.CNF

Log Number:
Title: NOL-02-01-012-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
+	Co-60	1173.22*	100.00	1.3143E-001	1.31E-001	3.9465E-001
		1332.49*	100.00	1.3252E-001		4.8184E-001
	Nb-94	702.63	100.00	2.1795E-001	2.09E-001	-3.9285E-002
		871.10	100.00	2.0883E-001		-6.9567E-002
	Ag-108m	79.20	7.10	1.0820E+001	2.35E-001	1.7227E+000
		433.93	89.90	2.5902E-001		-2.2693E-001
		614.37	90.40	2.9479E-001		-1.3048E-002
		722.95	90.50	2.3526E-001		-6.2729E-002
	Sb-125	176.33	6.89	4.4679E+000	7.71E-001	-1.4326E+000
		427.89	29.33	7.7062E-001		2.3924E-001
		463.38	10.35	2.3490E+000		1.5845E+000
		600.56	17.80	1.2393E+000		-1.1298E+000
		606.64	5.02	5.4959E+000		9.9622E+000
		635.90	11.32	1.8242E+000		-9.6717E-001
	Cs-134	563.23	8.38	2.4652E+000	2.56E-001	-1.4565E+000
		569.32	15.43	1.3568E+000		5.7871E-001
		604.70	97.60	2.7130E-001		1.9360E-001
		795.84	85.40	2.5577E-001		-3.8275E-002
		801.93	8.73	2.4157E+000		-3.3984E+000
	Cs-137	661.65	85.12	2.4755E-001	2.48E-001	-8.7543E-002
	Eu-152	121.78	28.40	1.5247E+000	6.85E-001	-9.1144E-001
		244.69	7.49	3.7069E+000		-1.5591E+000
		344.27	26.50	9.1026E-001		-1.3180E-001
		778.89	12.74	1.7021E+000		-6.9442E-002
		867.32	4.16	4.7924E+000		-4.8502E+000
		964.01	14.40	1.6938E+000		-1.0775E+000
		1085.78	10.00	2.0525E+000		-2.4820E-001
		1112.02	13.30	1.6373E+000		-3.7904E-001
		1407.95	20.70	6.8547E-001		1.4252E-001
	Eu-154	123.07	40.50	1.0734E+000	4.76E-001	1.5908E-001
		247.94	6.60	4.0293E+000		6.9371E-001
		591.81	4.83	4.4831E+000		1.9388E+000

723.30	19.70	1.0956E+000	3.9245E-001
756.87	4.33	4.9371E+000	-1.5497E+000
873.19	11.50	1.8112E+000	5.6401E-001

		996.32	10.30	2.0184E+000		-1.5359E+000
		1004.76	17.90	1.1954E+000		7.7284E-001
		1274.45	35.50	4.7580E-001		-3.8743E-001
+	Eu-155	86.54*	30.90	1.7199E+000	1.72E+000	1.4004E+000
		105.31	20.70	2.4439E+000		8.4320E-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 9/14/2005 11:32:44 AM

Y A N K E E R O W E P O R T A B L E I S O C S
(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-02-01-012-R-G
Description:

Sample Type:
Geometry:

Acquisition Started: 9/14/2005 11:17:41 AM
Live Time: 900.0 seconds
Real Time: 900.7 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev0.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 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-02-01-012-R-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	0.93	1.84E+002	47.16	6.53E+002
m	2	286-	306	300.64	75.02	0.94	3.63E+002	57.86	7.59E+002
F	3	336-	346	339.92	84.87	0.89	9.47E+001	48.74	6.81E+002
F	4	948-	961	954.70	238.99	1.06	1.41E+002	33.36	2.07E+002
F	5	1173-	1191	1180.39	295.53	1.21	8.76E+001	25.78	1.61E+002
F	6	1348-	1360	1354.36	339.09	1.01	5.36E+001	20.99	7.83E+001
F	7	1398-	1416	1408.42	352.63	1.18	7.06E+001	23.81	1.43E+002
F	8	2034-	2054	2043.86	511.64	1.97	1.14E+002	24.64	9.17E+001
F	9	2326-	2340	2333.07	583.95	1.17	1.05E+002	24.50	6.20E+001
F	10	2430-	2445	2437.65	610.10	1.32	1.21E+002	24.04	4.12E+001
F	11	2641-	2652	2647.01	662.43	1.13	2.12E+001	14.89	3.76E+001
F	12	3639-	3655	3646.60	912.10	1.16	7.41E+001	21.06	5.38E+001
F	13	3868-	3885	3876.59	969.52	1.94	6.86E+001	17.74	1.80E+001
F	14	5834-	5860	5846.53	1461.01	2.06	6.79E+002	50.36	2.03E+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
(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-rev0.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/g)	Activity Uncertainty
ANN	0.988	511.00*	100.00	3.30746E-001	8.54165E-002
K-40	0.999	1460.81*	10.67	2.41240E+001	2.64921E+000
Cs-137	0.982	661.65*	85.12	7.75535E-002	5.52607E-002
TL-208	0.736	277.35	6.80		
		510.84*	21.60	1.53123E+000	4.14748E-001
		583.14*	84.20	3.77290E-001	1.00887E-001
		860.37	12.46		
Pb-212	0.522	74.81* @	10.70	1.19154E+001	3.01165E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	7.69190E-001	2.18470E-001
Bi-214	0.388	609.31*	46.30	7.97155E-001	1.86811E-001
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.580	74.82* @	6.21	2.05306E+001	5.39894E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	1.16409E+000	3.94744E-001
		351.92*	37.20	5.03324E-001	1.89567E-001
Ac-228	0.979	338.32*	11.40	1.23770E+000	5.21723E-001
		911.07*	27.70	8.90303E-001	2.72882E-001
		969.11*	16.60	1.40234E+000	3.91277E-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-rev0.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/g)	Wt mean Activity Uncertainty
ANN		0.988	2.492517E-001	8.811240E-002
K-40		0.999	2.412401E+001	2.649214E+000
Cs-137		0.982	7.755354E-002	5.526070E-002
TL-208		0.736	3.772903E-001	1.001351E-001
Pb-212	@	0.522	7.691901E-001	2.184696E-001
Bi-214		0.388	7.971551E-001	1.868108E-001
PB-214	@	0.580	6.271525E-001	1.708837E-001
Ac-228		0.979	1.085809E+000	2.056950E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.0499E-001	25.56
F 3	84.87	1.0523E-001	51.46

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-rev0.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/g)	Nuclide MDA (pCi/g)	Activity (pCi/g)
	Co-60	1173.22	100.00	1.9538E-001	1.70E-001	-7.8124E-002
		1332.49	100.00	1.7048E-001		1.9075E-001
	Nb-94	702.63	100.00	1.7445E-001	1.66E-001	-4.2822E-002
		871.10	100.00	1.6576E-001		1.2690E-001
	Ag-108m	79.20	7.10	9.2175E+000	2.14E-001	-1.0884E+001
		433.93	89.90	2.1449E-001		1.0325E-001
		614.37	90.40	2.6165E-001		-1.7156E-001
		722.95	90.50	2.1755E-001		-5.4936E-002
	Sb-125	176.33	6.89	3.9382E+000	6.30E-001	6.5986E-004
		427.89	29.33	6.2988E-001		1.8966E-001
		463.38	10.35	1.8909E+000		-3.0788E-001
		600.56	17.80	1.0084E+000		-3.8141E-001
		606.64	5.02	4.7917E+000		8.3234E+000
		635.90	11.32	1.5564E+000		-7.3353E-001
	Cs-134	563.23	8.38	2.2062E+000	2.10E-001	8.8406E-001
		569.32	15.43	1.2016E+000		4.1546E-001
		604.70	97.60	2.3907E-001		-1.0362E-001
		795.84	85.40	2.1019E-001		-1.3239E-001
		801.93	8.73	1.8677E+000		-8.2640E-001
+	Cs-137	661.65*	85.12	1.2692E-001	1.27E-001	7.7554E-002
	Eu-152	121.78	28.40	1.3623E+000	5.49E-001	1.3531E+000
		244.69	7.49	3.5400E+000		2.8526E+000
		344.27	26.50	8.1072E-001		5.3236E-001
		778.89	12.74	1.3501E+000		-1.1248E+000
		867.32	4.16	4.1566E+000		-1.5373E+000
		964.01	14.40	1.4781E+000		4.6103E-001
		1085.78	10.00	1.6839E+000		-1.2748E+000
		1112.02	13.30	1.3803E+000		-2.0757E+000
		1407.95	20.70	5.4944E-001		-7.6279E-001
	Eu-154	123.07	40.50	9.2346E-001	4.93E-001	-7.8868E-001
		247.94	6.60	3.7317E+000		-1.7253E+000
		591.81	4.83	3.4786E+000		-5.5251E+000
		723.30	19.70	1.0140E+000		2.8140E-001
		756.87	4.33	4.2234E+000		-7.0875E-001
		873.19	11.50	1.3823E+000		-3.3200E-001
		996.32	10.30	1.6598E+000		-2.8912E-001
		1004.76	17.90	9.1722E-001		-1.1412E-001
		1274.45	35.50	4.9322E-001		1.1203E-002
	Eu-155	86.54	30.90	1.9425E+000	1.94E+000	3.4825E+000
		105.31	20.70	2.1722E+000		3.2708E-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 8/15/2005 8:16:34 AM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-013-F-G.CNF
Log Number:
Title: NOL-02-01-013-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/11/2005 10:19:35 AM

Live Time : 900.0 seconds
Real Time : 900.9 seconds

Energy Calibration Date: 6/13/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-013-F-G.CNF
Log Number:
Title: NOL-02-01-013-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-	309	291.84	72.92	1.13	2.82E+002	54.91	7.19E+002
m	2	288-	309	300.67	75.13	1.13	6.14E+002	64.85	1.07E+003
F	3	334-	345	340.17	85.00	1.15	1.48E+002	51.32	8.61E+002
F	4	612-	619	616.04	153.98	1.25	4.52E+001	31.05	2.10E+002
F	5	950-	963	955.21	238.77	1.34	2.33E+002	38.83	2.60E+002
F	6	1401-	1414	1409.05	352.24	1.44	9.94E+001	26.57	1.29E+002
F	7	2036-	2056	2045.82	511.45	2.33	1.52E+002	27.02	1.01E+002
F	8	2324-	2343	2334.41	583.60	1.60	1.84E+002	57.92	7.97E+001
F	9	2429-	2447	2438.24	609.56	1.62	1.28E+002	70.01	7.14E+001
F	10	3639-	3658	3648.01	912.03	1.79	1.24E+002	73.46	4.55E+001
F	11	3872-	3890	3880.04	970.04	1.82	6.18E+001	20.01	6.04E+001
F	12	4687-	4707	4696.96	1174.29	1.91	1.10E+002	45.22	3.69E+001
F	13	5325-	5346	5335.46	1333.93	1.98	1.19E+002	23.30	3.56E+001
F	14	5835-	5863	5849.77	1462.51	2.03	8.20E+002	89.83	2.53E+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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-013-F-G.CNF

Log Number:
Title: NOL-02-01-013-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gm)	Activity Uncertainty
ANN	0.994	511.00*	100.00	4.59380E-001	1.03896E-001
K-40	0.917	1460.81*	10.67	3.02994E+001	4.12840E+000
Co-60	0.953	1173.22*	100.00	4.13204E-001	1.73487E-001
		1332.49*	100.00	4.59535E-001	9.71080E-002
TL-208	0.747	277.35	6.80		
		510.84*	21.60	2.12676E+000	5.11398E-001
		583.14*	84.20	6.87794E-001	2.34340E-001
		860.37	12.46		
Pb-212	0.524	74.81* @	10.70	2.08041E+001	4.63163E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.30760E+000	2.99522E-001
Bi-214	0.397	609.31*	46.30	8.76950E-001	4.93343E-001
		1120.29	15.10		
		1764.49	15.80		
Ac-228	0.616	338.32	11.40		
		911.07*	27.70	1.56581E+000	9.43704E-001
		969.11*	16.60	1.32453E+000	4.50681E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-013-F-G.CNF

Log Number:
Title: NOL-02-01-013-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
ANN	0.994	3.108165E-001	1.154690E-001
K-40	0.917	3.029942E+001	4.128403E+000
Co-60	0.953	4.484819E-001	8.473670E-002
TL-208	0.747	6.877942E-001	2.332651E-001
Pb-212 @	0.524	1.307604E+000	2.995215E-001
Bi-214	0.397	8.769497E-001	4.933433E-001
Ac-228	0.616	1.369341E+000	4.066846E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	3.1343E-001	19.47
F 3	85.00	1.6491E-001	34.58
F 4	153.98	5.0204E-002	68.71
F 6	352.24	1.1045E-001	26.73

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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-013-F-G.CNF

Log Number:
Title: NOL-02-01-013-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
+	Co-60	1173.22*	100.00	1.5416E-001	1.54E-001	4.1320E-001
		1332.49*	100.00	1.5751E-001		4.5953E-001
	Nb-94	702.63	100.00	2.0989E-001	1.85E-001	1.6550E-001
		871.10	100.00	1.8470E-001		-5.5669E-003
	Ag-108m	79.20	7.10	1.0995E+001	2.35E-001	-1.3849E+001
		433.93	89.90	2.4636E-001		-1.8840E-001
		614.37	90.40	2.9099E-001		-3.7228E-002
		722.95	90.50	2.3526E-001		-4.5755E-002
	Sb-125	176.33	6.89	4.4879E+000	7.58E-001	-1.6333E+000
		427.89	29.33	7.5806E-001		-1.4484E-001
		463.38	10.35	2.1746E+000		-2.3798E-001
		600.56	17.80	1.2190E+000		-9.6843E-002
		606.64	5.02	5.5041E+000		1.0997E+001
		635.90	11.32	1.7472E+000		-2.8213E-001
	Cs-134	563.23	8.38	2.5149E+000	2.60E-001	1.3561E+000
		569.32	15.43	1.3084E+000		-1.5161E+000
		604.70	97.60	2.7477E-001		-3.2116E-002
		795.84	85.40	2.5991E-001		3.0667E-002
		801.93	8.73	2.4648E+000		1.6713E-001
	Cs-137	661.65	85.12	2.5546E-001	2.55E-001	2.3330E-001
	Eu-152	121.78	28.40	1.5532E+000	7.21E-001	2.0594E+000
		244.69	7.49	3.9178E+000		3.7268E+000
		344.27	26.50	9.6895E-001		-1.2803E+000
		778.89	12.74	1.6928E+000		3.5432E-001
		867.32	4.16	4.8410E+000		-6.0661E+000
		964.01	14.40	1.7059E+000		-5.4871E-001
		1085.78	10.00	2.0298E+000		9.0219E-002
		1112.02	13.30	1.5081E+000		-1.5821E+000
		1407.95	20.70	7.2106E-001		7.3503E-002
	Eu-154	123.07	40.50	1.0738E+000	5.24E-001	-1.8134E-001
		247.94	6.60	4.1489E+000		-3.3331E+000
		591.81	4.83	4.6513E+000		-2.1059E-003

723.30	19.70	1.0838E+000	4.8073E-002
756.87	4.33	5.1390E+000	3.5146E+000
873.19	11.50	1.6449E+000	2.5957E-001

	996.32	10.30	1.9418E+000		1.7280E-001
	1004.76	17.90	1.0698E+000		3.8506E-001
	1274.45	35.50	5.2407E-001		-2.9697E-002
Eu-155	86.54	30.90	2.1617E+000	2.16E+000	4.6818E+000
	105.31	20.70	2.3578E+000		-1.0934E+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 9/14/2005 9:57:58 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: BLUE6279
Sample ID:
Sample Title: NOL-02-01-013-R-G
Description:

Sample Type:
Geometry:

Acquisition Started: 9/14/2005 9:42:55 AM
Live Time: 900.0 seconds
Real Time: 900.7 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev0.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 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-02-01-013-R-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	0.94	2.29E+002	48.99	6.47E+002
m	2	286-	306	300.44	74.97	0.95	4.09E+002	59.30	7.84E+002
F	3	334-	345	339.18	84.68	1.13	1.59E+002	49.69	6.23E+002
F	4	949-	961	954.92	239.05	0.98	1.60E+002	33.45	1.80E+002
F	5	1403-	1417	1408.31	352.60	1.57	9.01E+001	24.25	7.56E+001
F	6	2033-	2054	2043.04	511.43	1.91	1.10E+002	24.24	9.19E+001
F	7	2324-	2343	2333.14	583.97	1.34	1.02E+002	23.79	7.92E+001
F	8	2428-	2447	2437.57	610.08	1.56	1.11E+002	23.17	5.53E+001
F	9	3638-	3653	3645.59	911.85	1.38	8.63E+001	20.43	2.40E+001
F	10	3871-	3883	3877.18	969.67	1.21	4.26E+001	18.15	3.92E+001
F	11	4688-	4701	4694.52	1173.64	1.25	4.10E+001	14.67	1.51E+001
F	12	5325-	5338	5331.56	1332.55	1.66	3.08E+001	13.46	1.40E+001
F	13	5833-	5860	5846.50	1461.00	1.98	7.01E+002	51.12	1.40E+001
F	14	7056-	7070	7063.06	1764.47	1.68	3.36E+001	11.97	1.69E+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-rev0.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/g)	Activity Uncertainty
ANN	0.994	511.00*	100.00	3.19498E-001	8.35767E-002
K-40	0.999	1460.81*	10.67	2.49250E+001	2.71522E+000
Co-60	0.997	1173.22*	100.00	1.47956E-001	5.42444E-002
		1332.49*	100.00	1.14682E-001	5.08462E-002
TL-208	0.737	277.35	6.80		
		510.84*	21.60	1.47916E+000	4.05347E-001
		583.14*	84.20	3.64400E-001	9.78314E-002
		860.37	12.46		
Pb-212	0.522	74.81* @	10.70	1.34611E+001	3.28117E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	8.73547E-001	2.28350E-001
Bi-214	0.688	609.31*	46.30	7.29263E-001	1.77493E-001
		1120.29	15.10		
		1764.49*	15.80	8.40401E-001	3.10837E-001
Ac-228	0.628	338.32	11.40		
		911.07*	27.70	1.03634E+000	2.72764E-001
		969.11*	16.60	8.70882E-001	3.82126E-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-rev0.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/g)	Wt mean Activity Uncertainty
ANN		0.994	2.407874E-001	8.616861E-002
K-40		0.999	2.492498E+001	2.715216E+000
Co-60		0.997	1.302442E-001	3.709690E-002
TL-208		0.737	3.644000E-001	9.710791E-002
Pb-212	@	0.522	8.735468E-001	2.283504E-001
Bi-214		0.688	7.565909E-001	1.541347E-001
Ac-228		0.628	9.804926E-001	2.220077E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.5438E-001	21.40
F 3	84.68	1.7630E-001	31.32
F 5	352.60	1.0014E-001	26.90

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
(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-rev0.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/g)	Nuclide MDA (pCi/g)	Activity (pCi/g)
+	Co-60	1173.22*	100.00	8.6450E-002	8.64E-002	1.4796E-001
		1332.49*	100.00	8.6458E-002		1.1468E-001
	Nb-94	702.63	100.00	1.8328E-001	1.71E-001	4.0187E-002
		871.10	100.00	1.7091E-001		-1.8900E-001
	Ag-108m	79.20	7.10	9.2073E+000	2.00E-001	-1.4999E+001
		433.93	89.90	2.0412E-001		-3.2226E-002
		614.37	90.40	2.6018E-001		3.3369E-003
		722.95	90.50	1.9953E-001		8.1939E-002
	Sb-125	176.33	6.89	3.9259E+000	6.33E-001	-1.5735E+000
		427.89	29.33	6.3308E-001		1.9291E-001
		463.38	10.35	1.9741E+000		9.8661E-001
		600.56	17.80	9.9520E-001		5.2806E-001
		606.64	5.02	4.6164E+000		-1.8243E+000
		635.90	11.32	1.4900E+000		5.3637E-002
	Cs-134	563.23	8.38	2.2703E+000	2.12E-001	3.6020E-001
		569.32	15.43	1.1909E+000		2.9105E-002
		604.70	97.60	2.2786E-001		-8.8970E-002
		795.84	85.40	2.1173E-001		1.6737E-001
		801.93	8.73	1.9659E+000		-2.0552E+000
	Cs-137	661.65	85.12	2.3766E-001	2.38E-001	3.3228E-001
	Eu-152	121.78	28.40	1.3338E+000	5.57E-001	-1.6165E-001
		244.69	7.49	3.3148E+000		-2.9913E+000
		344.27	26.50	7.8424E-001		-1.6194E+000
		778.89	12.74	1.3284E+000		1.0569E+000
		867.32	4.16	4.4857E+000		-6.6641E-001
		964.01	14.40	1.4824E+000		-2.6364E-001
		1085.78	10.00	1.6411E+000		-1.4785E+000
		1112.02	13.30	1.3505E+000		-2.6661E+000
		1407.95	20.70	5.5653E-001		-8.5619E-001
	Eu-154	123.07	40.50	9.2266E-001	4.70E-001	-4.5493E-001
		247.94	6.60	3.4751E+000		-3.1116E+000
		591.81	4.83	3.5672E+000		-4.8438E+000
		723.30	19.70	9.1673E-001		-1.7702E-001
		756.87	4.33	3.8863E+000		-1.0408E+000
		873.19	11.50	1.5056E+000		-1.3823E+000
		996.32	10.30	1.5410E+000		7.2231E-001
		1004.76	17.90	8.7476E-001		-1.9222E-001
		1274.45	35.50	4.7014E-001		6.0536E-002
	Eu-155	86.54	30.90	1.8792E+000	1.88E+000	2.8729E+000
		105.31	20.70	2.1196E+000		-1.8254E-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 8/15/2005 8:17:05 AM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-014-F-G.CNF
Log Number:
Title: NOL-02-01-014-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/11/2005 1:39:59 PM

Live Time : 900.0 seconds
Real Time : 900.8 seconds

Energy Calibration Date: 6/13/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-014-F-G.CNF
Log Number:
Title: NOL-02-01-014-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	291.93	72.94	1.13	2.90E+002	57.23	8.81E+002
m	2	287-	308	300.57	75.10	1.13	5.55E+002	66.10	1.31E+003
F	3	333-	344	339.12	84.74	1.15	1.60E+002	52.47	9.09E+002
F	4	951-	961	955.48	238.84	1.34	1.81E+002	35.40	1.79E+002
F	5	1404-	1415	1409.08	352.25	1.44	7.09E+001	22.79	7.99E+001
F	6	2327-	2343	2334.98	583.74	1.60	8.84E+001	22.63	6.35E+001
F	7	2430-	2449	2439.51	609.88	1.62	1.27E+002	49.84	3.80E+001
F	8	3642-	3658	3649.14	912.31	1.79	9.33E+001	21.13	2.76E+001
F	9	3873-	3887	3879.70	969.96	1.82	5.13E+001	17.48	2.76E+001
F	10	4689-	4706	4697.87	1174.52	1.91	7.82E+001	20.13	3.38E+001
F	11	5327-	5345	5336.40	1334.16	1.98	1.17E+002	44.51	7.17E+000
F	12	5838-	5864	5850.64	1462.73	2.03	6.46E+002	74.42	6.31E+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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-014-F-G.CNF

Log Number:
Title: NOL-02-01-014-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gm)	Activity Uncertainty
K-40	0.896	1460.81*	10.67	2.38944E+001	3.36308E+000
Co-60	0.935	1173.22*	100.00	2.94641E-001	7.93125E-002
		1332.49*	100.00	4.53689E-001	1.75886E-001
TL-208	0.465	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.29777E-001	9.50051E-002
		860.37	12.46		
Pb-212	0.524	74.81* @	10.70	1.88098E+001	4.31392E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.01909E+000	2.55260E-001
Bi-214	0.393	609.31*	46.30	8.70690E-001	3.59232E-001
		1120.29	15.10		
		1764.49	15.80		
Ac-228	0.608	338.32	11.40		
		911.07*	27.70	1.17717E+000	2.98752E-001
		969.11*	16.60	1.10060E+000	3.92027E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-014-F-G.CNF

Log Number:
Title: NOL-02-01-014-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
K-40	0.896	2.389435E+001	3.363083E+000
Co-60	0.935	3.215168E-001	7.230152E-002
TL-208	0.465	3.297766E-001	9.500507E-002
Pb-212 @	0.524	1.019087E+000	2.552596E-001
Bi-214	0.393	8.706901E-001	3.592324E-001
Ac-228	0.608	1.149035E+000	2.376177E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	3.2270E-001	19.70
F 3	84.74	1.7731E-001	32.88
F 5	352.25	7.8809E-002	32.13

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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-014-F-G.CNF

Log Number:
Title: NOL-02-01-014-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
+	Co-60	1173.22*	100.00	1.4040E-001	7.33E-002	2.9464E-001
		1332.49*	100.00	7.3304E-002		4.5369E-001
	Nb-94	702.63	100.00	1.9589E-001	1.90E-001	-2.2138E-001
		871.10	100.00	1.9050E-001		1.1051E-001
	Ag-108m	79.20	7.10	1.1089E+001	2.30E-001	-1.2349E+000
		433.93	89.90	2.3833E-001		-2.1897E-001
		614.37	90.40	2.6856E-001		-6.8165E-002
		722.95	90.50	2.3002E-001		9.9458E-002
	Sb-125	176.33	6.89	4.6477E+000	7.04E-001	3.1255E+000
		427.89	29.33	7.0400E-001		-1.1252E-001
		463.38	10.35	2.1117E+000		1.0209E+000
		600.56	17.80	1.0855E+000		1.0548E+000
		606.64	5.02	4.7424E+000		-2.0180E+000
		635.90	11.32	1.6160E+000		6.6156E-001
	Cs-134	563.23	8.38	2.4714E+000	2.34E-001	8.7559E-001
		569.32	15.43	1.2871E+000		-5.2091E-001
		604.70	97.60	2.3424E-001		-2.0832E-001
		795.84	85.40	2.3619E-001		3.6282E-001
		801.93	8.73	2.2919E+000		-1.7443E-001
	Cs-137	661.65	85.12	2.5546E-001	2.55E-001	1.6175E-001
	Eu-152	121.78	28.40	1.5221E+000	7.38E-001	-7.9531E-001
		244.69	7.49	3.7807E+000		-3.7913E+000
		344.27	26.50	8.2341E-001		-1.6563E+000
		778.89	12.74	1.4552E+000		-5.7947E-001
		867.32	4.16	4.9211E+000		1.4801E-001
		964.01	14.40	1.5184E+000		-1.5954E+000
		1085.78	10.00	1.7514E+000		-1.3472E+000
		1112.02	13.30	1.4482E+000		-1.8102E-001
		1407.95	20.70	7.3817E-001		1.5117E-001
	Eu-154	123.07	40.50	1.0654E+000	4.34E-001	3.3960E-001
		247.94	6.60	4.0414E+000		-3.6540E+000
		591.81	4.83	3.9827E+000		-1.5107E+000

723.30	19.70	1.0537E+000	-9.9595E-002
756.87	4.33	4.4900E+000	1.5540E+000
873.19	11.50	1.6758E+000	8.4159E-001

	996.32	10.30	1.6569E+000		-6.6790E-001
	1004.76	17.90	9.2630E-001		-1.1812E-001
	1274.45	35.50	4.3431E-001		-5.3487E-001
Eu-155	86.54	30.90	2.2151E+000	2.22E+000	3.9560E+000
	105.31	20.70	2.4598E+000		1.3133E+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 9/14/2005 8:42:34 AM

Y A N K E E R O W E P O R T A B L E I S O C S
(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-02-01-014-R-G
Description:

Sample Type:
Geometry:

Acquisition Started: 9/14/2005 8:27:31 AM
Live Time: 900.0 seconds
Real Time: 901.1 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev0.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 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-02-01-014-R-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	291.53	72.73	0.87	2.03E+002	46.69	5.59E+002
m	2	286-	305	300.38	74.95	0.88	3.38E+002	56.02	7.02E+002
F	3	332-	346	339.56	84.78	0.84	8.30E+001	44.06	7.63E+002
F	4	739-	752	744.30	186.27	1.16	6.62E+001	29.58	2.24E+002
F	5	948-	961	954.69	238.99	0.92	1.45E+002	33.22	2.14E+002
F	6	1348-	1361	1353.72	338.93	0.84	3.53E+001	18.78	9.05E+001
F	7	1401-	1413	1407.75	352.46	1.08	9.16E+001	24.34	7.79E+001
F	8	1792-	1802	1797.44	449.99	0.88	2.30E+001	15.40	4.66E+001
F	9	2034-	2050	2042.89	511.39	1.80	9.01E+001	24.26	9.96E+001
F	10	2324-	2341	2332.59	583.83	1.14	9.34E+001	22.70	6.23E+001
F	11	2430-	2445	2436.62	609.84	1.23	6.52E+001	20.36	5.82E+001
F	12	3174-	3185	3178.98	795.33	0.43	1.61E+001	4.24	2.50E+001
F	13	3635-	3653	3644.69	911.63	1.78	6.93E+001	18.96	3.52E+001
F	14	3868-	3882	3875.35	969.21	1.37	4.70E+001	18.10	4.18E+001
F	15	4474-	4488	4481.25	1120.42	1.10	2.87E+001	13.64	2.32E+001
F	16	4948-	4961	4955.17	1238.66	0.72	1.47E+001	9.62	2.69E+001
F	17	5831-	5858	5844.29	1460.45	1.99	7.36E+002	52.04	6.60E+000
F	18	7054-	7067	7060.92	1763.94	1.95	2.96E+001	12.26	6.63E+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-rev0.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/g)	Activity Uncertainty
ANN	0.995	511.00*	100.00	2.62347E-001	7.96162E-002
K-40	0.996	1460.81*	10.67	2.61671E+001	2.81216E+000
TL-208	0.742	277.35	6.80		
		510.84*	21.60	1.21457E+000	3.81706E-001
		583.14*	84.20	3.34419E-001	9.24848E-002
		860.37	12.46		
Pb-212	0.522	74.81* @	10.70	1.11350E+001	2.85658E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	7.92295E-001	2.19878E-001
Bi-214	0.993	609.31*	46.30	4.29557E-001	1.44309E-001
		1120.29*	15.10	6.76651E-001	3.29281E-001
		1764.49*	15.80	7.38580E-001	3.15250E-001
Ac-228	0.993	338.32*	11.40	8.13475E-001	4.51813E-001
		911.07*	27.70	8.32318E-001	2.46975E-001
		969.11*	16.60	9.61712E-001	3.83529E-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-rev0.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/g)	Wt mean Activity Uncertainty
ANN		0.995	1.901126E-001	8.205040E-002
K-40		0.996	2.616708E+001	2.812160E+000
TL-208		0.742	3.344187E-001	9.184039E-002
Pb-212	@	0.522	7.922953E-001	2.198782E-001
Bi-214		0.993	5.096169E-001	1.218932E-001
Ac-228		0.993	8.603463E-001	1.886746E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.2534E-001	23.02
F	3	84.78	9.2265E-002	53.05
F	4	186.27	7.3543E-002	44.68
F	7	352.46	1.0178E-001	26.58
F	8	449.99	2.5521E-002	67.06
F	12	795.33	1.7865E-002	26.36
F	16	1238.66	1.6289E-002	65.59

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
(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-rev0.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/g)	Nuclide MDA (pCi/g)	Activity (pCi/g)
Co-60	1173.22	100.00	1.9231E-001	1.69E-001	2.3471E-001
	1332.49	100.00	1.6860E-001		-5.5767E-003
Nb-94	702.63	100.00	1.7380E-001	1.63E-001	1.5133E-002
	871.10	100.00	1.6275E-001		-2.5531E-002
Ag-108m	79.20	7.10	9.0049E+000	2.11E-001	-8.9485E+000
	433.93	89.90	2.1898E-001		2.4387E-001
	614.37	90.40	2.4390E-001		9.5847E-002
	722.95	90.50	2.1106E-001		1.9265E-001
Sb-125	176.33	6.89	3.9810E+000	6.54E-001	1.9853E+000
	427.89	29.33	6.5352E-001		-1.6257E-001
	463.38	10.35	1.7802E+000		-1.0275E+000
	600.56	17.80	9.1191E-001		-2.0014E-001
	606.64	5.02	4.2431E+000		6.9837E+000
	635.90	11.32	1.5564E+000		5.3092E-001
Cs-134	563.23	8.38	2.1800E+000	2.10E-001	6.4432E-001
	569.32	15.43	1.1283E+000		-4.0784E-001
	604.70	97.60	2.1040E-001		-1.7243E-001
	795.84	85.40	2.1019E-001		2.7329E-002
	801.93	8.73	1.9976E+000		5.1324E-001
Cs-137	661.65	85.12	2.3186E-001	2.32E-001	2.1370E-001
Eu-152	121.78	28.40	1.3134E+000	6.47E-001	3.5606E-001
	244.69	7.49	3.2969E+000		-1.7244E+000
	344.27	26.50	7.9689E-001		3.1830E-001
	778.89	12.74	1.3229E+000		-5.1163E-001
	867.32	4.16	4.1907E+000		3.0511E-001
	964.01	14.40	1.4950E+000		9.0351E-001
	1085.78	10.00	1.6059E+000		4.3274E-001
	1112.02	13.30	1.2950E+000		-1.6496E+000
	1407.95	20.70	6.4710E-001		2.6970E-001
Eu-154	123.07	40.50	9.1141E-001	4.46E-001	9.1045E-002
	247.94	6.60	3.4795E+000		-6.1454E+000
	591.81	4.83	3.6657E+000		1.1659E+000
	723.30	19.70	9.7271E-001		1.1953E+000
	756.87	4.33	4.0890E+000		1.8844E+000
	873.19	11.50	1.4486E+000		3.1121E-001
	996.32	10.30	1.4992E+000		1.2537E-001
	1004.76	17.90	9.1722E-001		-4.6793E-001
	1274.45	35.50	4.4579E-001		3.1309E-002
Eu-155	86.54	30.90	1.7954E+000	1.80E+000	2.0953E+000
	105.31	20.70	2.0478E+000		-1.4997E+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 8/15/2005 8:17:32 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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-015-F-G.CNF
Log Number:
Title: NOL-02-01-015-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/11/2005 1:20:44 PM

Live Time : 900.0 seconds
Real Time : 900.8 seconds

Energy Calibration Date: 6/13/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-015-F-G.CNF
Log Number:
Title: NOL-02-01-015-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	245-	259	254.36	63.55	1.11	1.11E+002	140.48	8.74E+002
M	2	282-	306	292.04	72.97	1.13	2.99E+002	57.71	1.18E+003
m	3	282-	306	300.19	75.01	1.13	5.41E+002	67.73	1.30E+003
F	4	331-	346	339.78	84.90	1.15	2.36E+002	53.02	1.06E+003
F	5	948-	961	955.16	238.76	1.34	1.44E+002	33.98	2.49E+002
F	6	1404-	1414	1409.16	352.27	1.44	6.49E+001	22.92	8.34E+001
F	7	2032-	2053	2044.15	511.03	2.33	1.56E+002	69.87	8.80E+001
F	8	2326-	2341	2334.08	583.52	1.60	8.70E+001	22.66	6.40E+001
F	9	2432-	2447	2439.04	609.76	1.62	7.60E+001	20.95	5.21E+001
F	10	3639-	3656	3647.27	911.85	1.79	8.18E+001	21.15	4.86E+001
F	11	3871-	3884	3877.29	969.35	1.81	6.76E+001	18.36	2.14E+001
F	12	5835-	5863	5849.45	1462.43	2.03	7.46E+002	52.92	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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-015-F-G.CNF

Log Number:
Title: NOL-02-01-015-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gm)	Activity Uncertainty
ANN	1.000	511.00*	100.00	4.70695E-001	2.20847E-001
K-40	0.924	1460.81*	10.67	2.75667E+001	2.96788E+000
TL-208	0.750	277.35	6.80		
		510.84*	21.60	2.17914E+000	1.03781E+000
		583.14*	84.20	3.24291E-001	9.47531E-002
		860.37	12.46		
Pb-212	0.524	74.81* @	10.70	1.83645E+001	4.27115E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	8.08156E-001	2.29269E-001
Bi-214	0.395	609.31*	46.30	5.22342E-001	1.57991E-001
		1120.29	15.10		
		1764.49	15.80		
Ac-228	0.628	338.32	11.40		
		911.07*	27.70	1.03190E+000	2.91883E-001
		969.11*	16.60	1.44962E+000	4.21859E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-015-F-G.CNF

Log Number:
Title: NOL-02-01-015-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
ANN	1.000	4.006480E-001	2.217815E-001
K-40	0.924	2.756672E+001	2.967885E+000
TL-208	0.750	3.242911E-001	9.416193E-002
Pb-212 @	0.524	8.081558E-001	2.292689E-001
Bi-214	0.395	5.223416E-001	1.579908E-001
Ac-228	0.628	1.167136E+000	2.400302E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	63.55	1.2303E-001	126.87
M 2	72.97	3.3199E-001	19.31
F 4	84.90	2.6199E-001	22.49
F 6	352.27	7.2109E-002	35.32

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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-015-F-G.CNF

Log Number:
Title: NOL-02-01-015-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
Co-60	1173.22	100.00	2.4012E-001	1.93E-001	2.4535E-001
	1332.49	100.00	1.9318E-001		1.7799E-001
Nb-94	702.63	100.00	1.9398E-001	1.88E-001	-1.2876E-001
	871.10	100.00	1.8762E-001		2.4844E-001
Ag-108m	79.20	7.10	1.1006E+001	2.27E-001	-6.0170E+000
	433.93	89.90	2.3592E-001		-9.4293E-002
	614.37	90.40	2.5576E-001		5.3799E-002
	722.95	90.50	2.2668E-001		1.3438E-001
Sb-125	176.33	6.89	4.5277E+000	7.35E-001	2.4610E+000
	427.89	29.33	7.3519E-001		1.1523E-001
	463.38	10.35	2.0773E+000		9.7758E-001
	600.56	17.80	1.1620E+000		-8.4791E-002
	606.64	5.02	4.7234E+000		4.7486E+000
	635.90	11.32	1.7577E+000		1.0809E+000
Cs-134	563.23	8.38	2.4839E+000	2.36E-001	1.4797E+000
	569.32	15.43	1.3155E+000		4.0446E-001
	604.70	97.60	2.4417E-001		-8.4586E-002
	795.84	85.40	2.3619E-001		2.1254E-001
	801.93	8.73	2.2541E+000		-6.1210E-001
Cs-137	661.65	85.12	2.4755E-001	2.48E-001	2.3043E-001
Eu-152	121.78	28.40	1.5408E+000	6.28E-001	4.2805E-001
	244.69	7.49	3.7272E+000		-3.6578E+000
	344.27	26.50	8.2627E-001		-2.6843E+000
	778.89	12.74	1.5404E+000		5.4342E-001
	867.32	4.16	4.4003E+000		-4.5082E+000
	964.01	14.40	1.5979E+000		2.1524E-001
	1085.78	10.00	1.8209E+000		1.7021E-001
	1112.02	13.30	1.4046E+000		-5.4428E-001
	1407.95	20.70	6.2797E-001		2.5160E-001
Eu-154	123.07	40.50	1.0738E+000	4.67E-001	5.9619E-001
	247.94	6.60	4.0816E+000		4.7335E-001
	591.81	4.83	4.2406E+000		5.8510E-001

723.30	19.70	1.0290E+000	1.8412E-001
756.87	4.33	4.4442E+000	-1.2761E+000
873.19	11.50	1.5613E+000	-9.9382E-001

	996.32	10.30	1.6144E+000		-3.7390E-001
	1004.76	17.90	9.3129E-001		-2.2751E-001
	1274.45	35.50	4.6724E-001		-4.1007E-001
Eu-155	86.54	30.90	2.1584E+000	2.16E+000	3.4231E-001
	105.31	20.70	2.4786E+000		2.5895E+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 9/14/2005 12:08:48 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(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-02-01-015-R-G
Description:

Sample Type:
Geometry:

Acquisition Started: 9/14/2005 11:53:46 AM
Live Time: 900.0 seconds
Real Time: 900.7 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev0.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 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-02-01-015-R-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	292.05	72.86	0.89	1.81E+002	48.57	7.54E+002
m	2	286-	305	300.54	74.99	0.89	3.56E+002	58.30	7.66E+002
F	3	334-	345	339.26	84.71	0.98	1.21E+002	49.27	6.83E+002
F	4	947-	961	954.92	239.05	0.93	1.67E+002	34.10	2.13E+002
F	5	1400-	1414	1407.87	352.49	1.05	7.49E+001	23.38	9.58E+001
F	6	2033-	2054	2043.99	511.67	1.86	1.18E+002	24.28	8.48E+001
F	7	2326-	2341	2333.26	584.00	1.10	7.94E+001	21.67	5.76E+001
F	8	2429-	2446	2437.77	610.13	1.33	9.67E+001	23.21	6.26E+001
F	9	3636-	3654	3645.55	911.84	1.80	7.80E+001	19.88	3.57E+001
F	10	3871-	3885	3877.53	969.75	1.29	4.21E+001	17.47	3.95E+001
F	11	4477-	4489	4482.53	1120.74	1.08	2.97E+001	14.41	2.56E+001
F	12	5833-	5862	5846.92	1461.10	1.89	7.32E+002	52.79	1.38E+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
(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-rev0.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/g)	Activity Uncertainty
ANN	0.987	511.00*		100.00	3.44184E-001	8.55744E-002
K-40	0.997	1460.81*		10.67	2.60088E+001	2.82017E+000
TL-208	0.734	277.35		6.80		
		510.84*		21.60	1.59344E+000	4.17002E-001
		583.14*		84.20	2.84389E-001	8.62039E-002
		860.37		12.46		
Pb-212	0.522	74.81*	@	10.70	1.16962E+001	2.98823E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	9.10346E-001	2.34634E-001
Bi-214	0.687	609.31*		46.30	6.36630E-001	1.72158E-001
		1120.29*		15.10	6.98956E-001	3.47568E-001
		1764.49		15.80		
Ac-228	0.627	338.32		11.40		
		911.07*		27.70	9.36488E-001	2.61922E-001
		969.11*		16.60	8.60583E-001	3.68443E-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-rev0.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/g)	Wt mean Activity Uncertainty
ANN		0.987	2.827558E-001	8.755383E-002
K-40		0.997	2.600876E+001	2.820167E+000
TL-208		0.734	2.843895E-001	8.570421E-002
Pb-212	@	0.522	9.103458E-001	2.346337E-001
Bi-214		0.687	6.489090E-001	1.542703E-001
Ac-228		0.627	9.110057E-001	2.134774E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.0090E-001	26.86
F 3	84.71	1.3435E-001	40.75
F 5	352.49	8.3268E-002	31.20

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-rev0.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/g)	Nuclide MDA (pCi/g)	Activity (pCi/g)
Co-60	1173.22	100.00	1.9765E-001	1.64E-001	1.0149E-001
	1332.49	100.00	1.6381E-001		1.0980E-001
Nb-94	702.63	100.00	1.7314E-001	1.68E-001	2.8217E-002
	871.10	100.00	1.6799E-001		-1.1125E-001
Ag-108m	79.20	7.10	9.3006E+000	2.04E-001	-1.7191E+001
	433.93	89.90	2.1499E-001		5.0717E-003
	614.37	90.40	2.5064E-001		3.8109E-002
	722.95	90.50	2.0368E-001		-1.3203E-001
Sb-125	176.33	6.89	3.8480E+000	6.14E-001	-1.2370E+000
	427.89	29.33	6.1359E-001		3.4907E-002
	463.38	10.35	1.9308E+000		1.5607E+000
	600.56	17.80	1.0182E+000		3.2920E-002
	606.64	5.02	4.6785E+000		7.9567E+000
	635.90	11.32	1.5346E+000		4.0840E-002
Cs-134	563.23	8.38	2.1800E+000	2.05E-001	-6.2126E-001
	569.32	15.43	1.2637E+000		-5.4847E-001
	604.70	97.60	2.2882E-001		1.7101E-002
	795.84	85.40	2.0548E-001		1.4563E-001
	801.93	8.73	2.0287E+000		-7.9619E-001
Cs-137	661.65	85.12	2.1770E-001	2.18E-001	-4.1615E-002
Eu-152	121.78	28.40	1.3434E+000	6.16E-001	1.7395E-001
	244.69	7.49	3.4517E+000		9.8395E-001
	344.27	26.50	7.8565E-001		-9.4229E-001
	778.89	12.74	1.3873E+000		-6.9114E-001
	867.32	4.16	4.3572E+000		1.0540E+000
	964.01	14.40	1.4654E+000		2.4373E-001
	1085.78	10.00	1.6839E+000		-2.5284E+000
	1112.02	13.30	1.4037E+000		-7.0244E-001
	1407.95	20.70	6.1642E-001		-8.8749E-002
Eu-154	123.07	40.50	9.2903E-001	4.65E-001	-5.5938E-001
	247.94	6.60	3.6398E+000		-3.7469E+000
	591.81	4.83	3.7019E+000		4.6965E-002
	723.30	19.70	9.4826E-001		-6.3179E-001
	756.87	4.33	3.8379E+000		-2.8243E+000
	873.19	11.50	1.4742E+000		9.5888E-001
	996.32	10.30	1.6750E+000		1.0569E+000
	1004.76	17.90	9.0797E-001		-6.4970E-001
	1274.45	35.50	4.6485E-001		1.1145E-001
Eu-155	86.54	30.90	1.9014E+000	1.90E+000	2.3938E+000
	105.31	20.70	2.1861E+000		9.2290E-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 8/15/2005 8:18:10 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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-016-F-G.CNF
Log Number:
Title: NOL-02-01-016-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/11/2005 1:00:04 PM

Live Time : 900.0 seconds
Real Time : 900.8 seconds

Energy Calibration Date: 6/13/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-016-F-G.CNF
Log Number:
Title: NOL-02-01-016-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	292.16	73.00	1.13	2.98E+002	55.38	9.55E+002
m	2	285-	306	300.60	75.11	1.13	5.27E+002	64.12	1.15E+003
F	3	333-	346	339.41	84.81	1.15	2.31E+002	142.49	9.04E+002
F	4	950-	961	954.71	238.65	1.34	1.49E+002	35.85	2.42E+002
F	5	1177-	1188	1181.98	295.47	1.39	4.29E+001	22.55	1.17E+002
F	6	1400-	1416	1408.24	352.04	1.44	1.02E+002	25.94	1.37E+002
F	7	1848-	1861	1853.91	463.47	1.52	4.44E+001	17.48	4.92E+001
F	8	2038-	2051	2044.68	511.16	2.33	7.19E+001	25.56	1.05E+002
F	9	2323-	2343	2334.61	583.65	1.60	1.62E+002	57.98	7.09E+001
F	10	2433-	2444	2438.57	609.64	1.62	1.02E+002	23.76	4.04E+001
F	11	3070-	3081	3075.65	768.93	1.71	1.81E+001	13.27	2.56E+001
F	12	3638-	3657	3647.11	911.80	1.79	1.18E+002	23.09	3.69E+001
F	13	3870-	3886	3878.33	969.61	1.82	5.01E+001	16.76	2.79E+001
F	14	4690-	4704	4697.07	1174.32	1.91	4.95E+001	99.93	2.83E+001
F	15	5834-	5861	5848.47	1462.19	2.03	8.13E+002	95.68	2.48E+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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-016-F-G.CNF

Log Number:
Title: NOL-02-01-016-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/gm)	Activity Uncertainty
ANN	0.999	511.00*		100.00	2.16748E-001	8.28863E-002
K-40	0.945	1460.81*		10.67	3.00536E+001	4.29295E+000
TL-208	0.747	277.35		6.80		
		510.84*		21.60	1.00346E+000	3.92386E-001
		583.14*		84.20	6.04333E-001	2.30520E-001
		860.37		12.46		
Pb-212	0.525	74.81*	@	10.70	1.78646E+001	4.12083E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	8.35986E-001	2.40426E-001
Bi-214	0.397	609.31*		46.30	7.01027E-001	1.85097E-001
		1120.29		15.10		
		1764.49		15.80		
PB-214	0.587	74.82*	@	6.21	3.07812E+001	7.44360E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	5.86561E-001	3.24048E-001
		351.92*		37.20	7.49639E-001	2.27963E-001
Ac-228	0.627	338.32		11.40		
		911.07*		27.70	1.49200E+000	3.37934E-001
		969.11*		16.60	1.07387E+000	3.76401E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-016-F-G.CNF

Log Number:
Title: NOL-02-01-016-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
ANN		0.999	8.621196E-002	9.659864E-002
K-40		0.945	3.005357E+001	4.292955E+000
TL-208		0.747	6.043329E-001	2.296767E-001
Pb-212	@	0.525	8.359855E-001	2.404257E-001
Bi-214		0.397	7.010269E-001	1.850969E-001
PB-214	@	0.587	6.956519E-001	1.864486E-001
Ac-228		0.627	1.305388E+000	2.514588E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	3.3108E-001	18.59
F 3	84.81	2.5649E-001	61.73
F 7	463.47	4.9293E-002	39.40
F 11	768.93	2.0102E-002	73.36
F 14	1174.32	5.4983E-002	201.93

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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-016-F-G.CNF

Log Number:
Title: NOL-02-01-016-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
Co-60	1173.22	100.00	2.2917E-001	1.79E-001	5.0868E-002
	1332.49	100.00	1.7935E-001		7.6551E-002
Nb-94	702.63	100.00	2.0752E-001	1.98E-001	7.0283E-002
	871.10	100.00	1.9818E-001		-1.2211E-001
Ag-108m	79.20	7.10	1.0820E+001	2.50E-001	-1.1935E+001
	433.93	89.90	2.5005E-001		-1.0805E-001
	614.37	90.40	2.7876E-001		-1.8853E-001
	722.95	90.50	2.4969E-001		2.0452E-001
Sb-125	176.33	6.89	4.6118E+000	7.38E-001	8.3499E-001
	427.89	29.33	7.3809E-001		5.4888E-002
	463.38	10.35	2.2073E+000		1.3814E+000
	600.56	17.80	1.1773E+000		1.8124E-001
	606.64	5.02	5.1335E+000		5.2032E+000
	635.90	11.32	1.7207E+000		-8.0177E-001
Cs-134	563.23	8.38	2.3023E+000	2.22E-001	-2.5500E+000
	569.32	15.43	1.3155E+000		3.4053E-001
	604.70	97.60	2.6153E-001		-2.7746E-001
	795.84	85.40	2.2214E-001		-2.2987E-001
	801.93	8.73	2.2157E+000		-8.9779E-001
Cs-137	661.65	85.12	2.2281E-001	2.23E-001	-1.0716E-001
Eu-152	121.78	28.40	1.5274E+000	6.61E-001	-3.0112E-001
	244.69	7.49	4.0439E+000		1.4866E+000
	344.27	26.50	9.0509E-001		-9.2164E-001
	778.89	12.74	1.4824E+000		-2.4062E+000
	867.32	4.16	4.9997E+000		-1.4536E+000
	964.01	14.40	1.5229E+000		6.2281E-001
	1085.78	10.00	2.0146E+000		5.0021E-001
	1112.02	13.30	1.4604E+000		-8.6147E-001
	1407.95	20.70	6.6058E-001		4.4960E-001
Eu-154	123.07	40.50	1.0529E+000	5.01E-001	-8.9225E-001
	247.94	6.60	4.3068E+000		-3.7114E+000
	591.81	4.83	4.2179E+000		-1.4318E+000

723.30	19.70	1.1583E+000	1.2161E+000
756.87	4.33	4.7976E+000	6.0736E-001
873.19	11.50	1.7062E+000	-9.5447E-001

	996.32	10.30	1.9132E+000		-6.0741E-001
	1004.76	17.90	1.1405E+000		3.1644E-001
	1274.45	35.50	5.0056E-001		-5.8823E-001
Eu-155	86.54	30.90	2.1430E+000	2.14E+000	3.2334E+000
	105.31	20.70	2.4248E+000		-8.0704E-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 9/14/2005 1:11:27 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:
Sample Title: NOL-02-01-016-R-G
Description:

Sample Type:
Geometry:

Acquisition Started: 9/14/2005 12:56:25 PM
Live Time: 900.0 seconds
Real Time: 900.7 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev0.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 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-02-01-016-R-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	291.91	72.83	0.83	1.81E+002	46.41	6.35E+002
m	2	286-	309	300.48	74.98	0.84	4.11E+002	57.81	6.28E+002
F	3	331-	348	340.04	84.90	1.01	1.02E+002	47.43	9.62E+002
F	4	739-	750	744.63	186.35	0.65	4.23E+001	23.98	1.90E+002
F	5	946-	962	955.02	239.07	1.03	1.79E+002	34.06	2.11E+002
F	6	1348-	1360	1354.04	339.01	0.87	3.41E+001	19.09	8.80E+001
F	7	1399-	1415	1407.90	352.50	1.10	8.35E+001	24.12	1.14E+002
F	8	2036-	2053	2043.39	511.52	1.69	8.39E+001	22.49	7.76E+001
F	9	2325-	2341	2333.05	583.95	1.27	9.21E+001	22.46	5.86E+001
F	10	2430-	2446	2437.84	610.15	1.54	9.80E+001	22.73	5.32E+001
F	11	2903-	2915	2909.20	727.94	0.94	2.84E+001	13.76	2.60E+001
F	12	3637-	3686	3645.58	911.85	1.63	8.86E+001	21.20	1.13E+002
F	13	3871-	3884	3876.99	969.62	0.93	3.37E+001	14.55	2.98E+001
F	14	4477-	4490	4482.88	1120.83	1.89	3.73E+001	16.20	2.69E+001
F	15	5327-	5340	5334.56	1333.30	1.65	1.88E+001	10.58	8.08E+000
F	16	5832-	5861	5846.70	1461.05	1.94	6.66E+002	50.13	2.23E+001
F	17	7058-	7071	7065.05	1764.97	2.02	2.89E+001	11.51	3.34E+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
(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-rev0.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/g)	Activity Uncertainty
ANN	0.992	511.00*	100.00	2.44179E-001	7.38667E-002
K-40	0.998	1460.81*	10.67	2.36860E+001	2.61761E+000
TL-208	0.737	277.35	6.80		
		510.84*	21.60	1.13046E+000	3.54218E-001
		583.14*	84.20	3.29741E-001	9.14283E-002
		860.37	12.46		
Bi-212	0.982	727.17*	11.80	7.65116E-001	3.80845E-001
Pb-212	0.521	74.81* @	10.70	1.35224E+001	3.26185E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	9.78191E-001	2.41099E-001
Bi-214	0.984	609.31*	46.30	6.45390E-001	1.69840E-001
		1120.29*	15.10	8.78522E-001	3.93075E-001
		1764.49*	15.80	7.22998E-001	2.96523E-001
Ac-228	0.986	338.32*	11.40	7.85980E-001	4.57350E-001
		911.07*	27.70	1.06466E+000	2.82487E-001
		969.11*	16.60	6.88817E-001	3.06092E-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-rev0.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/g)	Wt mean Activity Uncertainty
ANN		0.992	1.729552E-001	7.642577E-002
K-40		0.998	2.368601E+001	2.617611E+000
TL-208		0.737	3.297411E-001	9.079464E-002
Bi-212		0.982	7.651162E-001	3.808455E-001
Pb-212	@	0.521	9.781910E-001	2.410989E-001
Bi-214		0.984	6.909318E-001	1.379966E-001
Ac-228		0.986	8.737111E-001	1.890309E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.0098E-001	25.66
F 3	84.90	1.1365E-001	46.37
F 4	186.35	4.6951E-002	56.74
F 7	352.50	9.2781E-002	28.89
F 15	1333.30	2.0840E-002	56.41

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

Errors quoted at 1.960 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-rev0.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/g)	Nuclide MDA (pCi/g)	Activity (pCi/g)
Co-60	1173.22	100.00	1.9076E-001	1.52E-001	1.2099E-001
	1332.49	100.00	1.5165E-001		3.3765E-002
Nb-94	702.63	100.00	1.7380E-001	1.67E-001	6.2536E-002
	871.10	100.00	1.6725E-001		-5.0197E-003
Ag-108m	79.20	7.10	9.0823E+000	1.93E-001	-3.0928E+000
	433.93	89.90	2.0729E-001		-5.8435E-002
	614.37	90.40	2.5470E-001		-1.0073E-001
	722.95	90.50	1.9314E-001		8.0690E-002
Sb-125	176.33	6.89	3.9536E+000	6.38E-001	6.7249E-001
	427.89	29.33	6.3786E-001		2.7629E-001
	463.38	10.35	2.0206E+000		1.9196E+000
	600.56	17.80	1.0990E+000		-1.5981E-001
	606.64	5.02	4.8003E+000		4.0299E+000
	635.90	11.32	1.4381E+000		-3.6075E-001
Cs-134	563.23	8.38	2.1534E+000	2.12E-001	3.0363E-001
	569.32	15.43	1.1980E+000		-4.0403E-002
	604.70	97.60	2.4269E-001		-4.5304E-002
	795.84	85.40	2.1173E-001		-1.0066E-002
	801.93	8.73	2.1043E+000		1.6960E+000
Cs-137	661.65	85.12	2.2320E-001	2.23E-001	1.4452E-001
Eu-152	121.78	28.40	1.2814E+000	5.77E-001	-1.4924E+000
	244.69	7.49	3.5232E+000		1.0185E+000
	344.27	26.50	7.6992E-001		-5.9340E-001
	778.89	12.74	1.3063E+000		-5.9064E-001
	867.32	4.16	4.0523E+000		-1.9797E+000
	964.01	14.40	1.4482E+000		7.8277E-001
	1085.78	10.00	1.7007E+000		-1.4369E+000
	1112.02	13.30	1.3862E+000		-1.1750E+000
	1407.95	20.70	5.7725E-001		-5.7551E-002
Eu-154	123.07	40.50	9.0574E-001	4.88E-001	1.9842E-001
	247.94	6.60	3.6058E+000		-3.8726E+000
	591.81	4.83	3.9233E+000		5.3226E-001
	723.30	19.70	8.8067E-001		4.4821E-001
	756.87	4.33	4.0890E+000		3.6368E+000
	873.19	11.50	1.4806E+000		3.8964E-001
	996.32	10.30	1.5976E+000		5.1660E-001
	1004.76	17.90	9.3994E-001		2.7480E-001
	1274.45	35.50	4.8819E-001		-8.7209E-002
Eu-155	86.54	30.90	1.8714E+000	1.87E+000	4.4392E-001
	105.31	20.70	2.1315E+000		-2.9745E-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 8/15/2005 8:19:01 AM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-017-F-G.CNF
Log Number:
Title: NOL-02-01-017-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/11/2005 11:39:12 AM

Live Time : 900.0 seconds
Real Time : 900.9 seconds

Energy Calibration Date: 6/13/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-017-F-G.CNF
Log Number:
Title: NOL-02-01-017-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	291.77	72.90	1.13	2.31E+002	54.21	9.88E+002
m	2	285-	307	300.75	75.14	1.13	5.56E+002	66.04	1.21E+003
F	3	331-	354	339.27	84.78	1.15	2.11E+002	143.47	1.53E+003
F	4	949-	961	955.14	238.76	1.34	2.16E+002	37.95	2.36E+002
F	5	1346-	1364	1353.70	338.41	1.43	5.60E+001	53.35	1.77E+002
F	6	1403-	1416	1408.11	352.01	1.44	7.81E+001	24.01	1.06E+002
F	7	2033-	2056	2044.87	511.21	2.33	1.56E+002	26.49	1.07E+002
F	8	2324-	2344	2333.80	583.45	1.60	1.35E+002	63.88	7.77E+001
F	9	2430-	2447	2438.95	609.74	1.62	1.22E+002	24.85	7.34E+001
F	10	3177-	3189	3183.35	795.85	1.73	2.08E+001	15.22	4.24E+001
F	11	3639-	3656	3646.70	911.70	1.79	1.01E+002	23.35	5.71E+001
F	12	3871-	3885	3879.27	969.85	1.82	4.89E+001	18.23	4.41E+001
F	13	4688-	4706	4696.68	1174.22	1.91	1.03E+002	22.28	3.45E+001
F	14	5323-	5344	5334.27	1333.63	1.98	1.17E+002	39.64	1.08E+001
F	15	5835-	5863	5848.87	1462.29	2.03	8.91E+002	88.04	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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-017-F-G.CNF

Log Number:
Title: NOL-02-01-017-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gm)	Activity Uncertainty
ANN	0.999	511.00*	100.00	4.69897E-001	1.03577E-001
K-40	0.937	1460.81*	10.67	3.29383E+001	4.20740E+000
Co-60	0.966	1173.22*	100.00	3.88862E-001	8.93350E-002
		1332.49*	100.00	4.53877E-001	1.57474E-001
TL-208	0.751	277.35	6.80		
		510.84*	21.60	2.17545E+000	5.11377E-001
		583.14*	84.20	5.04033E-001	2.47331E-001
		860.37	12.46		
Pb-212	0.524	74.81* @	10.70	1.88297E+001	4.31538E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.21354E+000	2.85884E-001
Bi-214	0.395	609.31*	46.30	8.36136E-001	1.99985E-001
		1120.29	15.10		
		1764.49	15.80		
Ac-228	0.989	338.32*	11.40	1.32974E+000	1.28420E+000
		911.07*	27.70	1.26932E+000	3.28596E-001
		969.11*	16.60	1.04866E+000	4.05851E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-017-F-G.CNF

Log Number:
Title: NOL-02-01-017-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
ANN	0.999	3.610259E-001	1.164890E-001
K-40	0.937	3.293826E+001	4.207395E+000
Co-60	0.966	4.046913E-001	7.770227E-002
TL-208	0.751	5.040329E-001	2.467851E-001
Pb-212 @	0.524	1.213544E+000	2.858844E-001
Bi-214	0.395	8.361359E-001	1.999851E-001
Ac-228	0.989	1.187569E+000	2.504794E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.5668E-001	23.47
F 3	84.78	2.3462E-001	67.95
F 6	352.01	8.6799E-002	30.74
F 10	795.85	2.3070E-002	73.28

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

Errors quoted at 1.960 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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-017-F-G.CNF

Log Number:
Title: NOL-02-01-017-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
+	Co-60	1173.22*	100.00	1.4371E-001	9.13E-002	3.8886E-001
		1332.49*	100.00	9.1343E-002		4.5388E-001
	Nb-94	702.63	100.00	2.2626E-001	2.05E-001	3.2660E-002
		871.10	100.00	2.0490E-001		-1.9001E-002
	Ag-108m	79.20	7.10	1.0954E+001	2.64E-001	-1.1046E+000
		433.93	89.90	2.7023E-001		2.8819E-001
		614.37	90.40	3.0133E-001		1.9950E-002
		722.95	90.50	2.6445E-001		9.3768E-002
	Sb-125	176.33	6.89	4.6395E+000	7.57E-001	-4.6287E-002
		427.89	29.33	7.5665E-001		-8.3720E-001
		463.38	10.35	2.3028E+000		1.4249E+000
		600.56	17.80	1.2450E+000		5.5708E-001
		606.64	5.02	5.4139E+000		8.8231E+000
		635.90	11.32	1.8835E+000		1.3045E+000
	Cs-134	563.23	8.38	2.7103E+000	2.67E-001	6.8707E-001
		569.32	15.43	1.3602E+000		-1.6762E+000
		604.70	97.60	2.7391E-001		5.8916E-002
		795.84	85.40	2.6667E-001		7.3857E-002
		801.93	8.73	2.6128E+000		1.5877E+000
	Cs-137	661.65	85.12	2.5546E-001	2.55E-001	1.3890E-001
	Eu-152	121.78	28.40	1.5300E+000	6.61E-001	-5.1952E-002
		244.69	7.49	3.9719E+000		-2.6453E+000
		344.27	26.50	9.2688E-001		7.9338E-002
		778.89	12.74	1.7114E+000		-1.6006E+000
		867.32	4.16	5.3022E+000		2.4076E-001
		964.01	14.40	1.6897E+000		1.6549E+000
		1085.78	10.00	2.1044E+000		2.8160E+000
		1112.02	13.30	1.5600E+000		-5.4266E-003
		1407.95	20.70	6.6058E-001		2.8398E-001
	Eu-154	123.07	40.50	1.0665E+000	5.75E-001	1.0811E-001
		247.94	6.60	4.3743E+000		-1.3473E+000
		591.81	4.83	4.3747E+000		-1.2527E+000

723.30	19.70	1.2097E+000	5.2079E-001
756.87	4.33	4.9918E+000	2.5014E-001
873.19	11.50	1.7711E+000	-5.9362E-001

	996.32	10.30	2.1117E+000		5.4443E-001
	1004.76	17.90	1.2069E+000		1.0843E+000
	1274.45	35.50	5.7502E-001		5.0485E-001
Eu-155	86.54	30.90	2.1309E+000	2.13E+000	4.8942E-001
	105.31	20.70	2.4958E+000		1.0619E+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 9/14/2005 1:32:13 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:
Sample Title: nol-02-01-017-r-g
Description:

Sample Type:
Geometry:

Acquisition Started: 9/14/2005 1:17:10 PM
Live Time: 900.0 seconds
Real Time: 900.7 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev0.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 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-02-01-017-r-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	291.54	72.73	0.85	1.64E+002	45.63	5.11E+002
m	2	288-	306	300.54	74.99	0.86	3.26E+002	57.51	7.05E+002
M	3	334-	354	340.50	85.02	1.06	1.52E+002	45.99	6.34E+002
m	4	334-	354	349.83	87.36	1.06	1.17E+002	43.31	6.13E+002
F	5	949-	964	954.90	239.04	1.00	1.80E+002	33.72	1.97E+002
F	6	1175-	1188	1181.20	295.73	1.28	6.26E+001	22.99	9.88E+001
F	7	1404-	1414	1408.48	352.64	1.14	8.76E+001	24.87	7.48E+001
F	8	2034-	2054	2043.42	511.52	1.86	1.07E+002	24.53	9.98E+001
F	9	2326-	2341	2333.37	584.03	1.24	9.41E+001	23.49	6.53E+001
F	10	2430-	2445	2437.66	610.10	1.15	8.56E+001	21.66	4.96E+001
F	11	3638-	3654	3645.98	911.95	1.83	9.53E+001	20.40	1.94E+001
F	12	3870-	3886	3877.90	969.85	1.46	5.00E+001	16.34	2.11E+001
F	13	4477-	4490	4483.91	1121.09	1.26	2.85E+001	15.68	3.67E+001
F	14	5834-	5860	5846.76	1461.06	1.86	6.75E+002	50.60	1.75E+001
F	15	7057-	7070	7063.77	1764.65	1.12	2.15E+001	11.54	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-rev0.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/g)	Activity Uncertainty
ANN	0.992	511.00*	100.00	3.10483E-001	8.36170E-002
K-40	0.998	1460.81*	10.67	2.39878E+001	2.64684E+000
Eu-155	0.321	86.54*	30.90	1.08909E+000	4.56301E-001
		105.31	20.70		
TL-208	0.735	277.35	6.80		
		510.84*	21.60	1.43742E+000	4.04523E-001
		583.14*	84.20	3.36953E-001	9.51319E-002
		860.37	12.46		
Pb-212	0.676	74.81* @	10.70	1.07112E+001	2.82552E+000
		77.11 @	18.00		
		87.30* @	8.00	4.20662E+000	1.76246E+000
		238.63*	44.60	9.85780E-001	2.40429E-001
Bi-214	0.985	609.31*	46.30	5.63602E-001	1.58931E-001
		1120.29*	15.10	6.72120E-001	3.76306E-001
		1764.49*	15.80	5.37450E-001	2.93368E-001
PB-214	0.665	74.82* @	6.21	1.84557E+001	5.04942E+000
		77.11 @	10.50		
		87.30* @	4.67	7.20620E+000	3.06790E+000
		241.98	7.49		
		295.21*	19.20	8.31926E-001	3.36161E-001
		351.92*	37.20	6.25029E-001	2.05876E-001
Ac-228	0.623	338.32	11.40		
		911.07*	27.70	1.14501E+000	2.78072E-001
		969.11*	16.60	1.02177E+000	3.50769E-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-rev0.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/g)	Wt mean Activity Uncertainty
ANN		0.992	2.377009E-001	8.607212E-002
K-40		0.998	2.398779E+001	2.646839E+000
Eu-155		0.321	7.309332E-001	4.612689E-001
TL-208		0.735	3.369527E-001	9.449600E-002
Pb-212	@	0.676	9.857800E-001	2.404293E-001
Bi-214		0.985	5.715387E-001	1.310007E-001
PB-214	@	0.665	6.811275E-001	1.730207E-001
Ac-228		0.623	1.097445E+000	2.179062E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	1.8185E-001	27.88
M 3	85.02	1.6904E-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-rev0.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/g)	Nuclide MDA (pCi/g)	Activity (pCi/g)
	Co-60	1173.22	100.00	1.9915E-001	1.54E-001	8.4895E-002
		1332.49	100.00	1.5375E-001		1.1756E-001
	Nb-94	702.63	100.00	1.7051E-001	1.67E-001	-5.2704E-003
		871.10	100.00	1.6651E-001		-2.8043E-002
	Ag-108m	79.20	7.10	9.3681E+000	2.18E-001	-2.6359E+000
		433.93	89.90	2.1799E-001		8.0611E-002
		614.37	90.40	2.4390E-001		-7.1318E-003
		722.95	90.50	2.2445E-001		2.2329E-001
	Sb-125	176.33	6.89	3.7362E+000	6.30E-001	-2.5608E+000
		427.89	29.33	6.2988E-001		-7.5018E-002
		463.38	10.35	1.8684E+000		4.7891E-001
		600.56	17.80	1.0182E+000		2.6427E-001
		606.64	5.02	4.5261E+000		4.7592E+000
		635.90	11.32	1.5456E+000		-1.4586E-001
	Cs-134	563.23	8.38	2.1734E+000	2.05E-001	3.7317E-001
		569.32	15.43	1.1545E+000		3.5356E-002
		604.70	97.60	2.2786E-001		1.1082E-001
		795.84	85.40	2.0548E-001		-1.1596E-001
		801.93	8.73	2.0132E+000		-1.0933E+000
	Cs-137	661.65	85.12	2.2989E-001	2.30E-001	3.5096E-001
	Eu-152	121.78	28.40	1.3111E+000	6.16E-001	6.6742E-001
		244.69	7.49	3.4517E+000		1.0249E+000
		344.27	26.50	8.2295E-001		-5.1827E-001
		778.89	12.74	1.4081E+000		-8.2854E-002
		867.32	4.16	3.8535E+000		-3.7281E+000
		964.01	14.40	1.4264E+000		1.6467E-001
		1085.78	10.00	1.6583E+000		-3.9279E-001
		1112.02	13.30	1.2369E+000		-1.3447E+000
		1407.95	20.70	6.1642E-001		3.6348E-002
	Eu-154	123.07	40.50	9.0125E-001	4.51E-001	-3.6624E-001
		247.94	6.60	3.6525E+000		-6.3321E-001
		591.81	4.83	3.5295E+000		-3.2694E+000
		723.30	19.70	1.0255E+000		5.2918E-001
		756.87	4.33	3.9498E+000		-1.1636E+000
		873.19	11.50	1.4159E+000		-5.9259E-001
		996.32	10.30	1.4384E+000		-1.9015E+000
		1004.76	17.90	9.3092E-001		6.2164E-001
		1274.45	35.50	4.5132E-001		5.9611E-002
+	Eu-155	86.54*	30.90	1.0976E+000	1.10E+000	1.0891E+000
		105.31	20.70	2.1204E+000		1.2788E-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 8/15/2005 8:19:37 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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-018-F-G.CNF
Log Number:
Title: NOL-02-01-018-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/11/2005 10:41:30 AM

Live Time : 900.0 seconds
Real Time : 900.9 seconds

Energy Calibration Date: 6/13/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-018-F-G.CNF
Log Number:
Title: NOL-02-01-018-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	292.25	73.02	1.13	2.93E+002	153.39	1.05E+003
m	2	282-	305	300.46	75.07	1.13	5.29E+002	236.96	9.97E+002
F	3	330-	345	339.51	84.84	1.15	1.47E+002	136.87	1.08E+003
F	4	949-	960	955.23	238.78	1.34	2.51E+002	39.34	2.09E+002
F	5	1349-	1359	1353.76	338.42	1.43	4.42E+001	44.60	1.10E+002
F	6	1404-	1414	1409.34	352.32	1.44	9.61E+001	27.77	1.17E+002
F	7	2325-	2346	2334.61	583.65	1.60	1.29E+002	25.62	9.49E+001
F	8	2427-	2448	2438.92	609.73	1.62	1.34E+002	76.64	6.57E+001
F	9	3641-	3656	3647.63	911.94	1.79	8.94E+001	23.63	5.94E+001
F	10	3869-	3887	3879.02	969.79	1.82	6.34E+001	20.01	6.40E+001
F	11	4479-	4493	4486.76	1121.73	1.89	3.66E+001	16.35	3.68E+001
F	12	4691-	4707	4698.55	1174.69	1.91	6.87E+001	19.80	3.60E+001
F	13	5327-	5344	5335.01	1333.81	1.98	8.32E+001	20.85	2.98E+001
F	14	5835-	5863	5849.72	1462.50	2.03	9.16E+002	88.86	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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-018-F-G.CNF

Log Number:
Title: NOL-02-01-018-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gm)	Activity Uncertainty
K-40	0.918	1460.81*	10.67	3.38471E+001	4.27784E+000
Co-60	0.943	1173.22*	100.00	2.59112E-001	7.73579E-002
		1332.49*	100.00	3.21930E-001	8.45638E-002
TL-208	0.467	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	4.79668E-001	1.14680E-001
		860.37	12.46		
Pb-212	0.524	74.81* @	10.70	1.79434E+001	8.77019E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.40971E+000	3.12708E-001
Bi-214	0.685	609.31*	46.30	9.19928E-001	5.38961E-001
		1120.29*	15.10	9.00631E-001	4.13609E-001
		1764.49	15.80		
Ac-228	0.985	338.32*	11.40	1.04936E+000	1.07206E+000
		911.07*	27.70	1.12716E+000	3.24854E-001
		969.11*	16.60	1.35834E+000	4.51765E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-018-F-G.CNF

Log Number:
Title: NOL-02-01-018-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
K-40	0.918	3.384713E+001	4.277838E+000
Co-60	0.943	2.877309E-001	5.707810E-002
TL-208	0.467	4.796683E-001	1.146798E-001
Pb-212 @	0.524	1.409707E+000	3.127081E-001
Bi-214	0.685	9.077834E-001	3.281234E-001
Ac-228	0.985	1.197019E+000	2.561089E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	3.2590E-001	52.30
F 3	84.84	1.6319E-001	93.19
F 6	352.32	1.0677E-001	28.90

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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-018-F-G.CNF

Log Number:
Title: NOL-02-01-018-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
+	Co-60	1173.22*	100.00	1.4210E-001	1.35E-001	2.5911E-001
		1332.49*	100.00	1.3536E-001		3.2193E-001
	Nb-94	702.63	100.00	2.2572E-001	2.00E-001	1.1185E-001
		871.10	100.00	1.9954E-001		-9.3526E-003
	Ag-108m	79.20	7.10	1.0950E+001	2.40E-001	-1.7225E+001
		433.93	89.90	2.6383E-001		1.3904E-002
		614.37	90.40	2.9385E-001		-8.9796E-002
		722.95	90.50	2.3975E-001		1.0998E-001
	Sb-125	176.33	6.89	4.5107E+000	7.76E-001	-2.4402E+000
		427.89	29.33	7.7613E-001		-1.2292E-001
		463.38	10.35	2.2833E+000		1.8101E-001
		600.56	17.80	1.1893E+000		5.6945E-001
		606.64	5.02	5.2714E+000		4.4430E+000
		635.90	11.32	1.8639E+000		-6.1863E-002
	Cs-134	563.23	8.38	2.6874E+000	2.56E-001	2.4795E-001
		569.32	15.43	1.4262E+000		-7.2243E-001
		604.70	97.60	2.6911E-001		7.1543E-002
		795.84	85.40	2.5647E-001		-1.0553E-001
		801.93	8.73	2.6063E+000		-1.1585E+000
	Cs-137	661.65	85.12	2.5611E-001	2.56E-001	1.6742E-001
	Eu-152	121.78	28.40	1.5434E+000	7.33E-001	2.0589E-001
		244.69	7.49	3.9971E+000		-9.5118E+000
		344.27	26.50	9.0509E-001		-9.1326E-001
		778.89	12.74	1.5507E+000		-1.5484E+000
		867.32	4.16	5.0153E+000		8.3417E-001
		964.01	14.40	1.7651E+000		2.7132E-001
		1085.78	10.00	1.9837E+000		-1.0123E-001
		1112.02	13.30	1.5372E+000		-9.2985E-001
		1407.95	20.70	7.3252E-001		7.1360E-001
	Eu-154	123.07	40.50	1.0702E+000	5.03E-001	-1.5548E-002
		247.94	6.60	4.4700E+000		-1.1181E+000
		591.81	4.83	4.2179E+000		-1.8572E+000

723.30	19.70	1.1073E+000	1.3575E-001
756.87	4.33	4.9096E+000	8.5392E-001
873.19	11.50	1.8168E+000	1.1444E+000

	996.32	10.30	2.0723E+000		9.1189E-001
	1004.76	17.90	1.0869E+000		-3.5049E-001
	1274.45	35.50	5.0323E-001		9.2579E-002
Eu-155	86.54	30.90	2.1517E+000	2.15E+000	-2.0539E-003
	105.31	20.70	2.4757E+000		-1.4208E-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 9/14/2005 1:49:34 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:
Sample Title: NOL-02-01-018-R-G
Description:

Sample Type:
Geometry:

Acquisition Started: 9/14/2005 1:34:31 PM
Live Time: 900.0 seconds
Real Time: 900.7 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev0.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 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-02-01-018-R-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-	317	292.00	72.85	0.87	2.10E+002	47.56	6.55E+002
m	2	285-	317	300.68	75.03	0.87	4.25E+002	56.92	5.73E+002
m	3	285-	317	309.81	77.32	0.88	1.17E+002	40.79	5.95E+002
F	4	330-	343	339.80	84.84	0.99	1.61E+002	48.97	7.10E+002
F	5	950-	959	954.82	239.02	0.91	1.71E+002	33.32	1.26E+002
F	6	1176-	1186	1181.21	295.74	0.93	4.38E+001	21.89	9.24E+001
F	7	1346-	1359	1353.68	338.92	1.09	5.36E+001	21.66	9.12E+001
F	8	1403-	1415	1407.54	352.41	1.08	9.90E+001	24.60	7.34E+001
F	9	2036-	2055	2043.70	511.59	2.17	1.35E+002	25.60	7.63E+001
F	10	2327-	2341	2332.63	583.84	1.17	9.48E+001	22.76	4.81E+001
F	11	2429-	2445	2437.57	610.08	1.45	8.41E+001	21.62	5.62E+001
F	12	3639-	3653	3645.39	911.80	1.13	8.77E+001	21.17	3.42E+001
F	13	3869-	3884	3877.20	969.67	1.21	3.94E+001	16.42	3.60E+001
F	14	4477-	4489	4482.52	1120.74	0.93	2.23E+001	12.33	2.11E+001
F	15	5833-	5859	5846.54	1461.01	1.93	7.38E+002	52.93	1.69E+001
F	16	7056-	7069	7062.56	1764.34	1.55	2.30E+001	11.26	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
(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-rev0.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/g)	Activity Uncertainty
ANN	0.989	511.00*		100.00	3.91633E-001	9.25497E-002
K-40	0.999	1460.81*		10.67	2.62229E+001	2.83643E+000
TL-208	0.740	277.35		6.80		
		510.84*		21.60	1.81312E+000	4.53335E-001
		583.14*		84.20	3.39143E-001	9.29693E-002
		860.37		12.46		
Pb-212	0.842	74.81*	@	10.70	1.39730E+001	3.31653E+000
		77.11*	@	18.00	2.18916E+000	8.77746E-001
		87.30	@	8.00		
		238.63*		44.60	9.31273E-001	2.33335E-001
Bi-214	0.988	609.31*		46.30	5.53922E-001	1.58144E-001
		1120.29*		15.10	5.26110E-001	2.95927E-001
		1764.49*		15.80	5.75140E-001	2.87322E-001
PB-214	0.760	74.82*	@	6.21	2.40758E+001	5.97577E+000
		77.11*	@	10.50	3.75284E+000	1.53058E+000
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	5.82571E-001	3.07097E-001
		351.92*		37.20	7.05770E-001	2.11415E-001
Ac-228	0.987	338.32*		11.40	1.23595E+000	5.36049E-001
		911.07*		27.70	1.05317E+000	2.81625E-001
		969.11*		16.60	8.06433E-001	3.46131E-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-rev0.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/g)	Wt mean Activity Uncertainty
ANN		0.989	3.183785E-001	9.467317E-002
K-40		0.999	2.622288E+001	2.836435E+000
TL-208		0.740	3.391426E-001	9.231002E-002
Pb-212	@	0.842	9.312730E-001	2.333347E-001
Bi-214		0.988	5.529685E-001	1.254744E-001
PB-214	@	0.760	6.661561E-001	1.741389E-001
Ac-228		0.987	9.949196E-001	2.022979E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.3367E-001	22.61
F 4	84.84	1.7932E-001	30.34

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
(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-rev0.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/g)	Nuclide MDA (pCi/g)	Activity (pCi/g)
Co-60	1173.22	100.00	2.0860E-001	1.76E-001	3.5149E-002
	1332.49	100.00	1.7598E-001		2.0479E-001
Nb-94	702.63	100.00	1.9228E-001	1.63E-001	5.4456E-002
	871.10	100.00	1.6275E-001		1.0141E-001
Ag-108m	79.20	7.10	9.1540E+000	2.00E-001	5.4332E-001
	433.93	89.90	2.0091E-001		-1.0749E-001
	614.37	90.40	2.4178E-001		-3.5155E-002
	722.95	90.50	1.9953E-001		-1.4011E-001
Sb-125	176.33	6.89	3.9871E+000	6.30E-001	-1.6435E+000
	427.89	29.33	6.2988E-001		5.3404E-003
	463.38	10.35	2.0578E+000		2.7382E+000
	600.56	17.80	9.9520E-001		-7.7873E-001
	606.64	5.02	4.4617E+000		5.2301E+000
	635.90	11.32	1.6559E+000		1.1749E+000
Cs-134	563.23	8.38	2.1931E+000	2.16E-001	2.5384E-002
	569.32	15.43	1.1015E+000		-2.6230E-002
	604.70	97.60	2.2350E-001		-7.4304E-002
	795.84	85.40	2.1630E-001		8.9891E-002
	801.93	8.73	1.9338E+000		-8.3818E-001
Cs-137	661.65	85.12	2.2184E-001	2.22E-001	-7.7223E-002
Eu-152	121.78	28.40	1.3105E+000	6.29E-001	-9.4335E-001
	244.69	7.49	3.3787E+000		-8.3567E+000
	344.27	26.50	8.1482E-001		-3.2236E-002
	778.89	12.74	1.2666E+000		-9.1323E-001
	867.32	4.16	3.9813E+000		-1.3031E+000
	964.01	14.40	1.4781E+000		8.6821E-001
	1085.78	10.00	1.5790E+000		-6.8756E-001
	1112.02	13.30	1.3013E+000		2.4626E-001
	1407.95	20.70	6.2889E-001		9.2803E-002
Eu-154	123.07	40.50	9.1101E-001	4.78E-001	-4.2945E-001
	247.94	6.60	3.6143E+000		6.8815E-001
	591.81	4.83	3.7259E+000		8.7667E-001
	723.30	19.70	9.1351E-001		-6.7529E-001
	756.87	4.33	3.9182E+000		-3.1368E-001
	873.19	11.50	1.3409E+000		-5.4154E-001
	996.32	10.30	1.7196E+000		1.0737E-001
	1004.76	17.90	9.9645E-001		-2.7874E-001
	1274.45	35.50	4.7796E-001		3.8448E-001
Eu-155	86.54	30.90	1.9071E+000	1.91E+000	-8.5289E-001
	105.31	20.70	2.1173E+000		1.1815E+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 8/15/2005 8:20:13 AM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-019-F-G.CNF
Log Number:
Title: NOL-02-01-019-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/11/2005 2:19:42 PM

Live Time : 900.0 seconds
Real Time : 900.9 seconds

Energy Calibration Date: 6/13/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-019-F-G.CNF
Log Number:
Title: NOL-02-01-019-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-	313	291.82	72.91	1.13	3.74E+002	57.17	7.16E+002
m	2	288-	313	300.40	75.06	1.13	6.64E+002	64.70	1.11E+003
m	3	288-	313	308.71	77.14	1.14	8.38E+001	46.32	9.13E+002
F	4	332-	348	339.84	84.92	1.15	2.06E+002	52.84	1.19E+003
F	5	948-	961	955.25	238.78	1.34	1.96E+002	35.07	2.14E+002
F	6	1347-	1359	1354.04	338.49	1.43	8.07E+001	23.13	8.77E+001
F	7	1403-	1415	1408.73	352.16	1.44	8.44E+001	24.38	9.16E+001
F	8	2032-	2057	2044.85	511.21	2.33	1.47E+002	69.59	1.01E+002
F	9	2326-	2342	2333.65	583.41	1.60	1.15E+002	24.56	6.71E+001
F	10	2429-	2444	2437.90	609.48	1.62	7.47E+001	53.21	4.56E+001
F	11	2640-	2655	2647.83	661.96	1.65	6.51E+001	18.78	4.09E+001
F	12	3637-	3656	3647.10	911.80	1.79	1.13E+002	47.64	3.50E+001
F	13	4478-	4491	4484.82	1121.25	1.89	2.12E+001	14.78	3.50E+001
F	14	4689-	4705	4697.31	1174.38	1.91	5.13E+001	16.98	2.05E+001
F	15	5325-	5343	5334.73	1333.74	1.98	6.75E+001	18.19	2.14E+001
F	16	5835-	5862	5848.61	1462.23	2.03	7.12E+002	51.92	2.41E+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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-019-F-G.CNF

Log Number:
Title: NOL-02-01-019-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gm)	Activity Uncertainty
ANN	0.999	511.00*	100.00	4.44776E-001	2.18988E-001
K-40	0.942	1460.81*	10.67	2.63178E+001	2.86750E+000
Co-60	0.957	1173.22*	100.00	1.93366E-001	6.57559E-002
		1332.49*	100.00	2.61143E-001	7.33091E-002
Cs-137	0.997	661.65*	85.12	2.49550E-001	7.77351E-002
TL-208	0.751	277.35	6.80		
		510.84*	21.60	2.05915E+000	1.02769E+000
		583.14*	84.20	4.29437E-001	1.07748E-001
		860.37	12.46		
Pb-212	0.845	74.81* @	10.70	2.25206E+001	4.92945E+000
		77.11* @	18.00	1.62920E+000	9.55327E-001
		87.30 @	8.00		
		238.63*	44.60	1.10228E+000	2.62198E-001
Bi-214	0.694	609.31*	46.30	5.13629E-001	3.71179E-001
		1120.29*	15.10	5.21952E-001	3.68085E-001
		1764.49	15.80		
PB-214	0.390	74.82* @	6.21	3.88037E+001	8.94849E+000
		77.11* @	10.50	2.79291E+000	1.65093E+000
		87.30 @	4.67		
		241.98	7.49		
		295.21	19.20		
		351.92*	37.20	6.19947E-001	2.06876E-001
Ac-228	0.531	338.32*	11.40	1.91796E+000	6.26304E-001
		911.07*	27.70	1.42373E+000	6.22584E-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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-019-F-G.CNF

Log Number:
Title: NOL-02-01-019-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
ANN		0.999	3.520170E-001	2.202007E-001
K-40		0.942	2.631784E+001	2.867501E+000
Co-60		0.957	2.235838E-001	4.894969E-002
Cs-137		0.997	2.495497E-001	7.773505E-002
TL-208		0.751	4.294372E-001	1.068350E-001
Pb-212	@	0.845	1.102277E+000	2.621976E-001
Bi-214		0.694	5.178253E-001	2.613626E-001
PB-214	@	0.390	6.199467E-001	2.038699E-001
Ac-228		0.531	1.669374E+000	4.415429E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	4.1514E-001	15.30
F 4	84.92	2.2926E-001	25.61

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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-019-F-G.CNF

Log Number:
Title: NOL-02-01-019-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
+	Co-60	1173.22*	100.00	1.0935E-001	1.09E-001	1.9337E-001
		1332.49*	100.00	1.1858E-001		2.6114E-001
	Nb-94	702.63	100.00	1.9840E-001	1.84E-001	-6.9793E-002
		871.10	100.00	1.8396E-001		1.6386E-001
	Ag-108m	79.20	7.10	1.0897E+001	2.32E-001	-1.0443E+000
		433.93	89.90	2.3150E-001		-1.7417E-002
		614.37	90.40	2.6594E-001		-1.6709E-001
		722.95	90.50	2.4477E-001		1.4276E-001
	Sb-125	176.33	6.89	4.6090E+000	7.06E-001	-8.9540E-001
		427.89	29.33	7.0552E-001		-1.9105E-001
		463.38	10.35	2.1286E+000		-1.4539E-001
		600.56	17.80	1.1212E+000		9.8644E-001
		606.64	5.02	4.7139E+000		8.8677E+000
		635.90	11.32	1.8980E+000		-3.0019E-001
	Cs-134	563.23	8.38	2.3425E+000	2.30E-001	2.0756E+000
		569.32	15.43	1.2763E+000		-5.6374E-001
		604.70	97.60	2.3777E-001		-3.1169E-002
		795.84	85.40	2.3006E-001		1.0423E-001
		801.93	8.73	2.2617E+000		1.5235E+000
+	Cs-137	661.65*	85.12	1.5044E-001	1.50E-001	2.4955E-001
	Eu-152	121.78	28.40	1.5085E+000	6.85E-001	4.8833E-001
		244.69	7.49	3.7807E+000		-2.3760E+000
		344.27	26.50	8.9333E-001		-7.8319E-001
		778.89	12.74	1.5300E+000		1.3444E+000
		867.32	4.16	4.3283E+000		-3.6866E+000
		964.01	14.40	1.6107E+000		2.0271E+000
		1085.78	10.00	1.9523E+000		2.3287E+000
		1112.02	13.30	1.4482E+000		2.3248E-001
		1407.95	20.70	6.8547E-001		4.3537E-001
	Eu-154	123.07	40.50	1.0410E+000	5.14E-001	-6.6190E-002
		247.94	6.60	4.1015E+000		-2.1860E+000
		591.81	4.83	4.0785E+000		4.1001E-001

723.30	19.70	1.1331E+000	1.2614E+000
756.87	4.33	4.6829E+000	-5.3893E+000
873.19	11.50	1.5875E+000	-3.4993E-001

	996.32	10.30	1.7626E+000		4.5769E-001
	1004.76	17.90	9.9847E-001		-1.0123E+000
	1274.45	35.50	5.1376E-001		-8.0643E-002
Eu-155	86.54	30.90	2.1813E+000	2.18E+000	2.7791E+000
	105.31	20.70	2.4042E+000		-3.3460E+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 9/14/2005 2:08:05 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(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-02-01-019-r-g
Description:

Sample Type:
Geometry:

Acquisition Started: 9/14/2005 1:53:02 PM
Live Time: 900.0 seconds
Real Time: 900.7 seconds

Energy Calibration Date: 4/11/2005
Eff Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev0.NLB

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 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-02-01-019-r-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	291.55	72.74	0.90	1.95E+002	46.44	6.27E+002
m	2	282-	306	300.46	74.97	0.90	3.70E+002	57.13	6.79E+002
F	3	332-	345	339.54	84.78	1.45	2.17E+002	52.16	7.16E+002
F	4	944-	960	954.63	238.98	1.08	1.42E+002	31.72	1.98E+002
F	5	1176-	1189	1181.61	295.84	0.93	5.34E+001	22.87	1.22E+002
F	6	1403-	1415	1408.54	352.66	1.23	1.16E+002	26.53	7.94E+001
F	7	2032-	2054	2043.78	511.61	1.80	1.17E+002	24.99	1.00E+002
F	8	2324-	2344	2333.10	583.96	1.56	1.06E+002	22.71	5.54E+001
F	9	2428-	2446	2437.03	609.94	1.33	9.42E+001	21.93	5.10E+001
F	10	2638-	2652	2645.18	661.97	1.21	3.63E+001	16.04	3.75E+001
F	11	2902-	2915	2908.82	727.85	1.49	3.98E+001	15.20	2.24E+001
F	12	3638-	3655	3645.35	911.79	1.61	8.36E+001	21.18	4.08E+001
F	13	3868-	3886	3876.83	969.58	1.98	6.72E+001	18.04	2.53E+001
F	14	4688-	4701	4695.09	1173.78	1.03	2.07E+001	13.21	3.06E+001
F	15	5833-	5859	5846.50	1461.00	1.90	7.53E+002	53.54	2.35E+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
(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-rev0.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/g)	Activity Uncertainty
ANN	0.989	511.00*	100.00	3.40906E-001	8.70243E-002
K-40	0.999	1460.81*	10.67	2.67688E+001	2.88396E+000
Cs-137	0.997	661.65*	85.12	1.32906E-001	6.07557E-002
TL-208	0.736	277.35	6.80		
		510.84*	21.60	1.57827E+000	4.23006E-001
		583.14*	84.20	3.79514E-001	9.55288E-002
		860.37	12.46		
Bi-212	0.986	727.17*	11.80	1.06968E+000	4.27849E-001
Pb-212	0.522	74.81* @	10.70	1.21615E+001	3.03534E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	7.75575E-001	2.11646E-001
Bi-214	0.392	609.31*	46.30	6.20050E-001	1.63735E-001
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.578	74.82* @	6.21	2.09546E+001	5.44669E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	7.10226E-001	3.26775E-001
		351.92*	37.20	8.30554E-001	2.34699E-001
Ac-228	0.630	338.32	11.40		
		911.07*	27.70	1.00385E+000	2.79327E-001
		969.11*	16.60	1.37410E+000	3.95837E-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-rev0.NLB

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/g)	Wt mean Activity Uncertainty
ANN		0.989	2.589308E-001	8.939724E-002
K-40		0.999	2.676881E+001	2.883963E+000
Cs-137		0.997	1.329063E-001	6.075567E-002
TL-208		0.736	3.795141E-001	9.472481E-002
Bi-212		0.986	1.069677E+000	4.278486E-001
Pb-212	@	0.522	7.755748E-001	2.116458E-001
Bi-214		0.392	6.200505E-001	1.637350E-001
PB-214	@	0.578	7.896062E-001	1.906265E-001
Ac-228		0.630	1.126927E+000	2.282250E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.1668E-001	23.81
F 3	84.78	2.4156E-001	23.99
F 14	1173.78	2.3008E-002	63.82

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:BLUE6279
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev0.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/g)	Nuclide MDA (pCi/g)	Activity (pCi/g)
	Co-60	1173.22	100.00	2.0860E-001	1.68E-001	1.3186E-001
		1332.49	100.00	1.6765E-001		1.8673E-001
	Nb-94	702.63	100.00	1.8874E-001	1.81E-001	1.0754E-001
		871.10	100.00	1.8074E-001		1.8252E-001
	Ag-108m	79.20	7.10	8.9058E+000	2.08E-001	-6.8664E+000
		433.93	89.90	2.2046E-001		1.4369E-001
		614.37	90.40	2.4962E-001		6.1578E-002
		722.95	90.50	2.0841E-001		3.6899E-002
	Sb-125	176.33	6.89	3.7749E+000	6.70E-001	-1.9880E+000
		427.89	29.33	6.7031E-001		-2.7840E-001
		463.38	10.35	1.9395E+000		7.5353E-001
		600.56	17.80	9.6485E-001		6.3548E-001
		606.64	5.02	4.3964E+000		3.8000E+000
		635.90	11.32	1.4672E+000		-3.9850E-001
	Cs-134	563.23	8.38	2.2577E+000	2.16E-001	-1.7774E+000
		569.32	15.43	1.2192E+000		5.0080E-001
		604.70	97.60	2.2302E-001		-6.2783E-002
		795.84	85.40	2.1554E-001		-1.1768E-001
		801.93	8.73	2.0364E+000		-1.7794E+000
+	Cs-137	661.65*	85.12	1.3498E-001	1.35E-001	1.3291E-001
	Eu-152	121.78	28.40	1.3076E+000	5.42E-001	8.8270E-001
		244.69	7.49	3.3858E+000		-1.0480E+000
		344.27	26.50	8.1072E-001		-2.4118E+000
		778.89	12.74	1.3448E+000		-2.8069E-001
		867.32	4.16	4.1566E+000		-7.4494E+000
		964.01	14.40	1.4992E+000		-2.2478E-001
		1085.78	10.00	1.7662E+000		5.2078E-001
		1112.02	13.30	1.4436E+000		-1.7404E+000
		1407.95	20.70	5.4224E-001		-4.3992E-001
	Eu-154	123.07	40.50	9.0452E-001	4.11E-001	2.4987E-001
		247.94	6.60	3.6567E+000		-2.2560E+000
		591.81	4.83	3.5041E+000		2.9785E+000
		723.30	19.70	9.6969E-001		9.5048E-001
		756.87	4.33	4.0123E+000		6.2874E-001
		873.19	11.50	1.5484E+000		-1.5743E-001
		996.32	10.30	1.6445E+000		1.0652E+000
		1004.76	17.90	9.7943E-001		-4.7449E-001
		1274.45	35.50	4.1091E-001		-2.7127E-001
	Eu-155	86.54	30.90	1.8824E+000	1.88E+000	3.5036E+000
		105.31	20.70	2.1117E+000		-9.5657E-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 8/15/2005 8:21:28 AM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-020-F-G.CNF
Log Number:
Title: NOL-02-01-020-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/11/2005 2:39:28 PM

Live Time : 900.0 seconds
Real Time : 900.8 seconds

Energy Calibration Date: 6/13/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-020-F-G.CNF
Log Number:
Title: NOL-02-01-020-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-	307	292.30	73.03	1.13	3.18E+002	677.20	1.10E+003
m	2	283-	307	300.43	75.07	1.13	6.01E+002	1243.08	1.45E+003
F	3	332-	355	339.39	84.81	1.15	2.14E+002	210.04	1.54E+003
F	4	951-	961	955.10	238.75	1.34	1.56E+002	36.15	2.19E+002
F	5	1172-	1186	1180.86	295.19	1.39	5.86E+001	47.11	1.48E+002
F	6	1346-	1360	1354.38	338.58	1.43	5.74E+001	55.04	9.69E+001
F	7	1398-	1415	1407.44	351.84	1.44	6.58E+001	23.29	1.53E+002
F	8	2325-	2342	2333.58	583.39	1.60	1.15E+002	25.98	9.79E+001
F	9	2431-	2446	2438.38	609.60	1.62	9.00E+001	22.17	5.66E+001
F	10	3438-	3451	3444.40	861.12	1.76	2.70E+001	14.24	2.59E+001
F	11	3636-	3656	3646.52	911.66	1.79	1.15E+002	46.46	2.85E+001
F	12	3868-	3886	3878.33	969.61	1.82	4.16E+001	16.56	4.31E+001
F	13	5326-	5340	5333.98	1333.56	1.98	3.44E+001	14.33	1.68E+001
F	14	5833-	5861	5848.03	1462.08	2.03	7.86E+002	90.36	3.25E+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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-020-F-G.CNF

Log Number:
Title: NOL-02-01-020-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gm)	Activity Uncertainty
K-40	0.953	1460.81*	10.67	2.90672E+001	4.08592E+000
TL-208	0.621	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	4.29808E-001	1.12304E-001
		860.37*	12.46	7.47871E-001	4.04330E-001
Pb-212	0.524	74.81* @	10.70	2.03906E+001	4.23429E+001
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	8.77781E-001	2.45464E-001
Bi-214	0.397	609.31*	46.30	6.18534E-001	1.70688E-001
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.588	74.82* @	6.21	3.51336E+001	7.30025E+001
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	8.01378E-001	6.58718E-001
		351.92*	37.20	4.83075E-001	1.89124E-001
Ac-228	0.992	338.32*	11.40	1.36421E+000	1.32473E+000
		911.07*	27.70	1.44836E+000	6.08980E-001
		969.11*	16.60	8.91963E-001	3.67049E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-020-F-G.CNF

Log Number:
Title: NOL-02-01-020-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
K-40	0.953	2.906720E+001	4.085920E+000
TL-208	0.621	4.525878E-001	1.082078E-001
Pb-212 @	0.524	8.777805E-001	2.454636E-001
Bi-214	0.397	6.185338E-001	1.706883E-001
PB-214 @	0.588	5.073152E-001	1.817799E-001
Ac-228	0.992	1.057501E+000	3.058686E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	3.5336E-001	212.94
F 3	84.81	2.3820E-001	97.98
F 13	1333.56	3.8168E-002	41.72

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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-020-F-G.CNF

Log Number:
Title: NOL-02-01-020-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
Co-60	1173.22	100.00	2.3265E-001	1.87E-001	1.6990E-001
	1332.49	100.00	1.8686E-001		2.0604E-001
Nb-94	702.63	100.00	2.1106E-001	2.00E-001	-1.1417E-002
	871.10	100.00	1.9954E-001		4.7726E-002
Ag-108m	79.20	7.10	1.0907E+001	2.27E-001	-8.9940E+000
	433.93	89.90	2.3689E-001		5.6545E-002
	614.37	90.40	2.7063E-001		-9.2257E-002
	722.95	90.50	2.2735E-001		7.6356E-002
Sb-125	176.33	6.89	4.6118E+000	7.01E-001	-2.8844E+000
	427.89	29.33	7.0096E-001		-1.2204E-001
	463.38	10.35	2.1286E+000		1.1336E+000
	600.56	17.80	1.2043E+000		1.1832E+000
	606.64	5.02	4.9374E+000		5.6285E+000
	635.90	11.32	1.8091E+000		1.0088E+000
Cs-134	563.23	8.38	2.6056E+000	2.35E-001	-3.2831E-001
	569.32	15.43	1.3432E+000		7.3716E-001
	604.70	97.60	2.4994E-001		-5.7858E-003
	795.84	85.40	2.3544E-001		-7.0461E-002
	801.93	8.73	2.2001E+000		-2.3007E+000
Cs-137	661.65	85.12	2.3798E-001	2.38E-001	1.6755E-002
Eu-152	121.78	28.40	1.5511E+000	6.79E-001	-2.3531E-001
	244.69	7.49	3.7741E+000		-2.2401E+000
	344.27	26.50	8.6932E-001		7.0439E-002
	778.89	12.74	1.6307E+000		-1.7218E-001
	867.32	4.16	4.9369E+000		1.0161E+000
	964.01	14.40	1.6150E+000		1.1856E+000
	1085.78	10.00	1.8960E+000		-1.5239E+000
	1112.02	13.30	1.4234E+000		5.3117E-001
	1407.95	20.70	6.7934E-001		-1.6598E-001
Eu-154	123.07	40.50	1.0879E+000	4.87E-001	5.7931E-001
	247.94	6.60	4.0816E+000		-4.2115E+000
	591.81	4.83	4.2746E+000		-1.1649E+000

723.30	19.70	1.0476E+000	7.6297E-001
756.87	4.33	4.4288E+000	-7.3247E-001
873.19	11.50	1.7182E+000	5.6066E-001

	996.32	10.30	1.7228E+000		-6.5707E-001
	1004.76	17.90	1.0568E+000		2.4459E-002
	1274.45	35.50	4.8697E-001		5.1067E-002
Eu-155	86.54	30.90	2.1415E+000	2.14E+000	1.8156E+000
	105.31	20.70	2.4728E+000		-6.7210E-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 8/15/2005 8:22:17 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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-021-F-G.CNF
Log Number:
Title: NOL-02-01-021-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/11/2005 3:07:05 PM

Live Time : 900.0 seconds
Real Time : 900.9 seconds

Energy Calibration Date: 6/13/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-021-F-G.CNF
Log Number:
Title: NOL-02-01-021-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	1.13	2.94E+002	54.44	7.82E+002
m	2	287-	306	300.47	75.08	1.13	5.30E+002	64.90	1.14E+003
F	3	334-	343	339.50	84.84	1.15	1.97E+002	50.87	6.28E+002
F	4	948-	962	955.25	238.78	1.34	2.56E+002	100.87	2.13E+002
F	5	1174-	1187	1181.60	295.38	1.39	5.63E+001	25.33	1.63E+002
F	6	1348-	1360	1353.19	338.28	1.43	5.78E+001	23.43	1.18E+002
F	7	1402-	1416	1408.51	352.11	1.44	1.06E+002	26.73	1.26E+002
F	8	2326-	2361	2334.43	583.61	1.60	1.23E+002	25.44	1.32E+002
F	9	2429-	2446	2437.70	609.43	1.62	1.11E+002	23.91	6.30E+001
F	10	3636-	3657	3646.43	911.64	1.79	1.40E+002	2536.41	4.73E+001
F	11	3870-	3885	3878.66	969.70	1.82	3.72E+001	15.47	2.58E+001
F	12	5328-	5342	5335.80	1334.01	1.98	2.26E+001	12.42	1.50E+001
F	13	5835-	5861	5848.01	1462.07	2.03	7.97E+002	55.01	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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-021-F-G.CNF

Log Number:
Title: NOL-02-01-021-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gm)	Activity Uncertainty
K-40	0.953	1460.81*	10.67	2.94687E+001	3.13467E+000
TL-208	0.468	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	4.58243E-001	1.12576E-001
		860.37	12.46		
Pb-212	0.524	74.81* @	10.70	1.79669E+001	4.15244E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.43986E+000	6.10446E-001
Bi-214	0.398	609.31*	46.30	7.61098E-001	1.89645E-001
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.587	74.82* @	6.21	3.09575E+001	7.49939E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	7.70527E-001	3.70193E-001
		351.92*	37.20	7.81951E-001	2.35838E-001
Ac-228	0.992	338.32*	11.40	1.37281E+000	5.96719E-001
		911.07*	27.70	1.76816E+000	3.19820E+001
		969.11*	16.60	7.97647E-001	3.41978E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-021-F-G.CNF

Log Number:
Title: NOL-02-01-021-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
K-40		0.953	2.946875E+001	3.134668E+000
TL-208		0.468	4.582432E-001	1.125758E-001
Pb-212	@	0.524	1.439856E+000	6.104461E-001
Bi-214		0.398	7.610980E-001	1.896450E-001
PB-214	@	0.587	7.786534E-001	1.989038E-001
Ac-228		0.992	9.399199E-001	2.966938E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	3.2697E-001	18.50
F 3	84.84	2.1894E-001	25.81
F 12	1334.01	2.5110E-002	54.94

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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-021-F-G.CNF

Log Number:
Title: NOL-02-01-021-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

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	1.66E-001	1.3188E-001
	1332.49	100.00	1.6638E-001		2.9085E-002
Nb-94	702.63	100.00	2.1625E-001	2.02E-001	7.8459E-002
	871.10	100.00	2.0157E-001		9.6022E-002
Ag-108m	79.20	7.10	1.0730E+001	2.29E-001	-6.0776E+000
	433.93	89.90	2.5592E-001		1.2707E-001
	614.37	90.40	2.8810E-001		1.0529E-001
	722.95	90.50	2.2869E-001		1.0739E-001
Sb-125	176.33	6.89	4.5839E+000	7.18E-001	-4.0097E+000
	427.89	29.33	7.1754E-001		2.1440E-001
	463.38	10.35	2.1828E+000		1.4644E+000
	600.56	17.80	1.0789E+000		1.6057E-001
	606.64	5.02	4.9192E+000		7.3795E+000
	635.90	11.32	1.6665E+000		-1.2558E+000
Cs-134	563.23	8.38	2.3292E+000	2.36E-001	-3.7424E+000
	569.32	15.43	1.3466E+000		7.3529E-001
	604.70	97.60	2.5089E-001		5.0586E-003
	795.84	85.40	2.3619E-001		-2.1407E-002
	801.93	8.73	2.2465E+000		-2.1886E+000
Cs-137	661.65	85.12	2.3728E-001	2.37E-001	1.4945E-001
Eu-152	121.78	28.40	1.5434E+000	6.67E-001	4.4050E-002
	244.69	7.49	3.7708E+000		-2.2932E+000
	344.27	26.50	9.2307E-001		-7.0324E-001
	778.89	12.74	1.6062E+000		-9.3578E-001
	867.32	4.16	4.6767E+000		-6.0155E-001
	964.01	14.40	1.5719E+000		1.3830E+000
	1085.78	10.00	1.8878E+000		-5.4298E-001
	1112.02	13.30	1.4904E+000		3.9644E-001
	1407.95	20.70	6.6690E-001		6.1443E-002
Eu-154	123.07	40.50	1.0713E+000	5.11E-001	7.2654E-001
	247.94	6.60	4.1410E+000		-1.6901E+000
	591.81	4.83	4.1835E+000		1.4707E+000

723.30	19.70	1.0321E+000	-5.4758E-001
756.87	4.33	4.8818E+000	-7.7013E-001
873.19	11.50	1.7419E+000	-7.9683E-001

	996.32	10.30	1.8395E+000		1.2310E-001
	1004.76	17.90	1.0612E+000		-4.7825E-001
	1274.45	35.50	5.1115E-001		-2.3757E-001
Eu-155	86.54	30.90	2.1216E+000	2.12E+000	4.0183E+000
	105.31	20.70	2.4728E+000		-2.3804E-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 8/15/2005 8:33:07 AM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-022-F-G.CNF
Log Number:
Title: NOL-02-01-022-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/12/2005 7:46:52 AM

Live Time : 900.0 seconds
Real Time : 900.9 seconds

Energy Calibration Date: 6/13/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-022-F-G.CNF
Log Number:
Title: NOL-02-01-022-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	72.89	1.13	2.27E+002	53.65	8.58E+002
m	2	287-	306	300.62	75.11	1.13	4.80E+002	63.78	1.21E+003
F	3	949-	962	954.34	238.56	1.34	1.98E+002	37.06	2.68E+002
F	4	1401-	1415	1407.59	351.88	1.44	7.88E+001	24.76	1.26E+002
F	5	2035-	2054	2043.84	510.95	2.33	1.21E+002	25.08	8.95E+001
F	6	2298-	2342	2332.99	583.25	1.60	1.28E+002	24.79	1.70E+002
F	7	2426-	2448	2437.21	609.31	1.62	1.21E+002	48.94	7.25E+001
F	8	3635-	3653	3644.46	911.14	1.79	1.08E+002	55.31	5.00E+001
F	9	3854-	3882	3875.80	968.98	1.81	4.92E+001	17.27	6.58E+001
F	10	5830-	5859	5844.95	1461.31	2.03	8.56E+002	57.04	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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-022-F-G.CNF

Log Number:
Title: NOL-02-01-022-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gm)	Activity Uncertainty
ANN	1.000	511.00*	100.00	3.63953E-001	9.12639E-002
K-40	0.993	1460.81*	10.67	3.16225E+001	3.31637E+000
TL-208	0.753	277.35	6.80		
		510.84*	21.60	1.68497E+000	4.44361E-001
		583.14*	84.20	4.77052E-001	1.11902E-001
		860.37	12.46		
Pb-212	0.524	74.81* @	10.70	1.62579E+001	3.85010E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.11430E+000	2.71918E-001
Bi-214	0.399	609.31*	46.30	8.33498E-001	3.51927E-001
		1120.29	15.10		
		1764.49	15.80		
Ac-228	0.637	338.32	11.40		
		911.07*	27.70	1.36130E+000	7.14651E-001
		969.11*	16.60	1.05532E+000	3.86265E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-022-F-G.CNF

Log Number:
Title: NOL-02-01-022-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
ANN	1.000	2.609100E-001	9.435070E-002
K-40	0.993	3.162247E+001	3.316368E+000
TL-208	0.753	4.770516E-001	1.108172E-001
Pb-212 @	0.524	1.114303E+000	2.719184E-001
Bi-214	0.399	8.334978E-001	3.519272E-001
Ac-228	0.637	1.124500E+000	3.398065E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.5213E-001	23.64
F 4	351.88	8.7578E-002	31.42

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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-022-F-G.CNF

Log Number:
Title: NOL-02-01-022-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
Co-60	1173.22	100.00	2.1540E-001	1.69E-001	1.1086E-001
	1332.49	100.00	1.6947E-001		1.0581E-001
Nb-94	702.63	100.00	2.1338E-001	1.89E-001	-8.0891E-003
	871.10	100.00	1.8907E-001		1.4227E-001
Ag-108m	79.20	7.10	1.0907E+001	2.33E-001	-1.2516E+001
	433.93	89.90	2.3347E-001		-3.2842E-002
	614.37	90.40	2.7876E-001		7.4069E-002
	722.95	90.50	2.3911E-001		1.2399E-001
Sb-125	176.33	6.89	4.6422E+000	6.82E-001	1.1938E+000
	427.89	29.33	6.8239E-001		-2.9660E-001
	463.38	10.35	2.1328E+000		1.8107E+000
	600.56	17.80	1.1496E+000		-4.0481E-001
	606.64	5.02	5.1770E+000		7.3276E+000
	635.90	11.32	1.7733E+000		1.0530E+000
Cs-134	563.23	8.38	2.4143E+000	2.22E-001	1.4623E+000
	569.32	15.43	1.3294E+000		6.1095E-002
	604.70	97.60	2.5880E-001		-5.5254E-002
	795.84	85.40	2.2214E-001		-3.6719E-002
	801.93	8.73	2.0959E+000		-2.1080E+000
Cs-137	661.65	85.12	2.3232E-001	2.32E-001	-5.9100E-002
Eu-152	121.78	28.40	1.5445E+000	6.92E-001	-4.4084E-001
	244.69	7.49	3.9242E+000		5.6799E-001
	344.27	26.50	8.7605E-001		-1.2450E+000
	778.89	12.74	1.5404E+000		-2.1508E+000
	867.32	4.16	4.5580E+000		-1.7205E+000
	964.01	14.40	1.6361E+000		-3.1449E-001
	1085.78	10.00	1.9837E+000		6.0953E-001
	1112.02	13.30	1.3982E+000		-6.5949E-001
	1407.95	20.70	6.9154E-001		1.6186E-001
Eu-154	123.07	40.50	1.0720E+000	5.37E-001	2.0061E-001
	247.94	6.60	4.1802E+000		-2.7933E+000
	591.81	4.83	4.3747E+000		2.4820E+000

723.30	19.70	1.1015E+000	7.4077E-001
756.87	4.33	4.8539E+000	5.4815E-001
873.19	11.50	1.6635E+000	-9.7456E-001

	996.32	10.30	1.7547E+000		6.3643E-001
	1004.76	17.90	1.0168E+000		1.4092E-001
	1274.45	35.50	5.3667E-001		-1.3287E-001
Eu-155	86.54	30.90	2.1497E+000	2.15E+000	2.6969E+000
	105.31	20.70	2.4417E+000		8.7236E-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 8/15/2005 8:33:57 AM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-023-F-G.CNF
Log Number:
Title: NOL-02-01-023-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/12/2005 8:07:34 AM

Live Time : 900.0 seconds
Real Time : 900.9 seconds

Energy Calibration Date: 6/13/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-023-F-G.CNF
Log Number:
Title: NOL-02-01-023-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	291.90	72.93	1.13	3.34E+002	55.82	9.73E+002
m	2	284-	305	300.45	75.07	1.13	5.61E+002	65.66	1.07E+003
F	3	331-	345	339.61	84.86	1.15	2.13E+002	52.21	9.98E+002
F	4	947-	961	954.37	238.56	1.34	2.06E+002	113.12	2.71E+002
F	5	1175-	1187	1181.31	295.30	1.39	7.16E+001	24.37	1.21E+002
F	6	1348-	1357	1352.57	338.12	1.43	3.83E+001	23.06	1.01E+002
F	7	1399-	1415	1407.50	351.86	1.44	1.19E+002	26.50	1.30E+002
F	8	2032-	2053	2043.71	510.92	2.33	1.56E+002	81.93	1.26E+002
F	9	2321-	2343	2332.58	583.15	1.60	1.65E+002	76.27	1.06E+002
F	10	2427-	2446	2436.49	609.12	1.62	1.26E+002	26.48	1.03E+002
F	11	2903-	2914	2908.85	727.22	1.69	2.12E+001	14.77	3.44E+001
F	12	3634-	3654	3644.72	911.21	1.79	1.29E+002	49.63	4.95E+001
F	13	3870-	3888	3877.98	969.53	1.82	7.05E+001	18.81	3.00E+001
F	14	5832-	5858	5845.01	1461.33	2.03	8.65E+002	57.94	3.21E+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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-023-F-G.CNF

Log Number:
Title: NOL-02-01-023-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gm)	Activity Uncertainty
ANN	1.000	511.00*	100.00	4.71226E-001	2.55811E-001
K-40	0.992	1460.81*	10.67	3.19651E+001	3.35903E+000
TL-208	0.753	277.35	6.80		
		510.84*	21.60	2.18160E+000	1.19764E+000
		583.14*	84.20	6.14389E-001	2.95744E-001
		860.37	12.46		
Bi-212	1.000	727.17*	11.80	5.96503E-001	4.22385E-001
Pb-212	0.525	74.81* @	10.70	1.90075E+001	4.34007E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.15892E+000	6.61335E-001
Bi-214	0.398	609.31*	46.30	8.65909E-001	2.11467E-001
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.588	74.82* @	6.21	3.27505E+001	7.84689E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	9.80390E-001	3.72187E-001
		351.92*	37.20	8.77200E-001	2.43628E-001
Ac-228	0.998	338.32*	11.40	9.09148E-001	5.65966E-001
		911.07*	27.70	1.62378E+000	6.52991E-001
		969.11*	16.60	1.51126E+000	4.33047E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-023-F-G.CNF

Log Number:
Title: NOL-02-01-023-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
ANN		1.000	3.385185E-001	2.636310E-001
K-40		0.992	3.196513E+001	3.359031E+000
TL-208		0.753	6.143886E-001	2.950653E-001
Bi-212		1.000	5.965026E-001	4.223850E-001
Pb-212	@	0.525	1.158917E+000	6.613349E-001
Bi-214		0.398	8.659086E-001	2.114667E-001
PB-214	@	0.588	9.081526E-001	2.038404E-001
Ac-228		0.998	1.361640E+000	3.042954E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	3.7064E-001	16.73
F 3	84.86	2.3642E-001	24.53

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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-023-F-G.CNF

Log Number:
Title: NOL-02-01-023-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
Co-60	1173.22	100.00	2.3945E-001	1.75E-001	8.2158E-002
	1332.49	100.00	1.7547E-001		1.9035E-001
Nb-94	702.63	100.00	2.1739E-001	1.87E-001	-7.9698E-003
	871.10	100.00	1.8690E-001		-2.0352E-001
Ag-108m	79.20	7.10	1.0834E+001	2.42E-001	-1.8022E+001
	433.93	89.90	2.6078E-001		7.6788E-002
	614.37	90.40	3.0179E-001		-1.0710E-003
	722.95	90.50	2.4164E-001		1.7553E-001
Sb-125	176.33	6.89	4.5503E+000	7.42E-001	-1.1061E+000
	427.89	29.33	7.4242E-001		4.6246E-002
	463.38	10.35	2.1951E+000		-1.3988E+000
	600.56	17.80	1.1434E+000		-7.5728E-001
	606.64	5.02	5.4633E+000		8.5521E+000
	635.90	11.32	1.8492E+000		-1.2597E+000
Cs-134	563.23	8.38	2.4335E+000	2.45E-001	-8.7811E-001
	569.32	15.43	1.3329E+000		-1.1519E+000
	604.70	97.60	2.7606E-001		-2.9267E-002
	795.84	85.40	2.4510E-001		8.4910E-002
	801.93	8.73	2.2541E+000		-2.9184E+000
Cs-137	661.65	85.12	2.4889E-001	2.49E-001	1.2305E-001
Eu-152	121.78	28.40	1.5624E+000	6.41E-001	3.1813E-001
	244.69	7.49	3.8564E+000		-3.8537E+000
	344.27	26.50	8.9333E-001		-5.4178E-001
	778.89	12.74	1.5711E+000		-1.6477E+000
	867.32	4.16	4.6934E+000		9.7059E-002
	964.01	14.40	1.7298E+000		3.8202E-002
	1085.78	10.00	1.8960E+000		-4.7906E-001
	1112.02	13.30	1.5600E+000		-5.2271E-001
	1407.95	20.70	6.4123E-001		-2.7045E-001
Eu-154	123.07	40.50	1.0698E+000	4.70E-001	-7.4492E-001
	247.94	6.60	4.0975E+000		-3.1148E+000
	591.81	4.83	4.1255E+000		-5.7752E-002

723.30	19.70	1.1073E+000	9.0352E-001
756.87	4.33	4.6538E+000	-1.9440E+000
873.19	11.50	1.6635E+000	5.6098E-001

	996.32	10.30	1.7388E+000		-4.5977E-001
	1004.76	17.90	1.0698E+000		-2.9711E-001
	1274.45	35.50	4.7011E-001		-4.1439E-001
Eu-155	86.54	30.90	2.1589E+000	2.16E+000	5.5297E-001
	105.31	20.70	2.4482E+000		4.8010E-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 8/15/2005 8:34:43 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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-024-F-G.CNF
Log Number:
Title: NOL-02-01-024-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/12/2005 8:25:38 AM

Live Time : 900.0 seconds
Real Time : 900.8 seconds

Energy Calibration Date: 6/13/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-024-F-G.CNF
Log Number:
Title: NOL-02-01-024-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	291.82	72.91	1.13	2.90E+002	55.11	1.07E+003
m	2	283-	314	300.44	75.07	1.13	5.29E+002	61.75	1.07E+003
m	3	283-	314	309.15	77.25	1.14	1.23E+002	46.61	8.91E+002
F	4	334-	345	339.36	84.80	1.15	1.88E+002	50.63	7.79E+002
F	5	947-	961	954.57	238.61	1.34	1.85E+002	37.62	3.10E+002
F	6	1175-	1188	1181.26	295.29	1.39	5.35E+001	23.35	1.37E+002
F	7	1346-	1357	1351.97	337.97	1.43	5.25E+001	22.19	9.18E+001
F	8	1403-	1413	1407.95	351.97	1.44	8.43E+001	25.68	9.65E+001
F	9	2031-	2054	2043.25	510.81	2.33	1.46E+002	80.25	1.23E+002
F	10	2324-	2341	2332.73	583.18	1.60	1.43E+002	26.84	7.89E+001
F	11	2429-	2444	2436.66	609.17	1.62	9.38E+001	24.06	7.83E+001
F	12	2901-	2916	2908.91	727.24	1.69	3.99E+001	16.90	4.59E+001
F	13	3637-	3653	3644.94	911.26	1.79	1.03E+002	22.70	4.02E+001
F	14	3869-	3885	3877.08	969.30	1.81	6.20E+001	18.39	3.32E+001
F	15	5832-	5858	5845.39	1461.42	2.03	8.62E+002	57.18	2.32E+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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-024-F-G.CNF

Log Number:
Title: NOL-02-01-024-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gm)	Activity Uncertainty
ANN	0.999	511.00*	100.00	4.39434E-001	2.49771E-001
K-40	0.989	1460.81*	10.67	3.18499E+001	3.33406E+000
TL-208	0.753	277.35	6.80		
		510.84*	21.60	2.03442E+000	1.16822E+000
		583.14*	84.20	5.31732E-001	1.22313E-001
		860.37	12.46		
Bi-212	1.000	727.17*	11.80	1.12439E+000	4.94520E-001
Pb-212	0.845	74.81* @	10.70	1.79397E+001	4.09241E+000
		77.11* @	18.00	2.38390E+000	1.01796E+000
		87.30 @	8.00		
		238.63*	44.60	1.03984E+000	2.67035E-001
Bi-214	0.398	609.31*	46.30	6.44117E-001	1.83724E-001
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.765	74.82* @	6.21	3.09105E+001	7.39975E+000
		77.11* @	10.50	4.08669E+000	1.77154E+000
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	7.32522E-001	3.42490E-001
		351.92*	37.20	6.18598E-001	2.15059E-001
Ac-228	0.998	338.32*	11.40	1.24625E+000	5.62062E-001
		911.07*	27.70	1.29513E+000	3.22602E-001
		969.11*	16.60	1.32852E+000	4.17981E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-024-F-G.CNF

Log Number:
Title: NOL-02-01-024-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
ANN		0.999	3.245796E-001	2.511366E-001
K-40		0.989	3.184988E+001	3.334057E+000
TL-208		0.753	5.317320E-001	1.210793E-001
Bi-212		1.000	1.124395E+000	4.945198E-001
Pb-212	@	0.845	1.039835E+000	2.670352E-001
Bi-214		0.398	6.441168E-001	1.837243E-001
PB-214	@	0.765	6.508150E-001	1.821298E-001
Ac-228		0.998	1.297098E+000	2.325079E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	3.2209E-001	19.01
F 4	84.80	2.0908E-001	26.91

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

Errors quoted at 1.960 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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-024-F-G.CNF

Log Number:
Title: NOL-02-01-024-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
Co-60	1173.22	100.00	2.2348E-001	1.76E-001	1.0411E-001
	1332.49	100.00	1.7645E-001		-1.1396E-001
Nb-94	702.63	100.00	2.1908E-001	1.88E-001	-5.1613E-002
	871.10	100.00	1.8762E-001		1.1660E-001
Ag-108m	79.20	7.10	1.0494E+001	2.43E-001	-2.2568E-001
	433.93	89.90	2.4309E-001		1.0256E-001
	614.37	90.40	2.7523E-001		4.4183E-002
	722.95	90.50	2.4290E-001		8.3956E-002
Sb-125	176.33	6.89	4.5305E+000	7.38E-001	-3.6601E+000
	427.89	29.33	7.3809E-001		-5.4590E-002
	463.38	10.35	2.0946E+000		5.9623E-001
	600.56	17.80	1.2649E+000		-2.6654E-001
	606.64	5.02	5.3640E+000		9.4437E+000
	635.90	11.32	1.8292E+000		-3.8432E-001
Cs-134	563.23	8.38	2.4777E+000	2.34E-001	8.0494E-001
	569.32	15.43	1.3084E+000		1.9245E-001
	604.70	97.60	2.7904E-001		-1.0296E-001
	795.84	85.40	2.3391E-001		-1.0510E-001
	801.93	8.73	2.1686E+000		-3.0603E+000
Cs-137	661.65	85.12	2.4889E-001	2.49E-001	9.8970E-002
Eu-152	121.78	28.40	1.4607E+000	6.67E-001	-1.2481E+000
	244.69	7.49	3.9561E+000		-1.1553E+000
	344.27	26.50	8.6252E-001		-7.4109E-001
	778.89	12.74	1.5862E+000		-1.2297E+000
	867.32	4.16	4.5922E+000		-7.3983E+000
	964.01	14.40	1.7417E+000		1.1311E+000
	1085.78	10.00	1.9680E+000		-9.7251E-001
	1112.02	13.30	1.5544E+000		-8.1650E-001
	1407.95	20.70	6.6690E-001		-3.5178E-001
Eu-154	123.07	40.50	1.0160E+000	5.16E-001	-2.5421E-001
	247.94	6.60	4.2151E+000		-3.2406E+000
	591.81	4.83	4.4401E+000		-9.0960E-001

723.30	19.70	1.1102E+000	5.7249E-001
756.87	4.33	4.3979E+000	-1.7371E+000
873.19	11.50	1.5810E+000	-9.3614E-001

	996.32	10.30	1.7547E+000		-9.6091E-001
	1004.76	17.90	1.0213E+000		-7.6530E-001
	1274.45	35.50	5.1636E-001		-3.1159E-001
Eu-155	86.54	30.90	2.1006E+000	2.10E+000	3.1910E+000
	105.31	20.70	2.3661E+000		-5.0595E-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 8/15/2005 8:35:33 AM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-025-F-G.CNF
Log Number:
Title: NOL-02-01-025-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/12/2005 10:58:05 AM

Live Time : 900.0 seconds
Real Time : 900.8 seconds

Energy Calibration Date: 6/13/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-025-F-G.CNF
Log Number:
Title: NOL-02-01-025-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	291.78	72.90	1.13	2.74E+002	53.46	1.02E+003
m	2	282-	305	300.64	75.12	1.13	5.78E+002	65.88	1.06E+003
F	3	335-	345	339.36	84.80	1.15	2.15E+002	51.82	6.98E+002
F	4	945-	962	954.86	238.69	1.34	2.32E+002	95.51	2.97E+002
F	5	1172-	1190	1181.04	295.24	1.39	5.34E+001	107.48	1.86E+002
F	6	1345-	1358	1353.80	338.43	1.43	5.48E+001	21.70	1.11E+002
F	7	1401-	1417	1408.17	352.02	1.44	6.83E+001	22.21	1.17E+002
F	8	2033-	2052	2043.62	510.90	2.33	1.18E+002	24.48	8.98E+001
F	9	2325-	2343	2333.78	583.45	1.60	1.20E+002	84.41	6.18E+001
F	10	2429-	2447	2437.95	609.49	1.62	9.73E+001	57.63	5.70E+001
F	11	2639-	2654	2647.34	661.84	1.65	8.22E+001	21.78	5.56E+001
F	12	2900-	2914	2907.45	726.87	1.69	3.05E+001	15.45	3.94E+001
F	13	3635-	3657	3646.48	911.65	1.79	1.14E+002	44.18	4.69E+001
M	14	3855-	3886	3860.55	965.17	1.81	2.19E+001	12.91	5.30E+001
m	15	3855-	3886	3877.03	969.29	1.81	6.18E+001	16.65	7.93E+001
F	16	4688-	4704	4696.61	1174.20	1.91	5.79E+001	19.12	4.45E+001
F	17	5835-	5860	5847.78	1462.02	2.03	7.05E+002	42.57	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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-025-F-G.CNF

Log Number:
Title: NOL-02-01-025-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gm)	Activity Uncertainty
ANN	1.000	511.00*	100.00	3.56542E-001	8.91750E-002
K-40	0.958	1460.81*	10.67	2.60553E+001	2.63163E+000
Cs-137	0.999	661.65*	85.12	3.15123E-001	9.13200E-002
TL-208	0.751	277.35	6.80		
		510.84*	21.60	1.65066E+000	4.34298E-001
		583.14*	84.20	4.45873E-001	3.20223E-001
		860.37	12.46		
Bi-212	0.997	727.17*	11.80	8.60280E-001	4.47100E-001
Pb-212	0.524	74.81* @	10.70	1.95832E+001	4.44001E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.30458E+000	5.74631E-001
Bi-214	0.398	609.31*	46.30	6.68420E-001	4.04622E-001
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.588	74.82* @	6.21	3.37424E+001	8.03282E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	7.30619E-001	1.47608E+000
		351.92*	37.20	5.01471E-001	1.83359E-001
Ac-228	0.995	338.32*	11.40	1.30246E+000	5.54413E-001
		911.07*	27.70	1.44156E+000	5.81162E-001
		969.11*	16.60	1.32399E+000	3.82901E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-025-F-G.CNF

Log Number:
Title: NOL-02-01-025-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
ANN		1.000	2.602337E-001	1.128122E-001
K-40		0.958	2.605532E+001	2.631629E+000
Cs-137		0.999	3.151232E-001	9.132004E-002
TL-208		0.751	4.458726E-001	3.198936E-001
Bi-212		0.997	8.602798E-001	4.470998E-001
Pb-212	@	0.524	1.304581E+000	5.746310E-001
Bi-214		0.398	6.684195E-001	4.046223E-001
PB-214	@	0.588	5.049528E-001	1.819605E-001
Ac-228		0.995	1.345324E+000	2.769796E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	3.0479E-001	19.49
F 3	84.80	2.3871E-001	24.12
M 14	965.17	2.4361E-002	58.87
F 16	1174.20	6.4313E-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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-025-F-G.CNF

Log Number:
Title: NOL-02-01-025-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
	Co-60	1173.22	100.00	2.4410E-001	1.97E-001	3.4798E-001
		1332.49	100.00	1.9670E-001		2.3250E-001
	Nb-94	702.63	100.00	1.9652E-001	1.77E-001	2.5962E-002
		871.10	100.00	1.7717E-001		-1.9501E-001
	Ag-108m	79.20	7.10	1.0730E+001	2.31E-001	-2.5782E+001
		433.93	89.90	2.4636E-001		1.7180E-001
		614.37	90.40	2.7371E-001		-3.7483E-003
		722.95	90.50	2.3068E-001		-1.4399E-003
	Sb-125	176.33	6.89	4.4305E+000	7.04E-001	1.9060E+000
		427.89	29.33	7.0400E-001		5.7306E-001
		463.38	10.35	2.0555E+000		-7.7793E-001
		600.56	17.80	1.2102E+000		9.8320E-001
		606.64	5.02	5.0007E+000		5.6188E+000
		635.90	11.32	1.8142E+000		1.2188E+000
	Cs-134	563.23	8.38	2.4525E+000	2.34E-001	1.0725E+000
		569.32	15.43	1.2545E+000		3.6167E-001
		604.70	97.60	2.5418E-001		3.1646E-002
		795.84	85.40	2.3391E-001		1.7381E-001
		801.93	8.73	2.2079E+000		-4.0242E+000
+	Cs-137	661.65*	85.12	1.7386E-001	1.74E-001	3.1512E-001
	Eu-152	121.78	28.40	1.4547E+000	6.67E-001	-3.1820E-001
		244.69	7.49	3.6453E+000		-8.3108E-001
		344.27	26.50	8.9069E-001		-1.9380E-001
		778.89	12.74	1.4715E+000		-5.8601E-001
		867.32	4.16	4.4359E+000		-8.8516E-001
		964.01	14.40	1.7882E+000		-2.0914E-001
		1085.78	10.00	1.8878E+000		-1.2801E+000
		1112.02	13.30	1.3790E+000		-1.5787E+000
		1407.95	20.70	6.6690E-001		-8.7872E-002
	Eu-154	123.07	40.50	1.0118E+000	4.95E-001	-3.3445E-001
		247.94	6.60	3.8512E+000		-1.6246E+000
		591.81	4.83	4.1950E+000		-6.2338E-001

723.30	19.70	1.0568E+000	1.2198E-001
756.87	4.33	4.6974E+000	-1.6762E+000
873.19	11.50	1.5547E+000	-7.0004E-001

	996.32	10.30	1.8320E+000		-3.2163E-001
	1004.76	17.90	9.9847E-001		5.6251E-001
	1274.45	35.50	4.9517E-001		5.3994E-003
Eu-155	86.54	30.90	2.0853E+000	2.09E+000	3.0564E+000
	105.31	20.70	2.3841E+000		7.0457E-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 8/15/2005 8:36:59 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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-026-F-G.CNF
Log Number:
Title: NOL-02-01-026-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/12/2005 10:36:13 AM

Live Time : 900.0 seconds
Real Time : 900.8 seconds

Energy Calibration Date: 6/13/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-026-F-G.CNF
Log Number:
Title: NOL-02-01-026-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	291.84	72.92	1.13	2.51E+002	51.62	7.10E+002
m	2	287-	306	300.46	75.07	1.13	5.04E+002	63.13	1.07E+003
F	3	331-	345	339.28	84.78	1.15	2.08E+002	50.95	9.46E+002
F	4	675-	684	679.57	169.86	1.27	3.76E+001	28.14	2.08E+002
F	5	949-	960	955.07	238.74	1.34	2.16E+002	35.30	1.67E+002
F	6	1174-	1186	1180.70	295.15	1.39	6.38E+001	23.51	1.17E+002
F	7	1349-	1363	1353.44	338.34	1.43	6.89E+001	22.65	9.81E+001
F	8	1404-	1417	1409.06	352.25	1.44	7.09E+001	24.52	1.21E+002
F	9	2033-	2054	2043.35	510.83	2.33	1.62E+002	84.50	7.61E+001
F	10	2325-	2343	2333.19	583.30	1.60	1.41E+002	67.88	5.56E+001
F	11	2429-	2449	2437.70	609.43	1.62	9.77E+001	22.36	6.78E+001
F	12	2901-	2917	2909.03	727.27	1.69	5.34E+001	17.88	4.48E+001
F	13	3638-	3655	3646.56	911.67	1.79	1.08E+002	23.04	4.52E+001
F	14	3871-	3885	3878.10	969.56	1.82	5.63E+001	18.37	3.34E+001
F	15	4476-	4489	4482.93	1120.78	1.89	2.94E+001	14.35	2.27E+001
F	16	5834-	5861	5847.46	1461.94	2.03	8.26E+002	82.70	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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-026-F-G.CNF

Log Number:
Title: NOL-02-01-026-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gm)	Activity Uncertainty
ANN	0.999	511.00*	100.00	4.89960E-001	2.63951E-001
K-40	0.963	1460.81*	10.67	3.05204E+001	3.93065E+000
TL-208	0.753	277.35	6.80		
		510.84*	21.60	2.26833E+000	1.23596E+000
		583.14*	84.20	5.26148E-001	2.62495E-001
		860.37	12.46		
Bi-212	1.000	727.17*	11.80	1.50440E+000	5.34262E-001
Pb-212	0.524	74.81* @	10.70	1.70884E+001	3.97484E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.21313E+000	2.74913E-001
Bi-214	0.698	609.31*	46.30	6.71144E-001	1.74914E-001
		1120.29*	15.10	7.23334E-001	3.61554E-001
		1764.49	15.80		
PB-214	0.586	74.82* @	6.21	2.94438E+001	7.17454E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	8.73315E-001	3.53744E-001
		351.92*	37.20	5.20566E-001	1.99969E-001
Ac-228	0.993	338.32*	11.40	1.63636E+000	5.95948E-001
		911.07*	27.70	1.36619E+000	3.30195E-001
		969.11*	16.60	1.20768E+000	4.13447E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-026-F-G.CNF

Log Number:
Title: NOL-02-01-026-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
ANN		0.999	3.763120E-001	2.699463E-001
K-40		0.963	3.052039E+001	3.930649E+000
TL-208		0.753	5.261481E-001	2.619340E-001
Bi-212		1.000	1.504402E+000	5.342618E-001
Pb-212	@	0.524	1.213133E+000	2.749129E-001
Bi-214		0.698	6.810426E-001	1.574556E-001
PB-214	@	0.586	6.059907E-001	1.740799E-001
Ac-228		0.993	1.356850E+000	2.367725E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.7943E-001	20.53
F 3	84.78	2.3128E-001	24.48
F 4	169.86	4.1814E-002	74.77

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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-026-F-G.CNF

Log Number:
Title: NOL-02-01-026-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
Co-60	1173.22	100.00	2.1390E-001	1.68E-001	2.0994E-001
	1332.49	100.00	1.6845E-001		1.0324E-001
Nb-94	702.63	100.00	2.0149E-001	1.80E-001	5.0625E-002
	871.10	100.00	1.8022E-001		-2.7486E-002
Ag-108m	79.20	7.10	1.0408E+001	2.35E-001	-4.3745E+000
	433.93	89.90	2.3494E-001		5.4919E-003
	614.37	90.40	2.7063E-001		2.8309E-002
	722.95	90.50	2.5511E-001		7.9835E-002
Sb-125	176.33	6.89	4.3517E+000	6.78E-001	-1.4187E+000
	427.89	29.33	6.7766E-001		-3.3934E-001
	463.38	10.35	2.0555E+000		6.5775E-001
	600.56	17.80	1.1308E+000		-5.7507E-001
	606.64	5.02	4.9283E+000		7.6611E-001
	635.90	11.32	1.7629E+000		-4.2385E-001
Cs-134	563.23	8.38	2.4207E+000	2.32E-001	2.9337E+000
	569.32	15.43	1.2943E+000		-2.3976E-001
	604.70	97.60	2.4515E-001		-4.1611E-002
	795.84	85.40	2.3161E-001		2.8169E-002
	801.93	8.73	2.0710E+000		-2.5380E+000
Cs-137	661.65	85.12	2.4621E-001	2.46E-001	-2.7314E-002
Eu-152	121.78	28.40	1.4354E+000	7.21E-001	2.4318E-001
	244.69	7.49	3.5967E+000		-7.7540E+000
	344.27	26.50	8.2341E-001		-5.6341E-001
	778.89	12.74	1.4770E+000		-6.0438E-001
	867.32	4.16	4.4711E+000		-5.1726E+000
	964.01	14.40	1.6486E+000		3.1165E-001
	1085.78	10.00	1.9443E+000		1.9933E+000
	1112.02	13.30	1.4844E+000		8.2795E-001
	1407.95	20.70	7.2106E-001		9.7453E-001
Eu-154	123.07	40.50	9.9663E-001	4.84E-001	3.7167E-001
	247.94	6.60	3.7957E+000		-7.4196E+000
	591.81	4.83	4.2746E+000		1.6918E+000

723.30	19.70	1.1611E+000	3.9876E-001
756.87	4.33	4.3511E+000	-3.0624E+000
873.19	11.50	1.5810E+000	-5.8271E-001

	996.32	10.30	1.6401E+000		3.3794E-001
	1004.76	17.90	9.8917E-001		2.7585E-001
	1274.45	35.50	4.8420E-001		-1.7752E-001
Eu-155	86.54	30.90	2.0838E+000	2.08E+000	2.5560E-001
	105.31	20.70	2.3441E+000		1.7929E+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 8/15/2005 8:37:45 AM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-027-F-G.CNF
Log Number:
Title: NOL-02-01-027-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/12/2005 10:17:16 AM

Live Time : 900.0 seconds
Real Time : 900.8 seconds

Energy Calibration Date: 6/13/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-027-F-G.CNF
Log Number:
Title: NOL-02-01-027-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	291.42	72.81	1.13	2.91E+002	53.63	9.07E+002
m	2	284-	306	300.46	75.07	1.13	5.25E+002	63.11	1.06E+003
F	3	333-	345	339.70	84.88	1.15	1.39E+002	145.45	7.98E+002
F	4	944-	963	955.15	238.76	1.34	2.61E+002	93.81	2.77E+002
F	5	1346-	1361	1354.14	338.51	1.43	7.87E+001	23.69	1.14E+002
F	6	1404-	1416	1408.85	352.19	1.44	8.49E+001	24.49	9.24E+001
F	7	1848-	1859	1853.43	463.35	1.52	2.34E+001	17.13	6.03E+001
F	8	2034-	2056	2044.61	511.15	2.33	1.60E+002	26.02	7.68E+001
F	9	2324-	2342	2333.84	583.46	1.60	1.32E+002	65.07	8.31E+001
F	10	2430-	2447	2438.27	609.57	1.62	9.15E+001	23.07	6.57E+001
F	11	3637-	3654	3645.49	911.40	1.79	1.00E+002	22.05	3.60E+001
F	12	5833-	5861	5847.12	1461.85	2.03	7.65E+002	92.14	1.74E+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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-027-F-G.CNF

Log Number:
Title: NOL-02-01-027-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gm)	Activity Uncertainty
ANN	0.999	511.00*	100.00	4.82544E-001	1.03626E-001
K-40	0.968	1460.81*	10.67	2.82913E+001	4.10424E+000
TL-208	0.751	277.35	6.80		
		510.84*	21.60	2.23400E+000	5.13270E-001
		583.14*	84.20	4.92739E-001	2.51248E-001
		860.37	12.46		
Pb-212	0.524	74.81* @	10.70	1.78096E+001	4.09431E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.46731E+000	5.75420E-001
Bi-214	0.397	609.31*	46.30	6.28571E-001	1.76794E-001
		1120.29	15.10		
		1764.49	15.80		
Ac-228	0.537	338.32*	11.40	1.86985E+000	6.34568E-001
		911.07*	27.70	1.26531E+000	3.13781E-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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-027-F-G.CNF

Log Number:
Title: NOL-02-01-027-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
ANN	0.999	3.761126E-001	1.169253E-001
K-40	0.968	2.829132E+001	4.104242E+000
TL-208	0.751	4.927394E-001	2.507342E-001
Pb-212 @	0.524	1.467314E+000	5.754199E-001
Bi-214	0.397	6.285707E-001	1.767938E-001
Ac-228	0.537	1.384089E+000	2.812729E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	3.2363E-001	18.41
F 3	84.88	1.5399E-001	104.94
F 6	352.19	9.4282E-002	28.87
F 7	463.35	2.5960E-002	73.32

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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-027-F-G.CNF

Log Number:
Title: NOL-02-01-027-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
Co-60	1173.22	100.00	2.0064E-001	1.46E-001	1.2476E-001
	1332.49	100.00	1.4639E-001		-8.4820E-002
Nb-94	702.63	100.00	1.9652E-001	1.89E-001	-7.2384E-002
	871.10	100.00	1.8907E-001		1.1495E-001
Ag-108m	79.20	7.10	1.0260E+001	2.21E-001	-1.0766E+001
	433.93	89.90	2.2085E-001		1.6201E-001
	614.37	90.40	2.7063E-001		1.8482E-001
	722.95	90.50	2.4477E-001		2.3715E-001
Sb-125	176.33	6.89	4.4449E+000	6.96E-001	4.9617E-001
	427.89	29.33	6.9636E-001		5.2691E-001
	463.38	10.35	2.1159E+000		1.2574E+000
	600.56	17.80	1.1589E+000		-1.8906E-002
	606.64	5.02	4.8825E+000		2.1961E+000
	635.90	11.32	1.6775E+000		6.2191E-001
Cs-134	563.23	8.38	2.4462E+000	2.22E-001	1.7174E+000
	569.32	15.43	1.2835E+000		3.0828E-002
	604.70	97.60	2.5371E-001		1.1626E-001
	795.84	85.40	2.2214E-001		1.5965E-001
	801.93	8.73	2.1123E+000		-2.1572E+000
Cs-137	661.65	85.12	2.3517E-001	2.35E-001	8.9086E-002
Eu-152	121.78	28.40	1.4254E+000	6.79E-001	7.6815E-001
	244.69	7.49	3.5260E+000		-4.6106E+000
	344.27	26.50	8.5842E-001		-4.6295E-001
	778.89	12.74	1.5912E+000		4.8593E-001
	867.32	4.16	4.7100E+000		-4.1645E+000
	964.01	14.40	1.6107E+000		1.6150E+000
	1085.78	10.00	1.7865E+000		-1.9971E+000
	1112.02	13.30	1.2991E+000		-9.2514E-001
	1407.95	20.70	6.7934E-001		8.1071E-001
Eu-154	123.07	40.50	9.8957E-001	4.64E-001	-1.1695E-001
	247.94	6.60	3.7785E+000		-1.5001E+000
	591.81	4.83	4.2293E+000		2.4064E+000

723.30	19.70	1.1331E+000	7.8785E-001
756.87	4.33	4.4748E+000	-3.7845E+000
873.19	11.50	1.6386E+000	-4.8964E-002

	996.32	10.30	1.7547E+000		-7.7367E-002
	1004.76	17.90	1.0953E+000		1.1277E-001
	1274.45	35.50	4.6435E-001		1.1533E-001
Eu-155	86.54	30.90	2.0457E+000	2.05E+000	2.9272E+000
	105.31	20.70	2.3479E+000		2.8655E+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 8/15/2005 8:38:31 AM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-028-F-G.CNF
Log Number:
Title: NOL-02-01-028-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/12/2005 9:58:10 AM

Live Time : 900.0 seconds
Real Time : 900.8 seconds

Energy Calibration Date: 6/13/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-028-F-G.CNF
Log Number:
Title: NOL-02-01-028-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	291.98	72.95	1.13	2.55E+002	51.85	9.37E+002
m	2	282-	305	300.55	75.09	1.13	4.47E+002	61.17	9.73E+002
F	3	330-	345	339.75	84.90	1.15	1.57E+002	49.09	1.00E+003
F	4	944-	962	954.53	238.60	1.34	1.86E+002	86.16	2.82E+002
F	5	1176-	1187	1181.49	295.35	1.39	5.09E+001	23.43	1.19E+002
F	6	1349-	1359	1353.33	338.31	1.43	3.61E+001	21.70	9.47E+001
F	7	1399-	1415	1407.89	351.95	1.44	1.09E+002	25.59	1.21E+002
F	8	2323-	2339	2333.08	583.27	1.60	1.22E+002	24.95	7.03E+001
F	9	2428-	2447	2437.57	609.39	1.62	1.09E+002	51.89	5.23E+001
F	10	2901-	2914	2908.32	727.09	1.69	3.32E+001	16.21	4.00E+001
F	11	3638-	3654	3645.71	911.45	1.79	9.23E+001	23.26	5.82E+001
F	12	3868-	3885	3877.28	969.35	1.81	7.29E+001	19.39	3.57E+001
F	13	5834-	5862	5846.91	1461.80	2.03	8.31E+002	55.96	2.82E+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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-028-F-G.CNF

Log Number:
Title: NOL-02-01-028-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/gm)	Activity Uncertainty
K-40	0.971	1460.81*		10.67	3.07192E+001	3.23468E+000
TL-208	0.472	277.35		6.80		
		510.84		21.60		
		583.14*		84.20	4.55914E-001	1.10850E-001
		860.37		12.46		
Bi-212	1.000	727.17*		11.80	9.35461E-001	4.69983E-001
Pb-212	0.525	74.81*	@	10.70	1.51575E+001	3.62268E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	1.04793E+000	5.11466E-001
Bi-214	0.398	609.31*		46.30	7.49479E-001	3.68521E-001
		1120.29		15.10		
		1764.49		15.80		
PB-214	0.588	74.82*	@	6.21	2.61167E+001	6.52354E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	6.96748E-001	3.41394E-001
		351.92*		37.20	7.97594E-001	2.30361E-001
Ac-228	0.997	338.32*		11.40	8.57309E-001	5.32583E-001
		911.07*		27.70	1.16412E+000	3.22397E-001
		969.11*		16.60	1.56265E+000	4.46683E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-028-F-G.CNF

Log Number:
Title: NOL-02-01-028-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
K-40		0.971	3.071916E+001	3.234678E+000
TL-208		0.472	4.559143E-001	1.108498E-001
Bi-212		1.000	9.354607E-001	4.699828E-001
Pb-212	@	0.525	1.047929E+000	5.114660E-001
Bi-214		0.398	7.494788E-001	3.685205E-001
PB-214	@	0.588	7.660429E-001	1.909553E-001
Ac-228		0.997	1.214548E+000	2.346720E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.8338E-001	20.33
F 3	84.90	1.7468E-001	31.23

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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-028-F-G.CNF

Log Number:
Title: NOL-02-01-028-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
Co-60	1173.22	100.00	1.9738E-001	1.54E-001	2.9384E-002
	1332.49	100.00	1.5450E-001		5.7602E-002
Nb-94	702.63	100.00	2.0332E-001	1.95E-001	4.2936E-002
	871.10	100.00	1.9473E-001		-2.9612E-001
Ag-108m	79.20	7.10	1.0337E+001	2.28E-001	-1.8311E+001
	433.93	89.90	2.2801E-001		-1.4580E-001
	614.37	90.40	2.7011E-001		-8.5152E-003
	722.95	90.50	2.4539E-001		9.6180E-002
Sb-125	176.33	6.89	4.4908E+000	6.76E-001	3.1929E+000
	427.89	29.33	6.7608E-001		-6.6234E-002
	463.38	10.35	2.0730E+000		4.8061E-001
	600.56	17.80	1.1371E+000		-1.1324E-001
	606.64	5.02	4.9283E+000		6.8507E+000
	635.90	11.32	1.6938E+000		3.9989E-001
Cs-134	563.23	8.38	2.3949E+000	2.28E-001	1.1461E+000
	569.32	15.43	1.2799E+000		-7.6351E-001
	604.70	97.60	2.5418E-001		-8.5668E-002
	795.84	85.40	2.2771E-001		1.9351E-001
	801.93	8.73	2.2465E+000		-1.4985E+000
Cs-137	661.65	85.12	2.3517E-001	2.35E-001	4.6269E-002
Eu-152	121.78	28.40	1.4170E+000	7.27E-001	4.7740E-001
	244.69	7.49	3.5756E+000		-7.4593E-001
	344.27	26.50	8.8672E-001		2.2795E-001
	778.89	12.74	1.5248E+000		-1.2195E+000
	867.32	4.16	4.6599E+000		-9.0780E+000
	964.01	14.40	1.6978E+000		6.1242E-001
	1085.78	10.00	1.8124E+000		3.8607E-001
	1112.02	13.30	1.3529E+000		-6.4191E-001
	1407.95	20.70	7.2681E-001		-6.1811E-001
Eu-154	123.07	40.50	9.8046E-001	4.92E-001	2.4820E-002
	247.94	6.60	3.9185E+000		-1.8916E+000
	591.81	4.83	4.1835E+000		2.8647E-001

723.30	19.70	1.1359E+000	6.7872E-001
756.87	4.33	4.6097E+000	2.1901E+000
873.19	11.50	1.7242E+000	4.9480E-001

	996.32	10.30	1.9132E+000		-9.6746E-004
	1004.76	17.90	1.1120E+000		5.6939E-002
	1274.45	35.50	4.9245E-001		2.2649E-001
Eu-155	86.54	30.90	2.0628E+000	2.06E+000	-3.4204E-001
	105.31	20.70	2.2668E+000		-5.6942E-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 8/15/2005 8:39:10 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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-029-F-G.CNF
Log Number:
Title: NOL-02-01-029-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/12/2005 9:38:56 AM

Live Time : 900.0 seconds
Real Time : 900.8 seconds

Energy Calibration Date: 6/13/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-029-F-G.CNF
Log Number:
Title: NOL-02-01-029-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	291.78	72.90	1.13	2.72E+002	52.75	9.45E+002
m	2	282-	304	300.36	75.05	1.13	4.66E+002	60.74	8.83E+002
M	3	335-	355	340.41	85.06	1.15	1.80E+002	110.55	7.03E+002
m	4	335-	355	349.42	87.31	1.15	1.87E+002	98.79	1.08E+003
F	5	948-	961	954.75	238.66	1.34	2.27E+002	36.97	2.19E+002
F	6	1344-	1359	1353.59	338.38	1.43	6.32E+001	49.20	1.47E+002
F	7	1399-	1415	1408.04	351.99	1.44	1.21E+002	52.48	1.21E+002
F	8	1847-	1859	1851.99	462.99	1.52	3.21E+001	17.44	5.74E+001
F	9	2033-	2055	2043.91	510.97	2.33	1.78E+002	27.67	9.73E+001
F	10	2325-	2342	2333.14	583.29	1.60	1.30E+002	25.55	6.69E+001
F	11	2430-	2447	2438.07	609.52	1.62	1.02E+002	23.61	7.11E+001
F	12	3638-	3654	3645.78	911.47	1.79	1.02E+002	22.60	4.31E+001
F	13	3868-	3886	3876.67	969.20	1.81	7.05E+001	20.00	4.72E+001
F	14	4475-	4488	4482.24	1120.60	1.89	3.18E+001	15.45	2.97E+001
F	15	5833-	5860	5846.71	1461.75	2.03	9.15E+002	59.29	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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-029-F-G.CNF

Log Number:
Title: NOL-02-01-029-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gm)	Activity Uncertainty
ANN	1.000	511.00*	100.00	5.37680E-001	1.12493E-001
K-40	0.974	1460.81*	10.67	3.38084E+001	3.50634E+000
Eu-155	0.323	86.54*	30.90	1.79229E+000	1.01145E+000
		105.31	20.70		
TL-208	0.753	277.35	6.80		
		510.84*	21.60	2.48926E+000	5.59072E-001
		583.14*	84.20	4.85946E-001	1.14901E-001
		860.37	12.46		
Pb-212	0.679	74.81* @	10.70	1.58122E+001	3.72155E+000
		77.11 @	18.00		
		87.30* @	8.00	6.92270E+000	3.90671E+000
		238.63*	44.60	1.27417E+000	2.88284E-001
Bi-214	0.698	609.31*	46.30	6.99893E-001	1.84162E-001
		1120.29*	15.10	7.81966E-001	3.89122E-001
		1764.49	15.80		
Ac-228	0.997	338.32*	11.40	1.50010E+000	1.19204E+000
		911.07*	27.70	1.28618E+000	3.21002E-001
		969.11*	16.60	1.50995E+000	4.56929E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-029-F-G.CNF

Log Number:
Title: NOL-02-01-029-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
ANN	1.000	4.327159E-001	1.151478E-001
K-40	0.974	3.380837E+001	3.506343E+000
Eu-155	0.323	1.462404E+000	1.014195E+000
TL-208	0.753	4.859465E-001	1.138047E-001
Pb-212 @	0.679	1.274167E+000	2.882836E-001
Bi-214	0.698	7.149125E-001	1.664607E-001
Ac-228	0.997	1.366607E+000	2.565101E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	3.0233E-001	19.39
M 3	85.06	1.9988E-001	61.45
F 7	351.99	1.3464E-001	43.31
F 8	462.99	3.5667E-002	54.34

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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-029-F-G.CNF

Log Number:
Title: NOL-02-01-029-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

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	1.58E-001	-3.0571E-002
	1332.49	100.00	1.5783E-001		1.3961E-002
Nb-94	702.63	100.00	2.0087E-001	1.92E-001	-1.8851E-001
	871.10	100.00	1.9192E-001		1.5569E-001
Ag-108m	79.20	7.10	1.0155E+001	2.39E-001	-3.4566E+001
	433.93	89.90	2.5096E-001		2.3151E-002
	614.37	90.40	2.8421E-001		4.7626E-002
	722.95	90.50	2.3911E-001		2.2520E-001
Sb-125	176.33	6.89	4.2322E+000	7.15E-001	-5.4597E+000
	427.89	29.33	7.1456E-001		2.9637E-001
	463.38	10.35	2.0599E+000		3.7488E-001
	600.56	17.80	1.2277E+000		9.3902E-001
	606.64	5.02	5.1683E+000		7.9380E+000
	635.90	11.32	1.7887E+000		4.3456E-001
Cs-134	563.23	8.38	2.3491E+000	2.35E-001	2.0688E-001
	569.32	15.43	1.3294E+000		1.9814E-001
	604.70	97.60	2.6867E-001		1.2440E-001
	795.84	85.40	2.3544E-001		8.6983E-002
	801.93	8.73	2.1844E+000		-2.0411E+000
Cs-137	661.65	85.12	2.4144E-001	2.41E-001	2.6053E-001
Eu-152	121.78	28.40	1.4465E+000	6.85E-001	-6.6880E-001
	244.69	7.49	3.6728E+000		-2.1833E+000
	344.27	26.50	8.7336E-001		-1.0743E+000
	778.89	12.74	1.5711E+000		-3.1569E-001
	867.32	4.16	4.6767E+000		-1.6387E+000
	964.01	14.40	1.7417E+000		7.0764E-001
	1085.78	10.00	2.0450E+000		6.9943E-001
	1112.02	13.30	1.3982E+000		-7.4500E-001
	1407.95	20.70	6.8547E-001		2.8958E-001
Eu-154	123.07	40.50	9.9663E-001	4.95E-001	-4.8027E-001
	247.94	6.60	3.9599E+000		2.5158E+000
	591.81	4.83	4.1604E+000		-1.6008E+000

723.30	19.70	1.0659E+000	-2.3031E-002
756.87	4.33	4.4134E+000	-7.9325E-001
873.19	11.50	1.6323E+000	-1.4972E+000

		996.32	10.30	1.8987E+000		2.4503E+000
		1004.76	17.90	9.8449E-001		-9.6581E-001
		1274.45	35.50	4.9517E-001		3.9554E-003
+	Eu-155	86.54*	30.90	1.4923E+000	1.49E+000	1.7923E+000
		105.31	20.70	2.2550E+000		-1.3519E+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 8/15/2005 8:39:50 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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-030-F-G.CNF
Log Number:
Title: NOL-02-01-030-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/12/2005 8:44:47 AM

Live Time : 900.0 seconds
Real Time : 900.8 seconds

Energy Calibration Date: 6/13/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-030-F-G.CNF
Log Number:
Title: NOL-02-01-030-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	291.75	72.90	1.13	2.56E+002	52.28	9.63E+002
m	2	282-	309	300.60	75.11	1.13	6.07E+002	63.93	1.06E+003
F	3	331-	344	338.90	84.68	1.15	1.93E+002	51.01	9.10E+002
F	4	740-	750	744.98	186.21	1.28	5.85E+001	29.89	2.36E+002
F	5	945-	959	954.16	238.51	1.34	2.47E+002	37.35	2.25E+002
F	6	1349-	1363	1353.69	338.40	1.43	5.02E+001	21.93	1.15E+002
F	7	1400-	1413	1407.64	351.89	1.44	8.16E+001	24.36	1.16E+002
F	8	2035-	2056	2044.06	511.01	2.33	1.68E+002	106.97	9.17E+001
F	9	2322-	2340	2332.42	583.11	1.60	1.32E+002	25.47	7.62E+001
F	10	2430-	2450	2437.55	609.39	1.62	1.09E+002	23.54	6.84E+001
F	11	3636-	3652	3644.85	911.24	1.79	1.08E+002	107.63	4.88E+001
F	12	3868-	3884	3876.31	969.11	1.81	6.91E+001	18.81	2.75E+001
F	13	4475-	4489	4481.71	1120.47	1.89	3.88E+001	16.89	3.74E+001
F	14	4686-	4701	4694.12	1173.58	1.91	5.56E+001	17.25	2.20E+001
F	15	5323-	5338	5330.25	1332.62	1.98	5.01E+001	16.38	1.83E+001
F	16	5831-	5859	5845.61	1461.47	2.03	7.67E+002	81.11	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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-030-F-G.CNF

Log Number:
Title: NOL-02-01-030-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gm)	Activity Uncertainty
ANN	1.000	511.00*	100.00	5.08112E-001	3.30439E-001
K-40	0.987	1460.81*	10.67	2.83458E+001	3.77540E+000
Co-60	0.998	1173.22*	100.00	2.09408E-001	6.70421E-002
		1332.49*	100.00	1.93799E-001	6.51665E-002
TL-208	0.753	277.35	6.80		
		510.84*	21.60	2.35237E+000	1.54183E+000
		583.14*	84.20	4.90639E-001	1.15015E-001
		860.37	12.46		
Pb-212	0.524	74.81* @	10.70	2.05629E+001	4.57567E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.38851E+000	3.02460E-001
Bi-214	0.700	609.31*	46.30	7.51530E-001	1.86859E-001
		1120.29*	15.10	9.54112E-001	4.27804E-001
		1764.49	15.80		
Ac-228	1.000	338.32*	11.40	1.19269E+000	5.53489E-001
		911.07*	27.70	1.36728E+000	1.36606E+000
		969.11*	16.60	1.48026E+000	4.31925E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-030-F-G.CNF

Log Number:
Title: NOL-02-01-030-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
ANN	1.000	4.021336E-001	3.313538E-001
K-40	0.987	2.834584E+001	3.775397E+000
Co-60	0.998	2.013822E-001	4.672869E-002
TL-208	0.753	4.906391E-001	1.138978E-001
Pb-212 @	0.524	1.388511E+000	3.024603E-001
Bi-214	0.700	7.839873E-001	1.712370E-001
Ac-228	1.000	1.371178E+000	3.304034E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.8484E-001	20.39
F 3	84.68	2.1435E-001	26.44
F 4	186.21	6.5030E-002	51.08
F 7	351.89	9.0696E-002	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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-030-F-G.CNF

Log Number:
Title: NOL-02-01-030-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
+	Co-60	1173.22*	100.00	1.1091E-001	1.06E-001	2.0941E-001
		1332.49*	100.00	1.0569E-001		1.9380E-001
	Nb-94	702.63	100.00	2.0513E-001	1.98E-001	-5.0028E-002
		871.10	100.00	1.9818E-001		-1.5647E-003
	Ag-108m	79.20	7.10	1.0632E+001	2.35E-001	-6.0567E+000
		433.93	89.90	2.3543E-001		-4.6864E-002
		614.37	90.40	2.8075E-001		6.7349E-003
		722.95	90.50	2.3975E-001		-1.5760E-002
	Sb-125	176.33	6.89	4.5531E+000	6.95E-001	2.1950E+000
		427.89	29.33	6.9482E-001		-1.0095E+000
		463.38	10.35	2.2476E+000		3.0584E-001
		600.56	17.80	1.1244E+000		-4.4029E-001
		606.64	5.02	5.0720E+000		-2.2608E+000
		635.90	11.32	1.6938E+000		-9.3376E-001
	Cs-134	563.23	8.38	2.4714E+000	2.32E-001	-2.7831E-001
		569.32	15.43	1.3432E+000		2.9260E-001
		604.70	97.60	2.5834E-001		-1.2240E-001
		795.84	85.40	2.3161E-001		-3.9696E-002
		801.93	8.73	2.3583E+000		8.3403E-001
	Cs-137	661.65	85.12	2.4621E-001	2.46E-001	-9.4286E-002
	Eu-152	121.78	28.40	1.5190E+000	6.98E-001	7.5893E-002
		244.69	7.49	3.6933E+000		-8.1401E+000
		344.27	26.50	8.8540E-001		6.9283E-001
		778.89	12.74	1.5037E+000		-4.2193E+000
		867.32	4.16	4.8249E+000		-6.7332E+000
		964.01	14.40	1.6775E+000		4.8691E-001
		1085.78	10.00	1.9602E+000		2.0930E+000
		1112.02	13.30	1.5429E+000		1.1841E+000
		1407.95	20.70	6.9755E-001		-4.0559E-001
	Eu-154	123.07	40.50	1.0511E+000	5.34E-001	-1.5327E-002
		247.94	6.60	3.9886E+000		-1.8041E+000
		591.81	4.83	4.1372E+000		-8.2038E-001

723.30	19.70	1.1246E+000	6.4391E-001
756.87	4.33	4.6684E+000	4.5758E+000
873.19	11.50	1.7062E+000	5.7720E-002

	996.32	10.30	1.7704E+000		-1.1127E+000
	1004.76	17.90	1.0568E+000		6.0484E-001
	1274.45	35.50	5.3417E-001		2.4589E-001
Eu-155	86.54	30.90	2.1197E+000	2.12E+000	-6.6218E-001
	105.31	20.70	2.4101E+000		-1.2658E+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 8/16/2005 2:47:21 PM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-031-F-G.CNF
Log Number:
Title: NOL-02-01-031-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/15/2005 3:17:56 PM

Live Time : 900.0 seconds
Real Time : 900.7 seconds

Energy Calibration Date: 4/11/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-031-F-G.CNF
Log Number:
Title: NOL-02-01-031-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	291.61	72.75	1.13	1.85E+002	49.30	8.94E+002
m	2	283-	305	300.25	74.92	1.14	3.52E+002	58.53	8.79E+002
M	3	330-	355	340.06	84.91	1.15	1.64E+002	100.18	7.96E+002
m	4	330-	355	349.85	87.36	1.16	9.13E+001	60.69	9.71E+002
F	5	739-	748	743.74	186.13	1.28	4.17E+001	26.57	1.66E+002
F	6	948-	961	954.78	239.01	1.34	1.76E+002	34.19	1.84E+002
F	7	1177-	1187	1182.33	296.01	1.39	4.98E+001	21.53	8.27E+001
F	8	1348-	1360	1353.51	338.88	1.43	4.65E+001	21.97	1.02E+002
F	9	1401-	1414	1407.93	352.51	1.44	8.20E+001	23.27	8.55E+001
F	10	2034-	2054	2043.81	511.62	2.32	1.19E+002	98.66	9.48E+001
F	11	2325-	2339	2332.41	583.79	1.59	9.84E+001	22.76	5.02E+001
F	12	2428-	2445	2437.05	609.95	1.61	1.16E+002	24.63	6.50E+001
F	13	2904-	2917	2909.69	728.06	1.68	3.82E+001	15.90	2.89E+001
F	14	3638-	3651	3644.69	911.63	1.77	6.38E+001	19.91	3.68E+001
F	15	3868-	3884	3876.84	969.58	1.80	6.18E+001	40.42	2.13E+001
F	16	5831-	5859	5845.54	1460.76	2.01	6.77E+002	83.29	2.14E+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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-031-F-G.CNF

Log Number:
Title: NOL-02-01-031-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	0.988	511.00*	100.00	3.46437E-001	2.91291E-001
K-40	1.000	1460.81*	10.67	2.40532E+001	3.54323E+000
Eu-155	0.321	86.54*	30.90	8.50500E-001	5.89232E-001
		105.31	20.70		
TL-208	0.741	277.35	6.80		
		510.84*	21.60	1.60387E+000	1.35492E+000
		583.14*	84.20	3.52124E-001	9.38338E-002
		860.37	12.46		
Bi-212	0.976	727.17*	11.80	1.02801E+000	4.44383E-001
Pb-212	0.677	74.81* @	10.70	1.16033E+001	2.98073E+000
		77.11 @	18.00		
		87.30* @	8.00	3.28506E+000	2.27591E+000
		238.63*	44.60	9.62430E-001	2.40086E-001
Bi-214	0.392	609.31*	46.30	7.64633E-001	1.88041E-001
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.664	74.82* @	6.21	1.99928E+001	5.33700E+000
		77.11 @	10.50		
		87.30* @	4.67	5.62751E+000	3.92188E+000
		241.98	7.49		
		295.21*	19.20	6.61739E-001	3.07264E-001
		351.92*	37.20	5.84638E-001	1.92593E-001
Ac-228	0.991	338.32*	11.40	1.07181E+000	5.34004E-001
		911.07*	27.70	7.65838E-001	2.54813E-001
		969.11*	16.60	1.26317E+000	8.37017E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-031-F-G.CNF

Log Number:
Title: NOL-02-01-031-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN		0.988	2.703783E-001	2.919849E-001
K-40		1.000	2.405322E+001	3.543228E+000
Eu-155		0.321	5.097154E-001	5.930005E-001
TL-208		0.741	3.521235E-001	9.312951E-002
Bi-212		0.976	1.028007E+000	4.443826E-001
Pb-212	@	0.677	9.624298E-001	2.400861E-001
Bi-214		0.392	7.646333E-001	1.880415E-001
PB-214	@	0.664	6.061693E-001	1.609544E-001
Ac-228		0.991	8.535104E-001	2.217552E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.0570E-001	26.63
M 3	84.91	1.8227E-001	61.07
F 5	186.13	4.6341E-002	63.71

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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-031-F-G.CNF

Log Number:
Title: NOL-02-01-031-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Co-60	1173.22	100.00	1.9765E-001	1.59E-001	2.4053E-003
	1332.49	100.00	1.5886E-001		1.3918E-001
Nb-94	702.63	100.00	1.7702E-001	1.77E-001	4.8115E-002
	871.10	100.00	1.7937E-001		-1.0162E-002
Ag-108m	79.20	7.10	8.9763E+000	2.10E-001	-8.7046E+000
	433.93	89.90	2.1041E-001		-1.0970E-001
	614.37	90.40	2.7078E-001		-1.5919E-001
	722.95	90.50	2.1755E-001		-2.0939E-001
Sb-125	176.33	6.89	3.8164E+000	6.22E-001	6.3069E-001
	427.89	29.33	6.2179E-001		-2.1007E-001
	463.38	10.35	1.9826E+000		1.8280E+000
	600.56	17.80	9.6827E-001		-2.7055E-001
	606.64	5.02	4.7831E+000		7.8664E+000
	635.90	11.32	1.6406E+000		1.6083E+000
Cs-134	563.23	8.38	2.2062E+000	2.12E-001	1.5650E+000
	569.32	15.43	1.1873E+000		3.0490E-001
	604.70	97.60	2.3119E-001		-5.2020E-003
	795.84	85.40	2.1173E-001		1.5989E-001
	801.93	8.73	1.9818E+000		-1.4592E+000
Cs-137	661.65	85.12	2.4640E-001	2.46E-001	3.8201E-001
Eu-152	121.78	28.40	1.2885E+000	6.65E-001	4.2559E-001
	244.69	7.49	3.3005E+000		7.0315E-001
	344.27	26.50	8.0522E-001		-2.5629E-001
	778.89	12.74	1.4132E+000		-6.3238E-001
	867.32	4.16	4.4058E+000		-3.5845E+000
	964.01	14.40	1.4950E+000		2.3115E-001
	1085.78	10.00	1.7256E+000		6.7950E-001
	1112.02	13.30	1.4769E+000		-3.7380E+000
	1407.95	20.70	6.6478E-001		-6.2640E-001
Eu-154	123.07	40.50	8.8973E-001	4.17E-001	-6.5537E-001
	247.94	6.60	3.4394E+000		-5.6717E+000
	591.81	4.83	3.7733E+000		2.2101E+000

723.30	19.70	1.0053E+000	-4.6701E-001
756.87	4.33	4.0738E+000	-2.2061E+000
873.19	11.50	1.4931E+000	5.2041E-001

		996.32	10.30	1.5896E+000		7.1618E-002
		1004.76	17.90	8.9861E-001		-3.0692E-001
		1274.45	35.50	4.1694E-001		3.9515E-002
+	Eu-155	86.54*	30.90	1.3754E+000	1.38E+000	8.5050E-001
		105.31	20.70	2.1029E+000		-3.1280E-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 8/17/2005 7:01:05 AM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-032-F-G.CNF
Log Number:
Title: NOL-02-01-032-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/16/2005 7:31:18 AM

Live Time : 900.0 seconds
Real Time : 900.8 seconds

Energy Calibration Date: 4/11/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-032-F-G.CNF
Log Number:
Title: NOL-02-01-032-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	291.74	72.78	1.13	1.95E+002	50.16	7.85E+002
m	2	285-	305	300.59	75.00	1.14	3.69E+002	58.56	8.52E+002
F	3	332-	345	339.45	84.75	1.15	1.19E+002	45.88	7.74E+002
F	4	950-	960	954.88	239.04	1.34	1.69E+002	33.61	1.40E+002
F	5	1347-	1358	1353.22	338.81	1.43	4.07E+001	19.51	7.46E+001
F	6	1399-	1414	1407.31	352.35	1.44	1.06E+002	75.62	1.06E+002
F	7	2034-	2052	2043.69	511.59	2.32	1.03E+002	24.10	9.03E+001
F	8	2323-	2340	2332.31	583.76	1.59	1.00E+002	22.42	5.32E+001
F	9	2427-	2445	2436.63	609.84	1.61	1.35E+002	25.23	5.46E+001
F	10	3636-	3652	3644.15	911.49	1.77	6.43E+001	19.13	4.49E+001
F	11	3854-	3884	3875.23	969.18	1.80	4.72E+001	17.00	5.79E+001
F	12	5830-	5859	5844.95	1460.61	2.01	7.79E+002	88.24	7.42E+000
F	13	7052-	7067	7060.08	1763.72	2.12	2.96E+001	12.19	5.69E+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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-032-F-G.CNF

Log Number:
Title: NOL-02-01-032-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	0.989	511.00*	100.00	3.00306E-001	8.18257E-002
K-40	0.999	1460.81*	10.67	2.76696E+001	3.85363E+000
TL-208	0.742	277.35	6.80		
		510.84*	21.60	1.39031E+000	3.95472E-001
		583.14*	84.20	3.59626E-001	9.32518E-002
		860.37	12.46		
Pb-212	0.522	74.81* @	10.70	1.21455E+001	3.06146E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	9.24278E-001	2.33877E-001
Bi-214	0.690	609.31*	46.30	8.86540E-001	1.99382E-001
		1120.29	15.10		
		1764.49*	15.80	7.40064E-001	3.13449E-001
Ac-228	0.996	338.32*	11.40	9.38007E-001	4.73501E-001
		911.07*	27.70	7.71784E-001	2.46268E-001
		969.11*	16.60	9.65627E-001	3.61888E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-032-F-G.CNF

Log Number:
Title: NOL-02-01-032-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN	0.989	2.226268E-001	8.423031E-002
K-40	0.999	2.766964E+001	3.853634E+000
TL-208	0.742	3.596265E-001	9.251241E-002
Pb-212 @	0.522	9.242783E-001	2.338770E-001
Bi-214	0.690	8.443461E-001	1.682318E-001
Ac-228	0.996	8.495016E-001	1.870395E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.1680E-001	25.71
F 3	84.75	1.3240E-001	38.50
F 6	352.35	1.1810E-001	71.15

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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-032-F-G.CNF

Log Number:
Title: NOL-02-01-032-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Co-60	1173.22	100.00	1.8682E-001	1.61E-001	1.0070E-001
	1332.49	100.00	1.6086E-001		1.5343E-001
Nb-94	702.63	100.00	1.8933E-001	1.77E-001	5.5625E-002
	871.10	100.00	1.7729E-001		-2.5050E-002
Ag-108m	79.20	7.10	9.1514E+000	1.99E-001	-1.2228E+001
	433.93	89.90	1.9928E-001		-1.5599E-001
	614.37	90.40	2.7266E-001		-5.3569E-002
	722.95	90.50	2.1882E-001		2.3468E-001
Sb-125	176.33	6.89	3.7362E+000	6.67E-001	-1.1536E-001
	427.89	29.33	6.6729E-001		-1.0068E-001
	463.38	10.35	1.9482E+000		-1.4045E-001
	600.56	17.80	1.0687E+000		3.7464E-001
	606.64	5.02	4.8260E+000		4.8443E+000
	635.90	11.32	1.5069E+000		6.4578E-001
Cs-134	563.23	8.38	2.0009E+000	2.05E-001	-1.0046E+000
	569.32	15.43	1.1655E+000		-2.0693E-001
	604.70	97.60	2.4669E-001		1.0762E-001
	795.84	85.40	2.0469E-001		7.1735E-002
	801.93	8.73	2.0287E+000		-3.1725E+000
Cs-137	661.65	85.12	2.3766E-001	2.38E-001	9.6042E-002
Eu-152	121.78	28.40	1.3174E+000	6.59E-001	4.7781E-001
	244.69	7.49	3.2350E+000		-5.2533E+000
	344.27	26.50	7.8989E-001		-2.1184E-001
	778.89	12.74	1.3339E+000		-1.2238E+000
	867.32	4.16	4.2914E+000		-9.3106E+000
	964.01	14.40	1.4654E+000		-2.1991E-002
	1085.78	10.00	1.5970E+000		-1.1717E+000
	1112.02	13.30	1.3505E+000		-2.3201E+000
	1407.95	20.70	6.5894E-001		-3.6243E-001
Eu-154	123.07	40.50	9.1585E-001	4.86E-001	-6.9627E-002
	247.94	6.60	3.4928E+000		-3.5865E+000
	591.81	4.83	4.0347E+000		2.5745E+000

723.30	19.70	1.0053E+000	1.0782E+000
756.87	4.33	4.1042E+000	-1.7485E+000
873.19	11.50	1.4806E+000	5.4739E-001

	996.32	10.30	1.6900E+000		2.8856E-001
	1004.76	17.90	9.0330E-001		-5.3352E-001
	1274.45	35.50	4.8566E-001		-2.0630E-001
Eu-155	86.54	30.90	1.8917E+000	1.89E+000	3.5695E+000
	105.31	20.70	2.0981E+000		1.2743E-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 8/17/2005 7:01:29 AM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-033-F-G.CNF
Log Number:
Title: NOL-02-01-033-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/16/2005 10:19:17 AM

Live Time : 900.0 seconds
Real Time : 900.7 seconds

Energy Calibration Date: 4/11/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-033-F-G.CNF
Log Number:
Title: NOL-02-01-033-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	291.50	72.72	1.13	1.63E+002	48.39	8.89E+002
m	2	282-	304	300.14	74.89	1.14	3.46E+002	57.87	8.20E+002
F	3	330-	354	339.58	84.78	1.15	1.80E+002	47.39	1.26E+003
F	4	949-	959	955.21	239.12	1.34	1.44E+002	32.86	1.64E+002
F	5	1176-	1186	1180.66	295.60	1.39	3.02E+001	22.01	1.13E+002
F	6	1348-	1362	1352.74	338.69	1.43	5.42E+001	21.15	8.81E+001
F	7	1401-	1418	1407.52	352.40	1.44	1.03E+002	25.08	1.17E+002
F	8	2033-	2053	2043.20	511.47	2.32	1.22E+002	24.10	7.89E+001
F	9	2326-	2341	2333.21	583.99	1.59	8.45E+001	22.22	5.73E+001
F	10	2428-	2445	2437.21	609.99	1.61	9.60E+001	23.49	7.82E+001
F	11	2638-	2653	2646.22	662.23	1.64	7.18E+001	21.28	6.40E+001
F	12	3637-	3655	3645.89	911.93	1.77	8.65E+001	20.66	4.01E+001
F	13	3854-	3882	3877.11	969.65	1.80	5.40E+001	18.01	6.65E+001
F	14	4686-	4700	4693.50	1173.38	1.89	4.57E+001	16.93	2.94E+001
F	15	5326-	5339	5332.99	1332.91	1.96	2.09E+001	12.07	1.39E+001
F	16	5831-	5860	5845.68	1460.80	2.01	8.15E+002	83.62	7.26E+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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-033-F-G.CNF

Log Number:
Title: NOL-02-01-033-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	0.993	511.00*	100.00	3.55261E-001	8.60413E-002
K-40	1.000	1460.81*	10.67	2.89492E+001	3.78471E+000
Co-60	0.997	1173.22*	100.00	1.65003E-001	6.24994E-002
		1332.49*	100.00	7.76468E-002	4.52782E-002
Cs-137	0.990	661.65*	85.12	2.62569E-001	8.37952E-002
TL-208	0.736	277.35	6.80		
		510.84*	21.60	1.64473E+000	4.20376E-001
		583.14*	84.20	3.02423E-001	8.90116E-002
		860.37	12.46		
Pb-212	0.520	74.81* @	10.70	1.13923E+001	2.93575E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	7.86325E-001	2.17756E-001
Bi-214	0.391	609.31*	46.30	6.32407E-001	1.73556E-001
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.584	74.82* @	6.21	1.96292E+001	5.25525E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	4.01116E-001	3.00333E-001
		351.92*	37.20	7.35064E-001	2.17012E-001
Ac-228	0.986	338.32*	11.40	1.25056E+000	5.25805E-001
		911.07*	27.70	1.03834E+000	2.75285E-001
		969.11*	16.60	1.10354E+000	3.85840E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-033-F-G.CNF

Log Number:
Title: NOL-02-01-033-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN		0.993	2.899380E-001	8.813754E-002
K-40		1.000	2.894922E+001	3.784705E+000
Co-60		0.997	1.077143E-001	3.666713E-002
Cs-137		0.990	2.625692E-001	8.379516E-002
TL-208		0.736	3.024230E-001	8.846432E-002
Pb-212	@	0.520	7.863246E-001	2.177555E-001
Bi-214		0.391	6.324070E-001	1.735562E-001
PB-214	@	0.584	6.205148E-001	1.758977E-001
Ac-228		0.986	1.089578E+000	2.061532E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	1.8099E-001	29.71
F 3	84.78	2.0012E-001	26.31

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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-033-F-G.CNF

Log Number:
Title: NOL-02-01-033-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
+	Co-60	1173.22*	100.00	1.2034E-001	8.58E-002	1.6500E-001
		1332.49*	100.00	8.5801E-002		7.7647E-002
	Nb-94	702.63	100.00	1.7314E-001	1.64E-001	-1.5519E-001
		871.10	100.00	1.6351E-001		-6.3149E-002
	Ag-108m	79.20	7.10	9.1463E+000	2.18E-001	-1.8621E+001
		433.93	89.90	2.1849E-001		6.9267E-002
		614.37	90.40	2.7313E-001		1.2987E-002
		722.95	90.50	2.3114E-001		1.1300E-001
	Sb-125	176.33	6.89	3.9536E+000	6.49E-001	2.1292E+000
		427.89	29.33	6.4887E-001		-5.3761E-001
		463.38	10.35	2.0122E+000		-4.9117E-002
		600.56	17.80	1.0532E+000		5.8000E-001
		606.64	5.02	4.7049E+000		6.8532E-001
		635.90	11.32	1.6761E+000		3.1843E-001
	Cs-134	563.23	8.38	2.2062E+000	2.03E-001	1.7648E-002
		569.32	15.43	1.1245E+000		-6.0690E-001
		604.70	97.60	2.3166E-001		-2.3103E-002
		795.84	85.40	2.0309E-001		7.5170E-002
		801.93	8.73	1.9256E+000		-2.0481E+000
+	Cs-137	661.65*	85.12	1.7678E-001	1.77E-001	2.6257E-001
	Eu-152	121.78	28.40	1.3344E+000	6.47E-001	-7.8772E-001
		244.69	7.49	3.4791E+000		-6.1185E+000
		344.27	26.50	8.0935E-001		1.6087E-001
		778.89	12.74	1.4081E+000		-3.3103E-001
		867.32	4.16	4.1394E+000		1.2713E+000
		964.01	14.40	1.5484E+000		2.2070E+000
		1085.78	10.00	1.6669E+000		-4.6498E-001
		1112.02	13.30	1.3685E+000		-3.9809E+000
		1407.95	20.70	6.4710E-001		-1.5448E-001
	Eu-154	123.07	40.50	9.3219E-001	4.29E-001	1.7613E-001
		247.94	6.60	3.7027E+000		-5.1674E+000
		591.81	4.83	3.9233E+000		2.5080E+000

723.30	19.70	1.0702E+000	5.7053E-001
756.87	4.33	3.7723E+000	-3.6735E-001
873.19	11.50	1.4356E+000	-3.0770E-001

	996.32	10.30	1.7559E+000		-3.6684E-002
	1004.76	17.90	1.0132E+000		3.0138E-002
	1274.45	35.50	4.2873E-001		-1.7106E-001
Eu-155	86.54	30.90	1.8563E+000	1.86E+000	-1.7455E-001
	105.31	20.70	2.1465E+000		-8.3906E-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 8/16/2005 8:51:05 AM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-034-F-G.CNF
Log Number:
Title: NOL-02-01-034-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/15/2005 10:52:22 AM

Live Time : 900.0 seconds
Real Time : 900.7 seconds

Energy Calibration Date: 4/11/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-034-F-G.CNF
Log Number:
Title: NOL-02-01-034-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	291.98	72.84	1.13	2.19E+002	50.84	6.97E+002
m	2	286-	306	300.42	74.96	1.14	3.68E+002	58.23	8.95E+002
F	3	333-	344	339.69	84.81	1.15	1.41E+002	45.51	6.35E+002
F	4	945-	960	954.33	238.90	1.34	1.96E+002	34.68	2.09E+002
F	5	1175-	1191	1180.65	295.59	1.39	6.78E+001	23.08	1.29E+002
F	6	1349-	1359	1353.64	338.91	1.43	3.43E+001	20.65	8.53E+001
F	7	1400-	1418	1407.33	352.36	1.44	1.17E+002	25.70	1.20E+002
F	8	2033-	2051	2041.61	511.07	2.32	7.09E+001	24.05	1.24E+002
F	9	2326-	2340	2332.02	583.69	1.59	9.71E+001	23.56	5.68E+001
F	10	2429-	2445	2437.15	609.97	1.61	1.41E+002	26.11	6.09E+001
M	11	2639-	2667	2646.57	662.32	1.64	1.12E+002	46.20	4.30E+001
m	12	2639-	2667	2661.75	666.11	1.64	2.31E+001	14.39	4.12E+001
F	13	3637-	3653	3645.22	911.76	1.77	9.39E+001	21.50	3.62E+001
F	14	3869-	3884	3876.44	969.48	1.80	5.54E+001	17.08	2.36E+001
F	15	4475-	4492	4482.78	1120.80	1.87	4.53E+001	16.63	3.26E+001
F	16	4686-	4701	4693.68	1173.43	1.89	5.46E+001	16.91	2.20E+001
F	17	5830-	5858	5845.48	1460.74	2.01	7.56E+002	84.85	1.49E+001
F	18	7051-	7066	7059.57	1763.60	2.12	3.62E+001	13.08	7.65E+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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-034-F-G.CNF

Log Number:
Title: NOL-02-01-034-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	1.000	511.00*	100.00	2.06443E-001	7.57355E-002
K-40	1.000	1460.81*	10.67	2.68597E+001	3.71759E+000
Cs-137	0.986	661.65*	85.12	4.09831E-001	1.75819E-001
TL-208	0.747	277.35	6.80		
		510.84*	21.60	9.55754E-001	3.59210E-001
		583.14*	84.20	3.47385E-001	9.60126E-002
		860.37	12.46		
Pb-212	0.523	74.81* @	10.70	1.20910E+001	3.04714E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.07050E+000	2.53067E-001
Bi-214	0.986	609.31*	46.30	9.26287E-001	2.06973E-001
		1120.29*	15.10	1.06793E+000	4.07943E-001
		1764.49*	15.80	9.03350E-001	3.39024E-001
PB-214	0.584	74.82* @	6.21	2.08331E+001	5.46378E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	9.01408E-001	3.42302E-001
		351.92*	37.20	8.33448E-001	2.30247E-001
Ac-228	0.989	338.32*	11.40	7.90537E-001	4.92324E-001
		911.07*	27.70	1.12782E+000	2.88949E-001
		969.11*	16.60	1.13222E+000	3.68748E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-034-F-G.CNF

Log Number:
Title: NOL-02-01-034-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN		1.000	1.314076E-001	7.848557E-002
K-40		1.000	2.685974E+001	3.717592E+000
Cs-137		0.986	4.098312E-001	1.758187E-001
TL-208		0.747	3.473854E-001	9.534286E-002
Pb-212	@	0.523	1.070497E+000	2.530671E-001
Bi-214		0.986	9.434091E-001	1.621079E-001
PB-214	@	0.584	8.546180E-001	1.910486E-001
Ac-228		0.989	1.069876E+000	2.064721E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.4349E-001	23.20
F 3	84.81	1.5667E-001	32.28
m 12	666.11	2.5630E-002	62.36
F 16	1173.43	6.0640E-002	30.98

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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-034-F-G.CNF

Log Number:
Title: NOL-02-01-034-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
	Co-60	1173.22	100.00	2.2233E-001	1.74E-001	2.3171E-001
		1332.49	100.00	1.7416E-001		1.8620E-001
	Nb-94	702.63	100.00	1.7829E-001	1.69E-001	1.0285E-001
		871.10	100.00	1.6872E-001		-1.1968E-002
	Ag-108m	79.20	7.10	8.9215E+000	2.10E-001	-6.3958E+000
		433.93	89.90	2.1849E-001		-2.1125E-001
		614.37	90.40	2.7685E-001		-2.2725E-002
		722.95	90.50	2.1040E-001		-7.8303E-002
	Sb-125	176.33	6.89	3.8950E+000	6.85E-001	-2.6475E+000
		427.89	29.33	6.8520E-001		-1.1802E-001
		463.38	10.35	1.9953E+000		1.8928E-001
		600.56	17.80	1.0930E+000		-1.8883E-001
		606.64	5.02	5.0917E+000		1.0224E+001
		635.90	11.32	1.6303E+000		6.9599E-002
	Cs-134	563.23	8.38	2.1734E+000	2.05E-001	5.7723E-001
		569.32	15.43	1.1980E+000		-4.9502E-002
		604.70	97.60	2.5020E-001		-1.6677E-002
		795.84	85.40	2.0469E-001		1.7188E-001
		801.93	8.73	1.9256E+000		-1.5305E+000
+	Cs-137	661.65*	85.12	1.2155E-001	1.22E-001	4.0983E-001
	Eu-152	121.78	28.40	1.3640E+000	6.53E-001	1.3342E+000
		244.69	7.49	3.4137E+000		-1.9612E+000
		344.27	26.50	8.0660E-001		-3.1004E-001
		778.89	12.74	1.3925E+000		-2.0769E+000
		867.32	4.16	4.2914E+000		2.2068E-001
		964.01	14.40	1.4525E+000		1.4165E-001
		1085.78	10.00	1.6754E+000		-1.0813E+000
		1112.02	13.30	1.3979E+000		1.1656E-001
		1407.95	20.70	6.5305E-001		-3.2232E-001
	Eu-154	123.07	40.50	9.4319E-001	4.34E-001	-3.9707E-001
		247.94	6.60	3.7235E+000		-4.8976E+000
		591.81	4.83	3.9458E+000		7.0484E-001

723.30	19.70	9.8470E-001	8.3279E-001
756.87	4.33	4.2527E+000	1.7673E+000
873.19	11.50	1.4356E+000	7.6705E-001

	996.32	10.30	1.8054E+000		1.4500E+000
	1004.76	17.90	9.7080E-001		-7.7951E-001
	1274.45	35.50	4.3449E-001		-2.3837E-001
Eu-155	86.54	30.90	1.8615E+000	1.86E+000	1.7774E+000
	105.31	20.70	2.1236E+000		1.4177E+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 8/15/2005 8:41:22 AM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-035-F-G.CNF
Log Number:
Title: NOL-02-01-035-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/12/2005 11:19:43 AM

Live Time : 900.0 seconds
Real Time : 900.9 seconds

Energy Calibration Date: 6/13/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-035-F-G.CNF
Log Number:
Title: NOL-02-01-035-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	291.56	72.85	1.13	2.85E+002	56.02	8.37E+002
m	2	287-	305	300.51	75.09	1.13	5.85E+002	66.09	1.07E+003
F	3	335-	344	339.77	84.90	1.15	1.35E+002	52.41	7.51E+002
F	4	944-	963	954.85	238.69	1.34	2.20E+002	103.62	3.58E+002
F	5	1176-	1187	1181.74	295.41	1.39	4.04E+001	23.66	1.41E+002
F	6	1346-	1360	1353.45	338.34	1.43	8.06E+001	24.34	1.24E+002
F	7	1401-	1416	1407.83	351.94	1.44	8.24E+001	24.79	1.28E+002
F	8	2030-	2055	2042.80	510.69	2.33	1.36E+002	73.34	1.53E+002
F	9	2323-	2342	2334.01	583.50	1.60	1.08E+002	58.09	9.49E+001
F	10	2430-	2446	2438.23	609.56	1.62	1.03E+002	24.75	9.35E+001
F	11	2639-	2655	2647.47	661.87	1.65	1.49E+002	27.52	7.18E+001
F	12	3640-	3655	3646.77	911.72	1.79	9.30E+001	23.45	5.19E+001
F	13	3868-	3882	3876.04	969.04	1.81	5.34E+001	20.04	5.43E+001
F	14	4684-	4706	4695.62	1173.95	1.91	2.18E+002	30.87	5.45E+001
F	15	5320-	5343	5333.53	1333.45	1.98	2.70E+002	53.47	8.71E+000
F	16	5833-	5861	5847.45	1461.94	2.03	7.48E+002	53.61	2.52E+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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-035-F-G.CNF

Log Number:
Title: NOL-02-01-035-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gm)	Activity Uncertainty
ANN	0.997	511.00*	100.00	4.10797E-001	2.28553E-001
K-40	0.963	1460.81*	10.67	2.76459E+001	2.98947E+000
Co-60	0.978	1173.22*	100.00	8.20443E-001	1.32916E-001
		1332.49*	100.00	1.04317E+000	2.22508E-001
Cs-137	0.998	661.65*	85.12	5.71635E-001	1.25102E-001
TL-208	0.750	277.35	6.80		
		510.84*	21.60	1.90184E+000	1.06945E+000
		583.14*	84.20	4.02577E-001	2.23069E-001
		860.37	12.46		
Pb-212	0.525	74.81* @	10.70	1.98259E+001	4.48547E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.23609E+000	6.13968E-001
Bi-214	0.397	609.31*	46.30	7.05703E-001	1.91425E-001
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.587	74.82* @	6.21	3.41606E+001	8.11667E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	5.53470E-001	3.36950E-001
		351.92*	37.20	6.04690E-001	2.08184E-001
Ac-228	0.994	338.32*	11.40	1.91314E+000	6.51380E-001
		911.07*	27.70	1.17248E+000	3.24894E-001
		969.11*	16.60	1.14359E+000	4.45849E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-035-F-G.CNF

Log Number:
Title: NOL-02-01-035-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
ANN		0.997	3.238406E-001	2.335591E-001
K-40		0.963	2.764585E+001	2.989466E+000
Co-60		0.978	8.790167E-001	1.141076E-001
Cs-137		0.998	5.716349E-001	1.251018E-001
TL-208		0.750	4.025773E-001	2.226832E-001
Pb-212	@	0.525	1.236090E+000	6.139685E-001
Bi-214		0.397	7.057031E-001	1.914248E-001
PB-214	@	0.587	5.905391E-001	1.771064E-001
Ac-228		0.994	1.267392E+000	2.435324E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	3.1620E-001	19.69
F 3	84.90	1.4984E-001	38.87

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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-035-F-G.CNF

Log Number:
Title: NOL-02-01-035-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
+	Co-60	1173.22*	100.00	1.9028E-001	8.50E-002	8.2044E-001
		1332.49*	100.00	8.4992E-002		1.0432E+000
	Nb-94	702.63	100.00	2.1106E-001	2.06E-001	1.8232E-002
		871.10	100.00	2.0556E-001		-8.7558E-002
	Ag-108m	79.20	7.10	1.1143E+001	2.45E-001	-2.3144E+001
		433.93	89.90	2.7023E-001		-2.0215E-002
		614.37	90.40	2.9432E-001		8.4770E-002
		722.95	90.50	2.4477E-001		-6.2719E-002
	Sb-125	176.33	6.89	4.6724E+000	7.80E-001	-1.6156E+000
		427.89	29.33	7.8024E-001		-1.3321E-002
		463.38	10.35	2.3067E+000		1.4359E+000
		600.56	17.80	1.3010E+000		-8.6871E-001
		606.64	5.02	5.4551E+000		5.6378E+000
		635.90	11.32	1.9873E+000		1.7404E+000
	Cs-134	563.23	8.38	2.6293E+000	2.56E-001	-1.4705E+000
		569.32	15.43	1.3534E+000		-7.5081E-002
		604.70	97.60	2.7777E-001		-1.2250E-001
		795.84	85.40	2.5577E-001		3.1026E-001
		801.93	8.73	2.3290E+000		-2.0089E+000
+	Cs-137	661.65*	85.12	1.9926E-001	1.99E-001	5.7163E-001
	Eu-152	121.78	28.40	1.5690E+000	6.54E-001	1.3407E+000
		244.69	7.49	4.0994E+000		-2.0705E+000
		344.27	26.50	9.3067E-001		-2.6271E-001
		778.89	12.74	1.7253E+000		7.1626E-001
		867.32	4.16	5.0617E+000		2.9622E+000
		964.01	14.40	1.7690E+000		-5.3464E-001
		1085.78	10.00	1.9284E+000		-3.5908E-001
		1112.02	13.30	1.5314E+000		-1.3414E-001
		1407.95	20.70	6.5420E-001		-3.9380E-001
	Eu-154	123.07	40.50	1.0864E+000	4.87E-001	6.3539E-001
		247.94	6.60	4.2765E+000		-1.3736E+000
		591.81	4.83	4.9020E+000		2.4450E+000

723.30	19.70	1.1444E+000	9.5170E-001
756.87	4.33	5.2433E+000	-3.9304E+000
873.19	11.50	1.7827E+000	-9.1694E-001

	996.32	10.30	1.9489E+000		1.5797E+000
	1004.76	17.90	1.0995E+000		1.3300E-001
	1274.45	35.50	4.8697E-001		6.1085E-002
Eu-155	86.54	30.90	2.2095E+000	2.21E+000	3.1719E+000
	105.31	20.70	2.4707E+000		-5.9686E-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 8/15/2005 8:43:26 AM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-036-F-G.CNF
Log Number:
Title: NOL-02-01-036-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/12/2005 11:41:14 AM

Live Time : 900.0 seconds
Real Time : 900.8 seconds

Energy Calibration Date: 6/13/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-036-F-G.CNF
Log Number:
Title: NOL-02-01-036-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	292.25	73.02	1.13	2.23E+002	52.14	9.63E+002
m	2	285-	305	300.69	75.13	1.13	4.90E+002	62.31	9.40E+002
F	3	334-	347	339.65	84.87	1.15	2.07E+002	50.90	8.90E+002
F	4	494-	501	497.77	124.40	1.21	5.66E+001	34.92	2.73E+002
F	5	948-	962	954.86	238.69	1.34	2.44E+002	37.84	2.38E+002
F	6	1346-	1358	1352.78	338.18	1.43	4.85E+001	21.83	1.06E+002
F	7	1401-	1413	1407.99	351.98	1.44	6.81E+001	23.89	1.07E+002
F	8	2032-	2056	2043.87	510.96	2.33	1.44E+002	79.15	1.10E+002
F	9	2324-	2342	2333.59	583.40	1.60	1.44E+002	64.41	6.41E+001
F	10	2430-	2445	2438.09	609.53	1.62	1.26E+002	25.76	6.39E+001
F	11	3638-	3656	3646.35	911.62	1.79	1.28E+002	24.27	3.89E+001
F	12	3871-	3885	3877.88	969.50	1.81	6.45E+001	20.06	4.33E+001
F	13	5834-	5862	5848.13	1462.10	2.03	7.46E+002	53.22	3.22E+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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-036-F-G.CNF

Log Number:
Title: NOL-02-01-036-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gm)	Activity Uncertainty
ANN	1.000	511.00*	100.00	4.33637E-001	2.46347E-001
K-40	0.951	1460.81*	10.67	2.75745E+001	2.97559E+000
TL-208	0.752	277.35	6.80		
		510.84*	21.60	2.00758E+000	1.15222E+000
		583.14*	84.20	5.36196E-001	2.50412E-001
		860.37	12.46		
Pb-212	0.524	74.81* @	10.70	1.65984E+001	3.87787E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.37299E+000	3.02646E-001
Bi-214	0.398	609.31*	46.30	8.66729E-001	2.07287E-001
		1120.29	15.10		
		1764.49	15.80		
Ac-228	0.994	338.32*	11.40	1.15094E+000	5.48936E-001
		911.07*	27.70	1.61059E+000	3.57676E-001
		969.11*	16.60	1.38172E+000	4.53568E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-036-F-G.CNF

Log Number:
Title: NOL-02-01-036-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
ANN	1.000	3.178190E-001	2.521867E-001
K-40	0.951	2.757452E+001	2.975589E+000
TL-208	0.752	5.361957E-001	2.498018E-001
Pb-212 @	0.524	1.372987E+000	3.026461E-001
Bi-214	0.398	8.667288E-001	2.072871E-001
Ac-228	0.994	1.445679E+000	2.500303E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.4813E-001	23.35
F 3	84.87	2.2988E-001	24.60
F 4	124.40	6.2853E-002	61.73
F 7	351.98	7.5670E-002	35.08

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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-036-F-G.CNF

Log Number:
Title: NOL-02-01-036-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
Co-60	1173.22	100.00	1.9239E-001	1.63E-001	5.5718E-002
	1332.49	100.00	1.6323E-001		1.1409E-001
Nb-94	702.63	100.00	2.0513E-001	1.73E-001	-2.0212E-003
	871.10	100.00	1.7328E-001		9.5007E-002
Ag-108m	79.20	7.10	1.0496E+001	2.29E-001	-1.9021E+001
	433.93	89.90	2.4262E-001		7.2221E-002
	614.37	90.40	2.9242E-001		-2.0373E-001
	722.95	90.50	2.2936E-001		1.9074E-001
Sb-125	176.33	6.89	4.3927E+000	6.90E-001	1.3333E+000
	427.89	29.33	6.9019E-001		1.3348E-001
	463.38	10.35	2.1202E+000		4.7402E-001
	600.56	17.80	1.0986E+000		4.1611E-002
	606.64	5.02	5.2287E+000		1.0036E+001
	635.90	11.32	1.7367E+000		-6.9311E-002
Cs-134	563.23	8.38	2.3292E+000	2.34E-001	3.7330E-001
	569.32	15.43	1.3770E+000		6.0211E-001
	604.70	97.60	2.6333E-001		1.1187E-001
	795.84	85.40	2.3391E-001		-1.7109E-001
	801.93	8.73	2.2001E+000		-2.7107E+000
Cs-137	661.65	85.12	2.3517E-001	2.35E-001	1.3382E-001
Eu-152	121.78	28.40	1.4569E+000	7.60E-001	9.7228E-001
	244.69	7.49	3.7305E+000		-4.4711E+000
	344.27	26.50	9.0638E-001		1.7161E-001
	778.89	12.74	1.4931E+000		-5.1680E-001
	867.32	4.16	4.4886E+000		-9.7357E-001
	964.01	14.40	1.6611E+000		-5.7390E-001
	1085.78	10.00	1.8630E+000		3.5180E-001
	1112.02	13.30	1.4109E+000		1.0461E-001
	1407.95	20.70	7.6034E-001		2.1930E-001
Eu-154	123.07	40.50	1.0075E+000	5.11E-001	5.1082E-001
	247.94	6.60	4.0414E+000		-2.9691E+000
	591.81	4.83	4.2406E+000		2.1972E+000

723.30	19.70	1.0352E+000	-3.7191E-001
756.87	4.33	4.6391E+000	-1.7457E-001
873.19	11.50	1.5006E+000	6.2594E-002

	996.32	10.30	1.8015E+000		6.6431E-001
	1004.76	17.90	1.0031E+000		-1.1338E-001
	1274.45	35.50	5.1115E-001		-5.0244E-001
Eu-155	86.54	30.90	2.0956E+000	2.10E+000	2.8950E+000
	105.31	20.70	2.3457E+000		7.5394E-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 8/15/2005 8:44:36 AM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-037-F-G.CNF
Log Number:
Title: NOL-02-01-037-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/12/2005 1:01:29 PM

Live Time : 900.0 seconds
Real Time : 900.8 seconds

Energy Calibration Date: 6/13/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-037-F-G.CNF
Log Number:
Title: NOL-02-01-037-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	291.79	72.90	1.13	3.19E+002	53.87	7.76E+002
m	2	286-	304	300.56	75.10	1.13	4.68E+002	60.59	8.84E+002
F	3	948-	961	955.23	238.78	1.34	2.23E+002	106.22	1.89E+002
F	4	1396-	1416	1408.03	351.99	1.44	1.09E+002	55.06	1.47E+002
F	5	2034-	2056	2044.43	511.10	2.33	1.56E+002	26.16	8.65E+001
F	6	2324-	2344	2333.74	583.44	1.60	1.54E+002	26.31	6.35E+001
F	7	2430-	2446	2438.87	609.72	1.62	9.89E+001	67.41	5.08E+001
F	8	3638-	3655	3646.56	911.67	1.79	9.14E+001	22.73	5.64E+001
F	9	3870-	3886	3877.48	969.40	1.81	6.70E+001	18.46	2.74E+001
F	10	5835-	5862	5848.64	1462.23	2.03	7.41E+002	52.94	2.42E+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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-037-F-G.CNF

Log Number:
Title: NOL-02-01-037-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gm)	Activity Uncertainty
ANN	1.000	511.00*	100.00	4.69168E-001	1.02733E-001
K-40	0.941	1460.81*	10.67	2.73861E+001	2.95725E+000
TL-208	0.751	277.35	6.80		
		510.84*	21.60	2.17207E+000	5.07620E-001
		583.14*	84.20	5.75010E-001	1.24130E-001
		860.37	12.46		
Pb-212	0.524	74.81* @	10.70	1.58676E+001	3.72677E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.25400E+000	6.28774E-001
Bi-214	0.396	609.31*	46.30	6.79438E-001	4.70881E-001
		1120.29	15.10		
		1764.49	15.80		
Ac-228	0.631	338.32	11.40		
		911.07*	27.70	1.15202E+000	3.15662E-001
		969.11*	16.60	1.43703E+000	4.23323E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-037-F-G.CNF

Log Number:
Title: NOL-02-01-037-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
ANN	1.000	3.449655E-001	1.060974E-001
K-40	0.941	2.738609E+001	2.957253E+000
TL-208	0.751	5.750096E-001	1.227070E-001
Pb-212 @	0.524	1.253996E+000	6.287741E-001
Bi-214	0.396	6.794379E-001	4.708810E-001
Ac-228	0.631	1.253865E+000	2.530539E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	3.5467E-001	16.88
F 4	351.99	1.2064E-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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-037-F-G.CNF

Log Number:
Title: NOL-02-01-037-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
Co-60	1173.22	100.00	2.1314E-001	1.67E-001	1.5748E-001
	1332.49	100.00	1.6742E-001		1.2792E-001
Nb-94	702.63	100.00	1.9076E-001	1.83E-001	3.6950E-002
	871.10	100.00	1.8322E-001		1.3909E-001
Ag-108m	79.20	7.10	1.0226E+001	2.33E-001	-3.1867E+001
	433.93	89.90	2.3737E-001		-1.5797E-001
	614.37	90.40	2.6699E-001		-1.4111E-001
	722.95	90.50	2.3266E-001		1.5062E-001
Sb-125	176.33	6.89	4.4276E+000	7.21E-001	8.1054E-001
	427.89	29.33	7.2051E-001		-2.2197E-001
	463.38	10.35	2.0816E+000		1.9533E+000
	600.56	17.80	1.1371E+000		-1.4459E-001
	606.64	5.02	4.7990E+000		4.7810E+000
	635.90	11.32	1.6217E+000		-7.7491E-001
Cs-134	563.23	8.38	2.2888E+000	2.35E-001	2.2276E+000
	569.32	15.43	1.2799E+000		-3.5997E-001
	604.70	97.60	2.4707E-001		-6.0845E-002
	795.84	85.40	2.3544E-001		1.9097E-001
	801.93	8.73	2.1366E+000		-8.5676E-001
Cs-137	661.65	85.12	2.4006E-001	2.40E-001	1.6967E-001
Eu-152	121.78	28.40	1.4926E+000	7.09E-001	4.2472E-001
	244.69	7.49	3.6487E+000		-2.8447E+000
	344.27	26.50	8.5567E-001		-8.6834E-001
	778.89	12.74	1.4162E+000		-1.8301E+000
	867.32	4.16	4.3645E+000		-3.3164E+000
	964.01	14.40	1.6734E+000		2.2027E-001
	1085.78	10.00	1.8796E+000		-3.9488E-001
	1112.02	13.30	1.4604E+000		4.3321E-001
	1407.95	20.70	7.0941E-001		-5.3256E-001
Eu-154	123.07	40.50	1.0324E+000	4.95E-001	5.9377E-001
	247.94	6.60	4.0414E+000		-2.2596E+000
	591.81	4.83	4.1372E+000		-3.7451E-001

723.30	19.70	1.0659E+000	3.0434E-001
756.87	4.33	4.3979E+000	-9.5436E-001
873.19	11.50	1.5810E+000	7.5142E-003

	996.32	10.30	1.6230E+000		1.0295E+000
	1004.76	17.90	1.0077E+000		2.1907E-001
	1274.45	35.50	4.9517E-001		-4.0389E-001
Eu-155	86.54	30.90	2.0340E+000	2.03E+000	2.4961E+000
	105.31	20.70	2.2825E+000		-8.8735E-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 8/15/2005 8:45:59 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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-038-F-G.CNF
Log Number:
Title: NOL-02-01-038-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/12/2005 1:25:04 PM

Live Time : 900.0 seconds
Real Time : 900.8 seconds

Energy Calibration Date: 6/13/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-038-F-G.CNF
Log Number:
Title: NOL-02-01-038-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	291.61	72.86	1.13	2.83E+002	70.85	7.83E+002
m	2	286-	306	300.57	75.10	1.13	5.15E+002	104.14	9.78E+002
F	3	332-	344	339.53	84.84	1.15	2.02E+002	50.57	7.91E+002
F	4	949-	962	955.46	238.84	1.34	1.92E+002	36.39	2.45E+002
F	5	1177-	1189	1182.07	295.49	1.39	4.50E+001	23.28	1.33E+002
F	6	1348-	1359	1354.01	338.48	1.43	4.83E+001	22.27	1.01E+002
F	7	1400-	1416	1408.80	352.18	1.44	1.04E+002	39.64	1.17E+002
F	8	2033-	2055	2045.07	511.26	2.33	1.01E+002	23.16	1.03E+002
F	9	2326-	2342	2333.86	583.46	1.60	1.20E+002	25.12	7.05E+001
F	10	2429-	2447	2437.85	609.46	1.62	1.15E+002	37.39	6.75E+001
F	11	3640-	3656	3647.93	912.01	1.79	9.75E+001	21.80	3.46E+001
F	12	3872-	3885	3878.56	969.67	1.82	5.12E+001	18.83	4.06E+001
F	13	5835-	5862	5849.36	1462.41	2.03	8.11E+002	88.73	2.78E+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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-038-F-G.CNF

Log Number:
Title: NOL-02-01-038-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gm)	Activity Uncertainty
ANN	0.998	511.00*	100.00	3.05935E-001	8.19853E-002
K-40	0.926	1460.81*	10.67	2.99741E+001	4.08005E+000
TL-208	0.750	277.35	6.80		
		510.84*	21.60	1.41637E+000	3.96795E-001
		583.14*	84.20	4.48719E-001	1.10874E-001
		860.37	12.46		
Pb-212	0.524	74.81* @	10.70	1.74498E+001	4.91466E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.08227E+000	2.65850E-001
Bi-214	0.398	609.31*	46.30	7.92325E-001	2.75231E-001
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.586	74.82* @	6.21	3.00665E+001	8.74484E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	6.15431E-001	3.35138E-001
		351.92*	37.20	7.63378E-001	3.17831E-001
Ac-228	0.984	338.32*	11.40	1.14832E+000	5.58701E-001
		911.07*	27.70	1.22900E+000	3.09010E-001
		969.11*	16.60	1.09789E+000	4.19621E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-038-F-G.CNF

Log Number:
Title: NOL-02-01-038-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
ANN	0.998	2.090120E-001	8.535306E-002
K-40	0.926	2.997413E+001	4.080049E+000
TL-208	0.750	4.487186E-001	1.099050E-001
Pb-212 @	0.524	1.082273E+000	2.658504E-001
Bi-214	0.398	7.923255E-001	2.752312E-001
PB-214 @	0.586	6.933231E-001	2.306162E-001
Ac-228	0.984	1.177174E+000	2.272999E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	3.1396E-001	25.07
F 3	84.84	2.2490E-001	24.98

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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-038-F-G.CNF

Log Number:
Title: NOL-02-01-038-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
Co-60	1173.22	100.00	2.0304E-001	1.53E-001	5.4963E-002
	1332.49	100.00	1.5337E-001		2.5504E-002
Nb-94	702.63	100.00	1.9334E-001	1.89E-001	1.3106E-001
	871.10	100.00	1.8907E-001		6.8405E-003
Ag-108m	79.20	7.10	1.0267E+001	2.37E-001	-5.6385E+000
	433.93	89.90	2.4356E-001		-2.9384E-002
	614.37	90.40	2.7976E-001		3.5495E-002
	722.95	90.50	2.3719E-001		2.9412E-002
Sb-125	176.33	6.89	4.3517E+000	7.10E-001	-3.5732E-001
	427.89	29.33	7.1005E-001		4.3145E-001
	463.38	10.35	1.9978E+000		1.9126E+000
	600.56	17.80	1.1923E+000		1.2061E+000
	606.64	5.02	5.1510E+000		8.0647E+000
	635.90	11.32	1.5638E+000		-2.7558E+000
Cs-134	563.23	8.38	2.5456E+000	2.51E-001	3.6455E+000
	569.32	15.43	1.3500E+000		-4.7970E-001
	604.70	97.60	2.6108E-001		-2.1597E-003
	795.84	85.40	2.5085E-001		8.9693E-002
	801.93	8.73	2.2844E+000		-1.2864E+000
Cs-137	661.65	85.12	2.3868E-001	2.39E-001	8.8584E-002
Eu-152	121.78	28.40	1.4387E+000	7.66E-001	-7.8882E-001
	244.69	7.49	3.7137E+000		2.0297E+000
	344.27	26.50	9.0118E-001		-2.7764E-001
	778.89	12.74	1.5862E+000		-1.2332E+000
	867.32	4.16	4.5922E+000		-3.6012E+000
	964.01	14.40	1.5806E+000		-6.7707E-002
	1085.78	10.00	2.0298E+000		1.1320E+000
	1112.02	13.30	1.4358E+000		7.4586E-001
	1407.95	20.70	7.6577E-001		2.4119E-001
Eu-154	123.07	40.50	9.9820E-001	4.87E-001	-3.2758E-001
	247.94	6.60	3.9309E+000		-3.9277E+000
	591.81	4.83	4.1950E+000		-2.3215E+000

723.30	19.70	1.0898E+000	2.7422E-001
756.87	4.33	4.7550E+000	-1.0967E+000
873.19	11.50	1.6511E+000	1.5102E+000

	996.32	10.30	1.8395E+000		8.0974E-001
	1004.76	17.90	1.0213E+000		-6.1382E-001
	1274.45	35.50	4.8697E-001		-4.1374E-001
Eu-155	86.54	30.90	2.0568E+000	2.06E+000	4.0633E+000
	105.31	20.70	2.2447E+000		5.9062E-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 8/15/2005 8:46:42 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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-039-F-G.CNF
Log Number:
Title: NOL-02-01-039-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/12/2005 1:44:15 PM

Live Time : 900.0 seconds
Real Time : 900.8 seconds

Energy Calibration Date: 6/13/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-039-F-G.CNF
Log Number:
Title: NOL-02-01-039-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	72.97	1.13	2.41E+002	50.66	7.84E+002
m	2	285-	307	300.56	75.10	1.13	4.59E+002	60.32	1.09E+003
F	3	334-	344	339.66	84.87	1.15	1.75E+002	47.45	6.30E+002
F	4	738-	748	743.53	185.85	1.28	5.33E+001	27.80	1.97E+002
F	5	948-	961	955.51	238.85	1.34	2.28E+002	90.26	2.25E+002
F	6	1174-	1189	1181.64	295.39	1.39	6.90E+001	120.88	1.58E+002
F	7	1350-	1359	1355.09	338.75	1.43	5.88E+001	21.94	6.97E+001
F	8	1403-	1419	1408.62	352.14	1.44	1.16E+002	25.56	1.03E+002
F	9	2034-	2053	2044.05	511.01	2.33	1.04E+002	23.73	9.20E+001
F	10	2327-	2342	2333.87	583.47	1.60	1.08E+002	25.31	8.07E+001
F	11	2429-	2447	2438.08	609.52	1.62	1.06E+002	54.99	8.48E+001
F	12	3639-	3657	3647.80	911.98	1.79	8.40E+001	21.38	4.87E+001
F	13	3870-	3886	3878.31	969.61	1.82	5.15E+001	18.13	4.42E+001
F	14	4476-	4493	4485.04	1121.30	1.89	4.48E+001	17.42	4.28E+001
F	15	5835-	5862	5849.34	1462.41	2.03	8.15E+002	86.96	2.79E+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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-039-F-G.CNF

Log Number:
Title: NOL-02-01-039-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gm)	Activity Uncertainty
ANN	1.000	511.00*	100.00	3.13406E-001	8.40094E-002
K-40	0.927	1460.81*	10.67	3.01135E+001	4.03451E+000
TL-208	0.751	277.35	6.80		
		510.84*	21.60	1.45095E+000	4.06583E-001
		583.14*	84.20	4.04127E-001	1.08455E-001
		860.37	12.46		
Pb-212	0.524	74.81* @	10.70	1.55532E+001	3.67041E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.28457E+000	5.46037E-001
Bi-214	0.693	609.31*	46.30	7.31184E-001	3.88656E-001
		1120.29*	15.10	1.10265E+000	4.44584E-001
		1764.49	15.80		
PB-214	0.587	74.82* @	6.21	2.67987E+001	6.61666E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	9.44380E-001	1.66203E+000
		351.92*	37.20	8.51224E-001	2.35510E-001
Ac-228	0.985	338.32*	11.40	1.39776E+000	5.65423E-001
		911.07*	27.70	1.05944E+000	2.95853E-001
		969.11*	16.60	1.10368E+000	4.05329E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-039-F-G.CNF

Log Number:
Title: NOL-02-01-039-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
ANN		1.000	2.261144E-001	8.716813E-002
K-40		0.927	3.011346E+001	4.034508E+000
TL-208		0.751	4.041265E-001	1.076523E-001
Pb-212	@	0.524	1.284567E+000	5.460368E-001
Bi-214		0.693	8.920940E-001	2.926091E-001
PB-214	@	0.587	8.530577E-001	2.331803E-001
Ac-228		0.985	1.123760E+000	2.201159E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.6772E-001	21.03
F	3	84.87	1.9439E-001	27.12
F	4	185.85	5.9188E-002	52.18

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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-039-F-G.CNF

Log Number:
Title: NOL-02-01-039-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
Co-60	1173.22	100.00	1.9738E-001	1.81E-001	1.4841E-001
	1332.49	100.00	1.8126E-001		2.1059E-001
Nb-94	702.63	100.00	2.0210E-001	1.83E-001	9.6831E-002
	871.10	100.00	1.8322E-001		-1.2378E-001
Ag-108m	79.20	7.10	1.0274E+001	2.23E-001	-9.1119E-001
	433.93	89.90	2.4025E-001		-3.2672E-002
	614.37	90.40	2.8125E-001		5.2496E-002
	722.95	90.50	2.2329E-001		-1.4559E-001
Sb-125	176.33	6.89	4.3221E+000	7.04E-001	5.4556E-001
	427.89	29.33	7.0400E-001		-1.0864E-001
	463.38	10.35	2.0773E+000		-9.7546E-001
	600.56	17.80	1.1773E+000		1.3349E+000
	606.64	5.02	5.1943E+000		6.5185E+000
	635.90	11.32	1.7733E+000		3.3554E-001
Cs-134	563.23	8.38	2.4271E+000	2.35E-001	1.0397E+000
	569.32	15.43	1.2763E+000		3.4315E-001
	604.70	97.60	2.5925E-001		-9.0463E-002
	795.84	85.40	2.3544E-001		2.5987E-001
	801.93	8.73	2.3364E+000		-3.1909E-001
Cs-137	661.65	85.12	2.1904E-001	2.19E-001	-6.5453E-002
Eu-152	121.78	28.40	1.4220E+000	7.21E-001	1.3166E-001
	244.69	7.49	3.7541E+000		-5.5336E+000
	344.27	26.50	9.0249E-001		-2.3839E-001
	778.89	12.74	1.5456E+000		-6.4919E-001
	867.32	4.16	4.4886E+000		-3.4276E+000
	964.01	14.40	1.7059E+000		1.3664E+000
	1085.78	10.00	1.9837E+000		1.1686E+000
	1112.02	13.30	1.3263E+000		-1.0277E+000
	1407.95	20.70	7.2106E-001		1.0137E-001
Eu-154	123.07	40.50	9.8364E-001	5.24E-001	-5.3600E-001
	247.94	6.60	3.9018E+000		-3.3102E+000
	591.81	4.83	4.4292E+000		-9.2665E-001

723.30	19.70	1.0445E+000	3.5963E-001
756.87	4.33	4.6538E+000	-4.5099E+000
873.19	11.50	1.5810E+000	-7.7677E-001

	996.32	10.30	1.8244E+000		3.6233E-001
	1004.76	17.90	9.9383E-001		-3.3196E-001
	1274.45	35.50	5.2407E-001		4.4643E-002
Eu-155	86.54	30.90	2.0141E+000	2.01E+000	2.8572E+000
	105.31	20.70	2.2127E+000		-4.1786E-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 8/15/2005 8:47:40 AM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-040-F-G.CNF
Log Number:
Title: NOL-02-01-040-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/12/2005 2:02:12 PM

Live Time : 900.0 seconds
Real Time : 900.8 seconds

Energy Calibration Date: 6/13/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-040-F-G.CNF
Log Number:
Title: NOL-02-01-040-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	291.38	72.80	1.13	2.07E+002	49.50	8.18E+002
m	2	285-	305	300.50	75.08	1.13	3.92E+002	58.00	9.30E+002
F	3	951-	960	955.44	238.83	1.34	1.82E+002	35.16	1.59E+002
F	4	1305-	1317	1312.37	328.07	1.42	3.81E+001	19.73	8.94E+001
F	5	1346-	1359	1352.94	338.21	1.43	5.10E+001	23.06	1.30E+002
F	6	1403-	1416	1408.68	352.15	1.44	8.53E+001	23.78	9.02E+001
F	7	2032-	2055	2044.05	511.01	2.33	1.52E+002	69.29	1.05E+002
F	8	2325-	2342	2333.58	583.40	1.60	1.16E+002	72.57	7.46E+001
F	9	2432-	2448	2438.72	609.68	1.62	1.01E+002	22.57	5.17E+001
F	10	3636-	3657	3647.18	911.82	1.79	1.16E+002	23.44	4.67E+001
F	11	3871-	3888	3878.88	969.75	1.82	7.52E+001	20.23	3.77E+001
F	12	5836-	5862	5849.16	1462.36	2.03	9.28E+002	59.79	2.28E+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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-040-F-G.CNF

Log Number:
Title: NOL-02-01-040-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gm)	Activity Uncertainty
ANN	1.000	511.00*	100.00	4.58643E-001	2.18677E-001
K-40	0.931	1460.81*	10.67	3.43114E+001	3.54991E+000
TL-208	0.752	277.35	6.80		
		510.84*	21.60	2.12335E+000	1.02714E+000
		583.14*	84.20	4.33991E-001	2.76607E-001
		860.37	12.46		
Pb-212	0.524	74.81* @	10.70	1.32758E+001	3.26139E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.02590E+000	2.54895E-001
Bi-214	0.396	609.31*	46.30	6.91694E-001	1.77376E-001
		1120.29	15.10		
		1764.49	15.80		
Ac-228	0.988	338.32*	11.40	1.21192E+000	5.79639E-001
		911.07*	27.70	1.46303E+000	3.40036E-001
		969.11*	16.60	1.61136E+000	4.65265E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-040-F-G.CNF

Log Number:
Title: NOL-02-01-040-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
ANN	1.000	3.649007E-001	2.266720E-001
K-40	0.931	3.431145E+001	3.549914E+000
TL-208	0.752	4.339914E-001	2.762451E-001
Pb-212 @	0.524	1.025904E+000	2.548947E-001
Bi-214	0.396	6.916945E-001	1.773761E-001
Ac-228	0.988	1.459204E+000	2.481109E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.3036E-001	23.88
F 4	328.07	4.2332E-002	51.78
F 6	352.15	9.4732E-002	27.89

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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-040-F-G.CNF

Log Number:
Title: NOL-02-01-040-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
Co-60	1173.22	100.00	2.1390E-001	1.64E-001	-1.6332E-001
	1332.49	100.00	1.6429E-001		1.1705E-001
Nb-94	702.63	100.00	1.9462E-001	1.78E-001	-8.4131E-002
	871.10	100.00	1.7794E-001		-2.2978E-001
Ag-108m	79.20	7.10	9.8472E+000	2.34E-001	-1.3935E+001
	433.93	89.90	2.3929E-001		-7.7168E-002
	614.37	90.40	2.8421E-001		-1.0931E-001
	722.95	90.50	2.3396E-001		-3.7461E-002
Sb-125	176.33	6.89	4.1618E+000	7.18E-001	-5.1316E-001
	427.89	29.33	7.1754E-001		3.6328E-001
	463.38	10.35	2.1704E+000		1.1148E+000
	600.56	17.80	1.1084E+000		-1.3527E-001
	606.64	5.02	4.9556E+000		7.0406E+000
	635.90	11.32	1.6665E+000		-1.9147E+000
Cs-134	563.23	8.38	2.4271E+000	2.46E-001	8.8284E-001
	569.32	15.43	1.3903E+000		5.6144E-001
	604.70	97.60	2.4611E-001		-2.1247E-001
	795.84	85.40	2.5647E-001		3.7288E-001
	801.93	8.73	2.3583E+000		-8.5963E-001
Cs-137	661.65	85.12	2.2430E-001	2.24E-001	-8.2341E-002
Eu-152	121.78	28.40	1.4051E+000	7.55E-001	-1.8571E-001
	244.69	7.49	3.7272E+000		-7.6238E+000
	344.27	26.50	8.8274E-001		1.1875E-001
	778.89	12.74	1.4661E+000		-1.0577E+000
	867.32	4.16	4.6262E+000		1.2294E+000
	964.01	14.40	1.6107E+000		-9.4595E-002
	1085.78	10.00	1.9123E+000		3.2055E-001
	1112.02	13.30	1.4482E+000		-8.8936E-001
	1407.95	20.70	7.5486E-001		-5.1577E-001
Eu-154	123.07	40.50	9.7487E-001	4.87E-001	-1.9302E-002
	247.94	6.60	3.9804E+000		-2.5957E+000
	591.81	4.83	4.3747E+000		-1.2760E+000

723.30	19.70	1.0719E+000	-1.9240E-001
756.87	4.33	4.3824E+000	-4.8421E-001
873.19	11.50	1.5481E+000	-5.2600E-001

	996.32	10.30	1.7783E+000		2.9483E-001
	1004.76	17.90	1.0077E+000		-7.5497E-001
	1274.45	35.50	4.8697E-001		1.3736E-001
Eu-155	86.54	30.90	1.9840E+000	1.98E+000	3.4545E+000
	105.31	20.70	2.2327E+000		-3.1949E+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 8/16/2005 8:48:44 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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-041-F-G.CNF
Log Number:
Title: NOL-02-01-041-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/15/2005 3:37:51 PM

Live Time : 900.0 seconds
Real Time : 900.7 seconds

Energy Calibration Date: 4/11/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-041-F-G.CNF
Log Number:
Title: NOL-02-01-041-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	292.08	72.87	1.13	2.35E+002	50.17	7.16E+002
m	2	285-	314	300.55	75.00	1.14	4.71E+002	58.55	8.09E+002
m	3	285-	314	309.42	77.22	1.14	8.55E+001	42.99	7.01E+002
F	4	335-	345	340.53	85.02	1.15	1.85E+002	47.34	5.82E+002
F	5	946-	960	954.55	238.96	1.34	1.51E+002	32.44	2.04E+002
F	6	1176-	1187	1180.74	295.62	1.39	5.22E+001	22.69	1.00E+002
F	7	1347-	1360	1353.09	338.78	1.43	5.81E+001	117.22	8.51E+001
F	8	1398-	1413	1407.70	352.45	1.44	9.17E+001	1392.92	1.10E+002
F	9	1844-	1858	1851.22	463.45	1.52	2.97E+001	17.10	6.55E+001
F	10	2035-	2052	2043.75	511.61	2.32	1.09E+002	25.58	1.03E+002
F	11	2320-	2338	2332.23	583.74	1.59	9.96E+001	26.39	8.87E+001
F	12	2429-	2445	2436.94	609.92	1.61	1.21E+002	23.69	4.41E+001
F	13	3635-	3655	3645.37	911.80	1.77	8.84E+001	42.94	4.28E+001
M	14	3854-	3887	3859.73	965.31	1.80	1.93E+001	11.48	3.59E+001
m	15	3854-	3887	3877.28	969.69	1.80	6.46E+001	14.21	3.34E+001
F	16	4475-	4488	4481.38	1120.45	1.87	3.39E+001	14.56	2.14E+001
F	17	5832-	5859	5845.85	1460.84	2.01	7.57E+002	53.64	3.09E+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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-041-F-G.CNF

Log Number:
Title: NOL-02-01-041-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	0.989	511.00*	100.00	3.17350E-001	8.67347E-002
K-40	1.000	1460.81*	10.67	2.69019E+001	2.89438E+000
TL-208	0.743	277.35	6.80		
		510.84*	21.60	1.46921E+000	4.19092E-001
		583.14*	84.20	3.56352E-001	1.05545E-001
		860.37	12.46		
Pb-212	0.843	74.81* @	10.70	1.54706E+001	3.59170E+000
		77.11* @	18.00	1.60747E+000	8.67728E-001
		87.30 @	8.00		
		238.63*	44.60	8.22068E-001	2.19077E-001
Bi-214	0.694	609.31*	46.30	7.97100E-001	1.84857E-001
		1120.29*	15.10	7.98907E-001	3.53353E-001
		1764.49	15.80		
PB-214	0.760	74.82* @	6.21	2.66562E+001	6.48406E+000
		77.11* @	10.50	2.75566E+000	1.50170E+000
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	6.94118E-001	3.23505E-001
		351.92*	37.20	6.54063E-001	9.93555E+000
Ac-228	0.988	338.32*	11.40	1.34079E+000	2.71275E+000
		911.07*	27.70	1.06153E+000	5.29873E-001
		969.11*	16.60	1.32045E+000	3.21653E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-041-F-G.CNF

Log Number:
Title: NOL-02-01-041-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN		0.989	2.403776E-001	8.964568E-002
K-40		1.000	2.690190E+001	2.894379E+000
TL-208		0.743	3.563515E-001	1.049044E-001
Pb-212	@	0.843	8.220684E-001	2.190772E-001
Bi-214		0.694	7.974882E-001	1.637966E-001
PB-214	@	0.760	6.940760E-001	3.233338E-001
Ac-228		0.988	1.251646E+000	2.735560E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.6146E-001	21.32
F 4	85.02	2.0601E-001	25.53
F 9	463.45	3.3039E-002	57.51
M 14	965.31	2.1467E-002	59.44

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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-041-F-G.CNF

Log Number:
Title: NOL-02-01-041-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Co-60	1173.22	100.00	2.1072E-001	1.73E-001	4.3700E-002
	1332.49	100.00	1.7325E-001		1.4969E-001
Nb-94	702.63	100.00	1.6716E-001	1.65E-001	2.1774E-002
	871.10	100.00	1.6502E-001		-1.9495E-002
Ag-108m	79.20	7.10	9.0566E+000	1.99E-001	3.8397E-001
	433.93	89.90	2.1549E-001		9.4371E-002
	614.37	90.40	2.5671E-001		-1.8603E-001
	722.95	90.50	1.9883E-001		-6.9158E-002
Sb-125	176.33	6.89	3.9321E+000	6.70E-001	-6.6370E-003
	427.89	29.33	6.7031E-001		2.7778E-001
	463.38	10.35	2.0289E+000		4.1295E-001
	600.56	17.80	1.0779E+000		7.7620E-001
	606.64	5.02	4.8089E+000		6.7841E+000
	635.90	11.32	1.6044E+000		8.9233E-001
Cs-134	563.23	8.38	2.2767E+000	2.27E-001	5.6534E-001
	569.32	15.43	1.2837E+000		6.3567E-001
	604.70	97.60	2.4581E-001		3.7691E-002
	795.84	85.40	2.2657E-001		1.4003E-001
	801.93	8.73	2.1700E+000		-6.7460E-001
Cs-137	661.65	85.12	2.3829E-001	2.38E-001	1.1949E-001
Eu-152	121.78	28.40	1.3540E+000	5.97E-001	9.9979E-001
	244.69	7.49	3.3893E+000		-1.8222E+000
	344.27	26.50	8.1890E-001		1.3102E-001
	778.89	12.74	1.4285E+000		-1.5842E+000
	867.32	4.16	4.0523E+000		-5.0878E+000
	964.01	14.40	1.5116E+000		-1.7767E-001
	1085.78	10.00	1.7338E+000		-1.1058E-001
	1112.02	13.30	1.3013E+000		-2.8426E-001
	1407.95	20.70	5.9718E-001		1.2105E-001
Eu-154	123.07	40.50	9.3614E-001	4.70E-001	3.4648E-002
	247.94	6.60	3.5929E+000		-3.4570E+000
	591.81	4.83	3.6291E+000		-5.0988E+000

723.30	19.70	9.3578E-001	1.9464E-001
756.87	4.33	4.0890E+000	-1.0244E+000
873.19	11.50	1.4291E+000	-5.2265E-001

	996.32	10.30	1.7914E+000		2.8766E-001
	1004.76	17.90	9.8798E-001		9.4869E-001
	1274.45	35.50	4.7014E-001		4.1894E-001
Eu-155	86.54	30.90	1.9025E+000	1.90E+000	3.0273E+000
	105.31	20.70	2.1236E+000		-3.2857E-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 8/17/2005 7:03:47 AM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-042-F-G.CNF
Log Number:
Title: NOL-02-01-042-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/16/2005 8:19:05 AM

Live Time : 900.0 seconds
Real Time : 900.7 seconds

Energy Calibration Date: 4/11/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-042-F-G.CNF
Log Number:
Title: NOL-02-01-042-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	291.52	72.73	1.13	1.39E+002	47.80	6.81E+002
m	2	287-	305	300.32	74.94	1.14	3.65E+002	58.38	8.68E+002
F	3	333-	345	340.27	84.96	1.15	1.67E+002	48.15	7.03E+002
F	4	949-	961	954.68	238.99	1.34	1.92E+002	35.43	1.85E+002
F	5	1175-	1188	1180.65	295.59	1.39	6.45E+001	76.55	1.03E+002
F	6	1402-	1416	1408.21	352.58	1.44	7.38E+001	22.80	9.78E+001
F	7	2035-	2056	2044.46	511.78	2.32	1.09E+002	52.97	8.66E+001
F	8	2322-	2341	2332.55	583.83	1.59	1.26E+002	49.57	6.25E+001
F	9	2431-	2446	2437.27	610.00	1.61	8.84E+001	23.59	6.74E+001
F	10	3637-	3654	3645.41	911.81	1.77	9.62E+001	21.97	4.11E+001
F	11	3869-	3885	3876.64	969.53	1.80	5.19E+001	17.63	3.45E+001
F	12	5830-	5859	5845.13	1460.66	2.01	7.63E+002	85.45	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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-042-F-G.CNF

Log Number:
Title: NOL-02-01-042-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	0.982	511.00*		100.00	3.18429E-001	1.60542E-001
K-40	0.999	1460.81*		10.67	2.71160E+001	3.74708E+000
TL-208	0.739	277.35		6.80		
		510.84*		21.60	1.47421E+000	7.52938E-001
		583.14*		84.20	4.51355E-001	1.87194E-001
		860.37		12.46		
Pb-212	0.522	74.81*	@	10.70	1.20094E+001	3.03836E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	1.04722E+000	2.53774E-001
Bi-214	0.390	609.31*		46.30	5.81940E-001	1.71381E-001
		1120.29		15.10		
		1764.49		15.80		
PB-214	0.581	74.82*	@	6.21	2.06925E+001	5.44641E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	8.57135E-001	1.02790E+000
		351.92*		37.20	5.26503E-001	1.84915E-001
Ac-228	0.630	338.32		11.40		
		911.07*		27.70	1.15580E+000	2.95402E-001
		969.11*		16.60	1.06054E+000	3.77175E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-042-F-G.CNF

Log Number:
Title: NOL-02-01-042-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN		0.982	2.209368E-001	1.655251E-001
K-40		0.999	2.711597E+001	3.747082E+000
TL-208		0.739	4.513547E-001	1.866149E-001
Pb-212	@	0.522	1.047222E+000	2.537736E-001
Bi-214		0.390	5.819395E-001	1.713814E-001
PB-214	@	0.581	5.368681E-001	1.819939E-001
Ac-228		0.630	1.119583E+000	2.325640E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	1.5479E-001	34.31
F 3	84.96	1.8577E-001	28.80

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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-042-F-G.CNF

Log Number:
Title: NOL-02-01-042-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Co-60	1173.22	100.00	1.8919E-001	1.57E-001	-3.2251E-002
	1332.49	100.00	1.5684E-001		1.0875E-001
Nb-94	702.63	100.00	1.6851E-001	1.69E-001	-2.0627E-002
	871.10	100.00	1.7235E-001		7.9237E-002
Ag-108m	79.20	7.10	9.1870E+000	2.16E-001	-1.3697E+001
	433.93	89.90	2.1600E-001		-1.6986E-002
	614.37	90.40	2.5268E-001		8.0079E-002
	722.95	90.50	2.2934E-001		1.5728E-001
Sb-125	176.33	6.89	3.9841E+000	6.81E-001	-3.3805E-001
	427.89	29.33	6.8077E-001		4.9940E-001
	463.38	10.35	2.0038E+000		7.2231E-001
	600.56	17.80	1.0246E+000		-1.3638E+000
	606.64	5.02	4.7311E+000		5.9126E+000
	635.90	11.32	1.6303E+000		5.7924E-001
Cs-134	563.23	8.38	2.2192E+000	2.28E-001	6.6865E-001
	569.32	15.43	1.2365E+000		-4.2783E-002
	604.70	97.60	2.3724E-001		-2.7632E-001
	795.84	85.40	2.2800E-001		1.0457E-001
	801.93	8.73	2.0669E+000		-1.1764E+000
Cs-137	661.65	85.12	2.3316E-001	2.33E-001	1.7717E-001
Eu-152	121.78	28.40	1.3640E+000	5.97E-001	2.2735E-001
	244.69	7.49	3.3540E+000		-2.2227E-001
	344.27	26.50	7.9410E-001		-1.4740E+000
	778.89	12.74	1.5122E+000		-6.7372E-001
	867.32	4.16	4.1394E+000		-1.3574E+000
	964.01	14.40	1.5075E+000		4.1125E-001
	1085.78	10.00	1.6497E+000		-3.1254E+000
	1112.02	13.30	1.4037E+000		-2.4027E+000
	1407.95	20.70	5.9718E-001		-5.8027E-001
Eu-154	123.07	40.50	9.4436E-001	4.54E-001	8.6284E-003
	247.94	6.60	3.5843E+000		-1.3755E+000
	591.81	4.83	3.7968E+000		-4.7909E+000

723.30	19.70	1.0481E+000	8.1980E-001
756.87	4.33	4.0585E+000	2.9983E+000
873.19	11.50	1.4421E+000	-2.7908E-001

	996.32	10.30	1.7631E+000		8.0618E-001
	1004.76	17.90	9.1261E-001		-1.2283E-001
	1274.45	35.50	4.5406E-001		4.5894E-001
Eu-155	86.54	30.90	1.8526E+000	1.85E+000	2.1765E+000
	105.31	20.70	2.1141E+000		-1.7855E+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 8/16/2005 2:50:37 PM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-043-F-G.CNF
Log Number:
Title: NOL-02-01-043-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/15/2005 2:59:04 PM

Live Time : 900.0 seconds
Real Time : 900.7 seconds

Energy Calibration Date: 4/11/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-043-F-G.CNF
Log Number:
Title: NOL-02-01-043-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	291.84	72.81	1.13	1.39E+002	47.48	6.36E+002
m	2	288-	305	300.36	74.95	1.14	3.93E+002	60.27	8.93E+002
F	3	947-	961	954.89	239.04	1.34	1.76E+002	34.48	2.21E+002
F	4	1174-	1190	1181.71	295.86	1.39	8.98E+001	24.79	1.33E+002
F	5	1402-	1414	1408.02	352.53	1.44	9.29E+001	25.41	9.79E+001
F	6	2031-	2055	2044.30	511.74	2.32	1.54E+002	70.39	8.12E+001
F	7	2324-	2342	2332.21	583.74	1.59	1.15E+002	24.60	6.96E+001
F	8	2430-	2445	2437.23	609.99	1.61	1.18E+002	24.01	4.91E+001
F	9	2640-	2655	2646.94	662.41	1.64	7.01E+001	19.30	3.97E+001
F	10	3638-	3653	3644.57	911.60	1.77	5.69E+001	19.39	4.40E+001
F	11	3869-	3886	3877.45	969.73	1.80	6.01E+001	43.86	3.09E+001
F	12	4478-	4493	4484.58	1121.25	1.87	3.80E+001	16.67	3.79E+001
F	13	5832-	5860	5845.66	1460.79	2.01	8.26E+002	56.03	2.37E+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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-043-F-G.CNF

Log Number:
Title: NOL-02-01-043-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	0.983	511.00*	100.00	4.47427E-001	2.14302E-001
K-40	1.000	1460.81*	10.67	2.93514E+001	3.10036E+000
Cs-137	0.983	661.65*	85.12	2.56436E-001	7.68076E-002
TL-208	0.741	277.35	6.80		
		510.84*	21.60	2.07142E+000	1.00646E+000
		583.14*	84.20	4.12775E-001	1.03583E-001
		860.37	12.46		
Pb-212	0.522	74.81* @	10.70	1.29409E+001	3.21972E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	9.58600E-001	2.40956E-001
Bi-214	0.687	609.31*	46.30	7.77695E-001	1.85334E-001
		1120.29*	15.10	8.96594E-001	4.04170E-001
		1764.49	15.80		
PB-214	0.580	74.82* @	6.21	2.22975E+001	5.77897E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	1.19428E+000	3.86061E-001
		351.92*	37.20	6.62469E-001	2.12387E-001
Ac-228	0.632	338.32	11.40		
		911.07*	27.70	6.83360E-001	2.45715E-001
		969.11*	16.60	1.22858E+000	9.05931E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-043-F-G.CNF

Log Number:
Title: NOL-02-01-043-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN		0.983	3.582676E-001	2.154470E-001
K-40		1.000	2.935144E+001	3.100358E+000
Cs-137		0.983	2.564362E-001	7.680761E-002
TL-208		0.741	4.127752E-001	1.027056E-001
Pb-212	@	0.522	9.586005E-001	2.409557E-001
Bi-214		0.687	7.983525E-001	1.684665E-001
PB-214	@	0.580	7.860265E-001	1.860861E-001
Ac-228		0.632	7.207211E-001	2.371465E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	1.5461E-001	34.12

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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-043-F-G.CNF

Log Number:
Title: NOL-02-01-043-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
	Co-60	1173.22	100.00	1.9840E-001	1.70E-001	3.2669E-002
		1332.49	100.00	1.6954E-001		6.1716E-002
	Nb-94	702.63	100.00	1.8512E-001	1.58E-001	9.6465E-002
		871.10	100.00	1.5811E-001		-1.2238E-001
	Ag-108m	79.20	7.10	9.3106E+000	2.10E-001	-9.8468E+000
		433.93	89.90	2.2675E-001		7.1187E-002
		614.37	90.40	2.6263E-001		-1.0363E-001
		722.95	90.50	2.1040E-001		3.4560E-002
	Sb-125	176.33	6.89	3.9105E+000	6.63E-001	3.5852E+000
		427.89	29.33	6.6273E-001		-3.4966E-001
		463.38	10.35	1.9220E+000		6.7232E-001
		600.56	17.80	1.0500E+000		-2.5103E-001
		606.64	5.02	4.8600E+000		6.2514E+000
		635.90	11.32	1.7058E+000		2.0879E-001
	Cs-134	563.23	8.38	2.3752E+000	2.23E-001	1.1522E+000
		569.32	15.43	1.2016E+000		2.3293E-001
		604.70	97.60	2.4359E-001		-9.2120E-002
		795.84	85.40	2.2296E-001		2.4322E-002
		801.93	8.73	2.0209E+000		-1.0033E+000
+	Cs-137	661.65*	85.12	1.4128E-001	1.41E-001	2.5644E-001
	Eu-152	121.78	28.40	1.3036E+000	6.04E-001	-6.2341E-001
		244.69	7.49	3.2017E+000		-2.5241E+000
		344.27	26.50	8.2699E-001		-7.1806E-001
		778.89	12.74	1.4029E+000		-3.8347E-001
		867.32	4.16	4.1566E+000		2.9150E+000
		964.01	14.40	1.5882E+000		2.7415E-001
		1085.78	10.00	1.6839E+000		-2.9493E-001
		1112.02	13.30	1.3565E+000		-1.8508E+000
		1407.95	20.70	6.0367E-001		1.3292E-001
	Eu-154	123.07	40.50	9.1665E-001	4.49E-001	6.5008E-001
		247.94	6.60	3.5367E+000		-4.8803E+000
		591.81	4.83	3.8663E+000		5.8954E-001

723.30	19.70	9.6969E-001	5.7986E-001
756.87	4.33	4.1493E+000	-1.9618E-001
873.19	11.50	1.3958E+000	4.1789E-001

	996.32	10.30	1.6445E+000		2.7929E-001
	1004.76	17.90	9.9222E-001		-2.8298E-002
	1274.45	35.50	4.4856E-001		-9.8487E-002
Eu-155	86.54	30.90	1.8610E+000	1.86E+000	1.5748E+000
	105.31	20.70	2.1315E+000		2.8640E-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 8/16/2005 8:49:46 AM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-044-F-G.CNF
Log Number:
Title: NOL-02-01-044-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/15/2005 8:26:27 AM

Live Time : 900.0 seconds
Real Time : 900.6 seconds

Energy Calibration Date: 6/13/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-044-F-G.CNF
Log Number:
Title: NOL-02-01-044-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	291.85	72.92	1.13	1.56E+002	46.62	6.93E+002
m	2	286-	309	300.76	75.15	1.13	4.74E+002	58.91	9.15E+002
F	3	949-	961	955.13	238.76	1.34	1.35E+002	34.35	2.46E+002
F	4	1176-	1187	1181.21	295.28	1.39	5.63E+001	24.22	1.30E+002
F	5	1845-	1854	1849.93	462.47	1.52	2.75E+001	16.73	4.50E+001
F	6	2034-	2054	2044.17	511.04	2.33	1.30E+002	27.39	1.36E+002
F	7	2327-	2342	2333.80	583.45	1.60	9.71E+001	24.65	8.59E+001
F	8	2428-	2446	2437.24	609.31	1.62	1.24E+002	67.93	8.15E+001
F	9	2639-	2656	2646.99	661.75	1.65	7.91E+001	21.60	6.96E+001
F	10	3174-	3186	3180.11	795.04	1.73	2.30E+001	14.35	3.08E+001
F	11	3636-	3653	3645.00	911.28	1.79	8.21E+001	51.36	6.00E+001
F	12	3869-	3885	3876.27	969.10	1.81	5.54E+001	17.71	3.59E+001
F	13	4682-	4703	4694.15	1173.59	1.91	1.71E+002	49.31	2.41E+001
F	14	5320-	5342	5332.59	1333.21	1.98	2.00E+002	55.84	2.33E+001
F	15	5831-	5861	5845.69	1461.50	2.03	6.59E+002	84.52	3.10E+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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-044-F-G.CNF

Log Number:
Title: NOL-02-01-044-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gm)	Activity Uncertainty
ANN	1.000	511.00*	100.00	3.92802E-001	9.92988E-002
K-40	0.986	1460.81*	10.67	2.43449E+001	3.69362E+000
Co-60	0.990	1173.22*	100.00	6.43889E-001	1.92536E-001
		1332.49*	100.00	7.74645E-001	2.24453E-001
Cs-137	1.000	661.65*	85.12	3.02914E-001	9.01308E-002
TL-208	0.751	277.35	6.80		
		510.84*	21.60	1.81853E+000	4.83110E-001
		583.14*	84.20	3.61970E-001	1.03631E-001
		860.37	12.46		
Pb-212	0.524	74.81* @	10.70	1.60379E+001	3.72299E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	7.60715E-001	2.26977E-001
Bi-214	0.399	609.31*	46.30	8.53213E-001	4.78677E-001
		1120.29	15.10		
		1764.49	15.80		
Ac-228	0.637	338.32	11.40		
		911.07*	27.70	1.03516E+000	6.58335E-001
		969.11*	16.60	1.18638E+000	3.99420E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-044-F-G.CNF

Log Number:
Title: NOL-02-01-044-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
ANN		1.000	3.146164E-001	1.017586E-001
K-40		0.986	2.434486E+001	3.693619E+000
Co-60		0.990	6.993165E-001	1.461366E-001
Cs-137		1.000	3.029137E-001	9.013083E-002
TL-208		0.751	3.619704E-001	1.029574E-001
Pb-212	@	0.524	7.607147E-001	2.269768E-001
Bi-214		0.399	8.532133E-001	4.786769E-001
Ac-228		0.637	1.145694E+000	3.414845E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	1.7366E-001	29.83
F 4	295.28	6.2598E-002	42.99
F 5	462.47	3.0513E-002	60.93
F 10	795.04	2.5505E-002	62.50

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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-044-F-G.CNF

Log Number:
Title: NOL-02-01-044-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
+	Co-60	1173.22*	100.00	1.2736E-001	1.27E-001	6.4389E-001
		1332.49*	100.00	1.3255E-001		7.7464E-001
	Nb-94	702.63	100.00	2.0087E-001	1.90E-001	-1.1246E-001
		871.10	100.00	1.9050E-001		-2.0345E-001
	Ag-108m	79.20	7.10	9.9874E+000	2.41E-001	-1.1934E+001
		433.93	89.90	2.4120E-001		-2.4150E-001
		614.37	90.40	2.9901E-001		7.3209E-002
		722.95	90.50	2.5748E-001		1.2926E-001
	Sb-125	176.33	6.89	4.4965E+000	7.22E-001	9.8120E-001
		427.89	29.33	7.2199E-001		-1.9163E-001
		463.38	10.35	2.1910E+000		-1.6541E+000
		600.56	17.80	1.2131E+000		-7.6062E-001
		606.64	5.02	5.4304E+000		6.2280E+000
		635.90	11.32	1.7472E+000		4.5101E-001
	Cs-134	563.23	8.38	2.5334E+000	2.43E-001	-9.8601E-001
		569.32	15.43	1.3903E+000		9.9889E-002
		604.70	97.60	2.7777E-001		-1.0244E-001
		795.84	85.40	2.4290E-001		-3.2611E-002
		801.93	8.73	2.3290E+000		4.6871E-001
+	Cs-137	661.65*	85.12	2.0023E-001	2.00E-001	3.0291E-001
	Eu-152	121.78	28.40	1.4645E+000	6.61E-001	-1.7074E-001
		244.69	7.49	3.8434E+000		-7.3381E-001
		344.27	26.50	8.8937E-001		-1.5520E+000
		778.89	12.74	1.5711E+000		-1.2979E+000
		867.32	4.16	4.7924E+000		-9.9619E+000
		964.01	14.40	1.6897E+000		-1.4460E-001
		1085.78	10.00	1.8713E+000		-1.3894E+000
		1112.02	13.30	1.5600E+000		-1.4689E-001
		1407.95	20.70	6.6058E-001		-1.2998E-002
	Eu-154	123.07	40.50	1.0087E+000	4.61E-001	-8.6592E-001
		247.94	6.60	4.1331E+000		-1.2187E+000
		591.81	4.83	4.4724E+000		-7.9321E-001

723.30	19.70	1.1937E+000	1.1439E+000
756.87	4.33	4.9509E+000	5.4475E+000
873.19	11.50	1.7182E+000	1.4379E+000

	996.32	10.30	1.9630E+000		1.8827E+000
	1004.76	17.90	1.0741E+000		9.9697E-002
	1274.45	35.50	4.6144E-001		-3.5735E-001
Eu-155	86.54	30.90	2.0748E+000	2.07E+000	2.7113E+000
	105.31	20.70	2.3289E+000		1.7360E+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 8/15/2005 8:56:05 AM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-045-F-G.CNF
Log Number:
Title: NOL-02-01-045-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/12/2005 3:43:52 PM

Live Time : 900.0 seconds
Real Time : 900.8 seconds

Energy Calibration Date: 6/13/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-045-F-G.CNF
Log Number:
Title: NOL-02-01-045-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-	317	291.79	72.91	1.13	2.04E+002	50.56	8.23E+002
m	2	285-	317	300.48	75.08	1.13	5.07E+002	60.54	1.02E+003
F	3	334-	356	339.30	84.78	1.15	2.02E+002	49.56	1.32E+003
F	4	947-	962	954.90	238.70	1.34	2.38E+002	37.55	2.45E+002
F	5	1345-	1360	1353.69	338.40	1.43	7.96E+001	23.07	1.04E+002
F	6	1402-	1417	1408.26	352.05	1.44	1.07E+002	93.52	1.06E+002
F	7	2034-	2055	2044.65	511.16	2.33	1.38E+002	25.16	8.69E+001
F	8	2325-	2344	2333.74	583.44	1.60	1.17E+002	23.04	4.51E+001
F	9	2429-	2446	2438.06	609.52	1.62	8.03E+001	53.70	6.27E+001
F	10	2903-	2915	2909.12	727.29	1.69	3.46E+001	15.79	3.28E+001
F	11	3637-	3655	3646.95	911.76	1.79	9.51E+001	21.93	4.52E+001
F	12	3869-	3887	3877.75	969.47	1.81	8.38E+001	51.78	3.59E+001
F	13	4478-	4492	4484.53	1121.18	1.89	3.59E+001	16.34	3.54E+001
F	14	5834-	5862	5847.64	1461.98	2.03	7.15E+002	86.52	3.67E+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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-045-F-G.CNF

Log Number:
Title: NOL-02-01-045-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gm)	Activity Uncertainty
ANN	0.999	511.00*	100.00	4.14814E-001	9.56208E-002
K-40	0.960	1460.81*	10.67	2.64226E+001	3.84754E+000
TL-208	0.751	277.35	6.80		
		510.84*	21.60	1.92044E+000	4.69650E-001
		583.14*	84.20	4.36257E-001	1.03486E-001
		860.37	12.46		
Bi-212	1.000	727.17*	11.80	9.75972E-001	4.59640E-001
Pb-212	0.525	74.81* @	10.70	1.71847E+001	3.94433E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.33566E+000	2.97353E-001
Bi-214	0.694	609.31*	46.30	5.51754E-001	3.75334E-001
		1120.29*	15.10	8.84820E-001	4.12946E-001
		1764.49	15.80		
Ac-228	0.992	338.32*	11.40	1.88959E+000	6.22923E-001
		911.07*	27.70	1.19934E+000	3.08937E-001
		969.11*	16.60	1.79522E+000	1.12563E+000

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-045-F-G.CNF

Log Number:
Title: NOL-02-01-045-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
ANN	0.999	3.205828E-001	9.815074E-002
K-40	0.960	2.642259E+001	3.847535E+000
TL-208	0.751	4.362574E-001	1.025052E-001
Bi-212	1.000	9.759723E-001	4.596399E-001
Pb-212 @	0.525	1.335656E+000	2.973531E-001
Bi-214	0.694	7.024307E-001	2.777485E-001
Ac-228	0.992	1.361807E+000	2.687636E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.2637E-001	24.82
F 3	84.78	2.2481E-001	24.49
F 6	352.05	1.1880E-001	87.46

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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-045-F-G.CNF

Log Number:
Title: NOL-02-01-045-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
Co-60	1173.22	100.00	2.0463E-001	1.76E-001	9.0172E-002
	1332.49	100.00	1.7645E-001		1.3661E-001
Nb-94	702.63	100.00	1.9141E-001	1.72E-001	-1.5418E-001
	871.10	100.00	1.7169E-001		-4.4049E-002
Ag-108m	79.20	7.10	1.0187E+001	2.34E-001	-8.8764E-001
	433.93	89.90	2.4309E-001		1.3400E-001
	614.37	90.40	2.6647E-001		6.1737E-002
	722.95	90.50	2.3396E-001		-5.8361E-002
Sb-125	176.33	6.89	4.5249E+000	6.58E-001	5.0755E+000
	427.89	29.33	6.5841E-001		-6.5029E-001
	463.38	10.35	2.0989E+000		3.1398E-001
	600.56	17.80	1.0172E+000		-2.1531E-001
	606.64	5.02	4.6272E+000		4.8256E+000
	635.90	11.32	1.7681E+000		1.2483E+000
Cs-134	563.23	8.38	2.3091E+000	2.22E-001	2.2897E-001
	569.32	15.43	1.2654E+000		-2.7571E-001
	604.70	97.60	2.3626E-001		-7.4937E-002
	795.84	85.40	2.2214E-001		1.6432E-001
	801.93	8.73	2.1844E+000		-5.5977E-001
Cs-137	661.65	85.12	2.3304E-001	2.33E-001	-1.5732E-002
Eu-152	121.78	28.40	1.4415E+000	6.48E-001	8.2382E-002
	244.69	7.49	3.6418E+000		-1.1321E+000
	344.27	26.50	8.7202E-001		2.5885E-001
	778.89	12.74	1.4661E+000		-1.8749E+000
	867.32	4.16	4.2735E+000		-6.7495E+000
	964.01	14.40	1.6652E+000		-5.8148E-001
	1085.78	10.00	1.6972E+000		9.1692E-001
	1112.02	13.30	1.3529E+000		-1.5025E+000
	1407.95	20.70	6.4775E-001		-8.5691E-002
Eu-154	123.07	40.50	1.0048E+000	5.22E-001	1.9956E-001
	247.94	6.60	3.8427E+000		-3.4970E+000
	591.81	4.83	3.9339E+000		3.1663E+000

723.30	19.70	1.0598E+000	-4.7206E-001
756.87	4.33	4.3511E+000	-1.5245E+000
873.19	11.50	1.5143E+000	-8.3587E-002

	996.32	10.30	1.5970E+000		-1.0190E+000
	1004.76	17.90	8.9048E-001		-6.7224E-001
	1274.45	35.50	5.2151E-001		-5.3370E-001
Eu-155	86.54	30.90	2.0350E+000	2.04E+000	3.6298E+000
	105.31	20.70	2.3396E+000		8.7601E-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 8/15/2005 8:56:39 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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-046-F-G.CNF
Log Number:
Title: NOL-02-01-046-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/12/2005 3:23:39 PM

Live Time : 900.0 seconds
Real Time : 900.8 seconds

Energy Calibration Date: 6/13/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-046-F-G.CNF
Log Number:
Title: NOL-02-01-046-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-	304	291.93	72.94	1.13	2.44E+002	51.76	7.15E+002
m	2	287-	304	300.40	75.06	1.13	4.32E+002	59.76	8.81E+002
F	3	332-	346	339.80	84.91	1.15	1.90E+002	48.64	9.02E+002
F	4	948-	960	955.04	238.73	1.34	1.93E+002	35.08	1.98E+002
F	5	1175-	1187	1181.59	295.37	1.39	4.75E+001	22.28	1.21E+002
F	6	1350-	1362	1355.06	338.75	1.43	5.34E+001	21.73	9.34E+001
F	7	1401-	1413	1408.03	351.99	1.44	9.06E+001	24.80	9.90E+001
F	8	2034-	2056	2044.59	511.14	2.33	1.56E+002	87.16	8.06E+001
F	9	2328-	2343	2334.71	583.68	1.60	1.02E+002	24.93	8.10E+001
F	10	2429-	2445	2438.36	609.59	1.62	8.70E+001	65.31	7.15E+001
F	11	3637-	3655	3646.80	911.73	1.79	9.81E+001	22.82	5.22E+001
F	12	3871-	3888	3878.14	969.57	1.82	6.17E+001	19.13	4.24E+001
F	13	5834-	5863	5848.70	1462.25	2.03	7.44E+002	82.89	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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-046-F-G.CNF

Log Number:
Title: NOL-02-01-046-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gm)	Activity Uncertainty
ANN	0.999	511.00*	100.00	4.69386E-001	2.71039E-001
K-40	0.940	1460.81*	10.67	2.75033E+001	3.78768E+000
TL-208	0.747	277.35	6.80		
		510.84*	21.60	2.17308E+000	1.26730E+000
		583.14*	84.20	3.80996E-001	1.05721E-001
		860.37	12.46		
Pb-212	0.524	74.81* @	10.70	1.46380E+001	3.51283E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.08702E+000	2.60677E-001
Bi-214	0.397	609.31*	46.30	5.97597E-001	4.54890E-001
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.588	74.82* @	6.21	2.52217E+001	6.32355E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	6.50256E-001	3.23928E-001
		351.92*	37.20	6.65299E-001	2.13388E-001
Ac-228	0.991	338.32*	11.40	1.26874E+000	5.53172E-001
		911.07*	27.70	1.23675E+000	3.20884E-001
		969.11*	16.60	1.32299E+000	4.32759E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-046-F-G.CNF

Log Number:
Title: NOL-02-01-046-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
ANN		0.999	3.870909E-001	2.719859E-001
K-40		0.940	2.750329E+001	3.787678E+000
TL-208		0.747	3.809955E-001	1.049896E-001
Pb-212	@	0.524	1.087019E+000	2.606769E-001
Bi-214		0.397	5.975970E-001	4.548904E-001
PB-214	@	0.588	6.607469E-001	1.781979E-001
Ac-228		0.991	1.267593E+000	2.336382E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.7111E-001	21.21
F 3	84.91	2.1142E-001	25.56

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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-046-F-G.CNF

Log Number:
Title: NOL-02-01-046-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
Co-60	1173.22	100.00	2.0064E-001	1.57E-001	4.2558E-002
	1332.49	100.00	1.5673E-001		1.1548E-001
Nb-94	702.63	100.00	2.0149E-001	1.74E-001	-1.3286E-001
	871.10	100.00	1.7406E-001		3.1488E-002
Ag-108m	79.20	7.10	1.0145E+001	2.31E-001	-2.6427E+001
	433.93	89.90	2.3150E-001		-2.6261E-001
	614.37	90.40	2.7876E-001		-1.9012E-001
	722.95	90.50	2.3068E-001		2.8453E-002
Sb-125	176.33	6.89	4.3869E+000	7.35E-001	-2.3658E+000
	427.89	29.33	7.3519E-001		2.8598E-001
	463.38	10.35	2.0730E+000		1.2580E+000
	600.56	17.80	1.1833E+000		4.1815E-001
	606.64	5.02	5.1335E+000		7.1245E+000
	635.90	11.32	1.7100E+000		-5.2759E-001
Cs-134	563.23	8.38	2.3491E+000	2.35E-001	-2.1164E+000
	569.32	15.43	1.2284E+000		4.1483E-001
	604.70	97.60	2.5511E-001		3.7879E-002
	795.84	85.40	2.3544E-001		1.3227E-001
	801.93	8.73	2.2844E+000		1.2316E+000
Cs-137	661.65	85.12	2.2504E-001	2.25E-001	-1.4176E-001
Eu-152	121.78	28.40	1.4354E+000	7.04E-001	1.8475E-002
	244.69	7.49	3.7305E+000		-5.4645E+000
	344.27	26.50	8.5154E-001		-9.5500E-002
	778.89	12.74	1.4386E+000		-1.3778E-001
	867.32	4.16	4.1804E+000		-4.6688E+000
	964.01	14.40	1.6445E+000		-1.3874E-001
	1085.78	10.00	1.8878E+000		-5.4298E-001
	1112.02	13.30	1.3660E+000		-1.0899E+000
	1407.95	20.70	7.0351E-001		4.6576E-002
Eu-154	123.07	40.50	9.9428E-001	4.95E-001	-8.9978E-001
	247.94	6.60	3.9101E+000		-1.1068E+000
	591.81	4.83	4.3193E+000		1.4036E+000

723.30	19.70	1.0659E+000	6.9327E-001
756.87	4.33	4.8818E+000	2.7050E+000
873.19	11.50	1.5075E+000	1.5491E-001

	996.32	10.30	1.7938E+000		1.1568E+000
	1004.76	17.90	1.0525E+000		8.1674E-001
	1274.45	35.50	4.9517E-001		-1.3511E-001
Eu-155	86.54	30.90	2.0279E+000	2.03E+000	1.3982E+000
	105.31	20.70	2.3281E+000		-7.2417E-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 8/15/2005 8:57:19 AM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-047-F-G.CNF
Log Number:
Title: NOL-02-01-047-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/12/2005 3:05:21 PM

Live Time : 900.0 seconds
Real Time : 900.8 seconds

Energy Calibration Date: 6/13/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-047-F-G.CNF
Log Number:
Title: NOL-02-01-047-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	72.90	1.13	1.95E+002	51.44	9.09E+002
m	2	285-	306	300.66	75.12	1.13	3.79E+002	59.70	1.11E+003
F	3	334-	357	339.78	84.90	1.15	2.27E+002	165.76	1.34E+003
F	4	945-	960	954.99	238.72	1.34	2.32E+002	37.02	2.36E+002
F	5	1074-	1086	1081.00	270.23	1.37	4.12E+001	21.67	1.19E+002
F	6	1175-	1187	1181.73	295.41	1.39	4.32E+001	21.82	1.16E+002
F	7	1345-	1360	1353.78	338.42	1.43	7.18E+001	22.45	1.10E+002
F	8	1402-	1416	1408.71	352.16	1.44	1.29E+002	27.57	1.17E+002
F	9	2034-	2056	2044.64	511.15	2.33	1.42E+002	93.00	9.72E+001
F	10	2323-	2343	2334.01	583.50	1.60	1.27E+002	49.21	7.15E+001
F	11	2429-	2448	2439.03	609.76	1.62	1.20E+002	24.21	6.48E+001
F	12	2904-	2916	2909.80	727.46	1.69	2.93E+001	15.96	3.73E+001
F	13	3639-	3656	3646.66	911.69	1.79	1.16E+002	61.33	3.20E+001
F	14	3870-	3887	3878.65	969.69	1.82	7.49E+001	19.13	3.14E+001
F	15	5834-	5862	5848.93	1462.30	2.03	8.56E+002	57.27	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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-047-F-G.CNF

Log Number:
Title: NOL-02-01-047-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gm)	Activity Uncertainty
ANN	0.999	511.00*	100.00	4.28727E-001	2.86900E-001
K-40	0.936	1460.81*	10.67	3.16306E+001	3.32251E+000
TL-208	0.750	277.35	6.80		
		510.84*	21.60	1.98485E+000	1.33810E+000
		583.14*	84.20	4.73287E-001	1.93867E-001
		860.37	12.46		
Bi-212	0.997	727.17*	11.80	8.26179E-001	4.60471E-001
Pb-212	0.524	74.81* @	10.70	1.28553E+001	3.23079E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.30515E+000	2.91899E-001
Bi-214	0.395	609.31*	46.30	8.27937E-001	1.95721E-001
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.587	74.82* @	6.21	2.21500E+001	5.79431E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	5.90817E-001	3.14758E-001
		351.92*	37.20	9.44464E-001	2.56716E-001
Ac-228	0.991	338.32*	11.40	1.70595E+000	5.96535E-001
		911.07*	27.70	1.46723E+000	7.91505E-001
		969.11*	16.60	1.60595E+000	4.43219E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-047-F-G.CNF

Log Number:
Title: NOL-02-01-047-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
ANN		0.999	3.264967E-001	2.899208E-001
K-40		0.936	3.163060E+001	3.322510E+000
TL-208		0.750	4.732867E-001	1.932526E-001
Bi-212		0.997	8.261786E-001	4.604714E-001
Pb-212	@	0.524	1.305154E+000	2.918988E-001
Bi-214		0.395	8.279370E-001	1.957211E-001
PB-214	@	0.587	8.031920E-001	1.989387E-001
Ac-228		0.991	1.612223E+000	3.244959E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.1668E-001	26.38
F	3	84.90	2.5204E-001	73.08
F	5	270.23	4.5735E-002	52.66

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

Errors quoted at 1.960 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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-047-F-G.CNF

Log Number:
Title: NOL-02-01-047-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
Co-60	1173.22	100.00	1.9070E-001	1.48E-001	-7.8257E-002
	1332.49	100.00	1.4758E-001		5.9007E-002
Nb-94	702.63	100.00	2.0392E-001	1.85E-001	8.9729E-002
	871.10	100.00	1.8543E-001		3.8982E-002
Ag-108m	79.20	7.10	1.0167E+001	2.29E-001	-4.7559E+000
	433.93	89.90	2.2851E-001		-1.9291E-002
	614.37	90.40	2.9099E-001		1.1995E-001
	722.95	90.50	2.4477E-001		2.3208E-002
Sb-125	176.33	6.89	4.2804E+000	6.90E-001	-2.9248E+000
	427.89	29.33	6.9019E-001		2.1098E-001
	463.38	10.35	2.1455E+000		1.3364E+000
	600.56	17.80	1.1620E+000		5.9634E-001
	606.64	5.02	5.0896E+000		4.1210E+000
	635.90	11.32	1.7472E+000		-3.2734E-001
Cs-134	563.23	8.38	2.3623E+000	2.17E-001	3.1008E-001
	569.32	15.43	1.3225E+000		-7.1885E-002
	604.70	97.60	2.5834E-001		-2.8454E-002
	795.84	85.40	2.1724E-001		1.2702E-004
	801.93	8.73	1.9946E+000		-3.0944E+000
Cs-137	661.65	85.12	2.2725E-001	2.27E-001	5.8847E-002
Eu-152	121.78	28.40	1.3920E+000	7.15E-001	-4.2436E-001
	244.69	7.49	3.6036E+000		-6.6858E+000
	344.27	26.50	8.9069E-001		3.4147E-001
	778.89	12.74	1.4984E+000		3.3859E-001
	867.32	4.16	4.6262E+000		3.6479E+000
	964.01	14.40	1.6528E+000		1.3473E-001
	1085.78	10.00	1.8713E+000		2.1699E+000
	1112.02	13.30	1.3660E+000		-1.4342E+000
	1407.95	20.70	7.1526E-001		6.4121E-001
Eu-154	123.07	40.50	9.6925E-001	4.87E-001	-2.5245E-001
	247.94	6.60	3.8385E+000		-4.3272E+000
	591.81	4.83	4.0903E+000		-2.9524E+000

723.30	19.70	1.1160E+000	6.1721E-001
756.87	4.33	4.7976E+000	1.8424E-001
873.19	11.50	1.6005E+000	-6.6877E-001

	996.32	10.30	1.7547E+000		6.3992E-001
	1004.76	17.90	9.9847E-001		-3.8676E-001
	1274.45	35.50	4.8697E-001		1.1072E-001
Eu-155	86.54	30.90	2.0528E+000	2.05E+000	3.0655E+000
	105.31	20.70	2.2755E+000		1.9527E-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 8/15/2005 8:57:57 AM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-048-F-G.CNF
Log Number:
Title: NOL-02-01-048-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/12/2005 2:43:40 PM

Live Time : 900.0 seconds
Real Time : 900.8 seconds

Energy Calibration Date: 6/13/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-048-F-G.CNF
Log Number:
Title: NOL-02-01-048-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	292.41	73.06	1.13	2.27E+002	50.35	8.23E+002
m	2	286-	309	300.63	75.12	1.13	4.77E+002	58.91	1.00E+003
F	3	367-	377	371.79	92.91	1.16	8.26E+001	41.56	5.54E+002
F	4	496-	504	500.47	125.08	1.21	5.24E+001	33.82	2.93E+002
F	5	834-	846	839.40	209.82	1.31	4.58E+001	25.71	1.96E+002
F	6	948-	961	955.08	238.74	1.34	1.90E+002	35.65	2.22E+002
F	7	1348-	1360	1354.67	338.65	1.43	7.33E+001	22.48	8.61E+001
F	8	1404-	1418	1408.80	352.18	1.44	8.71E+001	23.82	9.14E+001
F	9	2036-	2057	2045.57	511.39	2.33	1.43E+002	26.80	1.15E+002
F	10	2326-	2345	2334.15	583.54	1.60	1.20E+002	25.06	8.40E+001
F	11	2429-	2447	2437.56	609.39	1.62	1.00E+002	51.48	6.77E+001
F	12	2905-	2916	2911.18	727.81	1.69	1.52E+001	11.12	3.00E+001
F	13	3639-	3658	3647.79	911.97	1.79	1.06E+002	22.99	4.68E+001
F	14	3871-	3888	3879.00	969.78	1.82	7.12E+001	18.65	2.45E+001
F	15	4477-	4490	4483.38	1120.89	1.89	1.74E+001	14.26	3.50E+001
F	16	5834-	5862	5849.10	1462.35	2.03	8.68E+002	90.14	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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-048-F-G.CNF

Log Number:
Title: NOL-02-01-048-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gm)	Activity Uncertainty
ANN	0.996	511.00*	100.00	4.29940E-001	1.00853E-001
K-40	0.932	1460.81*	10.67	3.20941E+001	4.22545E+000
TL-208	0.748	277.35	6.80		
		510.84*	21.60	1.99046E+000	4.94398E-001
		583.14*	84.20	4.46688E-001	1.10557E-001
		860.37	12.46		
Bi-212	0.988	727.17*	11.80	4.29715E-001	3.17697E-001
Pb-212	0.524	74.81* @	10.70	1.61591E+001	3.74359E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.07079E+000	2.61448E-001
Bi-214	0.698	609.31*	46.30	6.90075E-001	3.63977E-001
		1120.29*	15.10	4.27257E-001	3.53851E-001
		1764.49	15.80		
Ac-228	0.983	338.32*	11.40	1.74171E+000	5.99832E-001
		911.07*	27.70	1.33062E+000	3.27760E-001
		969.11*	16.60	1.52611E+000	4.30482E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-048-F-G.CNF

Log Number:
Title: NOL-02-01-048-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
ANN	0.996	3.334553E-001	1.035936E-001
K-40	0.932	3.209414E+001	4.225451E+000
TL-208	0.748	4.466880E-001	1.095949E-001
Bi-212	0.988	4.297152E-001	3.176969E-001
Pb-212 @	0.524	1.070787E+000	2.614483E-001
Bi-214	0.698	5.549589E-001	2.537150E-001
Ac-228	0.983	1.456304E+000	2.391535E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.5240E-001	22.17
F	3	92.91	9.1727E-002	50.35
F	4	125.08	5.8193E-002	64.57
F	5	209.82	5.0909E-002	56.12
F	8	352.18	9.6811E-002	27.33

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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-048-F-G.CNF

Log Number:
Title: NOL-02-01-048-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
Co-60	1173.22	100.00	2.0932E-001	1.69E-001	-8.3027E-002
	1332.49	100.00	1.6947E-001		1.5715E-001
Nb-94	702.63	100.00	1.9270E-001	1.88E-001	-1.5392E-001
	871.10	100.00	1.8835E-001		7.6633E-002
Ag-108m	79.20	7.10	1.0064E+001	2.27E-001	-5.3342E+000
	433.93	89.90	2.3543E-001		-9.7754E-002
	614.37	90.40	2.7725E-001		-3.8729E-002
	722.95	90.50	2.2668E-001		1.2223E-001
Sb-125	176.33	6.89	4.2261E+000	6.92E-001	4.7881E-001
	427.89	29.33	6.9174E-001		-2.7896E-003
	463.38	10.35	2.1787E+000		1.8144E+000
	600.56	17.80	1.1276E+000		4.4958E-001
	606.64	5.02	4.9737E+000		2.3981E+000
	635.90	11.32	1.7681E+000		6.0014E-001
Cs-134	563.23	8.38	2.4652E+000	2.44E-001	1.0628E-001
	569.32	15.43	1.3500E+000		-1.1487E+000
	604.70	97.60	2.4851E-001		-5.7779E-002
	795.84	85.40	2.4364E-001		-3.8075E-004
	801.93	8.73	2.2311E+000		-1.7929E+000
Cs-137	661.65	85.12	2.2725E-001	2.27E-001	7.8640E-003
Eu-152	121.78	28.40	1.4321E+000	7.04E-001	1.5320E-001
	244.69	7.49	3.6384E+000		-1.4306E+000
	344.27	26.50	8.6932E-001		-5.0630E-001
	778.89	12.74	1.4824E+000		-7.3095E-001
	867.32	4.16	4.5407E+000		-1.2721E+000
	964.01	14.40	1.6319E+000		-6.0385E-001
	1085.78	10.00	1.8124E+000		6.7992E-001
	1112.02	13.30	1.3463E+000		-1.1269E+000
	1407.95	20.70	7.0351E-001		3.0584E-001
Eu-154	123.07	40.50	9.8443E-001	4.67E-001	1.6823E-001
	247.94	6.60	4.0535E+000		-6.2287E-001
	591.81	4.83	4.2520E+000		3.5636E-001

723.30	19.70	1.0290E+000	-4.3149E-001
756.87	4.33	4.5652E+000	1.7414E+000
873.19	11.50	1.6260E+000	-1.1166E+000

	996.32	10.30	1.8395E+000		3.7169E-001
	1004.76	17.90	1.0655E+000		9.1519E-001
	1274.45	35.50	4.6724E-001		4.5469E-002
Eu-155	86.54	30.90	1.9996E+000	2.00E+000	2.1729E+000
	105.31	20.70	2.2825E+000		-9.6495E-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 8/15/2005 8:58:33 AM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-049-F-G.CNF
Log Number:
Title: NOL-02-01-049-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/12/2005 2:22:02 PM

Live Time : 900.0 seconds
Real Time : 900.8 seconds

Energy Calibration Date: 6/13/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-049-F-G.CNF
Log Number:
Title: NOL-02-01-049-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-	307	292.25	73.02	1.13	2.72E+002	117.49	9.18E+002
m	2	283-	307	300.64	75.12	1.13	4.21E+002	157.92	1.06E+003
F	3	330-	354	339.79	84.91	1.15	1.66E+002	102.67	1.34E+003
F	4	946-	962	954.68	238.64	1.34	1.61E+002	33.08	2.39E+002
F	5	1348-	1359	1354.03	338.49	1.43	5.27E+001	21.97	9.30E+001
F	6	1402-	1418	1408.74	352.17	1.44	7.23E+001	21.50	9.54E+001
F	7	2037-	2053	2044.85	511.21	2.33	9.50E+001	25.66	1.06E+002
F	8	2326-	2343	2334.34	583.59	1.60	1.27E+002	25.12	6.27E+001
F	9	2430-	2445	2438.28	609.57	1.62	9.75E+001	22.93	5.40E+001
F	10	3637-	3657	3646.73	911.71	1.79	9.68E+001	21.41	4.18E+001
F	11	4477-	4492	4484.35	1121.13	1.89	4.98E+001	16.83	2.76E+001
F	12	5833-	5862	5848.94	1462.31	2.03	8.41E+002	88.17	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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-049-F-G.CNF

Log Number:
Title: NOL-02-01-049-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gm)	Activity Uncertainty
ANN	0.999	511.00*	100.00	2.86617E-001	8.72125E-002
K-40	0.935	1460.81*	10.67	3.10940E+001	4.11820E+000
TL-208	0.749	277.35	6.80		
		510.84*	21.60	1.32693E+000	4.18051E-001
		583.14*	84.20	4.75022E-001	1.12787E-001
		860.37	12.46		
Pb-212	0.524	74.81* @	10.70	1.42588E+001	6.03631E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	9.04841E-001	2.33909E-001
Bi-214	0.694	609.31*	46.30	6.70311E-001	1.78293E-001
		1120.29*	15.10	1.22667E+000	4.34365E-001
		1764.49	15.80		
Ac-228	0.533	338.32*	11.40	1.25078E+000	5.57434E-001
		911.07*	27.70	1.22027E+000	3.04211E-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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-049-F-G.CNF

Log Number:
Title: NOL-02-01-049-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
ANN	0.999	1.840124E-001	9.048943E-002
K-40	0.935	3.109404E+001	4.118204E+000
TL-208	0.749	4.750220E-001	1.117193E-001
Pb-212 @	0.524	9.048409E-001	2.339091E-001
Bi-214	0.694	7.505323E-001	1.649389E-001
Ac-228	0.533	1.227268E+000	2.670341E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	3.0232E-001	43.18
F 3	84.91	1.8412E-001	61.96
F 6	352.17	8.0315E-002	29.75

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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-049-F-G.CNF

Log Number:
Title: NOL-02-01-049-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
Co-60	1173.22	100.00	2.0542E-001	1.49E-001	6.4140E-002
	1332.49	100.00	1.4876E-001		-2.3952E-001
Nb-94	702.63	100.00	1.9715E-001	1.90E-001	-9.8479E-003
	871.10	100.00	1.9050E-001		-2.0040E-001
Ag-108m	79.20	7.10	1.0037E+001	2.37E-001	-3.3367E+000
	433.93	89.90	2.3737E-001		-5.4413E-002
	614.37	90.40	2.6908E-001		-8.1866E-002
	722.95	90.50	2.4353E-001		2.6784E-002
Sb-125	176.33	6.89	4.1588E+000	7.09E-001	-2.3650E+000
	427.89	29.33	7.0854E-001		7.4425E-001
	463.38	10.35	2.0816E+000		5.4293E-001
	600.56	17.80	1.1434E+000		1.8683E-001
	606.64	5.02	4.9827E+000		5.8725E+000
	635.90	11.32	1.6274E+000		-1.3247E+000
Cs-134	563.23	8.38	2.3949E+000	2.11E-001	2.3695E+000
	569.32	15.43	1.2618E+000		-1.0960E+000
	604.70	97.60	2.5788E-001		1.0081E-001
	795.84	85.40	2.1052E-001		-2.8506E-001
	801.93	8.73	2.1041E+000		-9.1784E-001
Cs-137	661.65	85.12	2.2578E-001	2.26E-001	9.0792E-002
Eu-152	121.78	28.40	1.4310E+000	7.15E-001	1.3086E+000
	244.69	7.49	3.6831E+000		1.2763E+000
	344.27	26.50	8.3619E-001		-2.6908E-001
	778.89	12.74	1.4661E+000		3.0360E-001
	867.32	4.16	4.7266E+000		-1.4105E+000
	964.01	14.40	1.5454E+000		-2.3109E-001
	1085.78	10.00	1.9203E+000		1.1044E-001
	1112.02	13.30	1.4109E+000		-1.6448E+000
	1407.95	20.70	7.1526E-001		2.2637E-001
Eu-154	123.07	40.50	9.8996E-001	4.70E-001	-5.4150E-003
	247.94	6.60	3.9516E+000		-2.3713E+000
	591.81	4.83	4.0428E+000		-1.3033E+000

723.30	19.70	1.1217E+000	5.6033E-001
756.87	4.33	4.6097E+000	-3.3025E+000
873.19	11.50	1.7122E+000	1.6167E+000

	996.32	10.30	1.8092E+000		-3.7362E-001
	1004.76	17.90	1.0655E+000		4.6433E-001
	1274.45	35.50	4.7011E-001		-3.1552E-001
Eu-155	86.54	30.90	1.9809E+000	1.98E+000	1.9142E-001
	105.31	20.70	2.1736E+000		-1.9518E+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 8/16/2005 2:52:00 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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-050-F-G.CNF
Log Number:
Title: NOL-02-01-050-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/15/2005 1:35:41 PM

Live Time : 900.0 seconds
Real Time : 900.5 seconds

Energy Calibration Date: 6/13/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-050-F-G.CNF
Log Number:
Title: NOL-02-01-050-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	291.72	72.89	1.13	2.14E+002	49.93	8.87E+002
m	2	283-	305	300.55	75.10	1.13	4.41E+002	59.47	9.13E+002
F	3	332-	344	339.83	84.92	1.15	1.92E+002	123.30	6.55E+002
F	4	698-	707	702.48	175.59	1.27	3.83E+001	25.79	1.63E+002
F	5	947-	962	954.99	238.72	1.34	1.86E+002	33.88	2.16E+002
F	6	1398-	1413	1407.80	351.93	1.44	9.40E+001	58.90	9.77E+001
F	7	2034-	2055	2043.02	510.75	2.33	1.34E+002	132.30	8.73E+001
F	8	2325-	2340	2333.08	583.27	1.60	9.91E+001	23.81	7.00E+001
F	9	2428-	2447	2437.55	609.39	1.62	1.19E+002	23.63	5.48E+001
F	10	3638-	3653	3645.50	911.40	1.79	8.55E+001	22.27	4.61E+001
F	11	3870-	3884	3876.68	969.20	1.81	4.84E+001	16.95	2.65E+001
F	12	5833-	5860	5846.22	1461.63	2.03	7.88E+002	90.66	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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-050-F-G.CNF

Log Number:
Title: NOL-02-01-050-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gm)	Activity Uncertainty
K-40	0.980	1460.81*	10.67	2.91216E+001	4.09716E+000
TL-208	0.753	277.35	6.80		
		510.84*	21.60	1.87602E+000	1.87217E+000
		583.14*	84.20	3.69623E-001	1.01353E-001
		860.37	12.46		
Pb-212	0.524	74.81* @	10.70	1.49368E+001	3.55434E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.04318E+000	2.51058E-001
Bi-214	0.398	609.31*	46.30	8.20953E-001	1.91867E-001
		1120.29	15.10		
		1764.49	15.80		
Ac-228	0.635	338.32	11.40		
		911.07*	27.70	1.07806E+000	3.06942E-001
		969.11*	16.60	1.03811E+000	3.79284E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-050-F-G.CNF

Log Number:
Title: NOL-02-01-050-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

	Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
X	ANN		0.998		
	K-40		0.980	2.912156E+001	4.097164E+000
	TL-208		0.753	3.740254E-001	1.012045E-001
	Pb-212	@	0.524	1.043179E+000	2.510582E-001
	Bi-214		0.398	8.209528E-001	1.918674E-001
	Ac-228		0.635	1.062249E+000	2.385992E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.3754E-001	23.35
F	3	84.92	2.1349E-001	64.17
F	4	175.59	4.2587E-002	67.30
F	6	351.93	1.0448E-001	62.63

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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-050-F-G.CNF

Log Number:
Title: NOL-02-01-050-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
Co-60	1173.22	100.00	1.9902E-001	1.59E-001	-3.9661E-002
	1332.49	100.00	1.5893E-001		1.7422E-001
Nb-94	702.63	100.00	1.9589E-001	1.91E-001	-5.3520E-002
	871.10	100.00	1.9121E-001		1.9808E-001
Ag-108m	79.20	7.10	9.8799E+000	2.33E-001	-2.0027E+001
	433.93	89.90	2.3298E-001		2.7363E-002
	614.37	90.40	2.7523E-001		8.0457E-002
	722.95	90.50	2.3461E-001		2.3038E-001
Sb-125	176.33	6.89	4.1895E+000	6.86E-001	2.5490E-001
	427.89	29.33	6.8552E-001		3.1534E-001
	463.38	10.35	1.9660E+000		3.9899E-001
	600.56	17.80	1.1496E+000		8.5546E-001
	606.64	5.02	5.0896E+000		6.9192E+000
	635.90	11.32	1.7577E+000		-1.6754E-002
Cs-134	563.23	8.38	2.4207E+000	2.18E-001	6.5685E-001
	569.32	15.43	1.3049E+000		5.0808E-001
	604.70	97.60	2.5971E-001		7.6559E-002
	795.84	85.40	2.1806E-001		-4.1350E-003
	801.93	8.73	2.1285E+000		-5.1059E+000
Cs-137	661.65	85.12	2.2206E-001	2.22E-001	1.1288E-001
Eu-152	121.78	28.40	1.4415E+000	6.54E-001	2.6969E+000
	244.69	7.49	3.3986E+000		-2.7205E+000
	344.27	26.50	8.3900E-001		-1.1383E+000
	778.89	12.74	1.5660E+000		-5.6854E-002
	867.32	4.16	4.3101E+000		-3.9414E+000
	964.01	14.40	1.5893E+000		-2.1091E-001
	1085.78	10.00	1.7865E+000		5.9042E-001
	1112.02	13.30	1.4109E+000		-1.2354E+000
	1407.95	20.70	6.5420E-001		-5.6717E-001
Eu-154	123.07	40.50	9.7966E-001	4.76E-001	-1.5189E-001
	247.94	6.60	3.6998E+000		-2.8680E+000
	591.81	4.83	4.0666E+000		3.5837E-001

723.30	19.70	1.0629E+000	4.6802E-001
756.87	4.33	4.5652E+000	-2.0155E+000
873.19	11.50	1.6386E+000	2.7803E-001

	996.32	10.30	1.6737E+000		-3.8310E-001
	1004.76	17.90	9.3129E-001		-7.6690E-001
	1274.45	35.50	4.7580E-001		8.3691E-002
Eu-155	86.54	30.90	1.9258E+000	1.93E+000	2.9760E+000
	105.31	20.70	2.2239E+000		-9.3967E-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 8/17/2005 7:04:53 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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-051-F-G.CNF
Log Number:
Title: NOL-02-01-051-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/16/2005 10:39:46 AM

Live Time : 900.0 seconds
Real Time : 900.7 seconds

Energy Calibration Date: 4/11/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-051-F-G.CNF
Log Number:
Title: NOL-02-01-051-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	291.39	72.70	1.13	2.05E+002	49.47	6.90E+002
m	2	286-	305	300.30	74.93	1.14	3.67E+002	59.20	8.66E+002
F	3	949-	961	954.52	238.95	1.34	1.92E+002	34.88	1.73E+002
F	4	2033-	2053	2043.49	511.54	2.32	1.12E+002	73.39	7.89E+001
F	5	2325-	2340	2333.35	584.02	1.59	1.04E+002	22.59	4.82E+001
F	6	2428-	2447	2437.67	610.10	1.61	1.02E+002	64.06	6.00E+001
F	7	2641-	2652	2647.38	662.52	1.64	1.90E+001	14.28	3.57E+001
F	8	3637-	3656	3645.54	911.84	1.77	9.14E+001	21.12	4.02E+001
F	9	3870-	3885	3877.16	969.66	1.80	5.56E+001	18.49	3.96E+001
F	10	4477-	4491	4483.35	1120.95	1.87	3.85E+001	55.32	2.63E+001
F	11	5833-	5859	5846.18	1460.92	2.01	7.35E+002	95.78	2.33E+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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-051-F-G.CNF

Log Number:
Title: NOL-02-01-051-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	0.991	511.00*	100.00	3.25300E-001	2.18464E-001
K-40	1.000	1460.81*	10.67	2.61148E+001	4.00719E+000
Cs-137	0.977	661.65*	85.12	6.96713E-002	5.29073E-002
TL-208	0.735	277.35	6.80		
		510.84*	21.60	1.50602E+000	1.01886E+000
		583.14*	84.20	3.72379E-001	9.46563E-002
		860.37	12.46		
Pb-212	0.523	74.81* @	10.70	1.20664E+001	3.06439E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.05113E+000	2.51874E-001
Bi-214	0.687	609.31*	46.30	6.74450E-001	4.30057E-001
		1120.29*	15.10	9.06169E-001	1.30709E+000
		1764.49	15.80		
Ac-228	0.628	338.32	11.40		
		911.07*	27.70	1.09758E+000	2.83221E-001
		969.11*	16.60	1.13599E+000	3.96317E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-051-F-G.CNF

Log Number:
Title: NOL-02-01-051-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN	0.991	2.448657E-001	2.194026E-001
K-40	1.000	2.611483E+001	4.007189E+000
Cs-137	0.977	6.967131E-002	5.290734E-002
TL-208	0.735	3.723794E-001	9.387511E-002
Pb-212 @	0.523	1.051131E+000	2.518741E-001
Bi-214	0.687	6.970842E-001	4.085132E-001
Ac-228	0.628	1.110564E+000	2.304286E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	72.70	2.2739E-001	24.17

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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-051-F-G.CNF

Log Number:
Title: NOL-02-01-051-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
	Co-60	1173.22	100.00	2.0429E-001	1.54E-001	1.0498E-001
		1332.49	100.00	1.5375E-001		7.0531E-002
	Nb-94	702.63	100.00	1.8328E-001	1.51E-001	2.2735E-002
		871.10	100.00	1.5086E-001		1.8124E-002
	Ag-108m	79.20	7.10	9.0797E+000	2.08E-001	-1.0794E+001
		433.93	89.90	2.0833E-001		-3.0964E-002
		614.37	90.40	2.5571E-001		-1.1285E-001
		722.95	90.50	2.2259E-001		2.0213E-001
	Sb-125	176.33	6.89	3.8981E+000	6.46E-001	-1.5972E+000
		427.89	29.33	6.4574E-001		-3.3872E-001
		463.38	10.35	1.9482E+000		-7.5642E-001
		600.56	17.80	1.0532E+000		5.4583E-001
		606.64	5.02	4.7049E+000		-7.3568E-002
		635.90	11.32	1.5456E+000		6.3237E-001
	Cs-134	563.23	8.38	2.3933E+000	2.13E-001	9.9364E-001
		569.32	15.43	1.2837E+000		-1.0500E-001
		604.70	97.60	2.3493E-001		7.9817E-002
		795.84	85.40	2.1250E-001		-7.9458E-002
		801.93	8.73	2.0894E+000		-7.4140E-001
+	Cs-137	661.65*	85.12	1.2464E-001	1.25E-001	6.9671E-002
	Eu-152	121.78	28.40	1.3242E+000	6.23E-001	-3.0170E-001
		244.69	7.49	3.3434E+000		4.6197E-001
		344.27	26.50	8.2967E-001		-8.6668E-001
		778.89	12.74	1.3609E+000		-2.0564E-001
		867.32	4.16	3.9633E+000		-1.4467E+000
		964.01	14.40	1.5644E+000		-1.6235E-001
		1085.78	10.00	1.5143E+000		-2.0376E+000
		1112.02	13.30	1.3138E+000		-2.0134E+000
		1407.95	20.70	6.2269E-001		1.8381E-001
	Eu-154	123.07	40.50	9.1505E-001	5.18E-001	-9.2973E-001
		247.94	6.60	3.5671E+000		-4.6022E+000
		591.81	4.83	3.6899E+000		-1.0256E+000

723.30	19.70	1.0227E+000	7.1407E-001
756.87	4.33	4.2962E+000	1.9096E+000
873.19	11.50	1.2834E+000	-1.6389E-001

	996.32	10.30	1.7196E+000		1.4062E-001
	1004.76	17.90	9.9645E-001		-2.8414E-001
	1274.45	35.50	5.1759E-001		3.2915E-001
Eu-155	86.54	30.90	1.8647E+000	1.86E+000	2.7975E+000
	105.31	20.70	2.1133E+000		1.6997E+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 8/16/2005 2:54:23 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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-052-F-G-dup-8
Log Number:
Title: NOL-02-01-052-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/15/2005 11:15:35 AM

Live Time : 900.0 seconds
Real Time : 900.7 seconds

Energy Calibration Date: 4/11/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-052-F-G-dup-8
Log Number:
Title: NOL-02-01-052-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	291.72	72.78	1.13	1.80E+002	48.47	7.11E+002
m	2	286-	306	300.57	75.00	1.14	3.94E+002	57.99	8.55E+002
F	3	331-	344	339.35	84.73	1.15	1.68E+002	47.62	7.42E+002
F	4	738-	748	743.67	186.11	1.28	5.11E+001	27.96	2.01E+002
F	5	950-	960	954.74	239.00	1.34	1.80E+002	35.49	1.59E+002
F	6	1175-	1185	1180.42	295.54	1.39	3.84E+001	22.34	1.07E+002
F	7	1345-	1358	1352.66	338.67	1.43	3.39E+001	21.07	1.16E+002
F	8	1401-	1414	1407.66	352.44	1.44	7.87E+001	23.51	9.66E+001
F	9	2032-	2054	2043.29	511.49	2.32	1.57E+002	25.99	8.31E+001
F	10	2325-	2343	2332.83	583.90	1.59	1.03E+002	22.10	4.62E+001
F	11	2429-	2447	2437.30	610.01	1.61	1.22E+002	24.46	5.59E+001
F	12	3635-	3653	3644.73	911.64	1.77	1.20E+002	75.18	3.33E+001
F	13	3870-	3884	3876.54	969.51	1.80	4.12E+001	17.39	4.03E+001
F	14	4476-	4490	4482.44	1120.72	1.87	4.57E+001	16.18	2.29E+001
F	15	5831-	5858	5845.49	1460.75	2.01	6.89E+002	51.44	3.46E+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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-052-F-G-dup-8

Log Number:
Title: NOL-02-01-052-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	0.993	511.00*		100.00	4.56850E-001	9.91222E-002
K-40	1.000	1460.81*		10.67	2.45028E+001	2.69765E+000
TL-208	0.739	277.35		6.80		
		510.84*		21.60	2.11505E+000	4.90330E-001
		583.14*		84.20	3.68451E-001	9.28870E-002
		860.37		12.46		
Pb-212	0.522	74.81*	@	10.70	1.29626E+001	3.17632E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	9.84774E-001	2.47813E-001
Bi-214	0.691	609.31*		46.30	8.04183E-001	1.89601E-001
		1120.29*		15.10	1.07778E+000	3.98106E-001
		1764.49		15.80		
PB-214	0.583	74.82*	@	6.21	2.23350E+001	5.70800E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	5.10836E-001	3.09160E-001
		351.92*		37.20	5.61283E-001	1.92165E-001
Ac-228	0.993	338.32*		11.40	7.83239E-001	5.01346E-001
		911.07*		27.70	1.43765E+000	9.17812E-001
		969.11*		16.60	8.43095E-001	3.66316E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-052-F-G-dup-8

Log Number:
Title: NOL-02-01-052-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN		0.993	3.772644E-001	1.010992E-001
K-40		1.000	2.450278E+001	2.697650E+000
TL-208		0.739	3.684509E-001	9.210761E-002
Pb-212	@	0.522	9.847745E-001	2.478126E-001
Bi-214		0.691	8.547668E-001	1.711789E-001
PB-214	@	0.583	5.472245E-001	1.632068E-001
Ac-228		0.993	8.801586E-001	2.815180E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	1.9971E-001	26.97
F 3	84.73	1.8612E-001	28.43
F 4	186.11	5.6780E-002	54.71

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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-052-F-G-dup-8

Log Number:
Title: NOL-02-01-052-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Co-60	1173.22	100.00	1.8840E-001	1.43E-001	-1.2188E-001
	1332.49	100.00	1.4293E-001		-1.1705E-002
Nb-94	702.63	100.00	1.8754E-001	1.69E-001	6.2250E-002
	871.10	100.00	1.6946E-001		4.8305E-002
Ag-108m	79.20	7.10	9.0566E+000	2.13E-001	-2.0806E+000
	433.93	89.90	2.1347E-001		-5.7228E-002
	614.37	90.40	2.6067E-001		2.4356E-002
	722.95	90.50	2.2445E-001		3.0140E-001
Sb-125	176.33	6.89	3.9962E+000	6.19E-001	2.3781E+000
	427.89	29.33	6.1852E-001		-3.7599E-001
	463.38	10.35	1.8548E+000		-3.6390E-001
	600.56	17.80	9.9520E-001		4.0734E-002
	606.64	5.02	4.8003E+000		9.2919E-002
	635.90	11.32	1.6044E+000		9.2286E-001
Cs-134	563.23	8.38	2.3388E+000	1.97E-001	5.3206E-001
	569.32	15.43	1.2837E+000		5.7459E-001
	604.70	97.60	2.3678E-001		2.1104E-002
	795.84	85.40	1.9738E-001		-3.0965E-002
	801.93	8.73	1.7902E+000		-3.5018E+000
Cs-137	661.65	85.12	2.3055E-001	2.31E-001	1.9533E-001
Eu-152	121.78	28.40	1.3082E+000	5.35E-001	9.7828E-003
	244.69	7.49	3.4586E+000		-1.0041E+000
	344.27	26.50	8.1618E-001		-9.2312E-002
	778.89	12.74	1.2781E+000		-1.3448E+000
	867.32	4.16	4.2414E+000		-5.2693E+000
	964.01	14.40	1.5443E+000		-1.0190E-001
	1085.78	10.00	1.6923E+000		-4.4020E-002
	1112.02	13.30	1.4037E+000		-1.2937E+000
	1407.95	20.70	5.3493E-001		-3.1901E-001
Eu-154	123.07	40.50	9.0043E-001	4.54E-001	-7.1377E-001
	247.94	6.60	3.6186E+000		-9.4121E+000
	591.81	4.83	3.7139E+000		1.2663E+000

723.30	19.70	1.0312E+000	1.0009E+000
756.87	4.33	4.2673E+000	4.6613E+000
873.19	11.50	1.4742E+000	5.6752E-001

	996.32	10.30	1.6974E+000		9.6132E-001
	1004.76	17.90	9.7943E-001		-2.3232E-001
	1274.45	35.50	4.5406E-001		5.3430E-002
Eu-155	86.54	30.90	1.8620E+000	1.86E+000	4.2518E-001
	105.31	20.70	2.1101E+000		-1.2372E+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 8/16/2005 2:54:23 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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-052-F-G-dup-8
Log Number:
Title: NOL-02-01-052-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/15/2005 11:15:35 AM

Live Time : 900.0 seconds
Real Time : 900.7 seconds

Energy Calibration Date: 4/11/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-052-F-G-dup-8
Log Number:
Title: NOL-02-01-052-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	291.72	72.78	1.13	1.80E+002	48.47	7.11E+002
m	2	286-	306	300.57	75.00	1.14	3.94E+002	57.99	8.55E+002
F	3	331-	344	339.35	84.73	1.15	1.68E+002	47.62	7.42E+002
F	4	738-	748	743.67	186.11	1.28	5.11E+001	27.96	2.01E+002
F	5	950-	960	954.74	239.00	1.34	1.80E+002	35.49	1.59E+002
F	6	1175-	1185	1180.42	295.54	1.39	3.84E+001	22.34	1.07E+002
F	7	1345-	1358	1352.66	338.67	1.43	3.39E+001	21.07	1.16E+002
F	8	1401-	1414	1407.66	352.44	1.44	7.87E+001	23.51	9.66E+001
F	9	2032-	2054	2043.29	511.49	2.32	1.57E+002	25.99	8.31E+001
F	10	2325-	2343	2332.83	583.90	1.59	1.03E+002	22.10	4.62E+001
F	11	2429-	2447	2437.30	610.01	1.61	1.22E+002	24.46	5.59E+001
F	12	3635-	3653	3644.73	911.64	1.77	1.20E+002	75.18	3.33E+001
F	13	3870-	3884	3876.54	969.51	1.80	4.12E+001	17.39	4.03E+001
F	14	4476-	4490	4482.44	1120.72	1.87	4.57E+001	16.18	2.29E+001
F	15	5831-	5858	5845.49	1460.75	2.01	6.89E+002	51.44	3.46E+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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-052-F-G-dup-8

Log Number:
Title: NOL-02-01-052-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	0.993	511.00*		100.00	4.56850E-001	9.91222E-002
K-40	1.000	1460.81*		10.67	2.45028E+001	2.69765E+000
TL-208	0.739	277.35		6.80		
		510.84*		21.60	2.11505E+000	4.90330E-001
		583.14*		84.20	3.68451E-001	9.28870E-002
		860.37		12.46		
Pb-212	0.522	74.81*	@	10.70	1.29626E+001	3.17632E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	9.84774E-001	2.47813E-001
Bi-214	0.691	609.31*		46.30	8.04183E-001	1.89601E-001
		1120.29*		15.10	1.07778E+000	3.98106E-001
		1764.49		15.80		
PB-214	0.583	74.82*	@	6.21	2.23350E+001	5.70800E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	5.10836E-001	3.09160E-001
		351.92*		37.20	5.61283E-001	1.92165E-001
Ac-228	0.993	338.32*		11.40	7.83239E-001	5.01346E-001
		911.07*		27.70	1.43765E+000	9.17812E-001
		969.11*		16.60	8.43095E-001	3.66316E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-052-F-G-dup-8

Log Number:
Title: NOL-02-01-052-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN		0.993	3.772644E-001	1.010992E-001
K-40		1.000	2.450278E+001	2.697650E+000
TL-208		0.739	3.684509E-001	9.210761E-002
Pb-212	@	0.522	9.847745E-001	2.478126E-001
Bi-214		0.691	8.547668E-001	1.711789E-001
PB-214	@	0.583	5.472245E-001	1.632068E-001
Ac-228		0.993	8.801586E-001	2.815180E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	1.9971E-001	26.97
F 3	84.73	1.8612E-001	28.43
F 4	186.11	5.6780E-002	54.71

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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-052-F-G-dup-8

Log Number:
Title: NOL-02-01-052-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Co-60	1173.22	100.00	1.8840E-001	1.43E-001	-1.2188E-001
	1332.49	100.00	1.4293E-001		-1.1705E-002
Nb-94	702.63	100.00	1.8754E-001	1.69E-001	6.2250E-002
	871.10	100.00	1.6946E-001		4.8305E-002
Ag-108m	79.20	7.10	9.0566E+000	2.13E-001	-2.0806E+000
	433.93	89.90	2.1347E-001		-5.7228E-002
	614.37	90.40	2.6067E-001		2.4356E-002
	722.95	90.50	2.2445E-001		3.0140E-001
Sb-125	176.33	6.89	3.9962E+000	6.19E-001	2.3781E+000
	427.89	29.33	6.1852E-001		-3.7599E-001
	463.38	10.35	1.8548E+000		-3.6390E-001
	600.56	17.80	9.9520E-001		4.0734E-002
	606.64	5.02	4.8003E+000		9.2919E-002
	635.90	11.32	1.6044E+000		9.2286E-001
Cs-134	563.23	8.38	2.3388E+000	1.97E-001	5.3206E-001
	569.32	15.43	1.2837E+000		5.7459E-001
	604.70	97.60	2.3678E-001		2.1104E-002
	795.84	85.40	1.9738E-001		-3.0965E-002
	801.93	8.73	1.7902E+000		-3.5018E+000
Cs-137	661.65	85.12	2.3055E-001	2.31E-001	1.9533E-001
Eu-152	121.78	28.40	1.3082E+000	5.35E-001	9.7828E-003
	244.69	7.49	3.4586E+000		-1.0041E+000
	344.27	26.50	8.1618E-001		-9.2312E-002
	778.89	12.74	1.2781E+000		-1.3448E+000
	867.32	4.16	4.2414E+000		-5.2693E+000
	964.01	14.40	1.5443E+000		-1.0190E-001
	1085.78	10.00	1.6923E+000		-4.4020E-002
	1112.02	13.30	1.4037E+000		-1.2937E+000
	1407.95	20.70	5.3493E-001		-3.1901E-001
Eu-154	123.07	40.50	9.0043E-001	4.54E-001	-7.1377E-001
	247.94	6.60	3.6186E+000		-9.4121E+000
	591.81	4.83	3.7139E+000		1.2663E+000

723.30	19.70	1.0312E+000	1.0009E+000
756.87	4.33	4.2673E+000	4.6613E+000
873.19	11.50	1.4742E+000	5.6752E-001

	996.32	10.30	1.6974E+000		9.6132E-001
	1004.76	17.90	9.7943E-001		-2.3232E-001
	1274.45	35.50	4.5406E-001		5.3430E-002
Eu-155	86.54	30.90	1.8620E+000	1.86E+000	4.2518E-001
	105.31	20.70	2.1101E+000		-1.2372E+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 8/16/2005 2:55:30 PM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-053-F-G.CNF
Log Number:
Title: NOL-02-01-053-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/15/2005 8:45:33 AM

Live Time : 900.0 seconds
Real Time : 900.3 seconds

Energy Calibration Date: 6/13/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-053-F-G.CNF
Log Number:
Title: NOL-02-01-053-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	291.73	72.89	1.13	1.08E+002	39.35	6.47E+002
m	2	283-	305	300.30	75.03	1.13	2.98E+002	49.68	6.76E+002
F	3	948-	965	954.76	238.66	1.34	1.42E+002	31.69	2.70E+002
F	4	1401-	1415	1408.55	352.12	1.44	8.11E+001	23.15	9.95E+001
F	5	1721-	1733	1726.48	431.61	1.50	2.46E+001	16.03	5.11E+001
F	6	2034-	2053	2043.73	510.93	2.33	9.44E+001	25.07	1.28E+002
F	7	2325-	2342	2333.29	583.32	1.60	1.11E+002	23.71	6.17E+001
F	8	2427-	2447	2436.73	609.18	1.62	1.18E+002	23.06	5.21E+001
F	9	2639-	2654	2647.36	661.85	1.65	3.71E+001	16.44	4.36E+001
F	10	3636-	3653	3644.84	911.24	1.79	7.09E+001	58.90	5.61E+001
F	11	5830-	5858	5845.59	1461.47	2.03	6.47E+002	80.29	6.79E+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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-053-F-G.CNF

Log Number:
Title: NOL-02-01-053-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gm)	Activity Uncertainty
ANN	1.000	511.00*	100.00	2.84845E-001	8.55206E-002
K-40	0.987	1460.81*	10.67	2.38957E+001	3.54246E+000
Cs-137	0.999	661.65*	85.12	1.42350E-001	6.51853E-002
TL-208	0.752	277.35	6.80		
		510.84*	21.60	1.31873E+000	4.10315E-001
		583.14*	84.20	4.15413E-001	1.04076E-001
		860.37	12.46		
Pb-212	0.525	74.81* @	10.70	1.01177E+001	2.60272E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	7.98188E-001	2.17727E-001
Bi-214	0.398	609.31*	46.30	8.13041E-001	1.88036E-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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-053-F-G.CNF

Log Number:
Title: NOL-02-01-053-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
ANN	1.000	1.951155E-001	8.837758E-002
K-40	0.987	2.389565E+001	3.542456E+000
Cs-137	0.999	1.423498E-001	6.518531E-002
TL-208	0.752	4.154130E-001	1.031920E-001
Pb-212 @	0.525	7.981885E-001	2.177271E-001
Bi-214	0.398	8.130409E-001	1.880358E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	1.1952E-001	36.58
F 4	352.12	9.0067E-002	28.56
F 5	431.61	2.7333E-002	65.14
F 10	911.24	7.8790E-002	83.07

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

Errors quoted at 1.960 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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-053-F-G.CNF

Log Number:
Title: NOL-02-01-053-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
	Co-60	1173.22	100.00	1.9983E-001	1.57E-001	9.6012E-002
		1332.49	100.00	1.5673E-001		-1.8731E-002
	Nb-94	702.63	100.00	1.9777E-001	1.76E-001	5.2506E-002
		871.10	100.00	1.7562E-001		4.4121E-002
	Ag-108m	79.20	7.10	8.8925E+000	2.26E-001	-1.1540E+001
		433.93	89.90	2.2649E-001		-6.7856E-002
		614.37	90.40	2.7011E-001		-7.6009E-003
		722.95	90.50	2.3911E-001		1.8335E-001
	Sb-125	176.33	6.89	4.1185E+000	7.04E-001	3.2586E+000
		427.89	29.33	7.0400E-001		1.7663E-001
		463.38	10.35	2.0686E+000		1.5830E+000
		600.56	17.80	1.0789E+000		1.1767E+000
		606.64	5.02	4.9646E+000		7.8475E+000
		635.90	11.32	1.6498E+000		4.9884E-001
	Cs-134	563.23	8.38	2.3158E+000	2.25E-001	-1.8084E+000
		569.32	15.43	1.2799E+000		-6.1336E-002
		604.70	97.60	2.5464E-001		5.8289E-002
		795.84	85.40	2.2455E-001		2.0321E-001
		801.93	8.73	2.1123E+000		-1.6219E+000
+	Cs-137	661.65*	85.12	1.5518E-001	1.55E-001	1.4235E-001
	Eu-152	121.78	28.40	1.4237E+000	6.79E-001	-4.5667E-001
		244.69	7.49	3.6831E+000		-2.7674E+000
		344.27	26.50	8.7202E-001		-1.2557E+000
		778.89	12.74	1.5090E+000		-4.6494E-001
		867.32	4.16	4.4181E+000		-4.3385E-001
		964.01	14.40	1.7019E+000		1.2758E+000
		1085.78	10.00	1.9042E+000		1.4065E+000
		1112.02	13.30	1.3660E+000		-1.0821E+000
		1407.95	20.70	6.7934E-001		-2.2650E-001
	Eu-154	123.07	40.50	9.8641E-001	4.98E-001	-3.6516E-001
		247.94	6.60	3.9640E+000		-3.0418E+000
		591.81	4.83	3.8969E+000		9.8450E-001

723.30	19.70	1.1160E+000	1.4997E+000
756.87	4.33	4.3196E+000	3.5522E+000
873.19	11.50	1.5414E+000	-2.3032E-001

	996.32	10.30	1.7308E+000		3.8703E-001
	1004.76	17.90	9.7504E-001		4.1136E-001
	1274.45	35.50	4.9787E-001		-6.3428E-002
Eu-155	86.54	30.90	1.8629E+000	1.86E+000	6.1779E-001
	105.31	20.70	2.2327E+000		-5.4533E-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 8/16/2005 2:58:08 PM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-054-F-G.CNF
Log Number:
Title: NOL-02-01-054-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/15/2005 9:31:50 AM

Live Time : 900.0 seconds
Real Time : 900.2 seconds

Energy Calibration Date: 6/13/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-054-F-G.CNF
Log Number:
Title: NOL-02-01-054-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	291.95	72.95	1.13	2.51E+002	51.13	7.92E+002
m	2	285-	305	300.44	75.07	1.13	3.86E+002	57.47	9.25E+002
F	3	333-	346	339.57	84.85	1.15	1.23E+002	46.04	8.37E+002
F	4	514-	521	517.66	129.38	1.21	4.31E+001	32.98	2.43E+002
F	5	946-	959	954.77	238.67	1.34	1.92E+002	34.07	1.72E+002
F	6	1173-	1187	1181.27	295.29	1.39	5.95E+001	917.63	1.26E+002
F	7	1347-	1359	1352.44	338.09	1.43	3.85E+001	20.11	9.02E+001
F	8	1400-	1414	1408.04	351.99	1.44	9.39E+001	24.88	1.10E+002
F	9	2034-	2055	2044.03	511.00	2.33	1.29E+002	25.10	9.60E+001
F	10	2325-	2340	2332.69	583.17	1.60	1.06E+002	24.22	6.83E+001
F	11	2427-	2444	2436.65	609.16	1.62	1.05E+002	24.02	7.54E+001
F	12	2903-	2917	2908.91	727.24	1.69	3.30E+001	17.05	5.25E+001
F	13	3639-	3653	3645.50	911.40	1.79	6.05E+001	19.44	4.02E+001
F	14	3867-	3884	3875.60	968.93	1.81	6.25E+001	18.08	3.14E+001
F	15	5832-	5861	5845.83	1461.53	2.03	7.51E+002	82.19	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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-054-F-G.CNF

Log Number:
Title: NOL-02-01-054-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gm)	Activity Uncertainty
ANN	1.000	511.00*	100.00	3.90519E-001	9.34345E-002
K-40	0.985	1460.81*	10.67	2.77568E+001	3.77850E+000
TL-208	0.753	277.35	6.80		
		510.84*	21.60	1.80796E+000	4.57072E-001
		583.14*	84.20	3.94898E-001	1.04302E-001
		860.37	12.46		
Bi-212	1.000	727.17*	11.80	9.30511E-001	4.92946E-001
Pb-212	0.525	74.81* @	10.70	1.30933E+001	3.22238E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.07847E+000	2.55493E-001
Bi-214	0.398	609.31*	46.30	7.21846E-001	1.87929E-001
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.588	74.82* @	6.21	2.25601E+001	5.78874E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	8.14453E-001	1.25593E+001
		351.92*	37.20	6.89206E-001	2.15969E-001
Ac-228	0.998	338.32*	11.40	9.13539E-001	4.98476E-001
		911.07*	27.70	7.62790E-001	2.60272E-001
		969.11*	16.60	1.33837E+000	4.11963E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-054-F-G.CNF

Log Number:
Title: NOL-02-01-054-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
ANN		1.000	3.052211E-001	9.607207E-002
K-40		0.985	2.775679E+001	3.778499E+000
TL-208		0.753	3.948982E-001	1.035047E-001
Bi-212		1.000	9.305112E-001	4.929459E-001
Pb-212	@	0.525	1.078468E+000	2.554931E-001
Bi-214		0.398	7.218464E-001	1.879295E-001
PB-214	@	0.588	6.892429E-001	2.159373E-001
Ac-228		0.998	9.247983E-001	2.012971E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.7910E-001	20.35
F 3	84.85	1.3718E-001	37.29
F 4	129.38	4.7870E-002	76.55

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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-054-F-G.CNF

Log Number:
Title: NOL-02-01-054-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
Co-60	1173.22	100.00	1.9407E-001	1.44E-001	-1.2246E-001
	1332.49	100.00	1.4399E-001		-7.7387E-003
Nb-94	702.63	100.00	2.0271E-001	1.65E-001	8.0093E-002
	871.10	100.00	1.6520E-001		-9.2471E-002
Ag-108m	79.20	7.10	1.0091E+001	2.26E-001	-1.6180E+001
	433.93	89.90	2.2649E-001		-1.3137E-002
	614.37	90.40	2.7320E-001		-1.1202E-001
	722.95	90.50	2.3461E-001		-1.4238E-001
Sb-125	176.33	6.89	4.3428E+000	6.55E-001	4.3824E+000
	427.89	29.33	6.5514E-001		-1.2699E-001
	463.38	10.35	2.0468E+000		-1.9390E+000
	600.56	17.80	1.1051E+000		-2.6871E-001
	606.64	5.02	5.0631E+000		8.8408E+000
	635.90	11.32	1.6665E+000		-1.0721E+000
Cs-134	563.23	8.38	2.3754E+000	2.22E-001	8.8167E-001
	569.32	15.43	1.3014E+000		-3.3108E-002
	604.70	97.60	2.5511E-001		2.2986E-002
	795.84	85.40	2.2214E-001		1.8960E-001
	801.93	8.73	2.0627E+000		-2.5875E+000
Cs-137	661.65	85.12	2.2652E-001	2.27E-001	6.7712E-002
Eu-152	121.78	28.40	1.4074E+000	6.35E-001	6.2567E-001
	244.69	7.49	3.6349E+000		-9.0111E+000
	344.27	26.50	8.6252E-001		1.2856E-001
	778.89	12.74	1.4105E+000		-1.0725E+000
	867.32	4.16	4.2179E+000		-3.1398E+000
	964.01	14.40	1.5364E+000		-9.1756E-002
	1085.78	10.00	1.8796E+000		5.6241E-003
	1112.02	13.30	1.4543E+000		-1.1731E-001
	1407.95	20.70	6.3464E-001		2.5522E-001
Eu-154	123.07	40.50	9.6360E-001	4.84E-001	-5.8314E-001
	247.94	6.60	3.8976E+000		-2.9894E+000
	591.81	4.83	4.4617E+000		7.4159E-001

723.30	19.70	1.0598E+000	-1.0534E+000
756.87	4.33	4.0415E+000	-4.9917E+000
873.19	11.50	1.4227E+000	-4.9782E-001

	996.32	10.30	1.7388E+000		8.2056E-001
	1004.76	17.90	1.0123E+000		3.6695E-001
	1274.45	35.50	4.8420E-001		-4.9517E-002
Eu-155	86.54	30.90	1.9872E+000	1.99E+000	1.8418E+000
	105.31	20.70	2.3104E+000		1.4174E+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 8/16/2005 2:58:57 PM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-055-F-G.CNF
Log Number:
Title: NOL-02-01-055-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/15/2005 9:50:05 AM

Live Time : 900.0 seconds
Real Time : 900.2 seconds

Energy Calibration Date: 6/13/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-055-F-G.CNF
Log Number:
Title: NOL-02-01-055-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	291.71	72.88	1.13	1.83E+002	50.75	8.72E+002
m	2	285-	305	300.23	75.02	1.13	4.39E+002	60.49	9.97E+002
M	3	332-	358	340.83	85.17	1.15	2.10E+002	104.60	8.28E+002
m	4	332-	358	350.83	87.67	1.15	1.19E+002	62.66	1.35E+003
F	5	950-	960	954.51	238.60	1.34	2.02E+002	35.86	1.59E+002
F	6	1174-	1187	1181.57	295.37	1.39	5.46E+001	75.99	1.03E+002
F	7	1347-	1359	1353.42	338.34	1.43	4.50E+001	20.06	8.16E+001
F	8	1402-	1415	1408.14	352.02	1.44	8.89E+001	24.31	9.34E+001
F	9	2032-	2051	2042.98	510.74	2.33	9.85E+001	25.29	1.29E+002
F	10	2326-	2342	2332.78	583.19	1.60	1.24E+002	25.08	6.00E+001
F	11	2428-	2447	2437.07	609.27	1.62	1.19E+002	55.40	5.53E+001
F	12	3638-	3654	3646.20	911.58	1.79	8.97E+001	22.66	4.90E+001
F	13	3869-	3885	3877.13	969.31	1.81	4.39E+001	16.97	3.82E+001
F	14	5832-	5860	5845.54	1461.46	2.03	6.97E+002	51.32	2.51E+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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-055-F-G.CNF

Log Number:
Title: NOL-02-01-055-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gm)	Activity Uncertainty
ANN	0.998	511.00*	100.00	2.97115E-001	8.69131E-002
K-40	0.988	1460.81*	10.67	2.57438E+001	2.81802E+000
Eu-155	0.311	86.54*	30.90	1.13840E+000	6.38612E-001
		105.31	20.70		
TL-208	0.753	277.35	6.80		
		510.84*	21.60	1.37553E+000	4.17762E-001
		583.14*	84.20	4.61574E-001	1.11684E-001
		860.37	12.46		
Pb-212	0.679	74.81* @	10.70	1.48940E+001	3.56880E+000
		77.11 @	18.00		
		87.30* @	8.00	4.39705E+000	2.46664E+000
		238.63*	44.60	1.13535E+000	2.68950E-001
Bi-214	0.398	609.31*	46.30	8.19373E-001	3.94099E-001
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.673	74.82* @	6.21	2.56627E+001	6.42514E+000
		77.11 @	10.50		
		87.30* @	4.67	7.53243E+000	4.26365E+000
		241.98	7.49		
		295.21*	19.20	7.47352E-001	1.04762E+000
		351.92*	37.20	6.52697E-001	2.09183E-001
Ac-228	0.996	338.32*	11.40	1.06798E+000	5.05073E-001
		911.07*	27.70	1.13123E+000	3.13962E-001
		969.11*	16.60	9.41863E-001	3.76871E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-055-F-G.CNF

Log Number:
Title: NOL-02-01-055-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
ANN		0.998	1.974147E-001	9.014043E-002
K-40		0.988	2.574380E+001	2.818016E+000
Eu-155		0.311	7.452785E-001	6.431208E-001
TL-208		0.753	4.615742E-001	1.106668E-001
Pb-212	@	0.679	1.135349E+000	2.689504E-001
Bi-214		0.398	8.193733E-001	3.940993E-001
PB-214	@	0.673	6.562185E-001	2.018709E-001
Ac-228		0.996	1.056311E+000	2.176714E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.0289E-001	27.80
M 3	85.17	2.3325E-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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-055-F-G.CNF

Log Number:
Title: NOL-02-01-055-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
Co-60	1173.22	100.00	1.9983E-001	1.39E-001	1.9970E-001
	1332.49	100.00	1.3904E-001		8.7060E-002
Nb-94	702.63	100.00	1.8682E-001	1.81E-001	-6.7233E-002
	871.10	100.00	1.8098E-001		-1.6819E-003
Ag-108m	79.20	7.10	1.0106E+001	2.27E-001	-1.4760E+001
	433.93	89.90	2.4356E-001		-1.4529E-002
	614.37	90.40	2.7115E-001		-9.0444E-003
	722.95	90.50	2.2668E-001		7.6192E-002
Sb-125	176.33	6.89	4.2412E+000	6.90E-001	2.4512E+000
	427.89	29.33	6.9019E-001		-5.6062E-001
	463.38	10.35	2.0113E+000		2.1234E+000
	600.56	17.80	1.1276E+000		-8.9335E-002
	606.64	5.02	5.1072E+000		9.1744E+000
	635.90	11.32	1.6046E+000		-1.0672E+000
Cs-134	563.23	8.38	2.3091E+000	2.23E-001	4.8710E-001
	569.32	15.43	1.2763E+000		8.8592E-001
	604.70	97.60	2.5788E-001		-6.1387E-003
	795.84	85.40	2.2294E-001		1.3876E-001
	801.93	8.73	2.1765E+000		-5.6679E-001
Cs-137	661.65	85.12	2.3798E-001	2.38E-001	-1.6314E-001
Eu-152	121.78	28.40	1.4091E+000	6.48E-001	9.3768E-003
	244.69	7.49	3.4937E+000		-4.0933E+000
	344.27	26.50	8.5430E-001		1.6112E-002
	778.89	12.74	1.5196E+000		4.3488E-001
	867.32	4.16	4.3101E+000		-6.5795E+000
	964.01	14.40	1.5229E+000		7.1530E-001
	1085.78	10.00	1.9992E+000		2.8357E-002
	1112.02	13.30	1.3982E+000		-9.5107E-001
	1407.95	20.70	6.4775E-001		4.0113E-001
Eu-154	123.07	40.50	9.7966E-001	4.84E-001	-3.3191E-001
	247.94	6.60	3.8214E+000		-2.9198E+000
	591.81	4.83	4.1488E+000		-1.5471E+000

723.30	19.70	1.0352E+000	2.0241E-001
756.87	4.33	4.4288E+000	2.5759E-001
873.19	11.50	1.5279E+000	-1.5748E+000

		996.32	10.30	1.7308E+000		2.7026E-001
		1004.76	17.90	1.0213E+000		-1.2083E-001
		1274.45	35.50	4.8420E-001		-1.9247E-001
+	Eu-155	86.54*	30.90	1.6597E+000	1.66E+000	1.1384E+000
		105.31	20.70	2.2739E+000		7.5208E-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 8/16/2005 2:59:46 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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-056-F-G.CNF
Log Number:
Title: NOL-02-01-056-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/15/2005 11:22:34 AM

Live Time : 900.0 seconds
Real Time : 900.4 seconds

Energy Calibration Date: 6/13/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-056-F-G.CNF
Log Number:
Title: NOL-02-01-056-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	291.46	72.82	1.13	2.58E+002	50.98	9.47E+002
m	2	282-	306	300.71	75.14	1.13	4.35E+002	59.98	9.62E+002
F	3	335-	345	339.64	84.87	1.15	1.59E+002	47.85	6.70E+002
M	4	948-	973	954.72	238.65	1.34	1.93E+002	33.79	1.93E+002
m	5	948-	973	967.21	241.78	1.34	6.37E+001	24.29	1.97E+002
F	6	1348-	1362	1354.13	338.51	1.43	4.76E+001	21.33	1.15E+002
F	7	1401-	1417	1408.34	352.07	1.44	9.17E+001	24.92	1.29E+002
F	8	2032-	2052	2042.86	510.71	2.33	1.11E+002	79.57	9.39E+001
F	9	2325-	2342	2333.28	583.32	1.60	1.03E+002	75.47	7.25E+001
F	10	2431-	2447	2437.82	609.46	1.62	1.04E+002	23.80	6.56E+001
F	11	3636-	3657	3644.50	911.15	1.79	1.05E+002	22.52	4.84E+001
F	12	3854-	3884	3876.37	969.13	1.81	4.22E+001	17.34	8.47E+001
F	13	4474-	4490	4482.25	1120.61	1.89	4.10E+001	16.15	3.14E+001
F	14	5832-	5859	5845.61	1461.47	2.03	7.08E+002	81.16	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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-056-F-G.CNF

Log Number:
Title: NOL-02-01-056-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gm)	Activity Uncertainty
ANN	0.997	511.00*	100.00	3.35192E-001	2.44528E-001
K-40	0.987	1460.81*	10.67	2.61701E+001	3.67249E+000
TL-208	0.752	277.35	6.80		
		510.84*	21.60	1.55182E+000	1.13915E+000
		583.14*	84.20	3.82526E-001	2.85925E-001
		860.37	12.46		
Pb-212	0.524	74.81* @	10.70	1.47291E+001	3.52995E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.08504E+000	2.55025E-001
Bi-214	0.699	609.31*	46.30	7.13974E-001	1.86104E-001
		1120.29*	15.10	1.00869E+000	4.11566E-001
		1764.49	15.80		
PB-214	0.362	74.82* @	6.21	2.53787E+001	6.35509E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98*	7.49	2.13845E+000	8.89481E-001
		295.21	19.20		
		351.92*	37.20	6.73223E-001	2.14831E-001
Ac-228	1.000	338.32*	11.40	1.13112E+000	5.36713E-001
		911.07*	27.70	1.32351E+000	3.22170E-001
		969.11*	16.60	9.03483E-001	3.83508E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-056-F-G.CNF

Log Number:
Title: NOL-02-01-056-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
ANN		0.997	2.525666E-001	2.521926E-001
K-40		0.987	2.617006E+001	3.672490E+000
TL-208		0.752	3.825259E-001	2.856527E-001
Pb-212	@	0.524	1.085041E+000	2.550250E-001
Bi-214		0.699	7.640045E-001	1.695732E-001
PB-214	@	0.362	7.539844E-001	2.088269E-001
Ac-228		1.000	1.146488E+000	2.241392E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.8613E-001	19.80
F 3	84.87	1.7700E-001	30.03

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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-056-F-G.CNF

Log Number:
Title: NOL-02-01-056-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
Co-60	1173.22	100.00	2.2276E-001	1.80E-001	1.4380E-002
	1332.49	100.00	1.8031E-001		1.5476E-001
Nb-94	702.63	100.00	1.8946E-001	1.89E-001	7.5282E-002
	871.10	100.00	1.9192E-001		1.1363E-001
Ag-108m	79.20	7.10	1.0094E+001	2.24E-001	-1.2407E+001
	433.93	89.90	2.2446E-001		9.7080E-002
	614.37	90.40	2.8859E-001		-4.2995E-002
	722.95	90.50	2.3461E-001		1.4043E-001
Sb-125	176.33	6.89	4.0903E+000	6.79E-001	1.6684E-001
	427.89	29.33	6.7924E-001		2.8248E-001
	463.38	10.35	1.9705E+000		5.2885E-001
	600.56	17.80	1.1308E+000		-1.0325E-001
	606.64	5.02	5.1072E+000		7.9331E+000
	635.90	11.32	1.7207E+000		-1.4266E-001
Cs-134	563.23	8.38	2.3292E+000	2.43E-001	3.6303E-001
	569.32	15.43	1.2545E+000		-7.9781E-001
	604.70	97.60	2.5603E-001		-4.6403E-002
	795.84	85.40	2.4290E-001		1.7372E-001
	801.93	8.73	2.1041E+000		-1.1128E+000
Cs-137	661.65	85.12	2.4006E-001	2.40E-001	2.8639E-002
Eu-152	121.78	28.40	1.3834E+000	6.61E-001	-6.4971E-002
	244.69	7.49	3.5295E+000		-6.2722E-001
	344.27	26.50	8.6796E-001		4.6764E-001
	778.89	12.74	1.5962E+000		-9.6978E-001
	867.32	4.16	4.4003E+000		-8.4090E-001
	964.01	14.40	1.6775E+000		7.9105E-001
	1085.78	10.00	1.8547E+000		5.9829E-001
	1112.02	13.30	1.3982E+000		-4.9788E-001
	1407.95	20.70	6.6058E-001		-3.7319E-001
Eu-154	123.07	40.50	9.5832E-001	4.50E-001	-1.3207E+000
	247.94	6.60	3.6329E+000		-3.1869E+000
	591.81	4.83	4.0548E+000		1.0000E+000

723.30	19.70	1.0719E+000	2.4275E-001
756.87	4.33	4.6245E+000	4.8258E+000
873.19	11.50	1.7062E+000	1.1569E+000

	996.32	10.30	1.7066E+000		1.4072E-003
	1004.76	17.90	1.0031E+000		7.1490E-002
	1274.45	35.50	4.4960E-001		-4.1452E-001
Eu-155	86.54	30.90	2.0218E+000	2.02E+000	4.0944E+000
	105.31	20.70	2.2550E+000		-1.1402E+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 8/16/2005 3:00:28 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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-057-F-G.CNF
Log Number:
Title: NOL-02-01-057-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/15/2005 1:16:37 PM

Live Time : 900.0 seconds
Real Time : 900.5 seconds

Energy Calibration Date: 6/13/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-057-F-G.CNF
Log Number:
Title: NOL-02-01-057-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	291.58	72.85	1.13	2.02E+002	49.17	9.23E+002
m	2	283-	306	300.35	75.05	1.13	3.63E+002	57.39	1.04E+003
F	3	333-	346	339.71	84.89	1.15	1.27E+002	43.84	7.27E+002
F	4	948-	960	954.91	238.70	1.34	1.27E+002	31.73	1.93E+002
F	5	1399-	1415	1407.60	351.88	1.44	9.16E+001	130.68	1.02E+002
F	6	2032-	2054	2043.40	510.84	2.33	1.40E+002	25.19	9.23E+001
F	7	2325-	2343	2333.10	583.28	1.60	1.08E+002	22.62	5.23E+001
F	8	2428-	2445	2436.93	609.24	1.62	1.04E+002	60.98	6.13E+001
F	9	3639-	3653	3645.94	911.51	1.79	5.78E+001	19.56	4.60E+001
F	10	3870-	3884	3877.58	969.43	1.81	4.85E+001	16.15	2.40E+001
F	11	5832-	5859	5846.14	1461.61	2.03	6.61E+002	80.82	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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-057-F-G.CNF

Log Number:
Title: NOL-02-01-057-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gm)	Activity Uncertainty
ANN	0.999	511.00*	100.00	4.21192E-001	9.62592E-002
K-40	0.981	1460.81*	10.67	2.44344E+001	3.58293E+000
TL-208	0.753	277.35	6.80		
		510.84*	21.60	1.94996E+000	4.73243E-001
		583.14*	84.20	4.02038E-001	9.96889E-002
		860.37	12.46		
Pb-212	0.525	74.81* @	10.70	1.23105E+001	3.10028E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	7.13605E-001	2.10593E-001
Bi-214	0.398	609.31*	46.30	7.11111E-001	4.28199E-001
		1120.29	15.10		
		1764.49	15.80		
Ac-228	0.633	338.32	11.40		
		911.07*	27.70	7.28361E-001	2.60464E-001
		969.11*	16.60	1.03923E+000	3.62792E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-057-F-G.CNF

Log Number:
Title: NOL-02-01-057-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
ANN		0.999	3.343514E-001	9.859762E-002
K-40		0.981	2.443442E+001	3.582934E+000
TL-208		0.753	4.020382E-001	9.882414E-002
Pb-212	@	0.525	7.136051E-001	2.105929E-001
Bi-214		0.398	7.111114E-001	4.281991E-001
Ac-228		0.633	8.340942E-001	2.115815E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.2400E-001	24.39
F	3	84.89	1.4072E-001	34.61
F	5	351.88	1.0182E-001	142.59

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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-057-F-G.CNF

Log Number:
Title: NOL-02-01-057-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
Co-60	1173.22	100.00	2.0777E-001	1.67E-001	-1.1210E-001
	1332.49	100.00	1.6742E-001		2.0798E-002
Nb-94	702.63	100.00	1.9076E-001	1.60E-001	1.3867E-001
	871.10	100.00	1.6014E-001		5.2215E-002
Ag-108m	79.20	7.10	9.9350E+000	2.11E-001	-9.0470E+000
	433.93	89.90	2.1505E-001		-4.8925E-002
	614.37	90.40	2.6542E-001		-4.5400E-002
	722.95	90.50	2.1133E-001		1.1727E-001
Sb-125	176.33	6.89	4.1216E+000	6.44E-001	-6.2069E-001
	427.89	29.33	6.4357E-001		1.2145E-001
	463.38	10.35	1.9933E+000		1.0735E+000
	600.56	17.80	9.8482E-001		1.2963E-002
	606.64	5.02	4.7329E+000		4.5740E+000
	635.90	11.32	1.5756E+000		-8.7511E-001
Cs-134	563.23	8.38	2.2407E+000	2.20E-001	9.0898E-001
	569.32	15.43	1.1666E+000		3.2821E-001
	604.70	97.60	2.4025E-001		-6.2572E-002
	795.84	85.40	2.1970E-001		7.8028E-002
	801.93	8.73	2.0794E+000		-1.9713E+000
Cs-137	661.65	85.12	2.2131E-001	2.21E-001	4.3202E-002
Eu-152	121.78	28.40	1.3263E+000	6.67E-001	-4.0266E-001
	244.69	7.49	3.4097E+000		-3.2563E+000
	344.27	26.50	7.9128E-001		-1.2030E+000
	778.89	12.74	1.4105E+000		-2.2023E-001
	867.32	4.16	4.0462E+000		-1.6451E+000
	964.01	14.40	1.5631E+000		3.8592E-001
	1085.78	10.00	1.8463E+000		-1.2987E+000
	1112.02	13.30	1.3790E+000		-1.8376E-001
	1407.95	20.70	6.6690E-001		2.4220E-001
Eu-154	123.07	40.50	9.2094E-001	4.64E-001	-7.3430E-001
	247.94	6.60	3.6329E+000		-2.6056E-001
	591.81	4.83	3.8845E+000		9.3918E-001

723.30	19.70	9.6424E-001	3.9660E-001
756.87	4.33	4.6245E+000	7.5537E-001
873.19	11.50	1.3707E+000	1.1581E-001

	996.32	10.30	1.5794E+000		-2.7346E+000
	1004.76	17.90	9.8917E-001		1.1040E-001
	1274.45	35.50	4.6435E-001		1.9438E-001
Eu-155	86.54	30.90	1.8971E+000	1.90E+000	1.2936E+000
	105.31	20.70	2.1430E+000		-8.8041E-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 8/16/2005 3:01:04 PM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-058-F-G.CNF
Log Number:
Title: NOL-02-01-058-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/15/2005 1:54:41 PM

Live Time : 900.0 seconds
Real Time : 900.6 seconds

Energy Calibration Date: 6/13/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-058-F-G.CNF
Log Number:
Title: NOL-02-01-058-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	291.48	72.83	1.13	2.62E+002	97.77	8.84E+002
m	2	282-	305	300.60	75.11	1.13	4.49E+002	145.59	9.67E+002
M	3	330-	356	339.01	84.71	1.15	1.65E+002	45.07	8.22E+002
m	4	330-	356	350.23	87.52	1.15	7.49E+001	42.63	8.36E+002
F	5	947-	961	954.69	238.64	1.34	1.87E+002	34.09	2.00E+002
F	6	1175-	1188	1181.27	295.29	1.39	7.18E+001	22.97	1.02E+002
F	7	1345-	1359	1354.02	338.48	1.43	4.41E+001	20.10	9.93E+001
F	8	1396-	1414	1407.51	351.86	1.44	9.36E+001	56.86	1.41E+002
F	9	2032-	2055	2043.86	510.96	2.33	1.06E+002	82.40	1.32E+002
F	10	2325-	2342	2333.26	583.32	1.60	1.17E+002	30.02	4.26E+001
F	11	2430-	2446	2437.34	609.34	1.62	7.98E+001	21.96	6.90E+001
F	12	3638-	3654	3645.64	911.44	1.79	8.06E+001	20.61	3.63E+001
F	13	3868-	3885	3877.64	969.44	1.81	4.51E+001	17.27	4.71E+001
F	14	5832-	5861	5846.53	1461.70	2.03	7.13E+002	51.83	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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-058-F-G.CNF

Log Number:
Title: NOL-02-01-058-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gm)	Activity Uncertainty
ANN	1.000	511.00*	100.00	3.19038E-001	2.52545E-001
K-40	0.976	1460.81*	10.67	2.63639E+001	2.86795E+000
TL-208	0.752	277.35	6.80		
		510.84*	21.60	1.47703E+000	1.17539E+000
		583.14*	84.20	4.35488E-001	1.25863E-001
		860.37	12.46		
Pb-212	0.679	74.81* @	10.70	1.52308E+001	5.76635E+000
		77.11 @	18.00		
		87.30* @	8.00	2.76798E+000	1.66662E+000
		238.63*	44.60	1.05389E+000	2.53055E-001
Bi-214	0.399	609.31*	46.30	5.48404E-001	1.65611E-001
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.673	74.82* @	6.21	2.62431E+001	1.01166E+001
		77.11 @	10.50		
		87.30* @	4.67	4.74172E+000	2.87740E+000
		241.98	7.49		
		295.21*	19.20	9.83123E-001	3.55301E-001
		351.92*	37.20	6.87375E-001	4.32928E-001
Ac-228	0.997	338.32*	11.40	1.04668E+000	5.04747E-001
		911.07*	27.70	1.01668E+000	2.84977E-001
		969.11*	16.60	9.66285E-001	3.83789E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-058-F-G.CNF

Log Number:
Title: NOL-02-01-058-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

	Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
	ANN		1.000	2.249729E-001	2.539853E-001
	K-40		0.976	2.636389E+001	2.867954E+000
X	Eu-155		0.316		
	TL-208		0.752	4.354882E-001	1.250604E-001
	Pb-212	@	0.679	1.053886E+000	2.530553E-001
	Bi-214		0.399	5.484038E-001	1.656110E-001
	PB-214	@	0.673	8.640957E-001	2.746496E-001
	Ac-228		0.997	1.006937E+000	2.083888E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.9078E-001	37.36
M 3	84.71	1.8387E-001	27.23

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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-058-F-G.CNF

Log Number:
Title: NOL-02-01-058-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
Co-60	1173.22	100.00	1.8984E-001	1.54E-001	1.2733E-001
	1332.49	100.00	1.5450E-001		1.6684E-001
Nb-94	702.63	100.00	1.9334E-001	1.73E-001	-1.1205E-001
	871.10	100.00	1.7328E-001		5.7170E-002
Ag-108m	79.20	7.10	9.9075E+000	2.27E-001	-2.0434E+001
	433.93	89.90	2.2901E-001		1.9518E-001
	614.37	90.40	2.6960E-001		7.4085E-002
	722.95	90.50	2.2668E-001		2.1927E-001
Sb-125	176.33	6.89	4.0966E+000	6.68E-001	9.6215E-002
	427.89	29.33	6.6811E-001		-4.0775E-001
	463.38	10.35	2.1413E+000		5.6902E-001
	600.56	17.80	1.1148E+000		4.2802E-001
	606.64	5.02	4.7708E+000		4.3853E+000
	635.90	11.32	1.7047E+000		-5.3905E-001
Cs-134	563.23	8.38	2.4462E+000	2.34E-001	1.2989E+000
	569.32	15.43	1.2471E+000		2.8603E-001
	604.70	97.60	2.4124E-001		-1.7717E-002
	795.84	85.40	2.3391E-001		5.4793E-002
	801.93	8.73	2.2079E+000		-7.8948E-001
Cs-137	661.65	85.12	2.3446E-001	2.34E-001	2.3072E-001
Eu-152	121.78	28.40	1.3886E+000	6.28E-001	-5.5832E-001
	244.69	7.49	3.3912E+000		8.6482E-002
	344.27	26.50	8.3900E-001		-2.3747E-001
	778.89	12.74	1.4218E+000		-3.7323E-001
	867.32	4.16	4.0850E+000		-4.6212E+000
	964.01	14.40	1.5364E+000		-5.8755E-001
	1085.78	10.00	1.8209E+000		1.4160E-001
	1112.02	13.30	1.3529E+000		-9.8787E-001
	1407.95	20.70	6.2797E-001		-8.9472E-002
Eu-154	123.07	40.50	9.6401E-001	4.98E-001	-2.3151E-001
	247.94	6.60	3.7262E+000		3.7175E-002
	591.81	4.83	4.0785E+000		-3.0526E+000

723.30	19.70	1.0290E+000	1.0619E+000
756.87	4.33	4.3824E+000	-2.2586E+000
873.19	11.50	1.5347E+000	1.3289E+000

	996.32	10.30	1.7783E+000		-1.1593E-001
	1004.76	17.90	9.9383E-001		-2.2822E-001
	1274.45	35.50	4.9787E-001		-2.8030E-001
Eu-155	86.54*	30.90	1.3135E+000	1.31E+000	7.1663E-001
	105.31	20.70	2.1981E+000		7.0217E-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 8/17/2005 7:06:17 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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-059-F-G.CNF
Log Number:
Title: NOL-02-01-059-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/16/2005 11:02:19 AM

Live Time : 900.0 seconds
Real Time : 900.7 seconds

Energy Calibration Date: 4/11/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-059-F-G.CNF
Log Number:
Title: NOL-02-01-059-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	291.81	72.80	1.13	1.77E+002	49.65	7.53E+002
m	2	286-	305	300.37	74.95	1.14	3.24E+002	58.09	8.95E+002
F	3	335-	346	340.19	84.94	1.15	1.30E+002	45.87	6.62E+002
M	4	947-	972	954.77	239.01	1.34	1.88E+002	51.75	1.89E+002
m	5	947-	972	966.87	242.04	1.34	4.21E+001	25.83	1.74E+002
F	6	1059-	1068	1063.68	266.30	1.36	2.31E+001	15.94	7.98E+001
F	7	1104-	1114	1108.64	277.56	1.37	3.95E+001	21.19	9.04E+001
F	8	1349-	1359	1354.51	339.13	1.43	3.28E+001	21.10	9.46E+001
F	9	2038-	2055	2044.02	511.67	2.32	8.34E+001	25.64	1.14E+002
F	10	2322-	2340	2332.66	583.85	1.59	1.08E+002	24.08	8.09E+001
F	11	2430-	2446	2437.58	610.08	1.61	7.58E+001	21.47	6.70E+001
M	12	2612-	2654	2616.08	654.70	1.64	1.43E+001	11.50	2.38E+001
m	13	2612-	2654	2647.42	662.53	1.64	4.35E+001	16.65	4.69E+001
F	14	3639-	3656	3646.56	912.10	1.77	9.24E+001	125.38	3.02E+001
F	15	3870-	3886	3877.55	969.76	1.80	4.60E+001	17.19	3.79E+001
F	16	5834-	5859	5846.91	1461.10	2.01	7.03E+002	51.08	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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-059-F-G.CNF

Log Number:
Title: NOL-02-01-059-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	0.986	511.00*	100.00	2.42810E-001	8.20291E-002
K-40	0.997	1460.81*	10.67	2.49887E+001	2.71824E+000
Cs-137	0.977	661.65*	85.12	1.59090E-001	6.37546E-002
TL-208	0.834	277.35*	6.80	1.46411E+000	8.27167E-001
		510.84*	21.60	1.12412E+000	3.90703E-001
		583.14*	84.20	3.84845E-001	1.00076E-001
		860.37	12.46		
Pb-212	0.522	74.81* @	10.70	1.06609E+001	2.83199E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.02936E+000	3.25461E-001
Bi-214	0.388	609.31*	46.30	4.99413E-001	1.54401E-001
		1120.29	15.10		
		1764.49	15.80		
Ac-228	0.976	338.32*	11.40	7.58018E-001	5.01348E-001
		911.07*	27.70	1.10963E+000	1.51134E+000
		969.11*	16.60	9.39988E-001	3.64928E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-059-F-G.CNF

Log Number:
Title: NOL-02-01-059-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN	0.986	1.562945E-001	8.474685E-002
K-40	0.997	2.498874E+001	2.718244E+000
Cs-137	0.977	1.590901E-001	6.375464E-002
TL-208	0.834	4.005369E-001	9.856295E-002
Pb-212 @	0.522	1.029360E+000	3.254605E-001
Bi-214	0.388	4.994133E-001	1.544012E-001
Ac-228	0.976	8.855074E-001	2.895769E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	1.9632E-001	28.10
F 3	84.94	1.4486E-001	35.19
m 5	242.04	4.6792E-002	61.33
F 6	266.30	2.5687E-002	68.96
M 12	654.70	1.5863E-002	80.55

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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-059-F-G.CNF

Log Number:
Title: NOL-02-01-059-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
	Co-60	1173.22	100.00	1.6741E-001	1.32E-001	-5.6555E-002
		1332.49	100.00	1.3238E-001		-1.2447E-001
	Nb-94	702.63	100.00	1.7829E-001	1.69E-001	-7.0154E-002
		871.10	100.00	1.6946E-001		-2.8871E-002
	Ag-108m	79.20	7.10	8.9867E+000	2.16E-001	-1.0802E+001
		433.93	89.90	2.1600E-001		-1.1031E-002
		614.37	90.40	2.5571E-001		-3.2006E-002
		722.95	90.50	2.2321E-001		-1.8618E-002
	Sb-125	176.33	6.89	3.9012E+000	6.55E-001	-1.5750E+000
		427.89	29.33	6.5507E-001		2.7700E-001
		463.38	10.35	1.9088E+000		9.4888E-001
		600.56	17.80	1.0563E+000		4.3235E-001
		606.64	5.02	4.4802E+000		4.9480E+000
		635.90	11.32	1.4786E+000		3.2860E-001
	Cs-134	563.23	8.38	2.1130E+000	2.13E-001	-3.3845E-001
		569.32	15.43	1.1619E+000		3.2282E-001
		604.70	97.60	2.1604E-001		-9.4447E-002
		795.84	85.40	2.1327E-001		2.0810E-002
		801.93	8.73	2.0819E+000		-1.9127E+000
+	Cs-137	661.65*	85.12	1.2649E-001	1.26E-001	1.5909E-001
	Eu-152	121.78	28.40	1.3134E+000	5.70E-001	1.3260E+000
		244.69	7.49	3.4791E+000		8.3032E-001
		344.27	26.50	8.0935E-001		-5.3288E-001
		778.89	12.74	1.2895E+000		-2.0629E+000
		867.32	4.16	4.1907E+000		-5.1583E+000
		964.01	14.40	1.5158E+000		-2.0268E-001
		1085.78	10.00	1.7743E+000		5.5372E-001
		1112.02	13.30	1.3565E+000		-1.5699E+000
		1407.95	20.70	5.7044E-001		1.0988E-001
	Eu-154	123.07	40.50	9.1826E-001	4.73E-001	9.4543E-001
		247.94	6.60	3.6356E+000		-2.7782E-001
		591.81	4.83	3.9682E+000		-9.4574E-001

723.30	19.70	1.0369E+000	7.5767E-001
756.87	4.33	3.7888E+000	-1.8287E+000
873.19	11.50	1.4679E+000	1.7732E-001

	996.32	10.30	1.7196E+000		1.6622E-001
	1004.76	17.90	9.7080E-001		1.3658E-001
	1274.45	35.50	4.7276E-001		-2.2795E-001
Eu-155	86.54	30.90	1.8688E+000	1.87E+000	2.0573E+000
	105.31	20.70	2.1029E+000		-1.0554E+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 8/16/2005 3:02:19 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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-060-F-G.CNF
Log Number:
Title: NOL-02-01-060-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/15/2005 11:33:29 AM

Live Time : 900.0 seconds
Real Time : 900.7 seconds

Energy Calibration Date: 4/11/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-060-F-G.CNF
Log Number:
Title: NOL-02-01-060-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	291.84	72.81	1.13	1.92E+002	48.97	7.03E+002
m	2	286-	305	300.31	74.93	1.14	4.25E+002	59.06	8.00E+002
	3	333-	346	339.24	84.70	1.26	8.40E+001	92.85	7.73E+002
F	4	949-	963	954.84	239.03	1.34	2.27E+002	36.15	1.92E+002
F	5	1346-	1359	1353.50	338.88	1.43	4.81E+001	21.28	1.05E+002
F	6	1400-	1412	1407.10	352.30	1.44	8.83E+001	24.82	8.76E+001
F	7	2031-	2053	2042.63	511.33	2.32	1.32E+002	87.40	8.02E+001
F	8	2326-	2342	2333.09	583.96	1.59	1.05E+002	23.16	5.32E+001
F	9	2429-	2444	2436.38	609.78	1.61	1.25E+002	25.48	6.99E+001
F	10	2903-	2916	2909.43	728.00	1.68	2.94E+001	15.77	3.97E+001
F	11	3636-	3653	3645.10	911.73	1.77	8.96E+001	20.99	3.82E+001
F	12	3868-	3884	3876.96	969.61	1.80	6.70E+001	17.81	2.52E+001
F	13	5832-	5858	5845.33	1460.71	2.01	7.84E+002	54.34	2.33E+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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-060-F-G.CNF

Log Number:
Title: NOL-02-01-060-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	0.997	511.00*	100.00	3.83347E-001	2.60020E-001
K-40	1.000	1460.81*	10.67	2.78643E+001	2.96948E+000
TL-208	0.738	277.35	6.80		
		510.84*	21.60	1.77476E+000	1.21249E+000
		583.14*	84.20	3.75424E-001	9.66105E-002
		860.37	12.46		
Bi-212	0.979	727.17*	11.80	7.90889E-001	4.34301E-001
Pb-212	0.522	74.81* @	10.70	1.39815E+001	3.35985E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.23730E+000	2.76806E-001
Bi-214	0.395	609.31*	46.30	8.25514E-001	1.96733E-001
		1120.29	15.10		
		1764.49	15.80		
Ac-228	0.989	338.32*	11.40	1.11061E+000	5.20918E-001
		911.07*	27.70	1.07638E+000	2.80789E-001
		969.11*	16.60	1.36889E+000	3.91254E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-060-F-G.CNF

Log Number:
Title: NOL-02-01-060-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN	0.997	3.022554E-001	2.608425E-001
K-40	1.000	2.786431E+001	2.969477E+000
TL-208	0.738	3.754244E-001	9.583266E-002
Bi-212	0.979	7.908888E-001	4.343011E-001
Pb-212 @	0.522	1.237299E+000	2.768055E-001
Bi-214	0.395	8.255144E-001	1.967328E-001
Ac-228	0.989	1.165326E+000	2.089635E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.1370E-001	25.46
3	84.70	9.3378E-002	110.48
F 6	352.30	9.8124E-002	28.11

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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-060-F-G.CNF

Log Number:
Title: NOL-02-01-060-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Co-60	1173.22	100.00	1.8278E-001	1.64E-001	1.0745E-001
	1332.49	100.00	1.6381E-001		1.2730E-001
Nb-94	702.63	100.00	1.7314E-001	1.73E-001	-1.8613E-001
	871.10	100.00	1.7729E-001		6.2512E-002
Ag-108m	79.20	7.10	9.0977E+000	1.96E-001	-1.1477E+001
	433.93	89.90	1.9598E-001		-1.4343E-001
	614.37	90.40	2.7777E-001		-6.2253E-002
	722.95	90.50	2.2813E-001		-1.4425E-002
Sb-125	176.33	6.89	3.9505E+000	6.14E-001	-1.6276E+000
	427.89	29.33	6.1359E-001		-1.9103E-001
	463.38	10.35	1.9826E+000		4.0127E-001
	600.56	17.80	1.0310E+000		-4.1751E-001
	606.64	5.02	5.1078E+000		8.1992E+000
	635.90	11.32	1.6355E+000		1.4719E-001
Cs-134	563.23	8.38	2.1198E+000	2.14E-001	-9.3729E-002
	569.32	15.43	1.1873E+000		-8.6179E-002
	604.70	97.60	2.5664E-001		-1.9822E-001
	795.84	85.40	2.1403E-001		-1.4019E-001
	801.93	8.73	2.0894E+000		-6.8747E-001
Cs-137	661.65	85.12	2.1630E-001	2.16E-001	1.6601E-002
Eu-152	121.78	28.40	1.3282E+000	6.65E-001	-1.0726E-001
	244.69	7.49	3.4586E+000		5.1572E-001
	344.27	26.50	8.4030E-001		-2.3969E-001
	778.89	12.74	1.4029E+000		-2.7359E-002
	867.32	4.16	4.3735E+000		1.0470E+000
	964.01	14.40	1.5644E+000		3.0026E-001
	1085.78	10.00	1.7338E+000		-6.3371E-001
	1112.02	13.30	1.3505E+000		-2.3542E+000
	1407.95	20.70	6.6478E-001		5.6828E-001
Eu-154	123.07	40.50	9.3456E-001	4.49E-001	1.1287E+000
	247.94	6.60	3.7564E+000		-2.6021E+000
	591.81	4.83	3.6778E+000		-6.4250E-001

723.30	19.70	1.0425E+000	-3.6046E-001
756.87	4.33	4.0890E+000	2.6993E+000
873.19	11.50	1.5241E+000	-1.2038E+000

	996.32	10.30	1.6598E+000		-9.8201E-002
	1004.76	17.90	9.3544E-001		-1.5346E-001
	1274.45	35.50	4.4856E-001		-2.4622E-002
Eu-155	86.54	30.90	1.8484E+000	1.85E+000	2.8481E+000
	105.31	20.70	2.1181E+000		6.7666E-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 8/16/2005 3:03:09 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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-061-F-G.CNF
Log Number:
Title: NOL-02-01-061-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/15/2005 10:28:27 AM

Live Time : 900.0 seconds
Real Time : 900.3 seconds

Energy Calibration Date: 6/13/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-061-F-G.CNF
Log Number:
Title: NOL-02-01-061-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	291.81	72.91	1.13	1.56E+002	50.39	8.75E+002
m	2	286-	306	300.61	75.11	1.13	3.82E+002	59.47	1.12E+003
F	3	948-	959	954.48	238.59	1.34	1.34E+002	32.92	2.04E+002
F	4	1174-	1187	1180.55	295.11	1.39	5.61E+001	23.06	1.28E+002
F	5	1401-	1414	1407.96	351.97	1.44	1.16E+002	26.49	9.36E+001
F	6	2035-	2052	2043.72	510.92	2.33	1.04E+002	605.94	9.03E+001
F	7	2324-	2340	2332.12	583.03	1.60	7.79E+001	22.33	7.69E+001
F	8	2428-	2448	2437.48	609.37	1.62	1.73E+002	27.73	6.79E+001
F	9	2903-	2916	2909.79	727.46	1.69	3.47E+001	14.99	2.74E+001
F	10	3636-	3654	3645.17	911.32	1.79	9.59E+001	54.32	4.30E+001
F	11	3868-	3884	3875.99	969.03	1.81	5.93E+001	17.76	2.78E+001
F	12	4475-	4490	4483.16	1120.83	1.89	4.91E+001	16.98	2.79E+001
F	13	4538-	4551	4545.39	1136.39	1.89	1.23E+001	11.27	1.84E+001
F	14	5832-	5859	5845.85	1461.53	2.03	6.60E+002	50.03	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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-061-F-G.CNF

Log Number:
Title: NOL-02-01-061-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/gm)	Activity Uncertainty
K-40	0.984	1460.81*		10.67	2.43819E+001	2.70483E+000
TL-208	0.753	277.35		6.80		
		510.84*		21.60	1.45054E+000	8.46435E+000
		583.14*		84.20	2.90520E-001	9.16939E-002
		860.37		12.46		
Bi-212	0.998	727.17*		11.80	9.77531E-001	4.38099E-001
Pb-212	0.524	74.81*	@	10.70	1.29375E+001	3.23888E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	7.52730E-001	2.19496E-001
Bi-214	0.698	609.31*		46.30	1.18648E+000	2.41070E-001
		1120.29*		15.10	1.20822E+000	4.37218E-001
		1764.49		15.80		
PB-214	0.588	74.82*	@	6.21	2.22917E+001	5.81056E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	7.67501E-001	3.41008E-001
		351.92*		37.20	8.53941E-001	2.41226E-001
Ac-228	0.636	338.32		11.40		
		911.07*		27.70	1.20911E+000	6.98856E-001
		969.11*		16.60	1.27067E+000	4.03160E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-061-F-G.CNF

Log Number:
Title: NOL-02-01-061-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

	Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
X	ANN		1.000		
	K-40		0.984	2.438189E+001	2.704830E+000
	TL-208		0.753	2.906557E-001	9.168849E-002
	Bi-212		0.998	9.775312E-001	4.380989E-001
	Pb-212	@	0.524	7.527298E-001	2.194962E-001
	Bi-214		0.698	1.191548E+000	2.111072E-001
	PB-214	@	0.588	8.251118E-001	1.969338E-001
	Ac-228		0.636	1.255300E+000	3.492172E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	1.7325E-001	32.32
F 13	1136.39	1.3717E-002	91.27

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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-061-F-G.CNF

Log Number:
Title: NOL-02-01-061-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
Co-60	1173.22	100.00	2.1465E-001	1.68E-001	6.4846E-002
	1332.49	100.00	1.6845E-001		7.6746E-002
Nb-94	702.63	100.00	2.0392E-001	1.88E-001	4.5577E-002
	871.10	100.00	1.8762E-001		7.8660E-002
Ag-108m	79.20	7.10	1.0252E+001	2.33E-001	-8.2927E+000
	433.93	89.90	2.5141E-001		-6.3701E-002
	614.37	90.40	2.9715E-001		-5.0243E-002
	722.95	90.50	2.3331E-001		-3.0537E-002
Sb-125	176.33	6.89	4.2017E+000	7.06E-001	-4.3112E+000
	427.89	29.33	7.0552E-001		-2.2618E-001
	463.38	10.35	2.0816E+000		-2.7558E-001
	600.56	17.80	1.0207E+000		-3.5510E-001
	606.64	5.02	5.4633E+000		1.2449E+001
	635.90	11.32	1.5340E+000		-6.5523E-002
Cs-134	563.23	8.38	2.2614E+000	2.33E-001	6.4676E-001
	569.32	15.43	1.3259E+000		-5.5268E-002
	604.70	97.60	2.7217E-001		4.9509E-002
	795.84	85.40	2.3315E-001		4.3858E-002
	801.93	8.73	2.1527E+000		-3.8303E+000
Cs-137	661.65	85.12	2.3868E-001	2.39E-001	1.7949E-001
Eu-152	121.78	28.40	1.3607E+000	7.15E-001	-2.0420E+000
	244.69	7.49	3.5826E+000		-6.0101E+000
	344.27	26.50	8.3760E-001		-1.5379E+000
	778.89	12.74	1.5558E+000		1.6198E+000
	867.32	4.16	4.8572E+000		3.6894E+000
	964.01	14.40	1.5319E+000		-6.4963E-001
	1085.78	10.00	1.6411E+000		1.2827E-001
	1112.02	13.30	1.4234E+000		-6.4203E-001
	1407.95	20.70	7.1526E-001		4.4660E-001
Eu-154	123.07	40.50	9.5914E-001	4.47E-001	-4.5385E-003
	247.94	6.60	3.7042E+000		-7.8059E+000
	591.81	4.83	4.2746E+000		2.1490E+000

723.30	19.70	1.0629E+000	7.2907E-001
756.87	4.33	4.7119E+000	3.6847E+000
873.19	11.50	1.6386E+000	1.3721E+000

	996.32	10.30	1.8767E+000		1.8721E+000
	1004.76	17.90	1.0077E+000		1.7643E-001
	1274.45	35.50	4.4658E-001		-3.4670E-001
Eu-155	86.54	30.90	2.0100E+000	2.01E+000	1.7462E+000
	105.31	20.70	2.2950E+000		2.6002E+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 8/16/2005 3:06:03 PM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-062-F-G.CNF
Log Number:
Title: NOL-02-01-062-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/15/2005 10:08:57 AM

Live Time : 900.0 seconds
Real Time : 900.3 seconds

Energy Calibration Date: 6/13/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-062-F-G.CNF
Log Number:
Title: NOL-02-01-062-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	291.97	72.95	1.13	2.62E+002	155.19	9.82E+002
m	2	282-	305	300.35	75.05	1.13	4.35E+002	235.73	1.04E+003
M	3	333-	359	339.88	84.93	1.15	1.91E+002	48.15	7.57E+002
m	4	333-	359	350.05	87.47	1.15	1.41E+002	43.88	8.06E+002
F	5	950-	962	954.69	238.64	1.34	2.15E+002	36.13	1.87E+002
F	6	1175-	1185	1180.60	295.13	1.39	5.88E+001	22.68	9.45E+001
F	7	1314-	1324	1319.61	329.88	1.42	2.61E+001	19.17	8.35E+001
F	8	1346-	1360	1352.86	338.19	1.43	4.84E+001	20.13	9.65E+001
F	9	1403-	1416	1408.00	351.98	1.44	1.14E+002	26.13	8.40E+001
F	10	2034-	2052	2042.25	510.56	2.33	1.06E+002	25.73	1.16E+002
F	11	2323-	2340	2332.12	583.03	1.60	1.18E+002	66.85	5.17E+001
F	12	2429-	2446	2437.25	609.31	1.62	9.07E+001	23.33	8.25E+001
F	13	3635-	3654	3644.11	911.06	1.79	7.52E+001	69.35	5.76E+001
F	14	3867-	3885	3876.92	969.26	1.81	6.50E+001	43.00	3.55E+001
F	15	5832-	5859	5845.25	1461.39	2.03	6.75E+002	51.40	5.38E+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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-062-F-G.CNF

Log Number:
Title: NOL-02-01-062-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gm)	Activity Uncertainty
ANN	0.994	511.00*	100.00	3.18775E-001	8.95758E-002
K-40	0.990	1460.81*	10.67	2.49386E+001	2.77233E+000
Eu-155	0.318	86.54*	30.90	1.35163E+000	4.96771E-001
		105.31	20.70		
TL-208	0.753	277.35	6.80		
		510.84*	21.60	1.47581E+000	4.31862E-001
		583.14*	84.20	4.38360E-001	2.55893E-001
		860.37	12.46		
Pb-212	0.679	74.81* @	10.70	1.47446E+001	8.50280E+000
		77.11 @	18.00		
		87.30* @	8.00	5.22068E+000	1.91878E+000
		238.63*	44.60	1.20592E+000	2.77504E-001
Bi-214	0.399	609.31*	46.30	6.22878E-001	1.78082E-001
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.673	74.82* @	6.21	2.54053E+001	1.47662E+001
		77.11 @	10.50		
		87.30* @	4.67	8.94335E+000	3.35571E+000
		241.98	7.49		
		295.21*	19.20	8.04457E-001	3.38634E-001
		351.92*	37.20	8.39258E-001	2.37649E-001
Ac-228	1.000	338.32*	11.40	1.14843E+000	5.10781E-001
		911.07*	27.70	9.48058E-001	8.80993E-001
		969.11*	16.60	1.39219E+000	9.33062E-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
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Y A N K E E R O W E P O R T A B L E I S O C S
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-062-F-G.CNF

Log Number:
Title: NOL-02-01-062-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
ANN		0.994	2.240895E-001	1.052112E-001
K-40		0.990	2.493862E+001	2.772331E+000
Eu-155		0.318	9.142908E-001	5.027697E-001
TL-208		0.753	4.383603E-001	2.554937E-001
Pb-212	@	0.679	1.205921E+000	2.775044E-001
Bi-214		0.399	6.228776E-001	1.780824E-001
PB-214	@	0.673	8.279382E-001	1.910765E-001
Ac-228		1.000	1.151913E+000	3.993626E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.9071E-001	59.31
M 3	84.93	2.1253E-001	25.17
F 7	329.88	2.9006E-002	73.42

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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-062-F-G.CNF

Log Number:
Title: NOL-02-01-062-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
Co-60	1173.22	100.00	2.0777E-001	1.69E-001	2.1399E-002
	1332.49	100.00	1.6947E-001		2.2438E-001
Nb-94	702.63	100.00	1.9715E-001	1.85E-001	7.0129E-003
	871.10	100.00	1.8543E-001		-7.2033E-002
Ag-108m	79.20	7.10	1.0416E+001	2.33E-001	-1.0688E+001
	433.93	89.90	2.3298E-001		6.2485E-002
	614.37	90.40	2.7269E-001		5.5877E-002
	722.95	90.50	2.3266E-001		1.9692E-001
Sb-125	176.33	6.89	4.2017E+000	6.60E-001	-1.9581E+000
	427.89	29.33	6.6004E-001		-5.0579E-001
	463.38	10.35	2.0113E+000		-1.7236E+000
	600.56	17.80	1.1244E+000		2.6112E-001
	606.64	5.02	5.0365E+000		8.8546E+000
	635.90	11.32	1.5988E+000		7.8287E-002
Cs-134	563.23	8.38	2.2407E+000	2.41E-001	7.0431E-001
	569.32	15.43	1.1745E+000		3.6007E-001
	604.70	97.60	2.5511E-001		-5.9881E-002
	795.84	85.40	2.4069E-001		2.0913E-001
	801.93	8.73	2.2919E+000		1.0587E+000
Cs-137	661.65	85.12	2.3304E-001	2.33E-001	1.8967E-001
Eu-152	121.78	28.40	1.4125E+000	6.67E-001	9.1803E-001
	244.69	7.49	3.6315E+000		-3.4593E-001
	344.27	26.50	8.2912E-001		1.2485E-001
	778.89	12.74	1.4931E+000		-1.0138E+000
	867.32	4.16	4.5751E+000		-3.9200E-002
	964.01	14.40	1.6022E+000		1.4521E-001
	1085.78	10.00	1.8960E+000		-1.2519E+000
	1112.02	13.30	1.4604E+000		4.9483E-001
	1407.95	20.70	6.6690E-001		1.1864E-001
Eu-154	123.07	40.50	9.7607E-001	5.03E-001	8.6022E-002
	247.94	6.60	3.7698E+000		-4.1678E-001
	591.81	4.83	4.0069E+000		5.5021E-002

723.30	19.70	1.0598E+000	-1.7903E-001
756.87	4.33	4.3511E+000	-3.6712E+000
873.19	11.50	1.5940E+000	5.3691E-001

		996.32	10.30	1.7626E+000		1.6173E+000
		1004.76	17.90	9.7029E-001		7.8372E-001
		1274.45	35.50	5.0323E-001		1.1393E-001
+	Eu-155	86.54*	30.90	1.2913E+000	1.29E+000	1.3516E+000
		105.31	20.70	2.2431E+000		2.0392E+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 8/16/2005 3:13:32 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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-063-F-G.CNF
Log Number:
Title: NOL-02-01-063-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/15/2005 11:04:59 AM

Live Time : 900.0 seconds
Real Time : 900.3 seconds

Energy Calibration Date: 6/13/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-063-F-G.CNF
Log Number:
Title: NOL-02-01-063-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	292.40	73.06	1.13	2.75E+002	51.68	7.25E+002
m	2	287-	314	300.54	75.09	1.13	5.16E+002	60.10	9.58E+002
m	3	287-	314	308.48	77.08	1.14	1.20E+002	46.08	9.12E+002
M	4	330-	355	339.69	84.88	1.15	2.23E+002	162.41	8.77E+002
m	5	330-	355	349.40	87.31	1.15	1.31E+002	98.29	7.77E+002
F	6	591-	601	595.78	148.91	1.24	5.94E+001	110.29	2.59E+002
F	7	947-	961	954.75	238.66	1.34	2.00E+002	35.21	2.14E+002
F	8	1346-	1359	1353.29	338.30	1.43	4.61E+001	21.20	1.07E+002
F	9	1399-	1414	1407.68	351.90	1.44	7.25E+001	24.51	1.37E+002
F	10	2035-	2054	2043.73	510.93	2.33	1.11E+002	308.55	1.09E+002
F	11	2324-	2340	2332.85	583.21	1.60	1.03E+002	24.15	7.42E+001
F	12	2431-	2445	2437.12	609.28	1.62	8.26E+001	23.02	6.43E+001
F	13	2903-	2915	2908.68	727.18	1.69	3.00E+001	16.08	3.63E+001
F	14	3638-	3654	3645.27	911.34	1.79	8.37E+001	21.76	4.99E+001
F	15	3869-	3883	3876.74	969.22	1.81	3.75E+001	16.38	3.18E+001
F	16	4476-	4490	4483.05	1120.81	1.89	3.48E+001	15.39	2.57E+001
F	17	5833-	5860	5845.97	1461.57	2.03	7.38E+002	102.93	2.37E+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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-063-F-G.CNF

Log Number:
Title: NOL-02-01-063-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gm)	Activity Uncertainty
K-40	0.983	1460.81*	10.67	2.72723E+001	4.39867E+000
Eu-155	0.323	86.54*	30.90	1.25306E+000	9.75161E-001
		105.31	20.70		
TL-208	0.753	277.35	6.80		
		510.84*	21.60	1.54401E+000	4.31580E+000
		583.14*	84.20	3.84617E-001	1.03419E-001
		860.37	12.46		
Bi-212	1.000	727.17*	11.80	8.45691E-001	4.64109E-001
Pb-212	1.000	74.81* @	10.70	1.74727E+001	3.98476E+000
		77.11* @	18.00	2.32948E+000	1.00619E+000
		87.30* @	8.00	4.83993E+000	3.76656E+000
		238.63*	44.60	1.12509E+000	2.65168E-001
Bi-214	0.698	609.31*	46.30	5.67471E-001	1.73234E-001
		1120.29*	15.10	8.55892E-001	3.89462E-001
		1764.49	15.80		
PB-214	0.476	74.82* @	6.21	3.01059E+001	7.20529E+000
		77.11* @	10.50	3.99339E+000	1.75048E+000
		87.30* @	4.67	8.29109E+000	6.48268E+000
		241.98	7.49		
		295.21	19.20		
		351.92*	37.20	5.32337E-001	2.00769E-001
Ac-228	0.999	338.32*	11.40	1.09538E+000	5.31995E-001
		911.07*	27.70	1.05566E+000	3.00010E-001
		969.11*	16.60	8.03138E-001	3.60993E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-063-F-G.CNF

Log Number:
Title: NOL-02-01-063-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

	Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
X	ANN		1.000		
	K-40		0.983	2.727229E+001	4.398667E+000
	Eu-155		0.323	8.813157E-001	9.780344E-001
	TL-208		0.753	3.852824E-001	1.033893E-001
	Bi-212		1.000	8.456907E-001	4.641092E-001
	Pb-212	@	1.000	1.125092E+000	2.651678E-001
	Bi-214		0.698	6.151096E-001	1.582820E-001
	PB-214	@	0.476	5.323375E-001	1.983841E-001
	Ac-228		0.999	9.751201E-001	2.116796E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	3.0533E-001	18.81
M 4	84.88	2.4749E-001	72.91
F 6	148.91	6.6015E-002	185.63

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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-063-F-G.CNF

Log Number:
Title: NOL-02-01-063-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

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	1.76E-001	1.8147E-001
	1332.49	100.00	1.7645E-001		-4.7889E-002
Nb-94	702.63	100.00	1.9398E-001	1.85E-001	5.4268E-002
	871.10	100.00	1.8543E-001		4.5949E-002
Ag-108m	79.20	7.10	1.0303E+001	2.35E-001	3.4572E+000
	433.93	89.90	2.3494E-001		3.7404E-002
	614.37	90.40	2.6960E-001		-1.2965E-001
	722.95	90.50	2.3655E-001		-2.6167E-002
Sb-125	176.33	6.89	4.3634E+000	6.65E-001	-9.9580E-001
	427.89	29.33	6.6489E-001		-3.5781E-001
	463.38	10.35	2.2476E+000		7.9886E-001
	600.56	17.80	1.2043E+000		5.4271E-001
	606.64	5.02	5.0631E+000		7.6333E+000
	635.90	11.32	1.8192E+000		7.2848E-001
Cs-134	563.23	8.38	2.3491E+000	2.29E-001	-3.0146E-001
	569.32	15.43	1.2727E+000		1.0125E+000
	604.70	97.60	2.5880E-001		-1.3738E-001
	795.84	85.40	2.2928E-001		2.2711E-001
	801.93	8.73	2.2693E+000		-2.4042E+000
Cs-137	661.65	85.12	2.2504E-001	2.25E-001	-6.5138E-002
Eu-152	121.78	28.40	1.4415E+000	7.27E-001	2.2153E-001
	244.69	7.49	3.5224E+000		-2.0538E+000
	344.27	26.50	8.4041E-001		1.8767E-001
	778.89	12.74	1.4105E+000		-6.0568E-001
	867.32	4.16	4.7432E+000		-3.6566E+000
	964.01	14.40	1.4909E+000		-1.7266E-001
	1085.78	10.00	1.8294E+000		8.4939E-001
	1112.02	13.30	1.5314E+000		1.5960E+000
	1407.95	20.70	7.2681E-001		3.9814E-001
Eu-154	123.07	40.50	1.0129E+000	4.61E-001	1.4011E+000
	247.94	6.60	3.8976E+000		-2.6416E+000
	591.81	4.83	4.2520E+000		-1.6638E+000

723.30	19.70	1.0898E+000	5.1841E-002
756.87	4.33	4.6245E+000	-1.7272E+000
873.19	11.50	1.6133E+000	-1.0412E+000

		996.32	10.30	1.6401E+000		-4.7744E-002
		1004.76	17.90	1.0123E+000		3.7891E-001
		1274.45	35.50	4.6144E-001		-1.2050E+000
+	Eu-155	86.54*	30.90	1.2711E+000	1.27E+000	1.2531E+000
		105.31	20.70	2.2526E+000		2.0442E-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 8/16/2005 3:15:22 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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-064-F-G.CNF
Log Number:
Title: NOL-02-01-064-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/15/2005 12:58:03 PM

Live Time : 900.0 seconds
Real Time : 900.4 seconds

Energy Calibration Date: 6/13/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-064-F-G.CNF
Log Number:
Title: NOL-02-01-064-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	291.37	72.80	1.13	1.60E+002	48.30	7.81E+002
m	2	286-	306	300.28	75.03	1.13	4.09E+002	60.00	1.05E+003
F	3	336-	345	339.94	84.94	1.15	1.32E+002	46.35	5.71E+002
F	4	832-	841	836.66	209.13	1.31	3.74E+001	19.71	1.34E+002
F	5	945-	961	954.47	238.59	1.34	1.52E+002	42.29	2.31E+002
F	6	1174-	1190	1180.88	295.20	1.39	5.09E+001	67.30	1.46E+002
F	7	1348-	1360	1353.97	338.47	1.43	5.48E+001	20.84	8.45E+001
F	8	1402-	1418	1407.56	351.87	1.44	7.63E+001	23.60	1.22E+002
F	9	2325-	2342	2333.38	583.35	1.60	9.89E+001	23.12	7.35E+001
F	10	2430-	2444	2437.39	609.35	1.62	8.70E+001	23.31	6.55E+001
F	11	3638-	3655	3645.72	911.46	1.79	9.58E+001	21.70	4.05E+001
F	12	3869-	3886	3876.99	969.28	1.81	5.28E+001	17.73	3.71E+001
F	13	5833-	5860	5845.93	1461.56	2.03	7.19E+002	53.22	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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-064-F-G.CNF

Log Number:
Title: NOL-02-01-064-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gm)	Activity Uncertainty
K-40	0.984	1460.81*	10.67	2.65877E+001	2.91592E+000
TL-208	0.472	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.68808E-001	9.90340E-002
		860.37	12.46		
Pb-212	0.525	74.81* @	10.70	1.38940E+001	3.40021E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	8.57012E-001	2.73064E-001
Bi-214	0.398	609.31*	46.30	5.97777E-001	1.76590E-001
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.588	74.82* @	6.21	2.39398E+001	6.11097E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	6.97226E-001	9.28377E-001
		351.92*	37.20	5.60216E-001	1.96959E-001
Ac-228	0.997	338.32*	11.40	1.30140E+000	5.35370E-001
		911.07*	27.70	1.20809E+000	3.06808E-001
		969.11*	16.60	1.13164E+000	3.98093E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-064-F-G.CNF

Log Number:
Title: NOL-02-01-064-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
K-40	0.984	2.658772E+001	2.915925E+000
TL-208	0.472	3.688076E-001	9.903398E-002
Pb-212 @	0.525	8.570118E-001	2.730644E-001
Bi-214	0.398	5.977767E-001	1.765900E-001
PB-214 @	0.588	5.661166E-001	1.926704E-001
Ac-228	0.997	1.200413E+000	2.212819E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	1.7808E-001	30.14
F 3	84.94	1.4716E-001	35.00
F 4	209.13	4.1507E-002	52.76

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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-064-F-G.CNF

Log Number:
Title: NOL-02-01-064-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
Co-60	1173.22	100.00	2.0384E-001	1.60E-001	5.8188E-002
	1332.49	100.00	1.6002E-001		-2.2964E-002
Nb-94	702.63	100.00	2.0210E-001	1.90E-001	5.5290E-002
	871.10	100.00	1.8978E-001		3.3246E-002
Ag-108m	79.20	7.10	9.8472E+000	2.23E-001	-6.8899E+000
	433.93	89.90	2.3737E-001		-1.4334E-001
	614.37	90.40	2.7473E-001		-8.1026E-002
	722.95	90.50	2.2260E-001		1.9037E-001
Sb-125	176.33	6.89	4.1091E+000	7.07E-001	-2.8353E+000
	427.89	29.33	7.0703E-001		2.9602E-001
	463.38	10.35	2.0946E+000		-1.0552E+000
	600.56	17.80	1.1148E+000		-4.8780E-001
	606.64	5.02	5.1335E+000		6.6470E+000
	635.90	11.32	1.7100E+000		6.4764E-001
Cs-134	563.23	8.38	2.3491E+000	2.24E-001	6.3917E-001
	569.32	15.43	1.2943E+000		9.9073E-002
	604.70	97.60	2.5834E-001		3.2125E-002
	795.84	85.40	2.2375E-001		-1.5406E-001
	801.93	8.73	2.1366E+000		-5.3572E-001
Cs-137	661.65	85.12	2.3798E-001	2.38E-001	3.5376E-001
Eu-152	121.78	28.40	1.3845E+000	6.92E-001	-3.6163E-001
	244.69	7.49	3.3538E+000		-1.9279E+000
	344.27	26.50	8.1478E-001		-3.7553E-001
	778.89	12.74	1.4931E+000		4.6880E-001
	867.32	4.16	4.5922E+000		-4.6591E+000
	964.01	14.40	1.6403E+000		1.0764E+000
	1085.78	10.00	1.9042E+000		1.0492E+000
	1112.02	13.30	1.4420E+000		-1.3383E+000
	1407.95	20.70	6.9154E-001		4.2537E-001
Eu-154	123.07	40.50	9.6360E-001	4.76E-001	-1.2476E-001
	247.94	6.60	3.6643E+000		-5.0548E+000
	591.81	4.83	4.0428E+000		-4.9941E-001

723.30	19.70	1.0290E+000	7.3070E-001
756.87	4.33	4.3824E+000	5.0358E-001
873.19	11.50	1.6758E+000	1.2077E+000

	996.32	10.30	1.7228E+000		9.8448E-001
	1004.76	17.90	9.7504E-001		7.6544E-001
	1274.45	35.50	4.7580E-001		-9.1619E-002
Eu-155	86.54	30.90	1.9557E+000	1.96E+000	2.4068E+000
	105.31	20.70	2.1786E+000		1.3576E+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 8/16/2005 3:17:56 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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-065-F-G.CNF
Log Number:
Title: NOL-02-01-065-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/15/2005 2:12:17 PM

Live Time : 900.0 seconds
Real Time : 900.6 seconds

Energy Calibration Date: 6/13/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-065-F-G.CNF
Log Number:
Title: NOL-02-01-065-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-	313	292.18	73.00	1.13	2.89E+002	51.44	8.64E+002
m	2	283-	313	300.57	75.10	1.13	5.19E+002	59.21	9.18E+002
m	3	283-	313	308.37	77.05	1.14	1.27E+002	45.54	8.10E+002
F	4	331-	345	339.63	84.87	1.15	1.31E+002	175.37	8.16E+002
F	5	525-	533	529.20	132.26	1.22	6.09E+001	32.29	2.46E+002
F	6	947-	961	954.67	238.64	1.34	2.08E+002	113.11	2.18E+002
F	7	1176-	1186	1180.54	295.11	1.39	4.88E+001	22.34	9.26E+001
F	8	1348-	1362	1353.86	338.45	1.43	6.84E+001	22.91	1.07E+002
F	9	1402-	1416	1407.44	351.84	1.44	1.04E+002	25.88	1.12E+002
F	10	2034-	2054	2043.46	510.86	2.33	1.30E+002	80.85	8.50E+001
F	11	2326-	2339	2332.99	583.25	1.60	1.13E+002	25.15	5.94E+001
F	12	2431-	2444	2437.42	609.36	1.62	9.55E+001	23.58	5.76E+001
F	13	3638-	3656	3645.81	911.48	1.79	1.19E+002	24.19	4.75E+001
F	14	3869-	3886	3877.65	969.44	1.81	6.45E+001	18.33	3.07E+001
F	15	5833-	5860	5846.81	1461.78	2.03	7.64E+002	84.58	1.04E+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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-065-F-G.CNF

Log Number:
Title: NOL-02-01-065-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gm)	Activity Uncertainty
ANN	0.999	511.00*	100.00	3.92579E-001	2.49977E-001
K-40	0.973	1460.81*	10.67	2.82310E+001	3.87249E+000
TL-208	0.753	277.35	6.80		
		510.84*	21.60	1.81750E+000	1.16678E+000
		583.14*	84.20	4.23161E-001	1.09202E-001
		860.37	12.46		
Pb-212	0.845	74.81* @	10.70	1.75864E+001	3.98844E+000
		77.11* @	18.00	2.46293E+000	1.00959E+000
		87.30 @	8.00		
		238.63*	44.60	1.16785E+000	6.61734E-001
Bi-214	0.398	609.31*	46.30	6.56357E-001	1.81469E-001
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.765	74.82* @	6.21	3.03018E+001	7.21565E+000
		77.11* @	10.50	4.22216E+000	1.75921E+000
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	6.68046E-001	3.25793E-001
		351.92*	37.20	7.66719E-001	2.29198E-001
Ac-228	0.996	338.32*	11.40	1.62383E+000	6.00804E-001
		911.07*	27.70	1.50471E+000	3.50616E-001
		969.11*	16.60	1.38332E+000	4.18815E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-065-F-G.CNF

Log Number:
Title: NOL-02-01-065-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
ANN		0.999	3.011762E-001	2.510700E-001
K-40		0.973	2.823098E+001	3.872490E+000
TL-208		0.753	4.231615E-001	1.083280E-001
Pb-212	@	0.845	1.167854E+000	6.617341E-001
Bi-214		0.398	6.563568E-001	1.814690E-001
PB-214	@	0.765	7.340512E-001	1.874569E-001
Ac-228		0.996	1.482906E+000	2.453959E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	3.2119E-001	17.79
F 4	84.87	1.4556E-001	133.87
F 5	132.26	6.7715E-002	52.98

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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-065-F-G.CNF

Log Number:
Title: NOL-02-01-065-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
Co-60	1173.22	100.00	1.8984E-001	1.57E-001	2.4546E-002
	1332.49	100.00	1.5673E-001		6.8593E-002
Nb-94	702.63	100.00	1.8616E-001	1.82E-001	9.2907E-002
	871.10	100.00	1.8248E-001		6.9364E-002
Ag-108m	79.20	7.10	1.0201E+001	2.13E-001	3.8663E-001
	433.93	89.90	2.1290E-001		-1.5813E-001
	614.37	90.40	2.7115E-001		-1.2133E-001
	722.95	90.50	2.3134E-001		1.1510E-001
Sb-125	176.33	6.89	4.2017E+000	6.58E-001	-2.8081E-001
	427.89	29.33	6.5841E-001		6.6190E-001
	463.38	10.35	2.1621E+000		1.3443E+000
	600.56	17.80	1.0722E+000		-4.1234E-001
	606.64	5.02	5.0186E+000		8.7398E+000
	635.90	11.32	1.7367E+000		-4.2475E-002
Cs-134	563.23	8.38	2.2337E+000	2.18E-001	-5.8384E-001
	569.32	15.43	1.2434E+000		6.1240E-001
	604.70	97.60	2.5183E-001		-1.3008E-001
	795.84	85.40	2.1806E-001		-5.6567E-002
	801.93	8.73	2.1204E+000		-7.3249E-001
Cs-137	661.65	85.12	2.1285E-001	2.13E-001	-1.3282E-001
Eu-152	121.78	28.40	1.4237E+000	7.38E-001	-1.0155E+000
	244.69	7.49	3.7641E+000		-1.3278E+000
	344.27	26.50	8.4181E-001		6.4372E-002
	778.89	12.74	1.4274E+000		-1.0130E+000
	867.32	4.16	4.4886E+000		-9.6745E-001
	964.01	14.40	1.6235E+000		8.7712E-001
	1085.78	10.00	1.6880E+000		-8.8029E-001
	1112.02	13.30	1.3128E+000		-1.6528E-001
	1407.95	20.70	7.3817E-001		1.6318E-001
Eu-154	123.07	40.50	9.9311E-001	4.59E-001	-2.5343E-002
	247.94	6.60	4.0816E+000		-8.0059E-001
	591.81	4.83	4.1372E+000		-1.6171E+000

723.30	19.70	1.0537E+000	3.6751E-001
756.87	4.33	4.6684E+000	3.8071E+000
873.19	11.50	1.6005E+000	1.5776E+000

	996.32	10.30	1.7860E+000		1.2798E+000
	1004.76	17.90	1.0348E+000		4.9484E-001
	1274.45	35.50	4.5851E-001		-2.9260E-001
Eu-155	86.54	30.90	1.9652E+000	1.97E+000	8.7687E-001
	105.31	20.70	2.3495E+000		1.9144E+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 8/17/2005 7:07:49 AM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-066-F-G.CNF
Log Number:
Title: NOL-02-01-066-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/16/2005 11:24:11 AM

Live Time : 900.0 seconds
Real Time : 900.7 seconds

Energy Calibration Date: 4/11/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-066-F-G.CNF
Log Number:
Title: NOL-02-01-066-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	292.24	72.91	1.13	1.75E+002	47.58	8.28E+002
m	2	285-	306	300.63	75.01	1.14	4.47E+002	60.48	8.77E+002
F	3	333-	344	339.88	84.86	1.15	1.66E+002	127.44	6.10E+002
F	4	948-	962	955.09	239.09	1.34	1.98E+002	34.44	1.86E+002
F	5	1175-	1187	1181.23	295.74	1.39	5.33E+001	22.18	1.06E+002
F	6	1346-	1360	1353.88	338.97	1.43	4.85E+001	34.24	9.58E+001
F	7	1399-	1418	1407.93	352.51	1.44	9.71E+001	25.42	1.43E+002
F	8	2326-	2342	2333.10	583.96	1.59	1.10E+002	24.58	6.96E+001
F	9	2430-	2445	2437.94	610.17	1.61	1.17E+002	24.10	4.81E+001
F	10	2906-	2917	2911.41	728.50	1.68	2.74E+001	14.51	2.45E+001
F	11	3639-	3658	3646.63	912.11	1.77	9.92E+001	21.15	2.63E+001
F	12	3869-	3885	3876.63	969.53	1.80	6.11E+001	33.84	4.06E+001
F	13	5834-	5860	5847.26	1461.19	2.01	7.43E+002	52.55	1.32E+001
F	14	7055-	7069	7062.84	1764.42	2.12	1.74E+001	11.05	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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-066-F-G.CNF

Log Number:
Title: NOL-02-01-066-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/gram)	Activity Uncertainty
K-40	0.996	1460.81*		10.67	2.64033E+001	2.83856E+000
TL-208	0.459	277.35		6.80		
		510.84		21.60		
		583.14*		84.20	3.93549E-001	1.02218E-001
		860.37		12.46		
Bi-212	0.948	727.17*		11.80	7.38298E-001	3.99901E-001
Pb-212	0.521	74.81*	@	10.70	1.46906E+001	3.49880E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	1.08025E+000	2.53120E-001
Bi-214	0.685	609.31*		46.30	7.71899E-001	1.85503E-001
		1120.29		15.10		
		1764.49*		15.80	4.35785E-001	2.79673E-001
PB-214	0.581	74.82*	@	6.21	2.53122E+001	6.30233E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	7.08724E-001	3.18134E-001
		351.92*		37.20	6.92467E-001	2.15124E-001
Ac-228	0.980	338.32*		11.40	1.11880E+000	8.09375E-001
		911.07*		27.70	1.19186E+000	2.88572E-001
		969.11*		16.60	1.24919E+000	7.04135E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-066-F-G.CNF

Log Number:
Title: NOL-02-01-066-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
K-40		0.996	2.640326E+001	2.838560E+000
TL-208		0.459	3.935491E-001	1.022183E-001
Bi-212		0.948	7.382976E-001	3.999008E-001
Pb-212	@	0.521	1.080250E+000	2.531204E-001
Bi-214		0.685	6.692064E-001	1.545887E-001
PB-214	@	0.581	6.975684E-001	1.782054E-001
Ac-228		0.980	1.192121E+000	2.535756E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	1.9396E-001	27.26
F 3	84.86	1.8449E-001	76.75

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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-066-F-G.CNF

Log Number:
Title: NOL-02-01-066-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Co-60	1173.22	100.00	1.8761E-001	1.52E-001	8.1084E-002
	1332.49	100.00	1.5165E-001		1.1393E-001
Nb-94	702.63	100.00	1.7702E-001	1.60E-001	-1.2735E-001
	871.10	100.00	1.5967E-001		-2.8760E-001
Ag-108m	79.20	7.10	9.1310E+000	2.22E-001	-5.5995E+000
	433.93	89.90	2.2242E-001		1.5457E-001
	614.37	90.40	2.6263E-001		-8.8366E-002
	722.95	90.50	2.2691E-001		2.4797E-002
Sb-125	176.33	6.89	3.9566E+000	6.20E-001	3.6648E+000
	427.89	29.33	6.2016E-001		-6.3223E-001
	463.38	10.35	1.8954E+000		-2.6721E-001
	600.56	17.80	1.0278E+000		-4.6768E-002
	606.64	5.02	4.7311E+000		5.2000E+000
	635.90	11.32	1.7254E+000		1.7493E+000
Cs-134	563.23	8.38	2.2577E+000	2.06E-001	4.4533E-002
	569.32	15.43	1.1471E+000		-4.3341E-001
	604.70	97.60	2.2977E-001		2.1815E-002
	795.84	85.40	2.0628E-001		5.9349E-003
	801.93	8.73	1.9818E+000		-1.4728E+000
Cs-137	661.65	85.12	2.1060E-001	2.11E-001	6.8766E-003
Eu-152	121.78	28.40	1.3479E+000	5.91E-001	9.0111E-001
	244.69	7.49	3.4137E+000		1.2742E-001
	344.27	26.50	8.1754E-001		4.7229E-002
	778.89	12.74	1.4537E+000		-1.9200E-001
	867.32	4.16	4.2748E+000		-1.8526E+000
	964.01	14.40	1.5803E+000		-4.0098E-001
	1085.78	10.00	1.5516E+000		-2.2217E+000
	1112.02	13.30	1.3625E+000		-6.3488E-001
	1407.95	20.70	5.9062E-001		2.2717E-001
Eu-154	123.07	40.50	9.3259E-001	4.83E-001	2.5665E-001
	247.94	6.60	3.6271E+000		-4.8599E+000
	591.81	4.83	3.8778E+000		1.6675E+000

723.30	19.70	1.0198E+000	-3.8300E-001
756.87	4.33	4.2962E+000	-7.7003E-001
873.19	11.50	1.5056E+000	1.0049E+000

	996.32	10.30	1.7702E+000		-6.4094E-002
	1004.76	17.90	9.6645E-001		1.4003E-001
	1274.45	35.50	4.8311E-001		4.1256E-001
Eu-155	86.54	30.90	1.8756E+000	1.88E+000	2.9678E+000
	105.31	20.70	2.1013E+000		-4.6565E-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 8/16/2005 3:27:38 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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-067-F-G.CNF
Log Number:
Title: NOL-02-01-067-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/15/2005 10:32:01 AM

Live Time : 900.0 seconds
Real Time : 900.8 seconds

Energy Calibration Date: 4/11/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-067-F-G.CNF
Log Number:
Title: NOL-02-01-067-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	292.31	72.93	1.13	2.12E+002	50.85	7.14E+002
m	2	287-	314	300.58	75.00	1.14	5.29E+002	60.21	8.43E+002
m	3	287-	314	309.14	77.15	1.14	1.22E+002	44.40	7.55E+002
F	4	333-	343	338.84	84.60	1.15	1.62E+002	46.45	5.71E+002
F	5	947-	960	954.73	239.00	1.34	2.07E+002	35.95	2.05E+002
F	6	1343-	1360	1353.25	338.82	1.43	5.61E+001	52.13	1.16E+002
F	7	1399-	1417	1407.32	352.35	1.44	1.44E+002	63.91	1.10E+002
F	8	2034-	2052	2043.67	511.59	2.32	1.40E+002	25.98	8.28E+001
F	9	2324-	2339	2331.64	583.60	1.59	1.11E+002	25.64	8.06E+001
F	10	2428-	2445	2436.89	609.91	1.61	1.85E+002	5423.61	5.18E+001
F	11	3636-	3655	3645.68	911.87	1.77	7.47E+001	19.67	4.04E+001
F	12	3870-	3884	3876.14	969.41	1.80	5.07E+001	19.03	4.13E+001
F	13	5832-	5857	5845.19	1460.67	2.01	7.34E+002	52.39	1.63E+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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-067-F-G.CNF

Log Number:
Title: NOL-02-01-067-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	0.990	511.00*	100.00	4.08595E-001	9.48673E-002
K-40	0.999	1460.81*	10.67	2.60899E+001	2.81562E+000
TL-208	0.746	277.35	6.80		
		510.84*	21.60	1.89164E+000	4.65578E-001
		583.14*	84.20	3.98460E-001	1.05797E-001
		860.37	12.46		
Pb-212	0.843	74.81* @	10.70	1.73999E+001	3.94316E+000
		77.11* @	18.00	2.29231E+000	9.49049E-001
		87.30 @	8.00		
		238.63*	44.60	1.13071E+000	2.64533E-001
Bi-214	0.392	609.31*	46.30	1.21964E+000	3.57108E+001
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.389	74.82* @	6.21	2.99806E+001	7.13423E+000
		77.11* @	10.50	3.92967E+000	1.65319E+000
		87.30 @	4.67		
		241.98	7.49		
		295.21	19.20		
		351.92*	37.20	1.03031E+000	4.87261E-001
Ac-228	0.988	338.32*	11.40	1.29373E+000	1.21984E+000
		911.07*	27.70	8.97451E-001	2.57788E-001
		969.11*	16.60	1.03734E+000	4.03900E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-067-F-G.CNF

Log Number:
Title: NOL-02-01-067-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN		0.990	3.225273E-001	9.754060E-002
K-40		0.999	2.608987E+001	2.815624E+000
TL-208		0.746	3.984599E-001	1.049974E-001
Pb-212	@	0.843	1.130707E+000	2.645330E-001
Bi-214		0.392	1.219641E+000	3.571080E+001
PB-214	@	0.389	1.030311E+000	4.837498E-001
Ac-228		0.988	9.488838E-001	2.139321E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.3610E-001	23.93
F 4	84.60	1.8031E-001	28.63

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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-067-F-G.CNF

Log Number:
Title: NOL-02-01-067-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Co-60	1173.22	100.00	1.8761E-001	1.48E-001	2.0432E-001
	1332.49	100.00	1.4844E-001		-6.4074E-002
Nb-94	702.63	100.00	1.8267E-001	1.72E-001	3.7035E-002
	871.10	100.00	1.7235E-001		-1.1021E-001
Ag-108m	79.20	7.10	9.2427E+000	2.14E-001	-1.2701E+000
	433.93	89.90	2.1398E-001		-1.3150E-001
	614.37	90.40	2.7125E-001		8.3423E-003
	722.95	90.50	2.3114E-001		1.8159E-001
Sb-125	176.33	6.89	4.0444E+000	6.73E-001	-3.1046E-001
	427.89	29.33	6.7332E-001		5.6698E-002
	463.38	10.35	2.0984E+000		1.8882E+000
	600.56	17.80	1.0718E+000		3.5480E-001
	606.64	5.02	5.0430E+000		9.7224E+000
	635.90	11.32	1.5885E+000		4.0921E-001
Cs-134	563.23	8.38	2.3449E+000	2.16E-001	1.4251E-001
	569.32	15.43	1.3132E+000		7.1324E-001
	604.70	97.60	2.5107E-001		-1.1730E-001
	795.84	85.40	2.1554E-001		8.5926E-002
	801.93	8.73	1.9093E+000		-3.6876E+000
Cs-137	661.65	85.12	2.0250E-001	2.02E-001	6.1406E-002
Eu-152	121.78	28.40	1.3468E+000	6.29E-001	3.0415E-001
	244.69	7.49	3.4414E+000		-4.5472E+000
	344.27	26.50	8.0797E-001		8.5164E-001
	778.89	12.74	1.4881E+000		-4.8529E-001
	867.32	4.16	4.2246E+000		-3.7204E+000
	964.01	14.40	1.6346E+000		2.5006E-001
	1085.78	10.00	1.7338E+000		-1.1172E-001
	1112.02	13.30	1.5724E+000		-2.1825E+000
	1407.95	20.70	6.2889E-001		3.0664E-001
Eu-154	123.07	40.50	9.3732E-001	4.51E-001	1.4227E-001
	247.94	6.60	3.6100E+000		-9.1594E+000
	591.81	4.83	3.7850E+000		-5.5000E+000

723.30	19.70	1.0564E+000	2.8958E-001
756.87	4.33	4.1193E+000	-1.6663E+000
873.19	11.50	1.4869E+000	4.5407E-001

	996.32	10.30	1.6445E+000		1.1553E+000
	1004.76	17.90	1.0090E+000		4.1634E-001
	1274.45	35.50	4.5132E-001		-1.7621E-001
Eu-155	86.54	30.90	1.8896E+000	1.89E+000	2.2364E+000
	105.31	20.70	2.1260E+000		-1.0522E-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 8/16/2005 3:28:37 PM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-068-F-G.CNF
Log Number:
Title: NOL-02-01-068-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/15/2005 12:00:46 PM

Live Time : 900.0 seconds
Real Time : 900.7 seconds

Energy Calibration Date: 4/11/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-068-F-G.CNF
Log Number:
Title: NOL-02-01-068-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	292.40	72.95	1.13	2.19E+002	50.46	8.22E+002
m	2	285-	314	300.05	74.87	1.14	4.38E+002	58.07	8.82E+002
M	3	330-	358	339.16	84.68	1.15	1.74E+002	121.34	7.87E+002
m	4	330-	358	349.79	87.35	1.16	1.18E+002	85.40	7.77E+002
F	5	948-	960	954.75	239.01	1.34	1.94E+002	34.10	1.61E+002
F	6	1175-	1191	1181.61	295.84	1.39	7.15E+001	23.50	1.32E+002
F	7	1348-	1359	1352.93	338.73	1.43	6.64E+001	23.71	9.54E+001
F	8	1402-	1412	1407.79	352.47	1.44	9.41E+001	24.69	7.42E+001
F	9	2035-	2052	2043.89	511.64	2.32	9.12E+001	24.59	1.07E+002
F	10	2324-	2340	2332.85	583.90	1.59	1.05E+002	23.25	5.54E+001
F	11	2430-	2445	2437.49	610.06	1.61	9.58E+001	23.36	6.65E+001
F	12	3637-	3652	3645.41	911.81	1.77	7.29E+001	20.96	4.79E+001
F	13	3868-	3884	3876.51	969.50	1.80	6.38E+001	17.77	2.33E+001
F	14	4475-	4489	4481.49	1120.48	1.87	3.96E+001	15.76	2.45E+001
F	15	5832-	5859	5845.79	1460.82	2.01	7.47E+002	75.94	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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-068-F-G.CNF

Log Number:
Title: NOL-02-01-068-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	0.988	511.00*	100.00	2.65510E-001	8.06827E-002
K-40	1.000	1460.81*	10.67	2.65451E+001	3.45004E+000
Eu-155	0.322	86.54*	30.90	1.09945E+000	8.24098E-001
		105.31	20.70		
TL-208	0.738	277.35	6.80		
		510.84*	21.60	1.22921E+000	3.86785E-001
		583.14*	84.20	3.76895E-001	9.69867E-002
		860.37	12.46		
Pb-212	0.677	74.81* @	10.70	1.44346E+001	3.41549E+000
		77.11 @	18.00		
		87.30* @	8.00	4.24663E+000	3.18308E+000
		238.63*	44.60	1.05826E+000	2.49448E-001
Bi-214	0.690	609.31*	46.30	6.30683E-001	1.72682E-001
		1120.29*	15.10	9.32816E-001	3.84252E-001
		1764.49	15.80		
PB-214	0.667	74.82* @	6.21	2.48712E+001	6.15570E+000
		77.11 @	10.50		
		87.30* @	4.67	7.27474E+000	5.48044E+000
		241.98	7.49		
		295.21*	19.20	9.50832E-001	3.51099E-001
		351.92*	37.20	6.71229E-001	2.08788E-001
Ac-228	0.989	338.32*	11.40	1.53262E+000	5.97399E-001
		911.07*	27.70	8.75950E-001	2.71070E-001
		969.11*	16.60	1.30492E+000	3.88183E-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
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Y A N K E E R O W E P O R T A B L E I S O C S
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-068-F-G.CNF

Log Number:
Title: NOL-02-01-068-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN		0.988	1.841011E-001	8.331585E-002
K-40		1.000	2.654511E+001	3.450044E+000
Eu-155		0.322	7.130437E-001	8.270549E-001
TL-208		0.738	3.768949E-001	9.620579E-002
Pb-212	@	0.677	1.058259E+000	2.494476E-001
Bi-214		0.690	6.814488E-001	1.575080E-001
PB-214	@	0.667	7.438739E-001	1.764831E-001
Ac-228		0.989	1.079303E+000	2.082987E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.4296E-001	23.08
M 3	84.68	1.9374E-001	69.59

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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-068-F-G.CNF

Log Number:
Title: NOL-02-01-068-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Co-60	1173.22	100.00	1.9538E-001	1.62E-001	8.6960E-002
	1332.49	100.00	1.6185E-001		-5.5827E-002
Nb-94	702.63	100.00	1.7766E-001	1.68E-001	9.3728E-003
	871.10	100.00	1.6799E-001		-8.4674E-002
Ag-108m	79.20	7.10	8.9633E+000	2.23E-001	2.6935E+000
	433.93	89.90	2.2532E-001		6.5230E-002
	614.37	90.40	2.7172E-001		-5.9811E-002
	722.95	90.50	2.2321E-001		1.8105E-001
Sb-125	176.33	6.89	3.9992E+000	6.47E-001	2.0051E+000
	427.89	29.33	6.4731E-001		-4.4517E-001
	463.38	10.35	1.9911E+000		6.4689E-001
	600.56	17.80	1.0687E+000		-4.1703E-001
	606.64	5.02	4.8600E+000		6.0803E+000
	635.90	11.32	1.4439E+000		-5.0276E-001
Cs-134	563.23	8.38	2.1266E+000	1.97E-001	-8.7813E-001
	569.32	15.43	1.1765E+000		-1.1920E+000
	604.70	97.60	2.3586E-001		8.8922E-002
	795.84	85.40	1.9738E-001		-7.7800E-002
	801.93	8.73	1.9818E+000		-1.5566E+000
Cs-137	661.65	85.12	2.2523E-001	2.25E-001	1.5490E-001
Eu-152	121.78	28.40	1.3568E+000	6.47E-001	7.1990E-001
	244.69	7.49	3.3858E+000		-5.0130E+000
	344.27	26.50	8.0245E-001		-3.4167E-001
	778.89	12.74	1.3715E+000		-1.2542E+000
	867.32	4.16	3.9633E+000		-3.2947E+000
	964.01	14.40	1.4220E+000		-5.1256E-001
	1085.78	10.00	1.7981E+000		-1.0157E-001
	1112.02	13.30	1.3979E+000		-1.0854E+000
	1407.95	20.70	6.4710E-001		2.7352E-002
Eu-154	123.07	40.50	9.4163E-001	4.46E-001	4.6704E-001
	247.94	6.60	3.6313E+000		-2.8482E+000
	591.81	4.83	4.0892E+000		4.8620E+000

723.30	19.70	1.0284E+000	1.0974E+000
756.87	4.33	3.9812E+000	-2.4497E+000
873.19	11.50	1.4679E+000	3.8497E-001

		996.32	10.30	1.7844E+000		1.3899E+000
		1004.76	17.90	1.0173E+000		2.2474E-001
		1274.45	35.50	4.4579E-001		-2.2203E-001
+	Eu-155	86.54*	30.90	1.2334E+000	1.23E+000	1.0995E+000
		105.31	20.70	2.0941E+000		1.0345E+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 8/12/2005 2:13:08 PM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-069-F-G.CNF
Log Number:
Title: NOL-02-01-069-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/11/2005 11:21:25 AM

Live Time : 900.0 seconds
Real Time : 900.8 seconds

Energy Calibration Date: 4/11/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-069-F-G.CNF
Log Number:
Title: NOL-02-01-069-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	292.17	72.89	1.13	2.35E+002	54.29	9.56E+002
m	2	285-	307	300.55	74.99	1.14	4.93E+002	64.30	1.13E+003
F	3	332-	354	339.39	84.74	1.15	1.85E+002	222.17	1.41E+003
F	4	950-	960	954.41	238.92	1.34	1.87E+002	35.67	1.62E+002
F	5	1344-	1363	1353.79	338.95	1.43	6.50E+001	23.72	1.74E+002
F	6	1399-	1413	1407.52	352.40	1.44	8.56E+001	25.54	1.39E+002
F	7	2035-	2052	2043.59	511.57	2.32	1.27E+002	27.15	1.03E+002
F	8	2322-	2341	2332.57	583.83	1.59	1.08E+002	69.90	8.94E+001
F	9	2430-	2444	2437.31	610.01	1.61	8.89E+001	23.30	6.57E+001
F	10	2638-	2652	2645.68	662.09	1.64	6.44E+001	59.61	4.67E+001
F	11	3631-	3655	3645.91	911.93	1.77	8.70E+001	44.76	7.17E+001
F	12	4684-	4702	4693.38	1173.35	1.89	7.48E+001	20.06	4.27E+001
F	13	5321-	5341	5331.44	1332.52	1.96	1.15E+002	22.12	1.84E+001
F	14	5831-	5860	5845.60	1460.78	2.01	8.29E+002	87.07	1.47E+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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-069-F-G.CNF

Log Number:
Title: NOL-02-01-069-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	0.990	511.00*	100.00	3.68912E-001	9.44548E-002
K-40	1.000	1460.81*	10.67	2.94558E+001	3.90653E+000
Co-60	1.000	1173.22*	100.00	2.70027E-001	7.54850E-002
		1332.49*	100.00	4.25956E-001	8.87762E-002
Cs-137	0.994	661.65*	85.12	2.35734E-001	2.19901E-001
TL-208	0.741	277.35	6.80		
		510.84*	21.60	1.70793E+000	4.58997E-001
		583.14*	84.20	3.85649E-001	2.55344E-001
		860.37	12.46		
Pb-212	0.523	74.81* @	10.70	1.62099E+001	3.81629E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.01969E+000	2.52020E-001
Bi-214	0.390	609.31*	46.30	5.85053E-001	1.69821E-001
		1120.29	15.10		
		1764.49	15.80		
Ac-228	0.525	338.32*	11.40	1.49995E+000	5.95807E-001
		911.07*	27.70	1.04511E+000	5.50863E-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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-069-F-G.CNF

Log Number:
Title: NOL-02-01-069-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN		0.990	2.856118E-001	1.093450E-001
K-40		1.000	2.945580E+001	3.906525E+000
Co-60		1.000	3.354566E-001	5.750692E-002
Cs-137		0.994	2.357337E-001	2.199007E-001
TL-208		0.741	3.856493E-001	2.550343E-001
Pb-212	@	0.523	1.019693E+000	2.520200E-001
Bi-214		0.390	5.850530E-001	1.698206E-001
Ac-228		0.525	1.254729E+000	4.044757E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.6147E-001	23.07
F 3	84.74	2.0511E-001	120.35
F 6	352.40	9.5161E-002	29.82

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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-069-F-G.CNF

Log Number:
Title: NOL-02-01-069-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
+	Co-60	1173.22*	100.00	1.5269E-001	1.10E-001	2.7003E-001
		1332.49*	100.00	1.1025E-001		4.2596E-001
	Nb-94	702.63	100.00	2.0583E-001	1.91E-001	-4.8363E-002
		871.10	100.00	1.9068E-001		-1.2335E-001
	Ag-108m	79.20	7.10	9.7415E+000	2.37E-001	-6.7788E-001
		433.93	89.90	2.3745E-001		1.4368E-003
		614.37	90.40	2.7266E-001		-6.5781E-002
		722.95	90.50	2.3705E-001		-2.3019E-002
	Sb-125	176.33	6.89	4.3829E+000	7.17E-001	-6.2515E-002
		427.89	29.33	7.1683E-001		-2.9125E-001
		463.38	10.35	2.0413E+000		4.7154E-002
		600.56	17.80	1.0748E+000		1.6280E-001
		606.64	5.02	4.8516E+000		1.9717E+000
		635.90	11.32	1.7874E+000		-1.0178E+000
	Cs-134	563.23	8.38	2.4581E+000	2.34E-001	1.5448E+000
		569.32	15.43	1.2331E+000		-6.0709E-001
		604.70	97.60	2.4581E-001		6.7014E-002
		795.84	85.40	2.3431E-001		-8.5052E-002
		801.93	8.73	2.3623E+000		1.3756E-001
+	Cs-137	661.65*	85.12	1.5012E-001	1.50E-001	2.3573E-001
	Eu-152	121.78	28.40	1.4598E+000	6.53E-001	-8.9894E-001
		244.69	7.49	3.6261E+000		-6.0620E-001
		344.27	26.50	8.8902E-001		-5.2834E-001
		778.89	12.74	1.5547E+000		3.3210E-001
		867.32	4.16	4.4058E+000		-5.9414E+000
		964.01	14.40	1.6270E+000		3.2282E+000
		1085.78	10.00	1.8216E+000		-1.6554E+000
		1112.02	13.30	1.5517E+000		-5.7946E-001
		1407.95	20.70	6.5305E-001		3.3515E-001
	Eu-154	123.07	40.50	1.0164E+000	4.59E-001	-1.4684E-001
		247.94	6.60	3.8734E+000		-4.2076E+000
		591.81	4.83	4.1749E+000		1.6375E-001

723.30	19.70	1.0783E+000	-6.6160E-002
756.87	4.33	4.6422E+000	-5.3214E+000
873.19	11.50	1.6866E+000	5.4149E-001

	996.32	10.30	1.8124E+000		-9.3366E-001
	1004.76	17.90	1.0812E+000		2.6614E-001
	1274.45	35.50	4.5949E-001		-9.2397E-002
Eu-155	86.54	30.90	2.0279E+000	2.03E+000	3.4171E+000
	105.31	20.70	2.2956E+000		-8.4945E-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 8/15/2005 9:18:19 AM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-070-F-G.CNF
Log Number:
Title: NOL-02-01-070-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/11/2005 10:46:05 AM

Live Time : 900.0 seconds
Real Time : 900.8 seconds

Energy Calibration Date: 4/11/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-070-F-G.CNF
Log Number:
Title: NOL-02-01-070-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	72.79	1.13	2.77E+002	48.59	8.99E+002
m	2	284-	314	300.52	74.99	1.14	5.74E+002	91.91	9.34E+002
m	3	284-	314	309.97	77.36	1.14	8.13E+001	22.29	7.98E+002
F	4	333-	344	339.65	84.80	1.15	1.85E+002	150.12	7.07E+002
F	5	948-	959	954.73	239.00	1.34	1.75E+002	34.56	1.79E+002
F	6	1175-	1190	1180.78	295.63	1.39	6.23E+001	24.01	1.54E+002
F	7	1399-	1412	1407.34	352.36	1.44	8.49E+001	24.34	1.07E+002
F	8	1443-	1456	1449.06	362.80	1.44	3.06E+001	18.90	8.78E+001
F	9	2323-	2341	2332.11	583.71	1.59	1.03E+002	24.61	9.53E+001
F	10	2428-	2445	2436.53	609.82	1.61	9.10E+001	23.07	7.92E+001
F	11	2636-	2655	2646.31	662.25	1.64	1.14E+002	35.28	6.02E+001
F	12	2903-	2915	2909.13	727.92	1.68	4.55E+001	18.88	5.28E+001
F	13	3637-	3654	3644.40	911.56	1.77	1.07E+002	23.35	5.22E+001
F	14	3868-	3882	3876.61	969.52	1.80	6.41E+001	645.28	5.39E+001
F	15	4682-	4704	4693.80	1173.45	1.89	2.26E+002	60.69	3.74E+001
F	16	5322-	5342	5331.29	1332.49	1.96	2.65E+002	32.51	2.34E+001
F	17	5831-	5859	5844.88	1460.60	2.01	8.92E+002	91.04	1.04E+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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-070-F-G.CNF

Log Number:
Title: NOL-02-01-070-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
K-40	0.999	1460.81*	10.67	3.16925E+001	4.12913E+000
Co-60	0.999	1173.22*	100.00	8.16479E-001	2.28370E-001
		1332.49*	100.00	9.83784E-001	1.43394E-001
Cs-137	0.989	661.65*	85.12	4.17970E-001	1.38174E-001
TL-208	0.466	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.70165E-001	1.00770E-001
		860.37	12.46		
Bi-212	0.983	727.17*	11.80	1.22281E+000	5.27928E-001
Pb-212	0.842	74.81* @	10.70	1.88744E+001	4.77688E+000
		77.11* @	18.00	1.52602E+000	5.14168E-001
		87.30 @	8.00		
		238.63*	44.60	9.56964E-001	2.41115E-001
Bi-214	0.394	609.31*	46.30	5.98936E-001	1.69204E-001
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.761	74.82* @	6.21	3.25211E+001	8.56258E+000
		77.11* @	10.50	2.61603E+000	9.02814E-001
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	8.27580E-001	3.48226E-001
		351.92*	37.20	6.05172E-001	2.00902E-001
Ac-228	0.635	338.32	11.40		
		911.07*	27.70	1.28216E+000	3.16789E-001
		969.11*	16.60	1.31139E+000	1.31935E+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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-070-F-G.CNF

Log Number:
Title: NOL-02-01-070-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
K-40		0.999	3.169249E+001	4.129126E+000
Co-60		0.999	9.364748E-001	1.214389E-001
Cs-137		0.989	4.179700E-001	1.381738E-001
TL-208		0.466	3.701647E-001	1.007702E-001
Bi-212		0.983	1.222809E+000	5.279279E-001
Pb-212	@	0.842	9.569640E-001	2.411149E-001
Bi-214		0.394	5.989361E-001	1.692042E-001
PB-214	@	0.761	6.607133E-001	1.740178E-001
Ac-228		0.635	1.282174E+000	3.166978E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	3.0768E-001	17.55
F 4	84.80	2.0557E-001	81.14
F 8	362.80	3.4035E-002	61.69

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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-070-F-G.CNF

Log Number:
Title: NOL-02-01-070-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
+	Co-60	1173.22*	100.00	1.5273E-001	1.23E-001	8.1648E-001
		1332.49*	100.00	1.2259E-001		9.8378E-001
	Nb-94	702.63	100.00	2.1952E-001	1.99E-001	-1.6412E-001
		871.10	100.00	1.9949E-001		-3.5660E-002
	Ag-108m	79.20	7.10	9.7296E+000	2.43E-001	-1.8496E+000
		433.93	89.90	2.4284E-001		-2.0326E-001
		614.37	90.40	2.8992E-001		2.3403E-002
		722.95	90.50	2.6142E-001		-3.8265E-002
	Sb-125	176.33	6.89	4.1797E+000	7.47E-001	1.3093E-001
		427.89	29.33	7.4708E-001		-7.7894E-002
		463.38	10.35	2.2344E+000		-7.0949E-002
		600.56	17.80	1.2419E+000		8.9964E-001
		606.64	5.02	5.2271E+000		5.7409E+000
		635.90	11.32	1.9612E+000		2.8772E-001
	Cs-134	563.23	8.38	2.5099E+000	2.59E-001	-6.6531E-001
		569.32	15.43	1.4217E+000		4.2546E-001
		604.70	97.60	2.5958E-001		5.8923E-002
		795.84	85.40	2.5921E-001		2.0217E-001
		801.93	8.73	2.5334E+000		-9.3034E-001
+	Cs-137	661.65*	85.12	1.8516E-001	1.85E-001	4.1797E-001
	Eu-152	121.78	28.40	1.4469E+000	5.28E-001	2.9868E-001
		244.69	7.49	3.6261E+000		-5.9434E+000
		344.27	26.50	8.9151E-001		-7.7870E-001
		778.89	12.74	1.6579E+000		-3.1779E-001
		867.32	4.16	4.8499E+000		3.6006E-001
		964.01	14.40	1.7699E+000		2.0919E+000
		1085.78	10.00	2.0683E+000		-9.3716E-001
		1112.02	13.30	1.5979E+000		-3.6396E+000
		1407.95	20.70	5.2752E-001		-2.9490E-001
	Eu-154	123.07	40.50	9.9780E-001	4.96E-001	-3.2907E-001
		247.94	6.60	3.9481E+000		-1.7407E+000
		591.81	4.83	4.3104E+000		1.0445E+000

723.30	19.70	1.2011E+000	1.3241E+000
756.87	4.33	4.6555E+000	-1.1636E+000
873.19	11.50	1.7725E+000	-3.1340E-001

	996.32	10.30	2.0465E+000		2.6414E-001
	1004.76	17.90	1.1773E+000		1.0977E+000
	1274.45	35.50	4.9571E-001		2.2063E-001
Eu-155	86.54	30.90	1.9950E+000	1.99E+000	1.6161E+000
	105.31	20.70	2.2941E+000		-4.5068E-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 8/15/2005 9:18:50 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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-071-F-G.CNF
Log Number:
Title: NOL-02-01-071-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/11/2005 10:25:09 AM

Live Time : 900.0 seconds
Real Time : 900.9 seconds

Energy Calibration Date: 4/11/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-071-F-G.CNF
Log Number:
Title: NOL-02-01-071-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	291.74	72.78	1.13	2.50E+002	55.34	9.80E+002
m	2	285-	306	300.50	74.98	1.14	4.68E+002	64.05	1.10E+003
F	3	334-	345	339.53	84.77	1.15	1.48E+002	49.79	7.93E+002
F	4	947-	959	954.41	238.92	1.34	1.82E+002	123.51	2.17E+002
F	5	1246-	1255	1250.73	313.14	1.40	4.52E+001	22.14	8.51E+001
F	6	1398-	1417	1407.62	352.43	1.44	1.25E+002	75.54	1.70E+002
F	7	2322-	2339	2331.72	583.62	1.59	1.32E+002	27.70	1.08E+002
F	8	2430-	2445	2437.09	609.96	1.61	9.11E+001	24.44	9.17E+001
F	9	2634-	2653	2645.84	662.14	1.64	1.46E+002	51.54	7.16E+001
F	10	3638-	3653	3644.98	911.70	1.77	8.60E+001	22.44	5.60E+001
F	11	3867-	3881	3875.34	969.21	1.80	5.37E+001	20.18	6.75E+001
F	12	4683-	4702	4693.73	1173.44	1.89	3.10E+002	36.85	6.45E+001
F	13	5319-	5344	5331.26	1332.48	1.96	4.15E+002	67.12	2.26E+001
F	14	5831-	5858	5844.79	1460.57	2.01	8.17E+002	91.08	1.72E+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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-071-F-G.CNF

Log Number:
Title: NOL-02-01-071-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
K-40	0.998	1460.81*	10.67	2.90380E+001	4.00045E+000
Co-60	0.999	1173.22*	100.00	1.11903E+000	1.59413E-001
		1332.49*	100.00	1.54265E+000	2.77287E-001
Cs-137	0.993	661.65*	85.12	5.36052E-001	1.98881E-001
TL-208	0.468	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	4.73121E-001	1.17223E-001
		860.37	12.46		
Pb-212	0.523	74.81* @	10.70	1.53896E+001	3.67897E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	9.95046E-001	6.92294E-001
Bi-214	0.391	609.31*	46.30	5.99968E-001	1.77390E-001
		1120.29	15.10		
		1764.49	15.80		
Ac-228	0.634	338.32	11.40		
		911.07*	27.70	1.03267E+000	2.94421E-001
		969.11*	16.60	1.09685E+000	4.28271E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-071-F-G.CNF

Log Number:
Title: NOL-02-01-071-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
K-40	0.998	2.903798E+001	4.000453E+000
Co-60	0.999	1.224260E+000	1.382019E-001
Cs-137	0.993	5.360520E-001	1.988808E-001
TL-208	0.468	4.731215E-001	1.172229E-001
Pb-212 @	0.523	9.950464E-001	6.922938E-001
Bi-214	0.391	5.999680E-001	1.773899E-001
Ac-228	0.634	1.053266E+000	2.426191E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.7745E-001	22.16
F 3	84.77	1.6421E-001	33.69
F 5	313.14	5.0194E-002	49.00
F 6	352.43	1.3919E-001	60.30

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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-071-F-G.CNF

Log Number:
Title: NOL-02-01-071-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
+	Co-60	1173.22*	100.00	1.8804E-001	1.30E-001	1.1190E+000
		1332.49*	100.00	1.2964E-001		1.5426E+000
	Nb-94	702.63	100.00	2.2654E-001	2.27E-001	-1.5523E-001
		871.10	100.00	2.3699E-001		1.6443E-001
	Ag-108m	79.20	7.10	1.0129E+001	2.66E-001	-6.1879E+000
		433.93	89.90	2.7052E-001		1.4873E-001
		614.37	90.40	2.9515E-001		1.0260E-001
		722.95	90.50	2.6561E-001		7.0053E-002
	Sb-125	176.33	6.89	4.4240E+000	8.13E-001	3.2107E+000
		427.89	29.33	8.1273E-001		-3.7605E-001
		463.38	10.35	2.4150E+000		-3.4243E-001
		600.56	17.80	1.2392E+000		-1.0325E+000
		606.64	5.02	5.3206E+000		4.7914E+000
		635.90	11.32	2.0198E+000		1.9237E+000
	Cs-134	563.23	8.38	2.7278E+000	2.71E-001	-2.6084E+000
		569.32	15.43	1.4713E+000		7.5494E-001
		604.70	97.60	2.7064E-001		-6.2133E-002
		795.84	85.40	2.8467E-001		2.4132E-001
		801.93	8.73	2.5456E+000		-2.5898E+000
+	Cs-137	661.65*	85.12	2.0017E-001	2.00E-001	5.3605E-001
	Eu-152	121.78	28.40	1.5059E+000	6.23E-001	7.8388E-001
		244.69	7.49	3.8755E+000		-7.4009E+000
		344.27	26.50	9.4571E-001		-9.6585E-001
		778.89	12.74	1.8033E+000		-1.7548E+000
		867.32	4.16	5.5036E+000		-6.3950E+000
		964.01	14.40	1.9212E+000		1.1463E+000
		1085.78	10.00	2.2190E+000		-2.5304E+000
		1112.02	13.30	1.7194E+000		-4.4794E+000
		1407.95	20.70	6.2269E-001		-1.9991E-001
	Eu-154	123.07	40.50	1.0358E+000	4.78E-001	-7.8552E-001
		247.94	6.60	4.1566E+000		-1.3394E+000
		591.81	4.83	4.6072E+000		-9.3821E-001

723.30	19.70	1.2345E+000	6.5871E-001
756.87	4.33	4.9755E+000	-6.2227E+000
873.19	11.50	2.0840E+000	1.9276E+000

	996.32	10.30	2.1127E+000		-5.9490E-002
	1004.76	17.90	1.2593E+000		9.5744E-001
	1274.45	35.50	4.7796E-001		-3.7536E-002
Eu-155	86.54	30.90	2.0432E+000	2.04E+000	2.3366E+000
	105.31	20.70	2.3895E+000		1.2514E+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 8/15/2005 9:19:16 AM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-072-F-G.CNF
Log Number:
Title: NOL-02-01-072-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/11/2005 9:48:14 AM

Live Time : 900.0 seconds
Real Time : 901.0 seconds

Energy Calibration Date: 4/11/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-072-F-G.CNF
Log Number:
Title: NOL-02-01-072-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	292.05	72.86	1.13	3.64E+002	76.23	8.58E+002
m	2	285-	309	300.46	74.97	1.14	6.05E+002	88.12	1.06E+003
F	3	330-	344	339.42	84.74	1.15	2.22E+002	133.34	9.76E+002
F	4	947-	961	954.43	238.93	1.34	1.62E+002	36.49	2.95E+002
F	5	1347-	1360	1354.16	339.04	1.43	4.83E+001	23.32	1.39E+002
F	6	1402-	1415	1407.72	352.45	1.44	9.40E+001	27.05	1.37E+002
F	7	2031-	2054	2042.91	511.40	2.32	1.41E+002	27.18	1.38E+002
F	8	2323-	2342	2333.23	584.00	1.59	1.38E+002	27.11	1.05E+002
F	9	2431-	2445	2437.26	610.00	1.61	1.17E+002	26.16	8.29E+001
F	10	2638-	2653	2646.38	662.27	1.64	1.19E+002	25.71	7.60E+001
F	11	3636-	3655	3645.71	911.88	1.77	8.61E+001	40.10	1.01E+002
F	12	3867-	3885	3876.42	969.48	1.80	6.69E+001	20.28	6.25E+001
F	13	4684-	4702	4693.21	1173.31	1.89	4.08E+002	41.94	6.69E+001
F	14	5319-	5343	5330.59	1332.31	1.96	4.82E+002	65.96	2.91E+001
F	15	5831-	5857	5844.70	1460.55	2.01	8.00E+002	83.04	6.75E+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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-072-F-G.CNF

Log Number:
Title: NOL-02-01-072-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	0.995	511.00*	100.00	4.10263E-001	9.78069E-002
K-40	0.998	1460.81*	10.67	2.84191E+001	3.74187E+000
Co-60	0.999	1173.22*	100.00	1.47282E+000	1.90461E-001
		1332.49*	100.00	1.79033E+000	2.82550E-001
Cs-137	0.988	661.65*	85.12	4.36178E-001	1.07177E-001
TL-208	0.737	277.35	6.80		
		510.84*	21.60	1.89937E+000	4.78641E-001
		583.14*	84.20	4.92839E-001	1.16872E-001
		860.37	12.46		
Pb-212	0.523	74.81* @	10.70	1.99097E+001	4.86093E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	8.85022E-001	2.42831E-001
Bi-214	0.390	609.31*	46.30	7.69229E-001	1.97069E-001
		1120.29	15.10		
		1764.49	15.80		
Ac-228	0.986	338.32*	11.40	1.11439E+000	5.65729E-001
		911.07*	27.70	1.03420E+000	4.96045E-001
		969.11*	16.60	1.36716E+000	4.38643E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-072-F-G.CNF

Log Number:
Title: NOL-02-01-072-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN		0.995	3.038099E-001	1.009526E-001
K-40		0.998	2.841906E+001	3.741869E+000
Co-60		0.999	1.572015E+000	1.579305E-001
Cs-137		0.988	4.361779E-001	1.071772E-001
TL-208		0.737	4.928389E-001	1.157635E-001
Pb-212	@	0.523	8.850222E-001	2.428305E-001
Bi-214		0.390	7.692291E-001	1.970687E-001
Ac-228		0.986	1.194148E+000	2.841429E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	4.0413E-001	20.96
F 3	84.74	2.4682E-001	60.02
F 6	352.45	1.0443E-001	28.78

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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-072-F-G.CNF

Log Number:
Title: NOL-02-01-072-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
+	Co-60	1173.22*	100.00	1.8909E-001	1.46E-001	1.4728E+000
		1332.49*	100.00	1.4625E-001		1.7903E+000
	Nb-94	702.63	100.00	2.4087E-001	2.29E-001	-2.2820E-001
		871.10	100.00	2.2915E-001		9.0732E-002
	Ag-108m	79.20	7.10	1.0295E+001	2.71E-001	-4.1671E+000
		433.93	89.90	2.7091E-001		-7.1859E-002
		614.37	90.40	3.1639E-001		-1.9559E-002
		722.95	90.50	2.8267E-001		6.1795E-002
	Sb-125	176.33	6.89	4.6137E+000	8.02E-001	4.4530E+000
		427.89	29.33	8.0155E-001		-5.1373E-001
		463.38	10.35	2.4045E+000		6.8441E-001
		600.56	17.80	1.3670E+000		-1.7945E-001
		606.64	5.02	5.8142E+000		9.8008E+000
		635.90	11.32	2.0565E+000		-1.0830E+000
	Cs-134	563.23	8.38	2.7795E+000	2.89E-001	-8.9623E-001
		569.32	15.43	1.5659E+000		3.2390E-001
		604.70	97.60	2.8923E-001		-1.4078E-001
		795.84	85.40	2.9736E-001		3.7055E-002
		801.93	8.73	2.6528E+000		-3.8579E+000
+	Cs-137	661.65*	85.12	1.9182E-001	1.92E-001	4.3618E-001
	Eu-152	121.78	28.40	1.5089E+000	6.41E-001	-1.6170E+000
		244.69	7.49	3.9511E+000		8.0065E-001
		344.27	26.50	1.0068E+000		4.9627E-001
		778.89	12.74	1.9000E+000		-1.5973E+000
		867.32	4.16	5.4522E+000		-7.4193E+000
		964.01	14.40	1.8952E+000		1.0622E+000
		1085.78	10.00	2.3833E+000		-1.3725E-001
		1112.02	13.30	1.7701E+000		-2.6896E+000
		1407.95	20.70	6.4109E-001		3.7618E-001
	Eu-154	123.07	40.50	1.0537E+000	5.52E-001	-5.3140E-001
		247.94	6.60	4.3409E+000		2.7097E-001
		591.81	4.83	4.5591E+000		-1.5251E+000

723.30	19.70	1.2964E+000	4.8063E-001
756.87	4.33	5.4807E+000	4.4988E+000
873.19	11.50	2.0165E+000	-5.0543E-001

	996.32	10.30	2.2499E+000		9.4538E-001
	1004.76	17.90	1.2658E+000		6.3141E-001
	1274.45	35.50	5.5203E-001		4.9024E-002
Eu-155	86.54	30.90	2.1112E+000	2.11E+000	-2.6809E-001
	105.31	20.70	2.4224E+000		2.1268E-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 8/15/2005 9:19:42 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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-073-F-G.CNF
Log Number:
Title: NOL-02-01-073-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/11/2005 8:21:25 AM

Live Time : 900.0 seconds
Real Time : 901.0 seconds

Energy Calibration Date: 4/11/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-073-F-G.CNF
Log Number:
Title: NOL-02-01-073-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	291.37	72.69	1.13	2.47E+002	23.60	1.25E+003
m	2	282-	305	300.35	74.94	1.14	5.70E+002	38.24	1.76E+003
F	3	947-	961	954.61	238.97	1.34	1.86E+002	36.71	2.75E+002
F	4	1403-	1413	1407.58	352.42	1.44	7.33E+001	25.72	1.08E+002
F	5	2324-	2340	2331.90	583.66	1.59	1.23E+002	26.42	9.10E+001
F	6	2428-	2443	2435.93	609.67	1.61	7.08E+001	23.88	1.08E+002
F	7	3121-	3133	3127.47	782.47	1.71	2.27E+001	15.50	4.20E+001
F	8	3636-	3652	3644.45	911.57	1.77	8.08E+001	23.76	9.04E+001
F	9	3866-	3880	3874.35	968.96	1.80	4.82E+001	19.74	6.54E+001
F	10	4681-	4703	4691.99	1173.00	1.89	4.36E+002	89.58	8.05E+001
F	11	5317-	5342	5329.79	1332.11	1.96	5.62E+002	82.22	2.27E+001
F	12	5828-	5856	5843.53	1460.26	2.01	7.95E+002	82.72	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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-073-F-G.CNF

Log Number:
Title: NOL-02-01-073-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
K-40	0.991	1460.81*	10.67	2.82459E+001	3.72431E+000
Co-60	0.997	1173.22*	100.00	1.57478E+000	3.46285E-001
		1332.49*	100.00	2.09035E+000	3.46832E-001
TL-208	0.467	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	4.38820E-001	1.10932E-001
		860.37	12.46		
Pb-212	0.523	74.81* @	10.70	1.87631E+001	3.88693E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.01553E+000	2.56014E-001
Bi-214	0.397	609.31*	46.30	4.66246E-001	1.67563E-001
		1120.29	15.10		
		1764.49	15.80		
Ac-228	0.636	338.32	11.40		
		911.07*	27.70	9.70700E-001	3.06343E-001
		969.11*	16.60	9.85065E-001	4.16486E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-073-F-G.CNF

Log Number:
Title: NOL-02-01-073-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
K-40	0.991	2.824590E+001	3.724313E+000
Co-60	0.997	1.832158E+000	2.450536E-001
TL-208	0.467	4.388196E-001	1.109315E-001
Pb-212 @	0.523	1.015528E+000	2.560137E-001
Bi-214	0.397	4.662464E-001	1.675628E-001
Ac-228	0.636	9.757431E-001	2.467762E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.7468E-001	9.55
F	4	352.42	8.1418E-002	35.10
F	7	782.47	2.5254E-002	68.20

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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-073-F-G.CNF

Log Number:
Title: NOL-02-01-073-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
+	Co-60	1173.22*	100.00	2.1987E-001	1.30E-001	1.5748E+000
		1332.49*	100.00	1.2992E-001		2.0904E+000
	Nb-94	702.63	100.00	2.3994E-001	2.40E-001	1.3169E-001
		871.10	100.00	2.4005E-001		-4.7382E-002
	Ag-108m	79.20	7.10	1.0475E+001	2.71E-001	-1.5065E+001
		433.93	89.90	2.7131E-001		4.2540E-002
		614.37	90.40	3.0865E-001		-1.2260E-001
		722.95	90.50	2.8701E-001		-1.6710E-002
	Sb-125	176.33	6.89	4.4594E+000	8.54E-001	-1.5048E+000
		427.89	29.33	8.5362E-001		2.8246E-001
		463.38	10.35	2.5236E+000		1.0197E+000
		600.56	17.80	1.4069E+000		-6.5750E-001
		606.64	5.02	5.7789E+000		4.5431E+000
		635.90	11.32	2.1242E+000		8.1898E-001
	Cs-134	563.23	8.38	2.9338E+000	2.92E-001	-2.4495E-001
		569.32	15.43	1.6136E+000		2.3910E-001
		604.70	97.60	2.9184E-001		8.0526E-002
		795.84	85.40	2.9465E-001		-6.1166E-002
		801.93	8.73	2.8600E+000		-2.5359E+000
	Cs-137	661.65	85.12	3.0866E-001	3.09E-001	1.1188E-001
	Eu-152	121.78	28.40	1.5169E+000	6.29E-001	8.2377E-001
		244.69	7.49	3.7482E+000		-1.4926E+000
		344.27	26.50	9.4219E-001		-1.0314E+000
		778.89	12.74	1.8849E+000		-2.1549E+000
		867.32	4.16	5.8978E+000		-3.0334E+000
		964.01	14.40	1.9500E+000		2.0666E+000
		1085.78	10.00	2.4298E+000		-2.5386E+000
		1112.02	13.30	1.8970E+000		-1.4680E+000
		1407.95	20.70	6.2889E-001		7.1816E-001
	Eu-154	123.07	40.50	1.0502E+000	5.13E-001	-6.1164E-001
		247.94	6.60	4.1195E+000		3.0067E-001
		591.81	4.83	4.7669E+000		-1.9993E+000

723.30	19.70	1.3164E+000	9.9093E-001
756.87	4.33	5.8692E+000	-1.9883E+000
873.19	11.50	2.1103E+000	8.3007E-001

	996.32	10.30	2.3154E+000		-4.0179E-001
	1004.76	17.90	1.3298E+000		-1.2800E+000
	1274.45	35.50	5.1281E-001		-7.1646E-002
Eu-155	86.54	30.90	2.1006E+000	2.10E+000	1.2330E+000
	105.31	20.70	2.4300E+000		8.4958E-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 8/16/2005 3:31:08 PM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-074-F-G.CNF
Log Number:
Title: NOL-02-01-074-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/15/2005 10:45:34 AM

Live Time : 900.0 seconds
Real Time : 900.3 seconds

Energy Calibration Date: 6/13/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-074-F-G.CNF
Log Number:
Title: NOL-02-01-074-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	291.76	72.90	1.13	2.19E+002	50.57	9.67E+002
m	2	283-	305	300.56	75.10	1.13	3.40E+002	58.04	9.95E+002
F	3	949-	962	954.83	238.68	1.34	1.90E+002	34.84	2.08E+002
M	4	1172-	1208	1180.56	295.12	1.39	4.63E+001	21.17	1.33E+002
m	5	1172-	1208	1202.09	300.50	1.40	3.39E+001	20.44	1.43E+002
F	6	1347-	1358	1353.28	338.30	1.43	3.93E+001	20.29	8.86E+001
F	7	1402-	1419	1408.41	352.08	1.44	1.26E+002	26.88	1.18E+002
F	8	2033-	2053	2043.23	510.80	2.33	1.12E+002	82.74	7.34E+001
F	9	2324-	2341	2333.15	583.29	1.60	1.08E+002	23.50	6.71E+001
F	10	2429-	2444	2437.53	609.39	1.62	1.46E+002	26.24	5.21E+001
F	11	2902-	2916	2908.78	727.21	1.69	3.81E+001	47.14	3.09E+001
F	12	3638-	3653	3645.47	911.40	1.79	6.02E+001	19.56	4.19E+001
F	13	4475-	4489	4481.85	1120.51	1.89	3.53E+001	56.35	3.47E+001
F	14	5833-	5859	5845.99	1461.57	2.03	6.82E+002	89.46	3.75E+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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-074-F-G.CNF

Log Number:
Title: NOL-02-01-074-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gm)	Activity Uncertainty
ANN	0.999	511.00*	100.00	3.37651E-001	2.53988E-001
K-40	0.983	1460.81*	10.67	2.52030E+001	3.88532E+000
TL-208	0.753	277.35	6.80		
		510.84*	21.60	1.56320E+000	1.18278E+000
		583.14*	84.20	4.03064E-001	1.02557E-001
		860.37	12.46		
Bi-212	1.000	727.17*	11.80	1.07335E+000	1.33491E+000
Pb-212	0.524	74.81* @	10.70	1.15067E+001	2.99273E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.06721E+000	2.57607E-001
Bi-214	0.699	609.31*	46.30	1.00063E+000	2.19125E-001
		1120.29*	15.10	8.68653E-001	1.38984E+000
		1764.49	15.80		
PB-214	0.587	74.82* @	6.21	1.98264E+001	5.35364E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	6.32917E-001	3.08676E-001
		351.92*	37.20	9.25062E-001	2.50727E-001
Ac-228	0.538	338.32*	11.40	9.33134E-001	5.03591E-001
		911.07*	27.70	7.58940E-001	2.61633E-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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-074-F-G.CNF

Log Number:
Title: NOL-02-01-074-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
ANN		0.999	2.505888E-001	2.549369E-001
K-40		0.983	2.520296E+001	3.885318E+000
TL-208		0.753	4.030636E-001	1.017128E-001
Bi-212		1.000	1.073346E+000	1.334915E+000
Pb-212	@	0.524	1.067209E+000	2.576067E-001
Bi-214		0.699	9.974277E-001	2.164511E-001
PB-214	@	0.587	8.089319E-001	1.946150E-001
Ac-228		0.538	7.959645E-001	2.321696E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.4341E-001	23.08
m 5	300.50	3.7704E-002	60.23

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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-074-F-G.CNF

Log Number:
Title: NOL-02-01-074-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
Co-60	1173.22	100.00	2.0699E-001	1.64E-001	9.8910E-002
	1332.49	100.00	1.6429E-001		8.2621E-002
Nb-94	702.63	100.00	2.0271E-001	1.87E-001	3.6004E-002
	871.10	100.00	1.8690E-001		-1.7416E-002
Ag-108m	79.20	7.10	9.8446E+000	2.33E-001	-1.8216E+001
	433.93	89.90	2.4496E-001		-3.6394E-002
	614.37	90.40	2.9527E-001		-2.6708E-001
	722.95	90.50	2.3266E-001		-4.6810E-002
Sb-125	176.33	6.89	4.0966E+000	7.06E-001	-2.7050E+000
	427.89	29.33	7.0552E-001		-2.7120E-001
	463.38	10.35	2.0068E+000		-1.3898E+000
	600.56	17.80	1.1712E+000		1.2397E+000
	606.64	5.02	5.3389E+000		8.4703E+000
	635.90	11.32	1.6386E+000		-7.0089E-001
Cs-134	563.23	8.38	2.4207E+000	2.35E-001	-7.5367E-002
	569.32	15.43	1.2871E+000		6.2816E-001
	604.70	97.60	2.7477E-001		-6.7032E-002
	795.84	85.40	2.3544E-001		3.5163E-002
	801.93	8.73	2.2465E+000		-1.9000E+000
Cs-137	661.65	85.12	2.4281E-001	2.43E-001	4.6769E-002
Eu-152	121.78	28.40	1.3671E+000	6.28E-001	-3.5244E-001
	244.69	7.49	3.7507E+000		-2.9150E-001
	344.27	26.50	8.5430E-001		-1.0811E+000
	778.89	12.74	1.5143E+000		-2.6185E-001
	867.32	4.16	4.6599E+000		-1.4307E+000
	964.01	14.40	1.5849E+000		9.7824E-001
	1085.78	10.00	1.8294E+000		-7.9724E-001
	1112.02	13.30	1.2922E+000		-2.7758E+000
	1407.95	20.70	6.2797E-001		-1.7718E-001
Eu-154	123.07	40.50	9.4727E-001	4.70E-001	-5.5421E-001
	247.94	6.60	4.0414E+000		-5.7415E+000
	591.81	4.83	4.2746E+000		-4.7995E-001

723.30	19.70	1.0629E+000	3.5422E-001
756.87	4.33	4.6097E+000	2.6535E+000
873.19	11.50	1.6758E+000	1.0485E+000

	996.32	10.30	1.7388E+000		5.7457E-001
	1004.76	17.90	9.9847E-001		-7.6288E-001
	1274.45	35.50	4.7011E-001		-2.1019E-001
Eu-155	86.54	30.90	1.9562E+000	1.96E+000	2.3253E+000
	105.31	20.70	2.2022E+000		-1.9078E+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 8/16/2005 3:33:27 PM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-075-F-G.CNF
Log Number:
Title: NOL-02-01-075-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/15/2005 11:59:10 AM

Live Time : 900.0 seconds
Real Time : 900.4 seconds

Energy Calibration Date: 6/13/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-075-F-G.CNF
Log Number:
Title: NOL-02-01-075-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	291.43	72.82	1.13	2.12E+002	112.08	9.18E+002
m	2	282-	307	300.21	75.01	1.13	4.64E+002	205.40	1.06E+003
	3	332-	344	338.97	84.70	0.79	7.60E+001	89.59	7.66E+002
F	4	946-	961	954.82	238.68	1.34	1.97E+002	40.67	2.24E+002
F	5	1402-	1417	1407.77	351.92	1.44	1.04E+002	25.03	1.02E+002
F	6	2035-	2053	2043.86	510.96	2.33	1.37E+002	25.49	7.47E+001
F	7	2324-	2341	2333.12	583.28	1.60	1.01E+002	23.97	7.85E+001
F	8	2431-	2445	2437.30	609.33	1.62	1.10E+002	23.74	5.33E+001
F	9	3638-	3656	3645.57	911.42	1.79	9.08E+001	22.02	4.88E+001
M	10	3853-	3883	3858.92	964.76	1.81	2.79E+001	15.65	4.47E+001
m	11	3853-	3883	3876.11	969.06	1.81	3.50E+001	18.39	7.53E+001
F	12	5831-	5859	5845.85	1461.53	2.03	7.39E+002	78.98	7.14E+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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-075-F-G.CNF

Log Number:
Title: NOL-02-01-075-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gm)	Activity Uncertainty
ANN	1.000	511.00*	100.00	4.11792E-001	9.61555E-002
K-40	0.984	1460.81*	10.67	2.73068E+001	3.66172E+000
TL-208	0.753	277.35	6.80		
		510.84*	21.60	1.90645E+000	4.71606E-001
		583.14*	84.20	3.77396E-001	1.02359E-001
		860.37	12.46		
Pb-212	0.525	74.81* @	10.70	1.57638E+001	7.62575E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.10642E+000	2.87015E-001
Bi-214	0.399	609.31*	46.30	7.58223E-001	1.88444E-001
		1120.29	15.10		
		1764.49	15.80		
Ac-228	0.635	338.32	11.40		
		911.07*	27.70	1.14419E+000	3.07184E-001
		969.11*	16.60	7.50687E-001	4.01914E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-075-F-G.CNF

Log Number:
Title: NOL-02-01-075-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
ANN	1.000	3.302750E-001	9.862892E-002
K-40	0.984	2.730681E+001	3.661716E+000
TL-208	0.753	3.773958E-001	1.016173E-001
Pb-212 @	0.525	1.106416E+000	2.870149E-001
Bi-214	0.399	7.582229E-001	1.884442E-001
Ac-228	0.635	9.990881E-001	2.440617E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.3525E-001	52.94
3	84.70	8.4488E-002	117.82
F 5	351.92	1.1592E-001	23.99
M 10	964.76	3.0991E-002	56.10

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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-075-F-G.CNF

Log Number:
Title: NOL-02-01-075-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
Co-60	1173.22	100.00	2.1314E-001	1.57E-001	2.0794E-002
	1332.49	100.00	1.5673E-001		1.2571E-001
Nb-94	702.63	100.00	1.9715E-001	1.85E-001	-7.0151E-002
	871.10	100.00	1.8470E-001		-7.3233E-003
Ag-108m	79.20	7.10	1.0076E+001	2.39E-001	3.3798E+000
	433.93	89.90	2.3881E-001		1.3848E-001
	614.37	90.40	2.7320E-001		-1.8506E-001
	722.95	90.50	2.4290E-001		2.1258E-001
Sb-125	176.33	6.89	4.1247E+000	6.70E-001	-4.9859E+000
	427.89	29.33	6.6971E-001		2.6012E-001
	463.38	10.35	2.0946E+000		4.3225E-001
	600.56	17.80	1.1148E+000		6.2852E-001
	606.64	5.02	5.0984E+000		7.1802E+000
	635.90	11.32	1.7681E+000		1.1977E-001
Cs-134	563.23	8.38	2.4207E+000	2.44E-001	8.5397E-001
	569.32	15.43	1.2581E+000		-1.0381E+000
	604.70	97.60	2.5834E-001		-2.2153E-001
	795.84	85.40	2.4437E-001		4.7884E-002
	801.93	8.73	2.1923E+000		-1.7728E+000
Cs-137	661.65	85.12	2.2504E-001	2.25E-001	1.5327E-002
Eu-152	121.78	28.40	1.4051E+000	6.67E-001	6.1864E-001
	244.69	7.49	3.4865E+000		-2.4573E+000
	344.27	26.50	8.5842E-001		-1.1307E+000
	778.89	12.74	1.4162E+000		-3.7843E-001
	867.32	4.16	4.6262E+000		-2.3368E+000
	964.01	14.40	1.7099E+000		-1.0285E-001
	1085.78	10.00	1.7602E+000		1.4141E+000
	1112.02	13.30	1.3982E+000		-2.2195E-001
	1407.95	20.70	6.6690E-001		-3.4724E-001
Eu-154	123.07	40.50	9.8443E-001	4.09E-001	8.4065E-002
	247.94	6.60	3.7914E+000		-2.4572E+000
	591.81	4.83	4.1372E+000		7.6624E-001

723.30	19.70	1.1189E+000	9.9106E-001
756.87	4.33	4.6538E+000	-3.0291E+000
873.19	11.50	1.6511E+000	1.2768E+000

	996.32	10.30	1.6144E+000		-1.3353E+000
	1004.76	17.90	9.7978E-001		2.2628E-001
	1274.45	35.50	4.0856E-001		0.0000E+000
Eu-155	86.54	30.90	1.9751E+000	1.98E+000	2.3995E+000
	105.31	20.70	2.2895E+000		-1.7458E-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 8/16/2005 3:51:17 PM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-076-F-G.CNF
Log Number:
Title: NOL-02-01-076-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/15/2005 2:42:38 PM

Live Time : 900.0 seconds
Real Time : 900.8 seconds

Energy Calibration Date: 6/13/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-076-F-G.CNF
Log Number:
Title: NOL-02-01-076-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	291.76	72.90	1.13	2.60E+002	51.51	9.10E+002
m	2	283-	305	300.56	75.10	1.13	4.28E+002	60.22	9.47E+002
M	3	335-	356	340.05	84.97	1.15	1.97E+002	46.99	6.22E+002
m	4	335-	356	349.41	87.31	1.15	1.08E+002	42.28	8.36E+002
M	5	948-	974	954.88	238.69	1.34	1.99E+002	34.42	2.01E+002
m	6	948-	974	967.71	241.90	1.34	6.09E+001	24.61	2.02E+002
F	7	1171-	1190	1181.34	295.31	1.39	5.48E+001	73.11	1.66E+002
F	8	1349-	1361	1353.94	338.47	1.43	5.93E+001	21.96	9.28E+001
F	9	1401-	1418	1407.91	351.96	1.44	1.09E+002	24.37	9.26E+001
F	10	2032-	2055	2044.21	511.05	2.33	1.25E+002	24.73	1.11E+002
F	11	2326-	2341	2333.72	583.43	1.60	1.13E+002	25.03	6.82E+001
F	12	2428-	2448	2437.98	609.50	1.62	1.16E+002	22.69	4.46E+001
F	13	3636-	3654	3646.42	911.63	1.79	1.14E+002	43.61	2.36E+001
F	14	3869-	3887	3877.22	969.34	1.81	6.74E+001	58.82	3.27E+001
F	15	5832-	5860	5846.75	1461.76	2.03	7.31E+002	52.64	2.55E+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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-076-F-G.CNF

Log Number:
Title: NOL-02-01-076-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gm)	Activity Uncertainty
ANN	1.000	511.00*	100.00	3.76724E-001	9.14181E-002
K-40	0.973	1460.81*	10.67	2.70027E+001	2.92661E+000
Eu-155	0.323	86.54*	30.90	1.03558E+000	4.53894E-001
		105.31	20.70		
TL-208	0.751	277.35	6.80		
		510.84*	21.60	1.74409E+000	4.46557E-001
		583.14*	84.20	4.19546E-001	1.08574E-001
		860.37	12.46		
Pb-212	0.679	74.81* @	10.70	1.45163E+001	3.50144E+000
		77.11 @	18.00		
		87.30* @	8.00	3.99994E+000	1.75317E+000
		238.63*	44.60	1.11755E+000	2.61065E-001
Bi-214	0.398	609.31*	46.30	8.00378E-001	1.85043E-001
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.822	74.82* @	6.21	2.50120E+001	6.30038E+000
		77.11 @	10.50		
		87.30* @	4.67	6.85215E+000	3.04757E+000
		241.98*	7.49	2.04376E+000	8.93353E-001
		295.21*	19.20	7.50173E-001	1.00846E+000
		351.92*	37.20	8.02130E-001	2.23611E-001
Ac-228	0.995	338.32*	11.40	1.40810E+000	5.66408E-001
		911.07*	27.70	1.44073E+000	5.74267E-001
		969.11*	16.60	1.44502E+000	1.26969E+000

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity

```
Energy Tolerance :    1.250 FWHM
Nuclide confidence index threshold =   0.30
Errors quoted at  1.960 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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-076-F-G.CNF

Log Number:
Title: NOL-02-01-076-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
ANN		1.000	2.861024E-001	9.433212E-002
K-40		0.973	2.700265E+001	2.926611E+000
Eu-155		0.323	6.150408E-001	4.599721E-001
TL-208		0.751	4.195465E-001	1.077101E-001
Pb-212	@	0.679	1.117554E+000	2.610651E-001
Bi-214		0.398	8.003784E-001	1.850433E-001
PB-214	@	0.822	8.681702E-001	2.077877E-001
Ac-228		0.995	1.426100E+000	3.843417E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.8869E-001	19.83
M 3	84.97	2.1865E-001	23.88

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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-076-F-G.CNF

Log Number:
Title: NOL-02-01-076-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
Co-60	1173.22	100.00	1.8639E-001	1.59E-001	5.8404E-002
	1332.49	100.00	1.5893E-001		6.9492E-002
Nb-94	702.63	100.00	2.0392E-001	1.68E-001	-3.3690E-002
	871.10	100.00	1.6848E-001		-1.5317E-002
Ag-108m	79.20	7.10	1.0226E+001	2.18E-001	-1.2619E+001
	433.93	89.90	2.4120E-001		1.2230E-001
	614.37	90.40	2.6804E-001		1.2829E-001
	722.95	90.50	2.1845E-001		-1.2714E-002
Sb-125	176.33	6.89	4.1680E+000	6.37E-001	-2.1669E+000
	427.89	29.33	6.3687E-001		6.7069E-002
	463.38	10.35	2.1031E+000		1.6344E+000
	600.56	17.80	1.0855E+000		3.5225E-001
	606.64	5.02	4.9374E+000		8.7254E+000
	635.90	11.32	1.6443E+000		-6.9594E-001
Cs-134	563.23	8.38	2.3158E+000	2.29E-001	-5.2105E-001
	569.32	15.43	1.2056E+000		-7.4479E-001
	604.70	97.60	2.5041E-001		1.3558E-001
	795.84	85.40	2.2928E-001		-1.4311E-001
	801.93	8.73	2.1844E+000		-1.8295E+000
Cs-137	661.65	85.12	2.2871E-001	2.29E-001	-1.3123E-001
Eu-152	121.78	28.40	1.4006E+000	7.33E-001	-1.4329E+000
	244.69	7.49	3.5509E+000		-5.4440E-002
	344.27	26.50	8.8540E-001		2.8173E-001
	778.89	12.74	1.3819E+000		-6.5662E-001
	867.32	4.16	4.3101E+000		8.9973E-001
	964.01	14.40	1.6319E+000		6.1359E-001
	1085.78	10.00	1.7778E+000		-1.0334E+000
	1112.02	13.30	1.2642E+000		-1.3003E+000
	1407.95	20.70	7.3252E-001		5.5771E-001
Eu-154	123.07	40.50	9.8165E-001	4.90E-001	2.3155E-001
	247.94	6.60	3.8043E+000		-4.3424E-002
	591.81	4.83	3.6929E+000		3.5882E-001

723.30	19.70	1.0100E+000	-3.1277E-003
756.87	4.33	4.1911E+000	5.6105E-001
873.19	11.50	1.4444E+000	5.8382E-001

		996.32	10.30	1.7783E+000		2.1614E-001
		1004.76	17.90	1.0213E+000		4.3159E-001
		1274.45	35.50	4.8972E-001		2.1684E-001
+	Eu-155	86.54*	30.90	1.3177E+000	1.32E+000	1.0356E+000
		105.31	20.70	2.3074E+000		2.2474E+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 8/16/2005 3:52:05 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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-077-F-G.CNF
Log Number:
Title: NOL-02-01-077-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/15/2005 3:42:12 PM

Live Time : 900.0 seconds
Real Time : 900.8 seconds

Energy Calibration Date: 6/13/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-077-F-G.CNF
Log Number:
Title: NOL-02-01-077-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-	313	291.88	72.93	1.13	2.02E+002	84.33	9.24E+002
m	2	282-	313	300.39	75.05	1.13	4.83E+002	150.78	9.19E+002
m	3	282-	313	308.93	77.19	1.14	7.93E+001	49.66	8.00E+002
M	4	331-	356	340.10	84.98	1.15	2.52E+002	102.57	7.69E+002
m	5	331-	356	350.83	87.67	1.15	1.50E+002	63.56	1.24E+003
F	6	950-	961	954.80	238.67	1.34	1.64E+002	35.93	2.24E+002
F	7	1348-	1361	1353.94	338.47	1.43	4.57E+001	20.68	9.79E+001
F	8	1403-	1417	1408.19	352.03	1.44	8.23E+001	25.22	1.29E+002
F	9	2034-	2055	2044.41	511.10	2.33	1.30E+002	26.00	1.16E+002
F	10	2325-	2341	2333.31	583.33	1.60	1.14E+002	24.64	6.12E+001
F	11	2430-	2447	2437.68	609.42	1.62	1.07E+002	69.15	6.10E+001
F	12	2901-	2918	2910.17	727.55	1.69	4.74E+001	26.67	4.23E+001
F	13	3173-	3185	3180.61	795.17	1.73	2.05E+001	13.08	2.28E+001
F	14	3638-	3654	3646.19	911.57	1.79	1.02E+002	22.32	3.94E+001
F	15	3870-	3885	3877.62	969.44	1.81	4.87E+001	17.66	4.13E+001
F	16	4474-	4491	4483.15	1120.83	1.89	4.57E+001	16.06	2.65E+001
F	17	5833-	5859	5846.65	1461.73	2.03	7.12E+002	77.78	2.03E+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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-077-F-G.CNF

Log Number:
Title: NOL-02-01-077-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gm)	Activity Uncertainty
ANN	1.000	511.00*	100.00	3.91227E-001	9.57196E-002
K-40	0.975	1460.81*	10.67	2.63169E+001	3.57844E+000
Eu-155	0.311	86.54*	30.90	1.43352E+000	6.68811E-001
		105.31	20.70		
TL-208	0.752	277.35	6.80		
		510.84*	21.60	1.81123E+000	4.67181E-001
		583.14*	84.20	4.26366E-001	1.07788E-001
		860.37	12.46		
Bi-212	0.996	727.17*	11.80	1.33630E+000	7.68074E-001
Pb-212	0.999	74.81* @	10.70	1.63737E+001	6.03772E+000
		77.11* @	18.00	1.53957E+000	1.01059E+000
		87.30* @	8.00	5.53698E+000	2.58328E+000
		238.63*	44.60	9.23806E-001	2.48566E-001
Bi-214	0.698	609.31*	46.30	7.37614E-001	4.83933E-001
		1120.29*	15.10	1.12556E+000	4.13052E-001
		1764.49	15.80		
PB-214	0.476	74.82* @	6.21	2.82123E+001	1.06028E+001
		77.11* @	10.50	2.63926E+000	1.74361E+000
		87.30* @	4.67	9.48520E+000	4.48296E+000
		241.98	7.49		
		295.21	19.20		
		351.92*	37.20	6.04532E-001	2.10970E-001
Ac-228	0.995	338.32*	11.40	1.08550E+000	5.19921E-001
		911.07*	27.70	1.28459E+000	3.17833E-001
		969.11*	16.60	1.04472E+000	3.94001E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-077-F-G.CNF

Log Number:
Title: NOL-02-01-077-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
ANN		1.000	2.991314E-001	9.846469E-002
K-40		0.975	2.631687E+001	3.578442E+000
Eu-155		0.311	1.102985E+000	6.726352E-001
TL-208		0.752	4.263663E-001	1.068890E-001
Bi-212		0.996	1.336304E+000	7.680738E-001
Pb-212	@	0.999	9.238063E-001	2.485658E-001
Bi-214		0.698	9.620538E-001	3.141724E-001
PB-214	@	0.476	6.045324E-001	2.080407E-001
Ac-228		0.995	1.170736E+000	2.233813E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.2393E-001	41.84
M 4	84.98	2.7965E-001	40.75
F 13	795.17	2.2805E-002	63.75

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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-077-F-G.CNF

Log Number:
Title: NOL-02-01-077-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
Co-60	1173.22	100.00	1.8375E-001	1.54E-001	1.9215E-002
	1332.49	100.00	1.5450E-001		1.6983E-001
Nb-94	702.63	100.00	1.9076E-001	1.76E-001	-1.2968E-001
	871.10	100.00	1.7640E-001		-7.5366E-002
Ag-108m	79.20	7.10	9.8598E+000	2.32E-001	-2.6782E+000
	433.93	89.90	2.3150E-001		-7.5456E-002
	614.37	90.40	2.7115E-001		-6.2768E-002
	722.95	90.50	2.3331E-001		1.8357E-002
Sb-125	176.33	6.89	4.2078E+000	6.68E-001	-2.0981E+000
	427.89	29.33	6.6811E-001		-1.8225E-001
	463.38	10.35	1.9289E+000		1.2439E-001
	600.56	17.80	1.0888E+000		-5.2858E-001
	606.64	5.02	5.0007E+000		5.2740E+000
	635.90	11.32	1.6217E+000		-4.4209E-001
Cs-134	563.23	8.38	2.2197E+000	2.16E-001	5.9311E-001
	569.32	15.43	1.1626E+000		-5.4054E-002
	604.70	97.60	2.5511E-001		1.4900E-002
	795.84	85.40	2.1558E-001		8.9478E-003
	801.93	8.73	2.0289E+000		-9.1596E-001
Cs-137	661.65	85.12	2.3517E-001	2.35E-001	2.2293E-004
Eu-152	121.78	28.40	1.4142E+000	6.61E-001	4.5900E-001
	244.69	7.49	3.6728E+000		4.3886E-001
	344.27	26.50	8.1911E-001		5.7799E-002
	778.89	12.74	1.5248E+000		-7.0861E-001
	867.32	4.16	4.4711E+000		-5.2348E+000
	964.01	14.40	1.6150E+000		2.2271E-001
	1085.78	10.00	1.8209E+000		6.6745E-001
	1112.02	13.30	1.3790E+000		6.7325E-001
	1407.95	20.70	6.6058E-001		4.0676E-001
Eu-154	123.07	40.50	9.7727E-001	4.84E-001	-6.7717E-001
	247.94	6.60	3.8934E+000		-1.5018E+000
	591.81	4.83	4.0428E+000		2.9046E+000

723.30	19.70	1.0898E+000	2.4855E-001
756.87	4.33	4.6684E+000	2.9912E+000
873.19	11.50	1.5547E+000	-4.8111E-001

		996.32	10.30	1.7388E+000		-7.8049E-001
		1004.76	17.90	9.6550E-001		-2.7626E-001
		1274.45	35.50	4.8420E-001		9.2383E-002
+	Eu-155	86.54*	30.90	1.5929E+000	1.59E+000	1.4335E+000
		105.31	20.70	2.2479E+000		3.3468E-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 11/22/2005 9:48:36 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: C:\GENIE2K\CAMFILES\NOL-02-01-078-F-G.CNF
Sample ID:
Sample Title: NOL-02-01-078-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 8/16/2005 11:48:01 AM
Live Time: 900.0 seconds
Real Time: 900.7 seconds

Energy Calibration Date: 4/11/2005
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
(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-02-01-078-F-G.CNF
Log Number:
Title: NOL-02-01-078-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	291.70	72.77	1.13	2.53E+002	49.11	6.77E+002
m	2	285-	318	300.78	75.05	1.14	4.85E+002	57.55	7.55E+002
m	3	285-	318	309.72	77.30	1.14	1.53E+002	44.08	7.35E+002
F	4	333-	346	339.93	84.87	1.15	1.69E+002	46.95	7.44E+002
F	5	949-	961	954.65	238.98	1.34	2.08E+002	36.04	1.85E+002
F	6	1346-	1359	1353.40	338.85	1.43	4.50E+001	72.10	1.11E+002
F	7	1401-	1413	1407.97	352.52	1.44	7.20E+001	78.28	8.43E+001
F	8	2326-	2341	2333.30	584.01	1.59	1.22E+002	24.68	4.76E+001
F	9	2430-	2447	2437.73	610.12	1.61	1.08E+002	70.64	4.42E+001
F	10	3638-	3655	3645.86	911.92	1.77	8.11E+001	21.13	4.98E+001
F	11	3871-	3886	3878.48	969.99	1.80	7.55E+001	27.80	3.03E+001
F	12	5834-	5861	5847.50	1461.25	2.01	7.65E+002	53.63	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
(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-02-01-078-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
K-40	0.994	1460.81*	10.67	2.99075E+001	3.20303E+000
TL-208	0.458	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	4.78953E-001	1.15975E-001
		860.37	12.46		
Pb-212	0.843	74.81* @	10.70	1.75333E+001	4.01661E+000
		77.11* @	18.00	3.16001E+000	1.10140E+000
		87.30 @	8.00		
		238.63*	44.60	1.25134E+000	2.92203E-001
Bi-214	0.387	609.31*	46.30	7.81220E-001	5.20806E-001
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.386	74.82* @	6.21	3.02104E+001	7.25989E+000
		77.11* @	10.50	5.41716E+000	1.93096E+000
		87.30 @	4.67		
		241.98	7.49		
		295.21	19.20		
		351.92*	37.20	5.64791E-001	6.21373E-001
Ac-228	0.980	338.32*	11.40	1.14179E+000	1.83882E+000
		911.07*	27.70	1.07112E+000	3.05051E-001
		969.11*	16.60	1.69754E+000	6.50065E-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-02-01-078-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
K-40		0.994	2.990745E+001	3.203030E+000
TL-208		0.458	4.789529E-001	1.159752E-001
Pb-212	@	0.843	1.251338E+000	2.922029E-001
Bi-214		0.387	7.812202E-001	5.208056E-001
PB-214	@	0.386	5.647907E-001	6.205481E-001
Ac-228		0.980	1.183231E+000	2.730945E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.8083E-001	19.43
F 4	84.87	1.8823E-001	27.72

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
(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-02-01-078-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	1.9652E-001	1.55E-001	1.5508E-001
	1332.49	100.00	1.5472E-001		2.4215E-002
Nb-94	702.63	100.00	1.9889E-001	1.90E-001	-5.4331E-002
	871.10	100.00	1.8958E-001		8.9573E-002
Ag-108m	79.20	7.10	9.9905E+000	2.33E-001	-1.0918E+000
	433.93	89.90	2.3314E-001		9.2725E-002
	614.37	90.40	2.8511E-001		-1.2322E-001
	722.95	90.50	2.4690E-001		1.1506E-001
Sb-125	176.33	6.89	4.3992E+000	7.26E-001	-8.0928E-001
	427.89	29.33	7.2565E-001		7.2517E-002
	463.38	10.35	2.2815E+000		8.0109E-001
	600.56	17.80	1.1200E+000		-3.3492E-001
	606.64	5.02	5.1367E+000		-1.5269E+000
	635.90	11.32	1.8437E+000		2.1713E-001
Cs-134	563.23	8.38	2.3834E+000	2.42E-001	-2.9040E-001
	569.32	15.43	1.2821E+000		2.4377E-001
	604.70	97.60	2.4906E-001		-9.2381E-002
	795.84	85.40	2.4203E-001		1.9257E-001
	801.93	8.73	2.3391E+000		-3.3243E+000
Cs-137	661.65	85.12	2.4176E-001	2.42E-001	-6.9762E-002
Eu-152	121.78	28.40	1.4888E+000	6.71E-001	-3.4228E-001
	244.69	7.49	3.8681E+000		-2.9233E+000
	344.27	26.50	8.8726E-001		-2.6542E-001
	778.89	12.74	1.4673E+000		5.5416E-001
	867.32	4.16	4.8641E+000		-7.4498E-001
	964.01	14.40	1.7770E+000		-3.9285E-001
	1085.78	10.00	1.9072E+000		-4.3618E-001
	1112.02	13.30	1.5376E+000		-3.3691E+000
	1407.95	20.70	6.7109E-001		1.0439E-001
Eu-154	123.07	40.50	1.0341E+000	5.37E-001	-1.1048E-001
	247.94	6.60	4.1230E+000		-1.8135E+000
	591.81	4.83	4.2781E+000		2.3198E+000
	723.30	19.70	1.1374E+000		8.3393E-001
	756.87	4.33	4.3965E+000		4.1917E-001
	873.19	11.50	1.6147E+000		4.8312E-002
	996.32	10.30	1.7573E+000		5.0427E-001
	1004.76	17.90	1.0583E+000		2.0451E-001
	1274.45	35.50	5.3701E-001		7.3084E-001
Eu-155	86.54	30.90	2.0534E+000	2.05E+000	3.2591E+000
	105.31	20.70	2.3307E+000		-2.8808E-002
Am-241	59.54	35.90	2.4483E+000	2.45E+000	-2.3688E+000
Cm-243	228.19	10.56	2.5163E+000	1.81E+000	5.4620E-002

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
Cm-243	277.60	14.00	1.8069E+000	1.81E+000	-1.2165E+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 8/16/2005 3:55:23 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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-079-F-G.CNF
Log Number:
Title: NOL-02-01-079-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/15/2005 10:10:53 AM

Live Time : 900.0 seconds
Real Time : 900.8 seconds

Energy Calibration Date: 4/11/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-079-F-G.CNF
Log Number:
Title: NOL-02-01-079-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	291.31	72.68	1.13	2.48E+002	51.95	8.85E+002
m	2	282-	305	300.34	74.94	1.14	4.10E+002	60.34	8.88E+002
F	3	331-	355	340.13	84.92	1.15	2.02E+002	46.65	1.25E+003
F	4	736-	752	744.07	186.21	1.28	6.80E+001	92.15	2.84E+002
F	5	946-	960	954.52	238.95	1.34	2.09E+002	35.51	2.01E+002
F	6	1176-	1187	1180.97	295.67	1.39	4.00E+001	22.55	1.17E+002
F	7	1400-	1413	1407.11	352.30	1.44	9.91E+001	26.45	1.21E+002
F	8	1846-	1856	1851.35	463.48	1.52	2.76E+001	14.24	4.69E+001
F	9	2032-	2054	2043.49	511.54	2.32	1.56E+002	69.77	8.05E+001
F	10	2324-	2340	2332.32	583.77	1.59	1.20E+002	25.61	7.45E+001
F	11	2428-	2444	2436.98	609.93	1.61	1.30E+002	25.35	5.94E+001
F	12	2901-	2914	2907.98	727.64	1.68	3.47E+001	16.88	4.72E+001
F	13	3635-	3654	3644.87	911.67	1.77	1.01E+002	22.14	4.24E+001
F	14	3868-	3884	3875.90	969.35	1.80	7.31E+001	18.71	2.29E+001
F	15	5832-	5858	5845.02	1460.63	2.01	7.51E+002	88.24	1.67E+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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-079-F-G.CNF

Log Number:
Title: NOL-02-01-079-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	0.991	511.00*	100.00	4.52786E-001	2.12796E-001
K-40	0.999	1460.81*	10.67	2.67003E+001	3.80861E+000
TL-208	0.742	277.35	6.80		
		510.84*	21.60	2.09623E+000	9.99932E-001
		583.14*	84.20	4.30033E-001	1.07868E-001
		860.37	12.46		
Bi-212	0.993	727.17*	11.80	9.33073E-001	4.67024E-001
Pb-212	0.523	74.81* @	10.70	1.34817E+001	3.30535E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.13973E+000	2.63704E-001
Bi-214	0.392	609.31*	46.30	8.55998E-001	1.97968E-001
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.584	74.82* @	6.21	2.32294E+001	5.93961E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	5.32176E-001	3.12952E-001
		351.92*	37.20	7.06471E-001	2.22570E-001
Ac-228	0.634	338.32	11.40		
		911.07*	27.70	1.21326E+000	3.00273E-001
		969.11*	16.60	1.49386E+000	4.13299E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-079-F-G.CNF

Log Number:
Title: NOL-02-01-079-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN		0.991	3.598986E-001	2.140467E-001
K-40		0.999	2.670034E+001	3.808615E+000
TL-208		0.742	4.300327E-001	1.069542E-001
Bi-212		0.993	9.330726E-001	4.670243E-001
Pb-212	@	0.523	1.139726E+000	2.637039E-001
Bi-214		0.392	8.559978E-001	1.979684E-001
PB-214	@	0.584	6.479254E-001	1.813775E-001
Ac-228		0.634	1.310203E+000	2.429276E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.7583E-001	20.93
F	3	84.92	2.2442E-001	23.10
F	4	186.21	7.5584E-002	135.47
F	8	463.48	3.0646E-002	51.63

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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-079-F-G.CNF

Log Number:
Title: NOL-02-01-079-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Co-60	1173.22	100.00	1.8521E-001	1.72E-001	1.1186E-001
	1332.49	100.00	1.7233E-001		3.2298E-002
Nb-94	702.63	100.00	1.7892E-001	1.63E-001	1.6939E-001
	871.10	100.00	1.6275E-001		8.0493E-002
Ag-108m	79.20	7.10	9.4153E+000	2.21E-001	-6.3542E+000
	433.93	89.90	2.2095E-001		-2.9126E-002
	614.37	90.40	2.7731E-001		6.7574E-003
	722.95	90.50	2.2813E-001		-8.9708E-002
Sb-125	176.33	6.89	4.1999E+000	6.85E-001	-1.2518E+000
	427.89	29.33	6.8520E-001		2.7294E-001
	463.38	10.35	2.0660E+000		1.7666E+000
	600.56	17.80	1.0594E+000		5.7607E-001
	606.64	5.02	4.9190E+000		5.2501E+000
	635.90	11.32	1.6252E+000		7.8027E-001
Cs-134	563.23	8.38	2.3203E+000	2.05E-001	2.3380E-001
	569.32	15.43	1.1909E+000		2.9105E-002
	604.70	97.60	2.5020E-001		5.7505E-002
	795.84	85.40	2.0548E-001		-1.4773E-002
	801.93	8.73	1.8844E+000		-3.0525E+000
Cs-137	661.65	85.12	2.1276E-001	2.13E-001	-3.2633E-002
Eu-152	121.78	28.40	1.3629E+000	5.91E-001	-4.9229E-002
	244.69	7.49	3.4586E+000		-3.0323E+000
	344.27	26.50	8.6630E-001		-2.0658E+000
	778.89	12.74	1.4235E+000		-1.1204E+000
	867.32	4.16	4.3080E+000		1.6964E+000
	964.01	14.40	1.4696E+000		8.8824E-002
	1085.78	10.00	1.7420E+000		-5.6545E-001
	1112.02	13.30	1.3979E+000		-3.0709E+000
	1407.95	20.70	5.9062E-001		8.2226E-002
Eu-154	123.07	40.50	9.5868E-001	4.59E-001	4.3280E-001
	247.94	6.60	3.8495E+000		-3.0369E+000
	591.81	4.83	3.7615E+000		-2.0032E+000

723.30	19.70	1.0619E+000	4.5646E-001
756.87	4.33	4.1643E+000	1.5150E+000
873.19	11.50	1.3958E+000	-1.3005E+000

	996.32	10.30	1.6598E+000		5.7387E-001
	1004.76	17.90	1.0048E+000		-5.2398E-001
	1274.45	35.50	4.5949E-001		-5.8444E-002
Eu-155	86.54	30.90	1.8865E+000	1.89E+000	3.4410E-001
	105.31	20.70	2.1370E+000		-1.5480E+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 8/16/2005 3:56:22 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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-080-F-G.CNF
Log Number:
Title: NOL-02-01-080-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/15/2005 8:02:35 AM

Live Time : 900.0 seconds
Real Time : 900.8 seconds

Energy Calibration Date: 4/11/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-080-F-G.CNF
Log Number:
Title: NOL-02-01-080-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	291.97	72.84	1.13	2.37E+002	50.07	8.24E+002
m	2	282-	318	300.59	75.01	1.14	5.32E+002	60.15	8.18E+002
m	3	282-	318	309.66	77.28	1.14	1.29E+002	45.18	8.12E+002
F	4	333-	345	339.81	84.84	1.15	1.65E+002	46.99	6.93E+002
F	5	945-	961	954.34	238.90	1.34	2.08E+002	92.51	2.48E+002
F	6	1174-	1191	1180.90	295.66	1.39	6.72E+001	23.09	1.42E+002
F	7	1345-	1357	1352.39	338.60	1.43	5.29E+001	22.54	1.07E+002
F	8	1400-	1413	1407.39	352.37	1.44	8.55E+001	23.81	9.11E+001
F	9	2033-	2054	2043.52	511.55	2.32	1.44E+002	25.82	9.08E+001
F	10	2075-	2086	2080.07	520.69	1.56	2.13E+001	14.64	3.60E+001
F	11	2324-	2341	2332.17	583.73	1.59	1.47E+002	26.55	6.48E+001
F	12	2430-	2446	2437.57	610.08	1.61	1.21E+002	24.56	5.49E+001
F	13	2904-	2918	2910.36	728.23	1.68	4.03E+001	20.28	3.38E+001
F	14	3373-	3384	3378.35	845.13	1.74	1.43E+001	13.30	1.84E+001
F	15	3635-	3651	3643.79	911.40	1.77	1.07E+002	22.44	3.19E+001
F	16	3869-	3884	3875.89	969.34	1.80	4.96E+001	17.57	3.48E+001
F	17	5831-	5858	5844.53	1460.51	2.01	8.07E+002	86.67	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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-080-F-G.CNF

Log Number:
Title: NOL-02-01-080-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	0.991	511.00*	100.00	4.18531E-001	9.53412E-002
K-40	0.997	1460.81*	10.67	2.86622E+001	3.85625E+000
TL-208	0.743	277.35	6.80		
		510.84*	21.60	1.93764E+000	4.68902E-001
		583.14*	84.20	5.25724E-001	1.17712E-001
		860.37	12.46		
Bi-212	0.966	727.17*	11.80	1.08428E+000	5.60349E-001
Pb-212	0.844	74.81* @	10.70	1.74780E+001	3.95545E+000
		77.11* @	18.00	2.41937E+000	9.72248E-001
		87.30 @	8.00		
		238.63*	44.60	1.13637E+000	5.35656E-001
Bi-214	0.388	609.31*	46.30	7.95152E-001	1.89552E-001
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.761	74.82* @	6.21	3.01151E+001	7.15739E+000
		77.11* @	10.50	4.14749E+000	1.69524E+000
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	8.93113E-001	3.41838E-001
		351.92*	37.20	6.09625E-001	1.98072E-001
Ac-228	0.997	338.32*	11.40	1.21928E+000	5.53973E-001
		911.07*	27.70	1.27943E+000	3.07017E-001
		969.11*	16.60	1.01407E+000	3.74555E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-080-F-G.CNF

Log Number:
Title: NOL-02-01-080-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN		0.991	3.049746E-001	9.860390E-002
K-40		0.997	2.866223E+001	3.856253E+000
TL-208		0.743	5.257241E-001	1.164588E-001
Bi-212		0.966	1.084283E+000	5.603491E-001
Pb-212	@	0.844	1.136370E+000	5.356562E-001
Bi-214		0.388	7.951519E-001	1.895515E-001
PB-214	@	0.761	6.808802E-001	1.713806E-001
Ac-228		0.997	1.180003E+000	2.182407E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.6296E-001	21.16
F 4	84.84	1.8342E-001	28.46
F 10	520.69	2.3611E-002	68.91
F 14	845.13	1.5869E-002	93.15

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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-080-F-G.CNF

Log Number:
Title: NOL-02-01-080-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Co-60	1173.22	100.00	1.9614E-001	1.47E-001	2.3226E-002
	1332.49	100.00	1.4736E-001		1.5770E-001
Nb-94	702.63	100.00	1.8018E-001	1.64E-001	4.4650E-002
	871.10	100.00	1.6351E-001		-6.0488E-002
Ag-108m	79.20	7.10	9.3457E+000	2.07E-001	1.9063E-001
	433.93	89.90	2.0677E-001		-2.1174E-001
	614.37	90.40	2.7219E-001		-8.9040E-002
	722.95	90.50	2.1755E-001		-1.1255E-001
Sb-125	176.33	6.89	4.2570E+000	6.44E-001	3.0637E+000
	427.89	29.33	6.4417E-001		1.4453E-001
	463.38	10.35	2.0455E+000		2.3703E+000
	600.56	17.80	1.0084E+000		-2.7381E-001
	606.64	5.02	4.8345E+000		7.0793E+000
	635.90	11.32	1.5510E+000		-8.0859E-001
Cs-134	563.23	8.38	2.3017E+000	2.19E-001	3.0851E-001
	569.32	15.43	1.2771E+000		1.2228E+000
	604.70	97.60	2.3862E-001		-2.8117E-002
	795.84	85.40	2.1928E-001		6.4967E-002
	801.93	8.73	1.9897E+000		-1.7630E+000
Cs-137	661.65	85.12	2.2184E-001	2.22E-001	2.1191E-002
Eu-152	121.78	28.40	1.3372E+000	5.77E-001	-4.3175E-001
	244.69	7.49	3.6228E+000		-3.6961E+000
	344.27	26.50	8.3501E-001		-2.5426E-001
	778.89	12.74	1.5265E+000		2.4189E-002
	867.32	4.16	4.3408E+000		-1.4054E+000
	964.01	14.40	1.5075E+000		3.4239E-001
	1085.78	10.00	1.7501E+000		1.3240E-001
	1112.02	13.30	1.3685E+000		-2.4742E+000
	1407.95	20.70	5.7725E-001		4.6716E-002
Eu-154	123.07	40.50	9.2982E-001	5.06E-001	-1.4624E-001
	247.94	6.60	3.8495E+000		-3.1008E+000
	591.81	4.83	3.8892E+000		-3.3029E-001

723.30	19.70	9.9948E-001	-2.5827E-001
756.87	4.33	3.8863E+000	-1.4592E+000
873.19	11.50	1.4092E+000	-1.6951E+000

	996.32	10.30	1.7487E+000		-3.5044E-001
	1004.76	17.90	9.8798E-001		-9.3906E-002
	1274.45	35.50	5.0556E-001		-3.2217E-001
Eu-155	86.54	30.90	1.8937E+000	1.89E+000	3.1074E+000
	105.31	20.70	2.1276E+000		6.9863E-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 8/15/2005 9:26:26 AM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-081-F-G.CNF
Log Number:
Title: NOL-02-01-081-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/12/2005 3:37:14 PM

Live Time : 900.0 seconds
Real Time : 900.7 seconds

Energy Calibration Date: 4/11/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-081-F-G.CNF
Log Number:
Title: NOL-02-01-081-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	248-	257	253.20	63.12	1.12	8.05E+001	38.41	4.13E+002
M	2	285-	317	292.13	72.88	1.13	2.22E+002	147.35	7.38E+002
m	3	285-	317	300.42	74.96	1.14	4.73E+002	268.81	8.38E+002
m	4	285-	317	308.47	76.98	1.14	9.25E+001	67.24	8.32E+002
M	5	335-	356	339.61	84.79	1.15	1.61E+002	46.69	6.35E+002
m	6	335-	356	350.12	87.43	1.16	8.68E+001	43.06	8.30E+002
F	7	948-	961	954.68	238.99	1.34	2.38E+002	37.39	1.97E+002
F	8	1170-	1186	1180.51	295.56	1.39	7.38E+001	56.86	1.37E+002
F	9	1346-	1360	1352.93	338.74	1.43	6.98E+001	22.93	1.07E+002
F	10	1399-	1414	1407.24	352.33	1.44	1.02E+002	63.74	9.98E+001
F	11	1844-	1855	1850.57	463.28	1.52	3.30E+001	17.08	4.95E+001
F	12	2035-	2052	2043.84	511.63	2.32	1.14E+002	25.98	1.03E+002
F	13	2324-	2339	2332.52	583.82	1.59	1.33E+002	26.03	5.99E+001
F	14	2424-	2446	2437.13	609.97	1.61	1.28E+002	47.04	6.61E+001
F	15	2903-	2918	2909.21	727.94	1.68	4.98E+001	18.04	4.35E+001
F	16	3638-	3654	3644.88	911.68	1.77	1.02E+002	23.49	4.98E+001
F	17	3869-	3885	3876.81	969.58	1.80	7.12E+001	19.17	2.86E+001
F	18	5832-	5859	5845.58	1460.77	2.01	7.96E+002	50.17	2.07E+001
F	19	7054-	7069	7062.12	1764.23	2.12	3.14E+001	11.89	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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-081-F-G.CNF

Log Number:
Title: NOL-02-01-081-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	0.988	511.00*	100.00	3.30473E-001	8.86848E-002
K-40	1.000	1460.81*	10.67	2.82819E+001	2.90205E+000
TL-208	0.740	277.35	6.80		
		510.84*	21.60	1.52997E+000	4.29169E-001
		583.14*	84.20	4.75385E-001	1.12370E-001
		860.37	12.46		
Bi-212	0.982	727.17*	11.80	1.33856E+000	5.10221E-001
Pb-212	0.998	74.81* @	10.70	1.55534E+001	9.35370E+000
		77.11* @	18.00	1.74755E+000	1.31500E+000
		87.30* @	8.00	3.11802E+000	1.66346E+000
		238.63*	44.60	1.29820E+000	2.88324E-001
Bi-214	0.690	609.31*	46.30	8.40271E-001	3.26884E-001
		1120.29	15.10		
		1764.49*	15.80	7.84902E-001	3.07330E-001
PB-214	0.848	74.82* @	6.21	2.67990E+001	1.62337E+001
		77.11* @	10.50	2.99580E+000	2.26536E+000
		87.30* @	4.67	5.34136E+000	2.87803E+000
		241.98	7.49		
		295.21*	19.20	9.81644E-001	7.73761E-001
		351.92*	37.20	7.29635E-001	4.70649E-001
Ac-228	0.991	338.32*	11.40	1.61117E+000	5.86253E-001
		911.07*	27.70	1.22226E+000	3.15091E-001
		969.11*	16.60	1.45633E+000	4.20585E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-081-F-G.CNF

Log Number:
Title: NOL-02-01-081-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

	Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
	ANN		0.988	2.277902E-001	9.188539E-002
	K-40		1.000	2.828190E+001	2.902045E+000
X	Eu-155		0.319		
	TL-208		0.740	4.753849E-001	1.112968E-001
	Bi-212		0.982	1.338564E+000	5.102206E-001
	Pb-212	@	0.998	1.298201E+000	2.883240E-001
	Bi-214		0.690	8.108809E-001	2.239087E-001
	PB-214	@	0.848	7.976935E-001	4.021052E-001
	Ac-228		0.991	1.353988E+000	2.316513E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	63.12	8.9397E-002	47.74
M 2	72.88	2.4653E-001	66.41
M 5	84.79	1.7891E-001	29.00
F 11	463.28	3.6672E-002	51.74

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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-081-F-G.CNF

Log Number:
Title: NOL-02-01-081-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Co-60	1173.22	100.00	1.8761E-001	1.68E-001	8.0238E-002
	1332.49	100.00	1.6765E-001		1.4502E-001
Nb-94	702.63	100.00	1.7051E-001	1.71E-001	-2.4272E-002
	871.10	100.00	1.7729E-001		-1.9129E-002
Ag-108m	79.20	7.10	9.1438E+000	2.23E-001	3.9081E+000
	433.93	89.90	2.2290E-001		3.2900E-002
	614.37	90.40	2.6650E-001		7.6164E-002
	722.95	90.50	2.4508E-001		-1.8718E-002
Sb-125	176.33	6.89	4.1302E+000	6.64E-001	-5.0234E+000
	427.89	29.33	6.6426E-001		3.8670E-001
	463.38	10.35	2.0741E+000		3.6249E-001
	600.56	17.80	1.0748E+000		4.6450E-001
	606.64	5.02	4.8770E+000		5.1397E+000
	635.90	11.32	1.6148E+000		-2.6505E-001
Cs-134	563.23	8.38	2.2192E+000	2.21E-001	1.2412E+000
	569.32	15.43	1.2468E+000		-4.3380E-001
	604.70	97.60	2.5150E-001		-3.6238E-002
	795.84	85.40	2.2076E-001		2.0337E-001
	801.93	8.73	2.0593E+000		-2.3720E+000
Cs-137	661.65	85.12	2.2047E-001	2.20E-001	1.5211E-001
Eu-152	121.78	28.40	1.3434E+000	5.57E-001	-4.0931E-001
	244.69	7.49	3.6162E+000		-2.5150E+000
	344.27	26.50	8.2967E-001		-6.9087E-002
	778.89	12.74	1.3662E+000		-1.1044E+000
	867.32	4.16	4.5172E+000		-3.6136E+000
	964.01	14.40	1.5882E+000		2.8096E-001
	1085.78	10.00	1.7902E+000		5.9776E-001
	1112.02	13.30	1.3803E+000		-2.7396E+000
	1407.95	20.70	5.5653E-001		-2.5847E-001
Eu-154	123.07	40.50	9.3180E-001	4.49E-001	-8.1853E-001
	247.94	6.60	3.9946E+000		-1.1006E+000
	591.81	4.83	3.8892E+000		3.4441E-001

723.30	19.70	1.1130E+000	-1.6680E-001
756.87	4.33	3.9340E+000	-3.9526E+000
873.19	11.50	1.5056E+000	5.5722E-001

	996.32	10.30	1.5492E+000		-5.0212E-001
	1004.76	17.90	9.7080E-001		8.8397E-001
	1274.45	35.50	4.4856E-001		6.0429E-002
Eu-155	86.54*	30.90	1.2719E+000	1.27E+000	8.0725E-001
	105.31	20.70	2.1410E+000		-5.2338E-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 8/15/2005 9:27:29 AM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-082-F-G.CNF
Log Number:
Title: NOL-02-01-082-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/11/2005 11:04:03 AM

Live Time : 900.0 seconds
Real Time : 900.8 seconds

Energy Calibration Date: 4/11/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-082-F-G.CNF
Log Number:
Title: NOL-02-01-082-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	204-	218	213.66	53.19	1.10	7.20E+001	442.30	5.95E+002
M	2	287-	305	291.56	72.74	1.13	2.34E+002	54.38	7.88E+002
m	3	287-	305	300.37	74.95	1.14	4.88E+002	64.02	9.63E+002
F	4	332-	344	339.17	84.68	1.15	1.36E+002	49.96	8.60E+002
F	5	947-	963	954.71	239.00	1.34	2.13E+002	37.57	2.91E+002
F	6	1348-	1360	1353.44	338.86	1.43	3.89E+001	22.40	1.22E+002
F	7	1396-	1415	1407.57	352.42	1.44	1.08E+002	54.88	1.48E+002
F	8	2033-	2055	2042.63	511.33	2.32	1.17E+002	26.21	1.39E+002
F	9	2324-	2341	2332.64	583.85	1.59	1.10E+002	25.45	9.72E+001
F	10	2431-	2445	2437.54	610.07	1.61	9.95E+001	79.94	5.36E+001
F	11	3634-	3654	3645.20	911.75	1.77	9.37E+001	46.86	6.55E+001
M	12	3852-	3882	3858.79	965.08	1.80	2.26E+001	13.62	6.63E+001
m	13	3852-	3882	3876.08	969.39	1.80	4.70E+001	15.89	7.93E+001
F	14	4683-	4704	4693.47	1173.37	1.89	1.50E+002	64.64	5.20E+001
F	15	5321-	5341	5331.24	1332.48	1.96	2.04E+002	67.76	2.35E+001
F	16	5830-	5859	5845.12	1460.66	2.01	8.18E+002	84.80	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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-082-F-G.CNF

Log Number:
Title: NOL-02-01-082-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	0.997	511.00*	100.00	3.40254E-001	8.99875E-002
K-40	0.999	1460.81*	10.67	2.90584E+001	3.82316E+000
Co-60	1.000	1173.22*	100.00	5.42362E-001	2.37286E-001
		1332.49*	100.00	7.59291E-001	2.58843E-001
TL-208	0.742	277.35	6.80		
		510.84*	21.60	1.57525E+000	4.36019E-001
		583.14*	84.20	3.95412E-001	1.05027E-001
		860.37	12.46		
Pb-212	0.522	74.81* @	10.70	1.60692E+001	3.78917E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.16384E+000	2.74591E-001
Bi-214	0.389	609.31*	46.30	6.54942E-001	5.32656E-001
		1120.29	15.10		
		1764.49	15.80		
Ac-228	0.990	338.32*	11.40	8.97126E-001	5.35745E-001
		911.07*	27.70	1.12535E+000	5.77474E-001
		969.11*	16.60	9.60312E-001	3.40099E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-082-F-G.CNF

Log Number:
Title: NOL-02-01-082-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN	0.997	2.548451E-001	9.276128E-002
K-40	0.999	2.905838E+001	3.823159E+000
Co-60	1.000	6.414185E-001	1.749118E-001
TL-208	0.742	3.954119E-001	1.042338E-001
Pb-212 @	0.522	1.163841E+000	2.745906E-001
Bi-214	0.389	6.549417E-001	5.326557E-001
Ac-228	0.990	9.784743E-001	2.571023E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	53.19	8.0010E-002	614.23
M 2	72.74	2.6042E-001	23.20
F 4	84.68	1.5143E-001	36.66
F 7	352.42	1.2037E-001	50.65
M 12	965.08	2.5146E-002	60.17

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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-082-F-G.CNF

Log Number:
Title: NOL-02-01-082-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
+	Co-60	1173.22*	100.00	1.7591E-001	1.23E-001	5.4236E-001
		1332.49*	100.00	1.2291E-001		7.5929E-001
	Nb-94	702.63	100.00	2.0746E-001	1.87E-001	-1.4315E-001
		871.10	100.00	1.8677E-001		-1.4645E-001
	Ag-108m	79.20	7.10	9.8746E+000	2.42E-001	-1.6559E+001
		433.93	89.90	2.4151E-001		-3.3318E-002
		614.37	90.40	2.7777E-001		-5.0974E-002
		722.95	90.50	2.4168E-001		6.7426E-002
	Sb-125	176.33	6.89	4.5452E+000	7.22E-001	6.9507E-001
		427.89	29.33	7.2243E-001		-1.8124E-001
		463.38	10.35	2.2717E+000		-1.1103E+000
		600.56	17.80	1.1741E+000		-1.4073E+000
		606.64	5.02	5.1638E+000		1.0005E+001
		635.90	11.32	1.8517E+000		-7.1470E-001
	Cs-134	563.23	8.38	2.5883E+000	2.46E-001	-3.8172E-001
		569.32	15.43	1.4423E+000		1.6145E-001
		604.70	97.60	2.6042E-001		-2.4631E-001
		795.84	85.40	2.4643E-001		1.4227E-001
		801.93	8.73	2.3158E+000		-4.2206E+000
	Cs-137	661.65	85.12	2.6863E-001	2.69E-001	3.2929E-001
	Eu-152	121.78	28.40	1.4934E+000	5.97E-001	6.0362E-001
		244.69	7.49	3.8694E+000		-9.6515E-001
		344.27	26.50	9.2202E-001		2.1534E-001
		778.89	12.74	1.5218E+000		-2.7371E+000
		867.32	4.16	4.8499E+000		-3.5565E+000
		964.01	14.40	1.8252E+000		1.4046E+000
		1085.78	10.00	1.9920E+000		-8.5056E-001
		1112.02	13.30	1.6525E+000		-6.0140E-001
		1407.95	20.70	5.9718E-001		-3.4790E-001
	Eu-154	123.07	40.50	1.0351E+000	4.91E-001	8.4298E-002
		247.94	6.60	4.1195E+000		-1.2671E+000
		591.81	4.83	4.4316E+000		1.5655E-002

723.30	19.70	1.1103E+000	7.7466E-001
756.87	4.33	4.9132E+000	1.3039E+000
873.19	11.50	1.6644E+000	7.6567E-001

	996.32	10.30	1.9907E+000		-1.3761E+000
	1004.76	17.90	1.1631E+000		1.0577E+000
	1274.45	35.50	4.9071E-001		2.9549E-001
Eu-155	86.54	30.90	2.0618E+000	2.06E+000	2.2317E+000
	105.31	20.70	2.4022E+000		-2.2499E-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 8/15/2005 9:28:03 AM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-083-F-G.CNF
Log Number:
Title: NOL-02-01-083-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/11/2005 10:06:31 AM

Live Time : 900.0 seconds
Real Time : 900.8 seconds

Energy Calibration Date: 4/11/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-083-F-G.CNF
Log Number:
Title: NOL-02-01-083-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	291.69	72.77	1.13	2.18E+002	53.51	9.91E+002
m	2	284-	306	300.40	74.96	1.14	4.42E+002	62.87	1.08E+003
F	3	333-	345	339.76	84.83	1.15	1.49E+002	50.94	8.75E+002
F	4	832-	842	837.19	209.55	1.31	5.84E+001	26.73	1.65E+002
F	5	947-	962	954.48	238.94	1.34	2.14E+002	104.22	2.40E+002
F	6	1348-	1360	1353.73	338.94	1.43	4.55E+001	22.03	1.10E+002
F	7	1399-	1411	1406.36	352.11	1.44	9.09E+001	25.24	9.90E+001
F	8	2035-	2055	2043.65	511.58	2.32	1.09E+002	26.58	1.34E+002
F	9	2325-	2341	2332.40	583.79	1.59	1.33E+002	26.65	7.28E+001
F	10	2429-	2444	2436.74	609.87	1.61	1.29E+002	67.77	5.49E+001
F	11	2638-	2651	2645.71	662.10	1.64	4.16E+001	18.91	6.48E+001
F	12	3636-	3654	3645.02	911.71	1.77	8.37E+001	48.41	4.57E+001
F	13	3868-	3882	3875.87	969.34	1.80	5.90E+001	19.17	4.23E+001
F	14	4681-	4703	4693.29	1173.33	1.89	1.52E+002	51.11	4.61E+001
F	15	5321-	5341	5331.27	1332.48	1.96	1.53E+002	25.66	2.37E+001
F	16	5832-	5858	5844.82	1460.58	2.01	8.07E+002	55.42	2.31E+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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-083-F-G.CNF

Log Number:
Title: NOL-02-01-083-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	0.990	511.00*	100.00	3.17371E-001	8.92604E-002
K-40	0.998	1460.81*	10.67	2.86793E+001	3.04478E+000
Co-60	1.000	1173.22*	100.00	5.50544E-001	1.89572E-001
		1332.49*	100.00	5.70155E-001	1.05358E-001
Cs-137	0.994	661.65*	85.12	1.52127E-001	7.14830E-002
TL-208	0.742	277.35	6.80		
		510.84*	21.60	1.46931E+000	4.30311E-001
		583.14*	84.20	4.74357E-001	1.14154E-001
		860.37	12.46		
Pb-212	0.523	74.81* @	10.70	1.45348E+001	3.52047E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.17046E+000	5.97988E-001
Bi-214	0.393	609.31*	46.30	8.52174E-001	4.58648E-001
		1120.29	15.10		
		1764.49	15.80		
Ac-228	0.991	338.32*	11.40	1.05027E+000	5.34255E-001
		911.07*	27.70	1.00531E+000	5.92763E-001
		969.11*	16.60	1.20670E+000	4.11805E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-083-F-G.CNF

Log Number:
Title: NOL-02-01-083-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN		0.990	2.149095E-001	9.254321E-002
K-40		0.998	2.867927E+001	3.044777E+000
Co-60		1.000	5.655268E-001	9.209120E-002
Cs-137		0.994	1.521269E-001	7.148297E-002
TL-208		0.742	4.743567E-001	1.131022E-001
Pb-212	@	0.523	1.170464E+000	5.979881E-001
Bi-214		0.393	8.521739E-001	4.586479E-001
Ac-228		0.991	1.115146E+000	2.857571E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.4187E-001	24.58
F	3	84.83	1.6604E-001	34.09
F	4	209.55	6.4858E-002	45.79
F	7	352.11	1.0097E-001	27.77

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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-083-F-G.CNF

Log Number:
Title: NOL-02-01-083-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
+	Co-60	1173.22*	100.00	1.6895E-001	1.24E-001	5.5054E-001
		1332.49*	100.00	1.2365E-001		5.7015E-001
	Nb-94	702.63	100.00	2.1436E-001	1.99E-001	-2.1559E-003
		871.10	100.00	1.9887E-001		-4.0111E-002
	Ag-108m	79.20	7.10	9.9639E+000	2.31E-001	-9.8221E+000
		433.93	89.90	2.3100E-001		6.0289E-002
		614.37	90.40	2.7777E-001		-1.0700E-001
		722.95	90.50	2.3412E-001		2.1437E-001
	Sb-125	176.33	6.89	4.2712E+000	7.18E-001	1.0042E+000
		427.89	29.33	7.1824E-001		1.5685E-001
		463.38	10.35	2.2938E+000		1.1074E+000
		600.56	17.80	1.1430E+000		-4.8885E-001
		606.64	5.02	5.1559E+000		6.4848E+000
		635.90	11.32	2.0115E+000		7.8024E-001
	Cs-134	563.23	8.38	2.4755E+000	2.45E-001	-1.2615E+000
		569.32	15.43	1.3670E+000		-1.4184E-001
		604.70	97.60	2.6415E-001		-1.4551E-001
		795.84	85.40	2.4511E-001		-1.2586E-001
		801.93	8.73	2.3558E+000		-1.4251E+000
+	Cs-137	661.65*	85.12	1.7056E-001	1.71E-001	1.5213E-001
	Eu-152	121.78	28.40	1.4469E+000	6.10E-001	-8.7719E-001
		244.69	7.49	3.7355E+000		-3.0836E-001
		344.27	26.50	8.5600E-001		-1.1843E-001
		778.89	12.74	1.5685E+000		-1.4562E+000
		867.32	4.16	4.7467E+000		-2.5919E+000
		964.01	14.40	1.7487E+000		2.6160E+000
		1085.78	10.00	2.1679E+000		-1.3666E+000
		1112.02	13.30	1.5465E+000		-6.1858E-001
		1407.95	20.70	6.1008E-001		-6.3402E-001
	Eu-154	123.07	40.50	1.0095E+000	4.88E-001	-2.3776E-001
		247.94	6.60	3.9869E+000		-2.2639E+000
		591.81	4.83	4.0892E+000		-3.7986E+000

723.30	19.70	1.0564E+000	-3.9849E-001
756.87	4.33	4.8374E+000	-5.3645E-001
873.19	11.50	1.7462E+000	-1.1528E+000

	996.32	10.30	1.9202E+000		1.3054E+000
	1004.76	17.90	1.0812E+000		7.9664E-001
	1274.45	35.50	4.8819E-001		2.7080E-001
Eu-155	86.54	30.90	2.0913E+000	2.09E+000	2.8788E+000
	105.31	20.70	2.3818E+000		9.5875E-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 8/15/2005 9:28:56 AM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-084-F-G.CNF
Log Number:
Title: NOL-02-01-084-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/11/2005 8:58:29 AM

Live Time : 900.0 seconds
Real Time : 900.9 seconds

Energy Calibration Date: 4/11/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-084-F-G.CNF
Log Number:
Title: NOL-02-01-084-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	291.92	72.83	1.13	2.93E+002	55.48	7.95E+002
m	2	286-	306	300.06	74.87	1.14	5.16E+002	64.61	1.08E+003
M	3	335-	357	339.19	84.69	1.15	1.96E+002	50.75	7.14E+002
m	4	335-	357	349.91	87.38	1.16	1.01E+002	46.43	9.62E+002
F	5	947-	960	954.43	238.93	1.34	1.89E+002	36.43	2.31E+002
F	6	1400-	1413	1406.88	352.24	1.44	8.82E+001	25.75	1.32E+002
F	7	2032-	2054	2042.76	511.36	2.32	1.16E+002	27.23	1.59E+002
F	8	2324-	2339	2331.49	583.56	1.59	1.12E+002	69.10	8.24E+001
F	9	2429-	2445	2436.76	609.88	1.61	9.23E+001	23.96	8.93E+001
F	10	2639-	2656	2646.03	662.18	1.64	9.23E+001	81.85	9.65E+001
F	11	3637-	3653	3644.35	911.54	1.77	1.17E+002	24.50	5.00E+001
F	12	3869-	3884	3875.78	969.32	1.80	5.59E+001	20.11	5.67E+001
F	13	4682-	4703	4692.71	1173.18	1.89	3.17E+002	78.93	6.91E+001
F	14	5320-	5342	5330.61	1332.32	1.96	4.13E+002	39.94	2.66E+001
F	15	5829-	5856	5843.86	1460.34	2.01	7.69E+002	81.34	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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-084-F-G.CNF

Log Number:
Title: NOL-02-01-084-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	0.996	511.00*	100.00	3.38745E-001	9.24109E-002
K-40	0.993	1460.81*	10.67	2.73112E+001	3.63933E+000
Co-60	1.000	1173.22*	100.00	1.14554E+000	2.98862E-001
		1332.49*	100.00	1.53428E+000	1.91103E-001
Cs-137	0.991	661.65*	85.12	3.37908E-001	3.02138E-001
Eu-155	0.321	86.54*	30.90	9.40959E-001	4.69966E-001
		105.31	20.70		
TL-208	0.748	277.35	6.80		
		510.84*	21.60	1.56827E+000	4.46587E-001
		583.14*	84.20	4.00647E-001	2.52919E-001
		860.37	12.46		
Pb-212	0.678	74.81* @	10.70	1.70174E+001	3.95687E+000
		77.11 @	18.00		
		87.30* @	8.00	3.63446E+000	1.81524E+000
		238.63*	44.60	1.03240E+000	2.56483E-001
Bi-214	0.393	609.31*	46.30	6.07406E-001	1.74901E-001
		1120.29	15.10		
		1764.49	15.80		
Ac-228	0.636	338.32	11.40		
		911.07*	27.70	1.40868E+000	3.35808E-001
		969.11*	16.60	1.14182E+000	4.28202E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-084-F-G.CNF

Log Number:
Title: NOL-02-01-084-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN		0.996	2.522056E-001	1.073140E-001
K-40		0.993	2.731120E+001	3.639332E+000
Co-60		1.000	1.421464E+000	1.610015E-001
Cs-137		0.991	3.379081E-001	3.021379E-001
Eu-155		0.321	6.736717E-001	4.746339E-001
TL-208		0.748	4.006469E-001	2.525814E-001
Pb-212	@	0.678	1.032399E+000	2.564831E-001
Bi-214		0.393	6.074063E-001	1.749013E-001
Ac-228		0.636	1.307054E+000	2.642426E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	3.2590E-001	18.92
M 3	84.69	2.1826E-001	25.84
F 6	352.24	9.8048E-002	29.18

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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-084-F-G.CNF

Log Number:
Title: NOL-02-01-084-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
+	Co-60	1173.22*	100.00	2.0218E-001	1.32E-001	1.1455E+000
		1332.49*	100.00	1.3182E-001		1.5343E+000
	Nb-94	702.63	100.00	2.2948E-001	2.20E-001	-1.3776E-001
		871.10	100.00	2.1991E-001		-4.3178E-002
	Ag-108m	79.20	7.10	9.8959E+000	2.39E-001	-7.4751E+000
		433.93	89.90	2.3881E-001		2.6367E-002
		614.37	90.40	2.9644E-001		-2.0806E-002
		722.95	90.50	2.8023E-001		1.9975E-001
	Sb-125	176.33	6.89	4.3884E+000	7.32E-001	-7.7462E-001
		427.89	29.33	7.3212E-001		-8.3998E-001
		463.38	10.35	2.5003E+000		2.4372E+000
		600.56	17.80	1.2550E+000		9.3076E-001
		606.64	5.02	5.4200E+000		6.7200E+000
		635.90	11.32	2.0115E+000		-1.8358E+000
	Cs-134	563.23	8.38	2.8402E+000	2.73E-001	5.4330E-001
		569.32	15.43	1.5846E+000		9.7575E-001
		604.70	97.60	2.7383E-001		3.9153E-002
		795.84	85.40	2.7313E-001		2.8651E-001
		801.93	8.73	2.7047E+000		-7.5132E-001
+	Cs-137	661.65*	85.12	2.2414E-001	2.24E-001	3.3791E-001
	Eu-152	121.78	28.40	1.4793E+000	5.84E-001	8.8271E-002
		244.69	7.49	3.7387E+000		-2.0421E+000
		344.27	26.50	9.3038E-001		-1.8209E+000
		778.89	12.74	1.7792E+000		-1.6489E+000
		867.32	4.16	5.5036E+000		-1.0231E-001
		964.01	14.40	1.8115E+000		-2.3321E-001
		1085.78	10.00	2.3239E+000		-1.4661E+000
		1112.02	13.30	1.6910E+000		-4.3012E+000
		1407.95	20.70	5.8398E-001		-2.0275E-001
	Eu-154	123.07	40.50	1.0351E+000	5.39E-001	3.1352E-001
		247.94	6.60	3.9946E+000		-3.9639E+000
		591.81	4.83	4.4613E+000		9.4254E-001

723.30	19.70	1.2739E+000	-1.2355E-001
756.87	4.33	5.6024E+000	1.5023E-001
873.19	11.50	1.9372E+000	-2.0823E+000

		996.32	10.30	2.3633E+000		7.8298E-001
		1004.76	17.90	1.2918E+000		1.3216E+000
		1274.45	35.50	5.3853E-001		1.3237E-001
+	Eu-155	86.54*	30.90	1.3690E+000	1.37E+000	9.4096E-001
		105.31	20.70	2.3818E+000		1.2843E+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 8/15/2005 9:29:28 AM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-085-F-G.CNF
Log Number:
Title: NOL-02-01-085-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/11/2005 8:40:42 AM

Live Time : 900.0 seconds
Real Time : 900.9 seconds

Energy Calibration Date: 4/11/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-085-F-G.CNF
Log Number:
Title: NOL-02-01-085-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	291.75	72.79	1.13	2.77E+002	72.44	1.04E+003
m	2	282-	305	300.16	74.90	1.14	4.75E+002	83.58	1.07E+003
M	3	330-	358	339.61	84.79	1.15	2.42E+002	52.51	9.83E+002
m	4	330-	358	349.55	87.29	1.16	1.06E+002	48.59	1.01E+003
F	5	946-	961	954.28	238.89	1.34	2.02E+002	37.11	2.78E+002
F	6	1402-	1413	1407.17	352.32	1.44	7.48E+001	25.52	1.09E+002
F	7	2321-	2341	2331.93	583.67	1.59	1.35E+002	59.29	9.98E+001
F	8	2426-	2444	2436.28	609.76	1.61	9.27E+001	24.26	1.04E+002
F	9	2636-	2654	2645.46	662.04	1.64	1.08E+002	55.81	7.63E+001
F	10	3634-	3652	3643.70	911.38	1.77	1.09E+002	24.88	8.32E+001
F	11	3865-	3881	3874.31	968.95	1.80	4.14E+001	19.19	7.81E+001
F	12	4472-	4487	4480.44	1120.22	1.87	2.68E+001	16.76	5.15E+001
F	13	4680-	4704	4692.45	1173.12	1.89	4.21E+002	71.28	2.80E+001
F	14	5320-	5340	5330.12	1332.20	1.96	4.70E+002	42.85	2.63E+001
F	15	5829-	5857	5843.85	1460.34	2.01	7.04E+002	76.86	3.64E+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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-085-F-G.CNF

Log Number:
Title: NOL-02-01-085-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
K-40	0.993	1460.81*	10.67	2.50174E+001	3.40021E+000
Co-60	0.999	1173.22*	100.00	1.52146E+000	2.83726E-001
		1332.49*	100.00	1.74857E+000	2.10163E-001
Cs-137	0.995	661.65*	85.12	3.94616E-001	2.09451E-001
Eu-155	0.323	86.54*	30.90	9.88911E-001	4.92698E-001
		105.31	20.70		
TL-208	0.467	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	4.84252E-001	2.21643E-001
		860.37	12.46		
Pb-212	0.678	74.81* @	10.70	1.56537E+001	4.12192E+000
		77.11 @	18.00		
		87.30* @	8.00	3.81967E+000	1.90305E+000
		238.63*	44.60	1.10506E+000	2.66635E-001
Bi-214	0.697	609.31*	46.30	6.10572E-001	1.76879E-001
		1120.29*	15.10	6.32293E-001	4.00552E-001
		1764.49	15.80		
Ac-228	0.638	338.32	11.40		
		911.07*	27.70	1.30840E+000	3.34514E-001
		969.11*	16.60	8.45987E-001	4.02211E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-085-F-G.CNF

Log Number:
Title: NOL-02-01-085-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
K-40		0.993	2.501738E+001	3.400215E+000
Co-60		0.999	1.668109E+000	1.688792E-001
Cs-137		0.995	3.946161E-001	2.094511E-001
Eu-155		0.323	7.028127E-001	4.975105E-001
TL-208		0.467	4.842518E-001	2.216429E-001
Pb-212	@	0.678	1.105055E+000	2.666349E-001
Bi-214		0.697	6.141168E-001	1.618051E-001
Ac-228		0.638	1.119328E+000	2.571886E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	3.0780E-001	26.15
M 3	84.79	2.6904E-001	21.68
F 6	352.32	8.3160E-002	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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-085-F-G.CNF

Log Number:
Title: NOL-02-01-085-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
+	Co-60	1173.22*	100.00	1.3725E-001	1.29E-001	1.5215E+000
		1332.49*	100.00	1.2945E-001		1.7486E+000
	Nb-94	702.63	100.00	2.3667E-001	2.23E-001	1.6816E-001
		871.10	100.00	2.2267E-001		-7.4053E-002
	Ag-108m	79.20	7.10	1.0013E+001	2.62E-001	-9.2731E+000
		433.93	89.90	2.6163E-001		1.4153E-001
		614.37	90.40	3.0282E-001		1.0601E-001
		722.95	90.50	2.8364E-001		2.1892E-001
	Sb-125	176.33	6.89	4.4322E+000	7.90E-001	3.3448E+000
		427.89	29.33	7.9021E-001		-1.9968E-001
		463.38	10.35	2.4150E+000		-8.9870E-001
		600.56	17.80	1.3526E+000		5.7601E-001
		606.64	5.02	5.5398E+000		7.9759E+000
		635.90	11.32	2.0726E+000		7.7394E-001
	Cs-134	563.23	8.38	2.8602E+000	2.80E-001	-8.7688E-001
		569.32	15.43	1.5523E+000		1.4261E+000
		604.70	97.60	2.8009E-001		7.3766E-002
		795.84	85.40	2.9246E-001		-1.8540E-001
		801.93	8.73	2.7779E+000		-4.8068E-001
+	Cs-137	661.65*	85.12	2.0467E-001	2.05E-001	3.9462E-001
	Eu-152	121.78	28.40	1.5034E+000	5.49E-001	1.0808E+000
		244.69	7.49	3.8602E+000		3.6359E-001
		344.27	26.50	9.0262E-001		-1.1562E+000
		778.89	12.74	1.8849E+000		1.6614E-001
		867.32	4.16	5.5923E+000		-6.0013E+000
		964.01	14.40	1.8589E+000		1.3030E+000
		1085.78	10.00	2.3597E+000		1.3449E+000
		1112.02	13.30	1.6130E+000		3.8305E-001
		1407.95	20.70	5.4944E-001		-4.2358E-001
	Eu-154	123.07	40.50	1.0400E+000	5.34E-001	3.0071E-001
		247.94	6.60	3.9714E+000		-5.3057E+000
		591.81	4.83	4.8854E+000		5.5491E-001

723.30	19.70	1.2875E+000	3.6160E-001
756.87	4.33	5.5253E+000	-2.6097E+000
873.19	11.50	1.9562E+000	-1.4312E-001

		996.32	10.30	2.2221E+000		-1.6124E+000
		1004.76	17.90	1.2493E+000		4.2947E-001
		1274.45	35.50	5.3395E-001		4.0191E-001
+	Eu-155	86.54*	30.90	1.4035E+000	1.40E+000	9.8891E-001
		105.31	20.70	2.3405E+000		-2.3864E+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 8/16/2005 4:02:00 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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-086-F-G.CNF
Log Number:
Title: NOL-02-01-086-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/15/2005 11:41:39 AM

Live Time : 900.0 seconds
Real Time : 900.3 seconds

Energy Calibration Date: 6/13/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-086-F-G.CNF
Log Number:
Title: NOL-02-01-086-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	291.32	72.79	1.13	2.38E+002	82.42	7.76E+002
m	2	284-	305	300.41	75.06	1.13	4.72E+002	129.22	1.11E+003
M	3	332-	355	339.95	84.95	1.15	1.97E+002	110.64	7.04E+002
m	4	332-	355	350.78	87.65	1.15	1.00E+002	62.19	8.23E+002
F	5	596-	607	602.55	150.60	1.24	5.67E+001	28.85	2.51E+002
F	6	949-	961	954.92	238.70	1.34	1.34E+002	32.00	1.98E+002
F	7	1347-	1358	1351.86	337.95	1.43	3.35E+001	18.79	7.41E+001
F	8	1399-	1419	1407.89	351.95	1.44	1.20E+002	25.36	1.19E+002
F	9	2037-	2053	2043.87	510.96	2.33	1.04E+002	25.08	8.34E+001
F	10	2327-	2343	2333.67	583.42	1.60	8.65E+001	21.61	5.33E+001
F	11	2427-	2444	2437.13	609.28	1.62	1.21E+002	24.66	6.12E+001
F	12	3637-	3653	3645.08	911.30	1.79	6.78E+001	19.77	4.45E+001
F	13	3870-	3885	3877.66	969.45	1.81	3.12E+001	16.21	4.37E+001
F	14	5831-	5859	5845.81	1461.52	2.03	6.70E+002	74.54	2.14E+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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-086-F-G.CNF

Log Number:
Title: NOL-02-01-086-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gm)	Activity Uncertainty
ANN	1.000	511.00*	100.00	3.13457E-001	8.75027E-002
K-40	0.985	1460.81*	10.67	2.47586E+001	3.40704E+000
Eu-155	0.311	86.54*	30.90	9.58884E-001	6.23012E-001
		105.31	20.70		
TL-208	0.752	277.35	6.80		
		510.84*	21.60	1.45119E+000	4.22085E-001
		583.14*	84.20	3.22424E-001	9.11596E-002
		860.37	12.46		
Pb-212	0.679	74.81* @	10.70	1.59976E+001	5.38867E+000
		77.11 @	18.00		
		87.30* @	8.00	3.70369E+000	2.40638E+000
		238.63*	44.60	7.55783E-001	2.15417E-001
Bi-214	0.399	609.31*	46.30	8.28407E-001	1.98382E-001
		1120.29	15.10		
		1764.49	15.80		
Ac-228	0.997	338.32*	11.40	7.94961E-001	4.63155E-001
		911.07*	27.70	8.54464E-001	2.67903E-001
		969.11*	16.60	6.69671E-001	3.54430E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-086-F-G.CNF

Log Number:
Title: NOL-02-01-086-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
ANN	1.000	2.438133E-001	8.966207E-002
K-40	0.985	2.475860E+001	3.407043E+000
Eu-155	0.311	7.632116E-001	6.255030E-001
TL-208	0.752	3.224239E-001	9.055202E-002
Pb-212 @	0.679	7.557829E-001	2.154166E-001
Bi-214	0.399	8.284072E-001	1.983823E-001
Ac-228	0.997	7.886230E-001	1.940549E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.6454E-001	34.62
M 3	84.95	2.1848E-001	56.27
F 5	150.60	6.2949E-002	50.92
F 8	351.95	1.3374E-001	21.07

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

Errors quoted at 1.960 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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-086-F-G.CNF

Log Number:
Title: NOL-02-01-086-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
Co-60	1173.22	100.00	2.1085E-001	1.62E-001	3.8713E-001
	1332.49	100.00	1.6217E-001		1.9270E-001
Nb-94	702.63	100.00	1.9715E-001	1.73E-001	-2.6771E-001
	871.10	100.00	1.7328E-001		9.5007E-002
Ag-108m	79.20	7.10	9.8270E+000	2.24E-001	-1.6406E+001
	433.93	89.90	2.3051E-001		-4.4297E-002
	614.37	90.40	2.7574E-001		-1.0139E-001
	722.95	90.50	2.2397E-001		-8.2605E-003
Sb-125	176.33	6.89	4.1371E+000	6.92E-001	-8.4131E-001
	427.89	29.33	6.9174E-001		-1.3845E-001
	463.38	10.35	1.8911E+000		-2.2634E+000
	600.56	17.80	1.0621E+000		5.7830E-001
	606.64	5.02	4.9374E+000		6.8293E+000
	635.90	11.32	1.6665E+000		3.4853E-001
Cs-134	563.23	8.38	2.4079E+000	2.20E-001	1.1644E+000
	569.32	15.43	1.2907E+000		-3.4365E-001
	604.70	97.60	2.4899E-001		-2.0971E-002
	795.84	85.40	2.1970E-001		4.4969E-003
	801.93	8.73	2.1123E+000		-1.5285E+000
Cs-137	661.65	85.12	2.3658E-001	2.37E-001	1.9277E-001
Eu-152	121.78	28.40	1.3741E+000	6.21E-001	5.1066E-001
	244.69	7.49	3.5009E+000		-2.9175E+000
	344.27	26.50	8.0312E-001		4.5647E-001
	778.89	12.74	1.4984E+000		-1.6556E-001
	867.32	4.16	4.2365E+000		-2.7796E+000
	964.01	14.40	1.5139E+000		-3.5975E-001
	1085.78	10.00	1.7778E+000		5.0349E-001
	1112.02	13.30	1.3982E+000		-1.7475E+000
	1407.95	20.70	6.2122E-001		-1.9592E-001
Eu-154	123.07	40.50	9.5261E-001	4.50E-001	-2.6321E-001
	247.94	6.60	3.7218E+000		-2.2671E+000
	591.81	4.83	4.1719E+000		-6.0577E-001

723.30	19.70	1.0290E+000	-2.3846E-001
756.87	4.33	4.1584E+000	-8.9386E-001
873.19	11.50	1.5613E+000	1.0875E+000

		996.32	10.30	1.6737E+000		5.7786E-001
		1004.76	17.90	1.0525E+000		-3.0163E-001
		1274.45	35.50	4.4960E-001		2.2242E-001
+	Eu-155	86.54*	30.90	1.3011E+000	1.30E+000	9.5888E-001
		105.31	20.70	2.1786E+000		2.4831E-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 8/16/2005 4:02:38 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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-087-F-G.CNF
Log Number:
Title: NOL-02-01-087-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/15/2005 3:03:37 PM

Live Time : 900.0 seconds
Real Time : 900.7 seconds

Energy Calibration Date: 6/13/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-087-F-G.CNF
Log Number:
Title: NOL-02-01-087-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	222-	229	225.62	56.36	1.10	5.13E+001	36.18	3.27E+002
M	2	283-	305	291.82	72.91	1.13	2.39E+002	51.07	9.18E+002
m	3	283-	305	300.72	75.14	1.13	3.67E+002	57.05	8.50E+002
F	4	333-	344	339.91	84.94	1.15	1.14E+002	124.59	6.40E+002
F	5	949-	959	955.05	238.73	1.34	1.12E+002	30.29	1.57E+002
F	6	1403-	1414	1408.15	352.02	1.44	6.88E+001	22.50	7.97E+001
F	7	2324-	2339	2332.60	583.15	1.60	8.93E+001	21.27	5.00E+001
F	8	2431-	2446	2437.87	609.47	1.62	8.79E+001	21.43	4.40E+001
F	9	3638-	3654	3645.86	911.49	1.79	8.32E+001	60.06	2.93E+001
F	10	5833-	5859	5846.42	1461.68	2.03	5.54E+002	42.55	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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-087-F-G.CNF

Log Number:
Title: NOL-02-01-087-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gm)	Activity Uncertainty
K-40	0.978	1460.81*	10.67	2.04608E+001	2.28427E+000
TL-208	0.472	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.32906E-001	9.07089E-002
		860.37	12.46		
Pb-212	0.524	74.81* @	10.70	1.24396E+001	3.11087E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	6.28572E-001	1.96778E-001
Bi-214	0.398	609.31*	46.30	6.03813E-001	1.65351E-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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-087-F-G.CNF

Log Number:
Title: NOL-02-01-087-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
K-40	0.978	2.046079E+001	2.284267E+000
TL-208	0.472	3.329062E-001	9.070888E-002
Pb-212 @	0.524	6.285716E-001	1.967782E-001
Bi-214	0.398	6.038132E-001	1.653513E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	56.36	5.7046E-002	70.46
M 2	72.91	2.6500E-001	21.41
F 4	84.94	1.2639E-001	109.53
F 6	352.02	7.6433E-002	32.71
F 9	911.49	9.2450E-002	72.18

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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-087-F-G.CNF

Log Number:
Title: NOL-02-01-087-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
Co-60	1173.22	100.00	2.0621E-001	1.70E-001	2.3160E-001
	1332.49	100.00	1.7049E-001		1.9507E-001
Nb-94	702.63	100.00	1.8815E-001	1.71E-001	1.0369E-001
	871.10	100.00	1.7089E-001		8.3232E-002
Ag-108m	79.20	7.10	9.6098E+000	2.04E-001	-1.9333E+001
	433.93	89.90	2.1664E-001		6.5405E-002
	614.37	90.40	2.5078E-001		-1.1919E-001
	722.95	90.50	2.0395E-001		-2.5301E-002
Sb-125	176.33	6.89	4.0047E+000	6.67E-001	3.7512E+000
	427.89	29.33	6.6650E-001		9.7562E-002
	463.38	10.35	1.9933E+000		2.6478E-001
	600.56	17.80	1.1148E+000		2.4027E-001
	606.64	5.02	4.8363E+000		8.0283E+000
	635.90	11.32	1.6610E+000		1.0800E+000
Cs-134	563.23	8.38	2.1483E+000	2.16E-001	4.4358E-001
	569.32	15.43	1.1626E+000		-1.2776E-001
	604.70	97.60	2.4563E-001		7.2381E-002
	795.84	85.40	2.1641E-001		2.1050E-001
	801.93	8.73	1.8784E+000		-2.6298E+000
Cs-137	661.65	85.12	2.1364E-001	2.14E-001	1.8296E-001
Eu-152	121.78	28.40	1.3251E+000	6.73E-001	-4.1008E-002
	244.69	7.49	3.2156E+000		-6.3539E+000
	344.27	26.50	7.6085E-001		-1.2924E+000
	778.89	12.74	1.4552E+000		-8.8904E-001
	867.32	4.16	4.1425E+000		-4.2215E+000
	964.01	14.40	1.3752E+000		9.5261E-001
	1085.78	10.00	1.5730E+000		-7.0516E-002
	1112.02	13.30	1.4482E+000		1.0041E+000
	1407.95	20.70	6.7315E-001		8.0348E-002
Eu-154	123.07	40.50	9.1839E-001	4.31E-001	8.5507E-002
	247.94	6.60	3.5045E+000		3.2270E-001
	591.81	4.83	3.8470E+000		1.8546E+000

723.30	19.70	9.3701E-001	-1.9107E-001
756.87	4.33	4.2236E+000	-1.2590E+000
873.19	11.50	1.5075E+000	1.2422E+000

	996.32	10.30	1.5526E+000		1.6621E+000
	1004.76	17.90	9.7978E-001		2.3602E-001
	1274.45	35.50	4.3118E-001		8.7741E-003
Eu-155	86.54	30.90	1.8812E+000	1.88E+000	2.2314E+000
	105.31	20.70	2.1497E+000		1.5926E-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 8/16/2005 4:03:15 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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-088-F-G.CNF
Log Number:
Title: NOL-02-01-088-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/15/2005 3:23:05 PM

Live Time : 900.0 seconds
Real Time : 900.7 seconds

Energy Calibration Date: 6/13/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-088-F-G.CNF
Log Number:
Title: NOL-02-01-088-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	291.52	72.84	1.13	2.65E+002	90.29	7.44E+002
m	2	285-	314	300.48	75.08	1.13	5.68E+002	153.81	1.01E+003
m	3	285-	314	309.64	77.37	1.14	1.02E+002	48.31	9.08E+002
F	4	331-	346	340.00	84.96	1.15	1.53E+002	159.44	9.35E+002
F	5	944-	960	954.72	238.65	1.34	1.95E+002	83.00	2.27E+002
F	6	1175-	1204	1181.57	295.37	1.39	6.27E+001	21.77	2.15E+002
F	7	1349-	1359	1354.10	338.51	1.43	7.27E+001	22.48	7.04E+001
F	8	1403-	1416	1407.53	351.86	1.44	7.64E+001	23.31	8.41E+001
F	9	1847-	1857	1851.62	462.90	1.52	2.72E+001	15.04	3.21E+001
F	10	2032-	2052	2042.78	510.69	2.33	1.05E+002	24.16	1.02E+002
F	11	2325-	2341	2333.22	583.30	1.60	1.05E+002	23.08	5.88E+001
F	12	2428-	2448	2438.13	609.53	1.62	1.03E+002	22.09	5.76E+001
F	13	3638-	3654	3646.22	911.58	1.79	7.21E+001	63.01	3.65E+001
F	14	5833-	5860	5846.77	1461.77	2.03	7.07E+002	76.30	1.74E+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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-088-F-G.CNF

Log Number:
Title: NOL-02-01-088-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gm)	Activity Uncertainty
ANN	0.997	511.00*	100.00	3.17598E-001	8.54170E-002
K-40	0.973	1460.81*	10.67	2.61391E+001	3.52575E+000
TL-208	0.753	277.35	6.80		
		510.84*	21.60	1.47036E+000	4.13279E-001
		583.14*	84.20	3.90677E-001	1.00363E-001
		860.37	12.46		
Pb-212	0.845	74.81* @	10.70	1.92516E+001	6.43667E+000
		77.11* @	18.00	1.97325E+000	1.01226E+000
		87.30 @	8.00		
		238.63*	44.60	1.09859E+000	4.97395E-001
Bi-214	0.398	609.31*	46.30	7.05138E-001	1.75370E-001
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.765	74.82* @	6.21	3.31710E+001	1.13489E+001
		77.11* @	10.50	3.38271E+000	1.75359E+000
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	8.57687E-001	3.31077E-001
		351.92*	37.20	5.61026E-001	1.95125E-001
Ac-228	0.535	338.32*	11.40	1.72670E+000	5.98750E-001
		911.07*	27.70	9.09382E-001	8.01259E-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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-088-F-G.CNF

Log Number:
Title: NOL-02-01-088-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gm)	Wt mean Activity Uncertainty
ANN		0.997	2.332122E-001	8.808211E-002
K-40		0.973	2.613906E+001	3.525751E+000
TL-208		0.753	3.906771E-001	9.955184E-002
Pb-212	@	0.845	1.098589E+000	4.973954E-001
Bi-214		0.398	7.051380E-001	1.753704E-001
PB-214	@	0.765	6.375059E-001	1.681016E-001
Ac-228		0.535	1.433839E+000	4.796296E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.9483E-001	34.03
F 4	84.96	1.7011E-001	104.14
F 9	462.90	3.0210E-002	55.32

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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-088-F-G.CNF

Log Number:
Title: NOL-02-01-088-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gm)	Nuclide MDA (pCi/gm)	Activity (pCi/gm)
Co-60	1173.22	100.00	1.9738E-001	1.43E-001	4.6885E-002
	1332.49	100.00	1.4277E-001		-6.6746E-002
Nb-94	702.63	100.00	1.8616E-001	1.78E-001	9.9773E-002
	871.10	100.00	1.7794E-001		5.5363E-002
Ag-108m	79.20	7.10	1.0034E+001	2.18E-001	-2.2458E+000
	433.93	89.90	2.2189E-001		3.5498E-003
	614.37	90.40	2.5902E-001		-6.8402E-002
	722.95	90.50	2.1775E-001		3.2422E-002
Sb-125	176.33	6.89	4.1834E+000	6.47E-001	1.4801E+000
	427.89	29.33	6.4690E-001		-1.9714E-002
	463.38	10.35	1.9568E+000		-5.9415E-001
	600.56	17.80	1.0207E+000		-2.9005E-001
	606.64	5.02	4.7708E+000		5.0354E+000
	635.90	11.32	1.5756E+000		3.7809E-003
Cs-134	563.23	8.38	2.3091E+000	2.25E-001	1.0086E+000
	569.32	15.43	1.3190E+000		5.8339E-001
	604.70	97.60	2.3727E-001		-2.8870E-002
	795.84	85.40	2.2455E-001		7.7867E-002
	801.93	8.73	2.1606E+000		-3.0826E+000
Cs-137	661.65	85.12	2.2798E-001	2.28E-001	7.5675E-002
Eu-152	121.78	28.40	1.3920E+000	6.61E-001	-3.6141E-001
	244.69	7.49	3.4574E+000		-4.8109E+000
	344.27	26.50	8.1188E-001		-1.0034E+000
	778.89	12.74	1.3819E+000		-3.3839E-001
	867.32	4.16	4.6431E+000		-1.0997E+000
	964.01	14.40	1.5806E+000		1.1001E+000
	1085.78	10.00	1.8960E+000		1.7272E+000
	1112.02	13.30	1.3463E+000		-5.6852E-001
	1407.95	20.70	6.6058E-001		-3.1549E-001
Eu-154	123.07	40.50	9.5955E-001	4.90E-001	-2.3260E-001
	247.94	6.60	3.7524E+000		-1.6228E+000
	591.81	4.83	3.8845E+000		-1.3882E+000

723.30	19.70	9.8741E-001	-1.7649E-001
756.87	4.33	4.4442E+000	1.8111E+000
873.19	11.50	1.5143E+000	-8.7222E-001

	996.32	10.30	1.6569E+000		5.0135E-001
	1004.76	17.90	9.6069E-001		-1.3556E-001
	1274.45	35.50	4.8972E-001		4.7148E-002
Eu-155	86.54	30.90	2.0177E+000	2.02E+000	1.1129E+000
	105.31	20.70	2.2447E+000		4.7966E-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 8/16/2005 4:03:49 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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-089-F-G.CNF
Log Number:
Title: NOL-02-01-089-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/15/2005 1:14:10 PM

Live Time : 900.0 seconds
Real Time : 900.7 seconds

Energy Calibration Date: 4/11/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-089-F-G.CNF
Log Number:
Title: NOL-02-01-089-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	291.53	72.73	1.13	2.42E+002	49.98	6.79E+002
m	2	285-	315	300.52	74.99	1.14	5.04E+002	58.30	7.59E+002
m	3	285-	315	309.68	77.28	1.14	1.20E+002	43.00	6.95E+002
F	4	332-	346	339.56	84.78	1.15	1.99E+002	107.15	7.44E+002
F	5	944-	960	954.67	238.99	1.34	1.74E+002	134.79	1.96E+002
F	6	1174-	1185	1180.49	295.56	1.39	5.19E+001	22.75	1.02E+002
F	7	1348-	1359	1352.61	338.65	1.43	3.65E+001	21.02	9.57E+001
F	8	1399-	1416	1407.51	352.40	1.44	1.10E+002	72.34	1.11E+002
F	9	2032-	2055	2043.30	511.49	2.32	1.62E+002	81.74	8.92E+001
F	10	2323-	2342	2332.92	583.92	1.59	1.23E+002	23.83	5.00E+001
F	11	2429-	2445	2436.71	609.86	1.61	9.53E+001	22.73	5.99E+001
F	12	3175-	3187	3181.33	795.92	1.71	1.70E+001	14.20	3.58E+001
F	13	3638-	3654	3645.83	911.91	1.77	1.23E+002	23.76	3.33E+001
F	14	3870-	3883	3876.97	969.61	1.80	4.49E+001	17.36	2.93E+001
F	15	5507-	5520	5513.83	1378.02	1.98	2.45E+001	8.99	5.13E+000
F	16	5831-	5859	5845.73	1460.81	2.01	7.70E+002	82.17	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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-089-F-G.CNF

Log Number:
Title: NOL-02-01-089-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	0.993	511.00*	100.00	4.70982E-001	2.46924E-001
K-40	1.000	1460.81*	10.67	2.73646E+001	3.66535E+000
TL-208	0.739	277.35	6.80		
		510.84*	21.60	2.18047E+000	1.15695E+000
		583.14*	84.20	4.40711E-001	1.03283E-001
		860.37	12.46		
Pb-212	0.843	74.81* @	10.70	1.65746E+001	3.77200E+000
		77.11* @	18.00	2.25948E+000	9.21213E-001
		87.30 @	8.00		
		238.63*	44.60	9.51434E-001	7.51094E-001
Bi-214	0.393	609.31*	46.30	6.27503E-001	1.68825E-001
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.761	74.82* @	6.21	2.85584E+001	6.82189E+000
		77.11* @	10.50	3.87340E+000	1.60549E+000
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	6.90053E-001	3.23964E-001
		351.92*	37.20	7.84811E-001	5.32360E-001
Ac-228	0.986	338.32*	11.40	8.42298E-001	5.02563E-001
		911.07*	27.70	1.48033E+000	3.32163E-001
		969.11*	16.60	9.18735E-001	3.67818E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-089-F-G.CNF

Log Number:
Title: NOL-02-01-089-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN		0.993	3.757881E-001	2.479100E-001
K-40		1.000	2.736465E+001	3.665349E+000
TL-208		0.739	4.407113E-001	1.022798E-001
Pb-212	@	0.843	9.514342E-001	7.510941E-001
Bi-214		0.393	6.275031E-001	1.688250E-001
PB-214	@	0.761	7.156607E-001	2.767485E-001
Ac-228		0.986	1.153245E+000	2.213259E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.6880E-001	20.66
F 4	84.78	2.2130E-001	53.80
F 12	795.92	1.8922E-002	83.38
F 15	1378.02	2.7249E-002	36.67

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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-089-F-G.CNF

Log Number:
Title: NOL-02-01-089-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Co-60	1173.22	100.00	1.7442E-001	1.45E-001	1.0248E-001
	1332.49	100.00	1.4516E-001		4.3075E-002
Nb-94	702.63	100.00	1.8143E-001	1.66E-001	1.3836E-001
	871.10	100.00	1.6576E-001		1.8056E-001
Ag-108m	79.20	7.10	9.0720E+000	2.21E-001	-8.6623E-002
	433.93	89.90	2.2290E-001		-7.7532E-002
	614.37	90.40	2.4703E-001		-3.6578E-002
	722.95	90.50	2.2071E-001		9.6824E-002
Sb-125	176.33	6.89	3.9780E+000	6.58E-001	-3.8305E+000
	427.89	29.33	6.5815E-001		1.2690E-002
	463.38	10.35	2.1064E+000		1.2540E+000
	600.56	17.80	1.0117E+000		-1.8867E-001
	606.64	5.02	4.6164E+000		6.8383E+000
	635.90	11.32	1.5726E+000		-9.6606E-001
Cs-134	563.23	8.38	1.9936E+000	2.19E-001	1.7915E+000
	569.32	15.43	1.0122E+000		-1.1157E+000
	604.70	97.60	2.3119E-001		-7.5831E-002
	795.84	85.40	2.1854E-001		2.6418E-001
	801.93	8.73	2.0669E+000		1.6297E-001
Cs-137	661.65	85.12	2.1489E-001	2.15E-001	1.3985E-001
Eu-152	121.78	28.40	1.3451E+000	5.84E-001	3.8253E-001
	244.69	7.49	3.4345E+000		-3.2238E+000
	344.27	26.50	8.3234E-001		-2.7974E-001
	778.89	12.74	1.3873E+000		7.2016E-001
	867.32	4.16	4.1394E+000		-4.8591E+000
	964.01	14.40	1.5158E+000		1.0602E+000
	1085.78	10.00	1.5424E+000		3.0746E-001
	1112.02	13.30	1.3862E+000		-1.4748E+000
	1407.95	20.70	5.8398E-001		-1.6697E-001
Eu-154	123.07	40.50	9.2625E-001	4.83E-001	-5.4827E-001
	247.94	6.60	3.6651E+000		-2.8906E+000
	591.81	4.83	3.6899E+000		1.0080E-002

723.30	19.70	9.9654E-001	-7.6712E-001
756.87	4.33	3.8052E+000	-4.9410E+000
873.19	11.50	1.4225E+000	-5.1606E-001

	996.32	10.30	1.7702E+000		1.2588E+000
	1004.76	17.90	9.3544E-001		-4.8538E-001
	1274.45	35.50	4.8311E-001		1.9409E-001
Eu-155	86.54	30.90	1.8468E+000	1.85E+000	2.4064E+000
	105.31	20.70	2.1675E+000		1.6584E+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 8/16/2005 4:04:36 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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-090-F-G.CNF
Log Number:
Title: NOL-02-01-090-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/15/2005 9:50:21 AM

Live Time : 900.0 seconds
Real Time : 900.7 seconds

Energy Calibration Date: 4/11/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-090-F-G.CNF
Log Number:
Title: NOL-02-01-090-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	291.42	72.70	1.13	1.77E+002	48.94	6.88E+002
m	2	287-	305	300.11	74.89	1.14	3.55E+002	57.22	8.44E+002
F	3	330-	345	339.49	84.76	1.15	2.04E+002	110.56	8.02E+002
F	4	944-	963	954.63	238.98	1.34	1.63E+002	33.28	2.80E+002
F	5	1346-	1358	1352.42	338.61	1.43	7.56E+001	97.97	6.37E+001
F	6	1400-	1413	1407.66	352.44	1.44	8.20E+001	66.19	8.70E+001
F	7	2031-	2054	2043.40	511.52	2.32	1.01E+002	24.94	1.35E+002
F	8	2325-	2340	2332.33	583.77	1.59	1.25E+002	24.85	5.04E+001
F	9	2427-	2445	2437.23	609.99	1.61	1.27E+002	47.99	3.05E+001
F	10	3636-	3656	3644.72	911.64	1.77	9.96E+001	21.80	4.08E+001
F	11	3867-	3885	3876.05	969.38	1.80	6.91E+001	18.64	3.09E+001
F	12	5830-	5858	5845.01	1460.63	2.01	7.04E+002	84.75	7.43E+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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-090-F-G.CNF

Log Number:
Title: NOL-02-01-090-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	0.992	511.00*	100.00	2.93932E-001	8.34807E-002
K-40	0.999	1460.81*	10.67	2.50063E+001	3.62883E+000
TL-208	0.743	277.35	6.80		
		510.84*	21.60	1.36080E+000	4.02145E-001
		583.14*	84.20	4.47554E-001	1.06804E-001
		860.37	12.46		
Pb-212	0.523	74.81* @	10.70	1.16844E+001	2.96600E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	8.88413E-001	2.28984E-001
Bi-214	0.391	609.31*	46.30	8.35012E-001	3.32617E-001
		1120.29	15.10		
		1764.49	15.80		
Ac-228	0.994	338.32*	11.40	1.74395E+000	2.27654E+000
		911.07*	27.70	1.19613E+000	2.95717E-001
		969.11*	16.60	1.41365E+000	4.08856E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-090-F-G.CNF

Log Number:
Title: NOL-02-01-090-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN	0.992	1.972606E-001	8.655238E-002
K-40	0.999	2.500632E+001	3.628830E+000
TL-208	0.743	4.475539E-001	1.058038E-001
Pb-212 @	0.523	8.884126E-001	2.289839E-001
Bi-214	0.391	8.350125E-001	3.326168E-001
Ac-228	0.994	1.276023E+000	2.382954E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	72.70	1.9614E-001	27.72
F 3	84.76	2.2656E-001	54.22
F 6	352.44	9.1057E-002	80.77

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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-090-F-G.CNF

Log Number:
Title: NOL-02-01-090-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Co-60	1173.22	100.00	1.8602E-001	1.51E-001	1.9212E-001
	1332.49	100.00	1.5059E-001		1.7037E-001
Nb-94	702.63	100.00	1.6580E-001	1.66E-001	-5.7899E-002
	871.10	100.00	1.7589E-001		7.4034E-002
Ag-108m	79.20	7.10	8.9685E+000	2.01E-001	-4.1239E+000
	433.93	89.90	2.0145E-001		-1.4136E-001
	614.37	90.40	2.4703E-001		1.9951E-002
	722.95	90.50	2.0231E-001		-2.4519E-002
Sb-125	176.33	6.89	3.9628E+000	6.63E-001	-1.3680E+000
	427.89	29.33	6.6273E-001		3.9072E-001
	463.38	10.35	2.0331E+000		1.7324E+000
	600.56	17.80	9.6485E-001		1.7865E-001
	606.64	5.02	4.5169E+000		5.0055E+000
	635.90	11.32	1.6811E+000		6.6617E-001
Cs-134	563.23	8.38	2.3326E+000	2.16E-001	6.2997E-001
	569.32	15.43	1.2331E+000		-2.8044E-001
	604.70	97.60	2.3119E-001		-1.2273E-001
	795.84	85.40	2.1630E-001		-1.5717E-001
	801.93	8.73	2.0132E+000		1.6531E-001
Cs-137	661.65	85.12	2.1347E-001	2.13E-001	1.5742E-001
Eu-152	121.78	28.40	1.3378E+000	6.35E-001	1.3046E-001
	244.69	7.49	3.3611E+000		-1.0459E+000
	344.27	26.50	8.0107E-001		1.1441E-001
	778.89	12.74	1.3555E+000		-1.9219E+000
	867.32	4.16	4.2914E+000		1.9177E-001
	964.01	14.40	1.5644E+000		2.7635E-001
	1085.78	10.00	1.7256E+000		5.5500E-001
	1112.02	13.30	1.3744E+000		-1.2100E+000
	1407.95	20.70	6.3502E-001		2.6608E-001
Eu-154	123.07	40.50	9.2306E-001	4.37E-001	2.6881E-001
	247.94	6.60	3.5454E+000		-4.4323E+000
	591.81	4.83	3.5547E+000		2.0965E+000

723.30	19.70	9.5751E-001	1.0807E+000
756.87	4.33	4.0123E+000	-8.3762E-001
873.19	11.50	1.5056E+000	7.1558E-003

	996.32	10.30	1.5076E+000		1.4960E-001
	1004.76	17.90	9.2638E-001		-2.2140E-001
	1274.45	35.50	4.3735E-001		-1.3996E-001
Eu-155	86.54	30.90	1.8870E+000	1.89E+000	3.2477E-001
	105.31	20.70	2.1307E+000		7.7943E-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 8/16/2005 4:05:02 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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-091-F-G.CNF
Log Number:
Title: NOL-02-01-091-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/15/2005 8:21:43 AM

Live Time : 900.0 seconds
Real Time : 900.8 seconds

Energy Calibration Date: 4/11/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-091-F-G.CNF
Log Number:
Title: NOL-02-01-091-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-	312	291.97	72.84	1.13	2.70E+002	50.65	6.16E+002
m	2	286-	312	300.37	74.95	1.14	5.29E+002	59.09	7.48E+002
m	3	286-	312	308.49	76.99	1.14	1.07E+002	42.81	6.02E+002
F	4	345-	358	350.44	87.51	1.16	8.33E+001	43.51	7.42E+002
F	5	739-	748	743.37	186.04	1.28	4.22E+001	27.74	1.85E+002
F	6	948-	961	954.52	238.95	1.34	2.03E+002	36.17	2.02E+002
F	7	1347-	1358	1352.79	338.70	1.43	4.36E+001	22.08	9.83E+001
F	8	1401-	1414	1407.17	352.31	1.44	9.56E+001	26.09	1.08E+002
F	9	2031-	2050	2042.11	511.20	2.32	9.44E+001	23.67	9.93E+001
F	10	2322-	2339	2332.09	583.71	1.59	1.44E+002	21.45	5.82E+001
F	11	2429-	2446	2437.15	609.97	1.61	1.05E+002	23.65	6.33E+001
F	12	3638-	3653	3645.35	911.79	1.77	1.01E+002	71.33	2.83E+001
F	13	3868-	3883	3875.09	969.15	1.80	4.58E+001	19.31	4.28E+001
F	14	5831-	5858	5844.73	1460.56	2.01	6.64E+002	49.76	1.72E+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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-091-F-G.CNF

Log Number:
Title: NOL-02-01-091-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	0.999	511.00*	100.00	2.74896E-001	7.89532E-002
K-40	0.998	1460.81*	10.67	2.36041E+001	2.60375E+000
Eu-155	0.316	86.54*	30.90	7.74085E-001	4.31811E-001
		105.31	20.70		
TL-208	0.746	277.35	6.80		
		510.84*	21.60	1.27267E+000	3.80014E-001
		583.14*	84.20	5.14752E-001	1.02579E-001
		860.37	12.46		
Pb-212	0.998	74.81* @	10.70	1.74096E+001	3.92741E+000
		77.11* @	18.00	2.02056E+000	9.00180E-001
		87.30* @	8.00	2.98990E+000	1.66787E+000
		238.63*	44.60	1.10749E+000	2.63024E-001
Bi-214	0.391	609.31*	46.30	6.89059E-001	1.77772E-001
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.475	74.82* @	6.21	2.99971E+001	7.10877E+000
		77.11* @	10.50	3.46382E+000	1.56469E+000
		87.30* @	4.67	5.12189E+000	2.88325E+000
		241.98	7.49		
		295.21	19.20		
		351.92*	37.20	6.81680E-001	2.18212E-001
Ac-228	0.991	338.32*	11.40	1.00624E+000	5.33370E-001
		911.07*	27.70	1.21465E+000	8.67904E-001
		969.11*	16.60	9.36313E-001	4.06720E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-091-F-G.CNF

Log Number:
Title: NOL-02-01-091-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN		0.999	1.637097E-001	8.192327E-002
K-40		0.998	2.360406E+001	2.603748E+000
Eu-155		0.316	3.843326E-001	4.383489E-001
TL-208		0.746	5.147517E-001	1.011983E-001
Pb-212	@	0.998	1.107489E+000	2.630242E-001
Bi-214		0.391	6.890587E-001	1.777722E-001
PB-214	@	0.475	6.816801E-001	2.146061E-001
Ac-228		0.991	9.928272E-001	3.030598E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	3.0052E-001	18.73
F 5	186.04	4.6899E-002	65.71

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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-091-F-G.CNF

Log Number:
Title: NOL-02-01-091-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Co-60	1173.22	100.00	1.8521E-001	1.64E-001	1.0464E-001
	1332.49	100.00	1.6381E-001		2.7119E-001
Nb-94	702.63	100.00	1.7509E-001	1.64E-001	-7.5536E-002
	871.10	100.00	1.6426E-001		2.1018E-002
Ag-108m	79.20	7.10	9.0152E+000	2.05E-001	-4.6318E+000
	433.93	89.90	2.0518E-001		4.6519E-003
	614.37	90.40	2.5671E-001		-2.1245E-002
	722.95	90.50	2.1755E-001		9.8950E-002
Sb-125	176.33	6.89	3.6542E+000	6.31E-001	-3.6515E+000
	427.89	29.33	6.3148E-001		1.9229E-001
	463.38	10.35	2.0122E+000		-3.4168E-002
	600.56	17.80	9.8183E-001		2.7503E-001
	606.64	5.02	4.7398E+000		5.4909E+000
	635.90	11.32	1.5069E+000		-2.1502E+000
Cs-134	563.23	8.38	2.2192E+000	2.20E-001	-1.1741E-001
	569.32	15.43	1.2399E+000		1.9044E-001
	604.70	97.60	2.3816E-001		7.0631E-002
	795.84	85.40	2.2002E-001		-2.0118E-002
	801.93	8.73	2.0894E+000		-9.9880E-001
Cs-137	661.65	85.12	2.1630E-001	2.16E-001	1.0568E-001
Eu-152	121.78	28.40	1.3367E+000	5.84E-001	1.0717E-001
	244.69	7.49	3.3434E+000		-1.8773E+000
	344.27	26.50	8.0797E-001		-4.4265E-001
	778.89	12.74	1.4336E+000		-1.2178E+000
	867.32	4.16	4.1737E+000		-4.1656E-001
	964.01	14.40	1.4781E+000		5.1078E-001
	1085.78	10.00	1.5516E+000		-1.3352E+000
	1112.02	13.30	1.4714E+000		-1.9535E+000
	1407.95	20.70	5.8398E-001		6.8947E-002
Eu-154	123.07	40.50	9.2346E-001	4.59E-001	-1.5708E-001
	247.94	6.60	3.4573E+000		-4.5804E+000
	591.81	4.83	3.8084E+000		3.2538E+000

723.30	19.70	1.0169E+000	9.2018E-001
756.87	4.33	4.1643E+000	2.1289E+000
873.19	11.50	1.4486E+000	1.7493E+000

		996.32	10.30	1.5574E+000		1.2301E+000
		1004.76	17.90	8.6502E-001		-1.8477E-001
		1274.45	35.50	4.5949E-001		4.6289E-001
+	Eu-155	86.54*	30.90	1.4123E+000	1.41E+000	7.7409E-001
		105.31	20.70	2.0804E+000		-1.3821E+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 8/15/2005 9:31:45 AM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-092-F-G.CNF
Log Number:
Title: NOL-02-01-092-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/12/2005 3:12:03 PM

Live Time : 900.0 seconds
Real Time : 900.7 seconds

Energy Calibration Date: 4/11/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-092-F-G.CNF
Log Number:
Title: NOL-02-01-092-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-	317	291.92	72.83	1.13	2.63E+002	210.35	6.02E+002
m	2	286-	317	300.36	74.95	1.14	4.93E+002	361.37	8.31E+002
m	3	286-	317	309.19	77.16	1.14	7.09E+001	65.47	8.80E+002
F	4	332-	344	339.74	84.83	1.15	1.18E+002	142.37	6.82E+002
F	5	948-	965	955.01	239.07	1.34	2.17E+002	35.17	2.09E+002
F	6	1077-	1088	1083.35	271.22	1.37	3.21E+001	20.94	1.08E+002
F	7	1176-	1190	1182.08	295.95	1.39	7.01E+001	117.73	1.07E+002
F	8	1349-	1359	1353.80	338.95	1.43	4.29E+001	21.16	8.25E+001
F	9	1402-	1417	1408.64	352.68	1.44	7.77E+001	24.48	1.25E+002
F	10	2323-	2341	2332.78	583.88	1.59	1.13E+002	59.18	5.46E+001
F	11	2431-	2446	2437.11	609.96	1.61	9.80E+001	22.63	4.59E+001
F	12	3637-	3654	3646.12	911.99	1.77	1.06E+002	21.51	2.46E+001
F	13	3868-	3886	3876.94	969.61	1.80	7.27E+001	19.92	4.31E+001
F	14	5831-	5860	5846.30	1460.95	2.01	7.26E+002	88.04	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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-092-F-G.CNF

Log Number:
Title: NOL-02-01-092-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
K-40	0.999	1460.81*	10.67	2.58062E+001	3.76240E+000
TL-208	0.462	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	4.05144E-001	2.18493E-001
		860.37	12.46		
Pb-212	0.842	74.81* @	10.70	1.62070E+001	1.23081E+001
		77.11* @	18.00	1.33375E+000	1.25991E+000
		87.30 @	8.00		
		238.63*	44.60	1.18511E+000	2.67255E-001
Bi-214	0.391	609.31*	46.30	6.45020E-001	1.69235E-001
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.754	74.82* @	6.21	2.79251E+001	2.13038E+001
		77.11* @	10.50	2.28643E+000	2.16658E+000
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	9.32732E-001	1.57336E+000
		351.92*	37.20	5.54110E-001	1.97680E-001
Ac-228	0.983	338.32*	11.40	9.89153E-001	5.12394E-001
		911.07*	27.70	1.27595E+000	2.97055E-001
		969.11*	16.60	1.48666E+000	4.35994E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-092-F-G.CNF

Log Number:
Title: NOL-02-01-092-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
K-40		0.999	2.580619E+001	3.762401E+000
TL-208		0.462	4.051437E-001	2.184933E-001
Pb-212	@	0.842	1.185106E+000	2.672549E-001
Bi-214		0.391	6.450204E-001	1.692352E-001
PB-214	@	0.754	5.599943E-001	1.961378E-001
Ac-228		0.983	1.276741E+000	2.213928E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.9169E-001	80.13
F 4	84.83	1.3122E-001	120.55
F 6	271.22	3.5681E-002	65.20

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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-092-F-G.CNF

Log Number:
Title: NOL-02-01-092-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Co-60	1173.22	100.00	1.8032E-001	1.53E-001	-9.8136E-002
	1332.49	100.00	1.5270E-001		5.1803E-002
Nb-94	702.63	100.00	1.7829E-001	1.67E-001	1.6085E-001
	871.10	100.00	1.6651E-001		1.2432E-001
Ag-108m	79.20	7.10	9.0694E+000	2.11E-001	-4.7956E-001
	433.93	89.90	2.1449E-001		5.8453E-002
	614.37	90.40	2.4859E-001		6.4195E-002
	722.95	90.50	2.1106E-001		-9.9528E-003
Sb-125	176.33	6.89	4.0533E+000	6.55E-001	1.2055E+000
	427.89	29.33	6.5507E-001		3.2594E-001
	463.38	10.35	1.8684E+000		-1.1291E+000
	600.56	17.80	1.1372E+000		5.3146E-001
	606.64	5.02	4.9190E+000		1.0991E+001
	635.90	11.32	1.6457E+000		3.4210E-002
Cs-134	563.23	8.38	2.1997E+000	2.13E-001	-4.6170E-001
	569.32	15.43	1.2399E+000		-9.0163E-001
	604.70	97.60	2.5020E-001		-1.0983E-001
	795.84	85.40	2.1250E-001		9.1218E-002
	801.93	8.73	1.9818E+000		-3.1133E+000
Cs-137	661.65	85.12	2.2252E-001	2.23E-001	5.1551E-002
Eu-152	121.78	28.40	1.3484E+000	5.57E-001	2.6884E-001
	244.69	7.49	3.4586E+000		-1.6192E+000
	344.27	26.50	8.0522E-001		-7.6586E-001
	778.89	12.74	1.3174E+000		-7.0400E-002
	867.32	4.16	4.2748E+000		-4.3937E+000
	964.01	14.40	1.5803E+000		7.3963E-001
	1085.78	10.00	1.7501E+000		2.1078E-001
	1112.02	13.30	1.4323E+000		-1.7362E+000
	1407.95	20.70	5.5653E-001		7.9511E-002
Eu-154	123.07	40.50	9.3417E-001	4.49E-001	3.5313E-002
	247.94	6.60	3.7152E+000		-1.5851E+000
	591.81	4.83	3.8663E+000		5.6075E-001

723.30	19.70	9.7271E-001	2.1921E-001
756.87	4.33	4.2818E+000	2.2002E+000
873.19	11.50	1.4356E+000	-5.8788E-001

	996.32	10.30	1.7342E+000		1.1315E+000
	1004.76	17.90	8.9861E-001		2.5928E-001
	1274.45	35.50	4.4856E-001		-7.8438E-004
Eu-155	86.54	30.90	1.8673E+000	1.87E+000	1.6212E+000
	105.31	20.70	2.1315E+000		1.0154E+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 8/15/2005 9:34:35 AM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-093-F-G.CNF
Log Number:
Title: NOL-02-01-093-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/12/2005 8:41:38 AM

Live Time : 900.0 seconds
Real Time : 900.9 seconds

Energy Calibration Date: 4/11/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-093-F-G.CNF
Log Number:
Title: NOL-02-01-093-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	291.62	72.76	1.13	2.77E+002	66.64	1.12E+003
m	2	282-	306	300.27	74.93	1.14	5.78E+002	81.60	1.20E+003
	3	335-	346	339.89	84.86	0.77	7.75E+001	93.49	8.68E+002
F	4	943-	961	954.27	238.89	1.34	2.17E+002	38.29	3.35E+002
F	5	1175-	1185	1179.89	295.40	1.39	4.71E+001	23.58	1.17E+002
F	6	1346-	1359	1352.95	338.74	1.43	6.84E+001	23.93	1.20E+002
F	7	1400-	1413	1406.56	352.16	1.44	8.52E+001	25.97	1.32E+002
F	8	1516-	1525	1521.12	380.84	1.46	3.72E+001	19.18	5.85E+001
F	9	2034-	2053	2042.66	511.33	2.32	1.20E+002	25.18	9.73E+001
F	10	2322-	2338	2332.11	583.71	1.59	1.34E+002	25.67	6.94E+001
F	11	2430-	2445	2436.62	609.84	1.61	1.12E+002	24.11	4.86E+001
F	12	2903-	2917	2909.41	727.99	1.68	3.74E+001	17.01	4.73E+001
F	13	3434-	3447	3440.63	860.68	1.75	3.37E+001	16.03	3.47E+001
F	14	3635-	3653	3644.30	911.53	1.77	1.09E+002	23.40	5.24E+001
F	15	3869-	3882	3875.36	969.21	1.80	5.27E+001	19.22	4.17E+001
F	16	4683-	4702	4693.32	1173.33	1.89	7.94E+001	21.55	5.24E+001
F	17	5321-	5340	5330.24	1332.23	1.96	1.25E+002	22.90	1.53E+001
F	18	5831-	5857	5844.10	1460.40	2.01	7.71E+002	92.84	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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-093-F-G.CNF

Log Number:
Title: NOL-02-01-093-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	0.997	511.00*	100.00	3.48827E-001	8.81190E-002
K-40	0.995	1460.81*	10.67	2.74079E+001	3.97597E+000
Co-60	0.999	1173.22*	100.00	2.86710E-001	8.10286E-002
		1332.49*	100.00	4.63564E-001	9.25773E-002
TL-208	0.897	277.35	6.80		
		510.84*	21.60	1.61494E+000	4.28747E-001
		583.14*	84.20	4.80376E-001	1.11688E-001
		860.37*	12.46	8.87679E-001	4.36034E-001
Bi-212	0.980	727.17*	11.80	1.00518E+000	4.72719E-001
Pb-212	0.523	74.81* @	10.70	1.90228E+001	4.59525E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.18544E+000	2.79784E-001
Bi-214	0.394	609.31*	46.30	7.36203E-001	1.83288E-001
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.587	74.82* @	6.21	3.27769E+001	8.26752E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	6.26040E-001	3.30608E-001
		351.92*	37.20	6.07826E-001	2.11251E-001
Ac-228	0.996	338.32*	11.40	1.57873E+000	6.04980E-001
		911.07*	27.70	1.31127E+000	3.18893E-001
		969.11*	16.60	1.07835E+000	4.08907E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-093-F-G.CNF

Log Number:
Title: NOL-02-01-093-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN		0.997	2.397266E-001	9.110921E-002
K-40		0.995	2.740789E+001	3.975967E+000
Co-60		0.999	3.634239E-001	6.097260E-002
TL-208		0.897	5.050957E-001	1.071773E-001
Bi-212		0.980	1.005178E+000	4.727187E-001
Pb-212	@	0.523	1.185439E+000	2.797838E-001
Bi-214		0.394	7.362027E-001	1.832881E-001
PB-214	@	0.587	6.131067E-001	1.780131E-001
Ac-228		0.996	1.275563E+000	2.322039E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	3.0833E-001	24.01
3	84.86	8.6156E-002	120.57
F 8	380.84	4.1345E-002	51.55

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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-093-F-G.CNF

Log Number:
Title: NOL-02-01-093-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
+	Co-60	1173.22*	100.00	1.7090E-001	1.00E-001	2.8671E-001
		1332.49*	100.00	1.0036E-001		4.6356E-001
	Nb-94	702.63	100.00	2.0692E-001	2.05E-001	3.9632E-002
		871.10	100.00	2.0494E-001		3.5810E-002
	Ag-108m	79.20	7.10	1.0338E+001	2.30E-001	-1.0332E+001
		433.93	89.90	2.3006E-001		6.2716E-002
		614.37	90.40	2.7360E-001		6.0668E-002
		722.95	90.50	2.3530E-001		-3.1465E-002
	Sb-125	176.33	6.89	4.6267E+000	7.01E-001	-6.6434E-001
		427.89	29.33	7.0120E-001		-1.4938E-001
		463.38	10.35	2.2117E+000		2.7642E+000
		600.56	17.80	1.1572E+000		2.6913E-001
		606.64	5.02	5.0266E+000		8.2523E+000
		635.90	11.32	1.7495E+000		2.8678E-001
	Cs-134	563.23	8.38	2.4870E+000	2.44E-001	7.9239E-001
		569.32	15.43	1.3482E+000		-1.8967E+000
		604.70	97.60	2.6000E-001		1.1063E-001
		795.84	85.40	2.4379E-001		8.5881E-002
		801.93	8.73	2.1915E+000		-8.7266E-001
	Cs-137	661.65	85.12	2.4082E-001	2.41E-001	7.1346E-002
	Eu-152	121.78	28.40	1.5419E+000	6.71E-001	-7.9155E-002
		244.69	7.49	3.8541E+000		-2.5930E+000
		344.27	26.50	8.8277E-001		-8.3238E-001
		778.89	12.74	1.4387E+000		-7.3396E-002
		867.32	4.16	4.7616E+000		-1.0485E-001
		964.01	14.40	1.6385E+000		1.2171E+000
		1085.78	10.00	1.7902E+000		-1.4248E+000
		1112.02	13.30	1.4769E+000		-1.9516E+000
		1407.95	20.70	6.7056E-001		2.3988E-001
	Eu-154	123.07	40.50	1.0738E+000	5.08E-001	1.5338E-001
		247.94	6.60	4.1934E+000		-2.1903E+000
		591.81	4.83	4.2484E+000		5.2287E+000

723.30	19.70	1.0837E+000	-2.0471E-001
756.87	4.33	4.3677E+000	-4.3713E-001
873.19	11.50	1.7985E+000	-1.0352E-001

	996.32	10.30	1.9136E+000		8.6502E-001
	1004.76	17.90	1.0048E+000		-1.6229E+000
	1274.45	35.50	5.0799E-001		3.5633E-001
Eu-155	86.54	30.90	2.0987E+000	2.10E+000	3.5346E+000
	105.31	20.70	2.4071E+000		-3.0732E-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 8/15/2005 9:36:21 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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-094-F--G.CNF
Log Number:
Title: NOL-02-01-094-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/11/2005 2:18:51 PM

Live Time : 900.0 seconds
Real Time : 900.8 seconds

Energy Calibration Date: 4/11/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-094-F--G.CNF
Log Number:
Title: NOL-02-01-094-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-	307	292.24	72.91	1.13	2.93E+002	56.88	8.41E+002
m	2	288-	307	300.58	75.00	1.14	4.25E+002	63.38	1.21E+003
F	3	330-	345	339.02	84.65	1.15	1.75E+002	67.11	1.04E+003
F	4	739-	748	744.21	186.24	1.29	4.38E+001	30.67	2.37E+002
F	5	945-	960	954.21	238.87	1.34	2.43E+002	39.30	2.88E+002
F	6	1032-	1041	1036.47	259.48	1.36	2.81E+001	19.01	1.21E+002
F	7	1172-	1190	1181.48	295.80	1.39	7.48E+001	24.32	1.69E+002
F	8	1345-	1358	1353.40	338.85	1.43	5.39E+001	23.06	1.28E+002
F	9	1401-	1414	1408.01	352.53	1.44	9.83E+001	26.19	1.20E+002
F	10	2035-	2056	2044.37	511.76	2.32	1.19E+002	25.93	1.15E+002
F	11	2323-	2340	2332.81	583.89	1.59	1.47E+002	63.41	7.19E+001
F	12	2429-	2446	2436.50	609.81	1.61	8.26E+001	22.78	8.24E+001
F	13	3158-	3170	3164.11	791.62	1.71	1.75E+001	12.10	1.97E+001
F	14	3635-	3654	3645.46	911.82	1.77	1.17E+002	38.02	4.49E+001
F	15	3869-	3886	3877.25	969.68	1.80	6.68E+001	19.61	4.76E+001
F	16	4478-	4490	4484.63	1121.26	1.87	3.67E+001	59.67	2.45E+001
F	17	4686-	4704	4695.66	1173.92	1.89	1.22E+002	55.65	3.31E+001
F	18	5323-	5342	5332.65	1332.83	1.96	1.54E+002	25.50	2.44E+001
F	19	5834-	5858	5846.51	1461.00	2.01	7.41E+002	52.69	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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-094-F--G.CNF

Log Number:
Title: NOL-02-01-094-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	0.983	511.00*	100.00	3.45763E-001	8.96901E-002
K-40	0.999	1460.81*	10.67	2.63288E+001	2.83726E+000
Co-60	0.991	1173.22*	100.00	4.41707E-001	2.03969E-001
		1332.49*	100.00	5.72206E-001	1.04883E-001
TL-208	0.737	277.35	6.80		
		510.84*	21.60	1.60076E+000	4.35324E-001
		583.14*	84.20	5.26594E-001	2.37392E-001
		860.37	12.46		
Pb-212	0.523	74.81* @	10.70	1.39785E+001	3.44211E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.32722E+000	2.98923E-001
Bi-214	0.690	609.31*	46.30	5.44124E-001	1.64548E-001
		1120.29*	15.10	8.64652E-001	1.40926E+000
		1764.49	15.80		
PB-214	0.581	74.82* @	6.21	2.40853E+001	6.18319E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	9.93937E-001	3.64055E-001
		351.92*	37.20	7.01218E-001	2.20563E-001
Ac-228	0.987	338.32*	11.40	1.24372E+000	5.66636E-001
		911.07*	27.70	1.40145E+000	4.84162E-001
		969.11*	16.60	1.36634E+000	4.25645E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-094-F--G.CNF

Log Number:
Title: NOL-02-01-094-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN		0.983	2.320191E-001	1.032466E-001
K-40		0.999	2.632879E+001	2.837258E+000
Co-60		0.991	5.449165E-001	9.327382E-002
TL-208		0.737	5.265939E-001	2.367709E-001
Pb-212	@	0.523	1.327222E+000	2.989232E-001
Bi-214		0.690	5.484353E-001	1.634372E-001
PB-214	@	0.581	7.798137E-001	1.886428E-001
Ac-228		0.987	1.348342E+000	2.784222E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	3.2540E-001	19.42
F 3	84.65	1.9472E-001	38.29
F 4	186.24	4.8615E-002	70.09
F 6	259.48	3.1257E-002	67.59
F 13	791.62	1.9405E-002	69.28

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

Errors quoted at 1.960 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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-094-F--G.CNF

Log Number:
Title: NOL-02-01-094-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
+	Co-60	1173.22*	100.00	1.3546E-001	1.23E-001	4.4171E-001
		1332.49*	100.00	1.2288E-001		5.7221E-001
	Nb-94	702.63	100.00	1.9804E-001	1.93E-001	-4.4339E-002
		871.10	100.00	1.9260E-001		-2.3660E-001
	Ag-108m	79.20	7.10	1.0154E+001	2.32E-001	-4.8126E+000
		433.93	89.90	2.4061E-001		-1.0305E-001
		614.37	90.40	2.7313E-001		-1.1982E-001
		722.95	90.50	2.3234E-001		-9.7944E-002
	Sb-125	176.33	6.89	4.6267E+000	7.39E-001	9.5952E-003
		427.89	29.33	7.3896E-001		2.5145E-001
		463.38	10.35	2.2643E+000		1.5801E+000
		600.56	17.80	1.1629E+000		4.1217E-001
		606.64	5.02	5.1479E+000		8.2546E+000
		635.90	11.32	1.7967E+000		3.9335E-001
	Cs-134	563.23	8.38	2.4755E+000	2.46E-001	-4.7434E-001
		569.32	15.43	1.3608E+000		1.6927E-001
		604.70	97.60	2.5536E-001		-6.4278E-004
		795.84	85.40	2.4577E-001		1.6648E-001
		801.93	8.73	2.3491E+000		-3.2079E+000
	Cs-137	661.65	85.12	2.5423E-001	2.54E-001	6.9321E-002
	Eu-152	121.78	28.40	1.5326E+000	5.91E-001	9.6997E-001
		244.69	7.49	3.8171E+000		-3.3091E+000
		344.27	26.50	9.0751E-001		-8.7166E-001
		778.89	12.74	1.5500E+000		5.8332E-002
		867.32	4.16	4.7317E+000		-5.1567E+000
		964.01	14.40	1.6871E+000		9.4100E-002
		1085.78	10.00	2.1087E+000		-6.8187E-001
		1112.02	13.30	1.5569E+000		-2.7879E-001
		1407.95	20.70	5.9062E-001		2.2717E-001
	Eu-154	123.07	40.50	1.0624E+000	4.75E-001	-9.9881E-002
		247.94	6.60	4.1492E+000		-3.9087E+000
		591.81	4.83	4.3001E+000		4.4474E+000

723.30	19.70	1.0783E+000	4.6851E-001
756.87	4.33	4.4240E+000	-3.7851E+000
873.19	11.50	1.6700E+000	8.3833E-001

	996.32	10.30	1.8536E+000		1.7434E-001
	1004.76	17.90	1.0090E+000		-2.1134E-001
	1274.45	35.50	4.7537E-001		-2.9329E-001
Eu-155	86.54	30.90	2.0740E+000	2.07E+000	3.2913E-004
	105.31	20.70	2.4196E+000		-1.2229E+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 8/15/2005 9:37:01 AM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-095-F-G.CNF
Log Number:
Title: NOL-02-01-095-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/11/2005 1:20:15 PM

Live Time : 900.0 seconds
Real Time : 900.9 seconds

Energy Calibration Date: 4/11/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-095-F-G.CNF
Log Number:
Title: NOL-02-01-095-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	291.71	72.78	1.13	2.70E+002	127.56	1.01E+003
m	2	282-	305	300.35	74.94	1.14	5.04E+002	203.35	1.04E+003
M	3	333-	355	339.20	84.69	1.15	1.91E+002	50.51	8.72E+002
m	4	333-	355	349.95	87.39	1.16	7.12E+001	45.72	9.10E+002
F	5	948-	961	954.72	239.00	1.34	2.10E+002	38.09	2.55E+002
F	6	1345-	1359	1353.38	338.85	1.43	6.08E+001	59.55	1.13E+002
F	7	1398-	1418	1407.70	352.45	1.44	1.01E+002	68.43	1.43E+002
F	8	2036-	2055	2044.38	511.76	2.32	1.40E+002	28.50	1.33E+002
F	9	2325-	2343	2333.03	583.94	1.59	1.28E+002	27.00	6.59E+001
F	10	2430-	2448	2437.17	609.98	1.61	9.56E+001	22.67	6.78E+001
F	11	2638-	2654	2645.67	662.09	1.64	4.26E+001	17.75	5.98E+001
F	12	3637-	3655	3646.02	911.96	1.77	8.25E+001	82.51	5.66E+001
F	13	3870-	3885	3877.36	969.71	1.80	5.51E+001	76.78	5.64E+001
F	14	4687-	4706	4695.37	1173.85	1.89	1.50E+002	25.77	3.08E+001
F	15	5322-	5343	5332.42	1332.77	1.96	2.09E+002	67.73	1.00E+001
F	16	5832-	5860	5846.33	1460.96	2.01	7.05E+002	81.94	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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-095-F-G.CNF

Log Number:
Title: NOL-02-01-095-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	0.982	511.00*	100.00	4.06696E-001	1.00653E-001
K-40	0.999	1460.81*	10.67	2.50517E+001	3.54871E+000
Co-60	0.993	1173.22*	100.00	5.43095E-001	1.02344E-001
		1332.49*	100.00	7.78447E-001	2.59117E-001
Cs-137	0.994	661.65*	85.12	1.55767E-001	6.74861E-002
TL-208	0.736	277.35	6.80		
		510.84*	21.60	1.88285E+000	4.90699E-001
		583.14*	84.20	4.58185E-001	1.14052E-001
		860.37	12.46		
Pb-212	0.677	74.81* @	10.70	1.65759E+001	7.43865E+000
		77.11 @	18.00		
		87.30* @	8.00	2.55963E+000	1.71847E+000
		238.63*	44.60	1.14481E+000	2.74758E-001
Bi-214	0.391	609.31*	46.30	6.29243E-001	1.68531E-001
		1120.29	15.10		
		1764.49	15.80		
Ac-228	0.983	338.32*	11.40	1.40195E+000	1.39156E+000
		911.07*	27.70	9.91214E-001	9.97506E-001
		969.11*	16.60	1.12691E+000	1.57427E+000

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-095-F-G.CNF

Log Number:
Title: NOL-02-01-095-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

	Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
	ANN	0.982	3.077279E-001	1.035734E-001
	K-40	0.999	2.505166E+001	3.548715E+000
	Co-60	0.993	5.748555E-001	9.518805E-002
	Cs-137	0.994	1.557672E-001	6.748606E-002
X	Eu-155	0.320		
	TL-208	0.736	4.581853E-001	1.130700E-001
	Pb-212 @	0.677	1.144812E+000	2.747585E-001
	Bi-214	0.391	6.292429E-001	1.685306E-001
	Ac-228	0.983	1.129851E+000	7.207659E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	3.0031E-001	47.20
M 3	84.69	2.1261E-001	26.40
F 7	352.45	1.1207E-001	67.84

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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-095-F-G.CNF

Log Number:
Title: NOL-02-01-095-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
+	Co-60	1173.22*	100.00	1.3136E-001	8.33E-002	5.4309E-001
		1332.49*	100.00	8.3267E-002		7.7845E-001
	Nb-94	702.63	100.00	2.2003E-001	1.89E-001	5.9856E-002
		871.10	100.00	1.8938E-001		1.8119E-002
	Ag-108m	79.20	7.10	1.0094E+001	2.18E-001	-1.9802E+001
		433.93	89.90	2.1849E-001		-2.1089E-001
		614.37	90.40	2.7546E-001		2.7881E-002
		722.95	90.50	2.3995E-001		1.5847E-001
	Sb-125	176.33	6.89	4.5611E+000	7.27E-001	2.2519E+000
		427.89	29.33	7.2660E-001		3.1105E-001
		463.38	10.35	2.0289E+000		-1.8237E-001
		600.56	17.80	1.1544E+000		1.5826E+000
		606.64	5.02	4.8516E+000		-1.0179E+000
		635.90	11.32	1.6811E+000		-6.7230E-001
	Cs-134	563.23	8.38	2.4697E+000	2.45E-001	-1.3152E+000
		569.32	15.43	1.4037E+000		-1.5375E-002
		604.70	97.60	2.4492E-001		-1.0128E-002
		795.84	85.40	2.6657E-001		2.2313E-001
		801.93	8.73	2.4715E+000		-2.1277E+000
+	Cs-137	661.65*	85.12	1.7510E-001	1.75E-001	1.5577E-001
	Eu-152	121.78	28.40	1.5243E+000	6.47E-001	8.2913E-001
		244.69	7.49	3.9511E+000		2.5915E+000
		344.27	26.50	8.4819E-001		-2.4902E-001
		778.89	12.74	1.6004E+000		-1.2382E+000
		867.32	4.16	4.7616E+000		-9.7742E-002
		964.01	14.40	1.7272E+000		4.3134E-001
		1085.78	10.00	1.7902E+000		-1.7108E+000
		1112.02	13.30	1.5413E+000		-1.5788E+000
		1407.95	20.70	6.4710E-001		6.4972E-001
	Eu-154	123.07	40.50	1.0686E+000	4.83E-001	-1.0795E-001
		247.94	6.60	4.2153E+000		-2.9422E+000
		591.81	4.83	3.9905E+000		1.5081E+000

723.30	19.70	1.0945E+000	3.9492E-001
756.87	4.33	4.3960E+000	-3.4857E+000
873.19	11.50	1.6133E+000	-9.2649E-001

	996.32	10.30	1.8468E+000		5.5446E-001
	1004.76	17.90	1.0537E+000		-2.5809E-001
	1274.45	35.50	4.8311E-001		-4.8149E-001
Eu-155	86.54*	30.90	1.3314E+000	1.33E+000	6.6269E-001
	105.31	20.70	2.3895E+000		5.5161E-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 8/15/2005 9:38:27 AM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-096-F-G.CNF
Log Number:
Title: NOL-02-01-096-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/11/2005 11:46:31 AM

Live Time : 900.0 seconds
Real Time : 900.8 seconds

Energy Calibration Date: 4/11/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-096-F-G.CNF
Log Number:
Title: NOL-02-01-096-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	291.69	72.77	1.13	2.92E+002	55.72	1.00E+003
m	2	282-	306	300.54	74.99	1.14	5.38E+002	65.87	1.05E+003
M	3	333-	355	339.73	84.82	1.15	2.22E+002	51.73	8.83E+002
m	4	333-	355	349.59	87.30	1.16	1.37E+002	47.27	8.77E+002
F	5	949-	961	954.57	238.96	1.34	1.33E+002	35.10	2.65E+002
F	6	1348-	1359	1353.25	338.82	1.43	5.05E+001	23.97	1.20E+002
F	7	1397-	1413	1407.78	352.47	1.44	1.04E+002	58.07	1.36E+002
F	8	2030-	2055	2043.12	511.45	2.32	1.64E+002	62.82	1.02E+002
F	9	2325-	2343	2333.29	584.01	1.59	1.06E+002	23.32	6.53E+001
F	10	2429-	2445	2436.84	609.90	1.61	9.06E+001	22.56	6.54E+001
F	11	2638-	2655	2646.38	662.27	1.64	6.45E+001	21.04	8.14E+001
F	12	3636-	3654	3644.79	911.65	1.77	1.18E+002	24.95	6.40E+001
F	13	3869-	3881	3875.66	969.29	1.80	4.27E+001	18.93	4.87E+001
F	14	4684-	4704	4693.64	1173.42	1.89	1.60E+002	26.62	3.60E+001
F	15	4736-	4749	4743.12	1185.76	1.90	1.19E+001	10.91	1.56E+001
F	16	5320-	5341	5330.81	1332.37	1.96	1.78E+002	29.17	3.31E+001
F	17	5831-	5858	5845.34	1460.71	2.01	6.23E+002	79.90	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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-096-F-G.CNF

Log Number:
Title: NOL-02-01-096-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	0.994	511.00*	100.00	4.77164E-001	1.94721E-001
K-40	1.000	1460.81*	10.67	2.21358E+001	3.35766E+000
Co-60	0.999	1173.22*	100.00	5.77776E-001	1.06298E-001
		1332.49*	100.00	6.62755E-001	1.20249E-001
Cs-137	0.988	661.65*	85.12	2.36072E-001	8.18473E-002
Eu-155	0.323	86.54*	30.90	1.27532E+000	5.06517E-001
		105.31	20.70		
TL-208	0.736	277.35	6.80		
		510.84*	21.60	2.20909E+000	9.19362E-001
		583.14*	84.20	3.80337E-001	9.74259E-002
		860.37	12.46		
Pb-212	0.677	74.81* @	10.70	1.76804E+001	4.08647E+000
		77.11 @	18.00		
		87.30* @	8.00	4.92594E+000	1.95642E+000
		238.63*	44.60	7.24733E-001	2.22851E-001
Bi-214	0.393	609.31*	46.30	5.96512E-001	1.66028E-001
		1120.29	15.10		
		1764.49	15.80		
Ac-228	0.993	338.32*	11.40	1.16444E+000	5.82371E-001
		911.07*	27.70	1.41743E+000	3.41040E-001
		969.11*	16.60	8.72188E-001	3.97685E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-096-F-G.CNF

Log Number:
Title: NOL-02-01-096-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN		0.994	3.950113E-001	1.958368E-001
K-40		1.000	2.213579E+001	3.357662E+000
Co-60		0.999	6.150521E-001	7.964173E-002
Cs-137		0.988	2.360721E-001	8.184732E-002
Eu-155		0.323	1.087692E+000	5.097925E-001
TL-208		0.736	3.803370E-001	9.663428E-002
Pb-212	@	0.677	7.247326E-001	2.228514E-001
Bi-214		0.393	5.965117E-001	1.660284E-001
Ac-228		0.993	1.182754E+000	2.365624E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	3.2396E-001	19.11
M 3	84.82	2.4699E-001	23.27
F 7	352.47	1.1589E-001	55.67
F 15	1185.76	1.3178E-002	91.98

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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-096-F-G.CNF

Log Number:
Title: NOL-02-01-096-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
+	Co-60	1173.22*	100.00	1.4509E-001	1.45E-001	5.7778E-001
		1332.49*	100.00	1.4677E-001		6.6276E-001
	Nb-94	702.63	100.00	2.0853E-001	2.01E-001	1.0550E-001
		871.10	100.00	2.0071E-001		5.9185E-002
	Ag-108m	79.20	7.10	1.0073E+001	2.36E-001	-6.0642E+000
		433.93	89.90	2.3563E-001		-1.4790E-001
		614.37	90.40	2.7639E-001		2.9435E-002
		722.95	90.50	2.3880E-001		-3.2218E-002
	Sb-125	176.33	6.89	4.4837E+000	7.77E-001	2.3123E+000
		427.89	29.33	7.7740E-001		-7.4723E-002
		463.38	10.35	2.2974E+000		1.0746E+000
		600.56	17.80	1.1139E+000		-4.9678E-001
		606.64	5.02	4.7745E+000		5.3747E+000
		635.90	11.32	1.8060E+000		-5.7496E-001
	Cs-134	563.23	8.38	2.4928E+000	2.43E-001	5.9103E-001
		569.32	15.43	1.3292E+000		-1.1234E+000
		604.70	97.60	2.4314E-001		-4.3465E-002
		795.84	85.40	2.4313E-001		-1.5398E-001
		801.93	8.73	2.3359E+000		-4.1278E+000
+	Cs-137	661.65*	85.12	2.0650E-001	2.07E-001	2.3607E-001
	Eu-152	121.78	28.40	1.4747E+000	6.10E-001	-4.0124E-001
		244.69	7.49	3.7069E+000		-5.4424E-001
		344.27	26.50	8.8527E-001		-2.1412E-001
		778.89	12.74	1.5685E+000		-5.8376E-001
		867.32	4.16	4.9934E+000		2.0168E+000
		964.01	14.40	1.7523E+000		2.4312E+000
		1085.78	10.00	1.8600E+000		9.7610E-001
		1112.02	13.30	1.6229E+000		-2.2459E+000
		1407.95	20.70	6.1008E-001		4.1036E-001
	Eu-154	123.07	40.50	1.0265E+000	4.73E-001	-5.6071E-002
		247.94	6.60	3.9286E+000		-2.7570E+000
		591.81	4.83	4.1749E+000		2.5561E-001

723.30	19.70	1.0891E+000	4.2026E-001
756.87	4.33	4.6555E+000	3.3282E+000
873.19	11.50	1.6588E+000	-3.0197E-001

		996.32	10.30	1.8400E+000		-3.5563E-001
		1004.76	17.90	1.1117E+000		5.1915E-001
		1274.45	35.50	4.7276E-001		-5.2595E-001
+	Eu-155	86.54*	30.90	1.3095E+000	1.31E+000	1.2753E+000
		105.31	20.70	2.4085E+000		9.4210E-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 8/16/2005 4:06:49 PM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-097-F-G.CNF
Log Number:
Title: NOL-02-01-097-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/15/2005 1:35:06 PM

Live Time : 900.0 seconds
Real Time : 900.7 seconds

Energy Calibration Date: 4/11/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-097-F-G.CNF
Log Number:
Title: NOL-02-01-097-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	291.48	72.72	1.13	1.75E+002	47.46	7.62E+002
m	2	285-	305	300.46	74.97	1.14	3.76E+002	58.02	8.18E+002
F	3	333-	345	339.84	84.85	1.15	1.23E+002	45.37	7.04E+002
F	4	513-	523	518.61	129.69	1.22	5.00E+001	31.47	2.91E+002
F	5	946-	960	954.79	239.02	1.34	1.80E+002	34.18	1.90E+002
F	6	1176-	1185	1180.76	295.62	1.39	4.79E+001	22.87	9.16E+001
F	7	1347-	1360	1353.01	338.76	1.43	5.52E+001	21.65	9.80E+001
F	8	1403-	1413	1408.57	352.67	1.44	6.14E+001	22.74	7.94E+001
F	9	1789-	1799	1794.55	449.27	1.51	1.79E+001	13.47	2.99E+001
F	10	2034-	2054	2044.37	511.76	2.32	1.13E+002	24.01	8.93E+001
F	11	2324-	2343	2333.15	583.97	1.59	1.31E+002	55.70	3.74E+001
F	12	2429-	2443	2437.15	609.97	1.61	9.84E+001	22.93	5.06E+001
F	13	3174-	3185	3179.77	795.53	1.71	1.20E+001	10.67	1.33E+001
F	14	3636-	3653	3644.82	911.66	1.77	8.18E+001	47.55	4.07E+001
F	15	3870-	3887	3877.71	969.80	1.80	7.30E+001	18.29	1.96E+001
F	16	5833-	5859	5846.18	1460.92	2.01	6.77E+002	50.58	2.33E+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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-097-F-G.CNF

Log Number:
Title: NOL-02-01-097-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	0.983	511.00*		100.00	3.29697E-001	8.37959E-002
K-40	1.000	1460.81*		10.67	2.40584E+001	2.65040E+000
TL-208	0.735	277.35		6.80		
		510.84*		21.60	1.52638E+000	4.07479E-001
		583.14*		84.20	4.67895E-001	2.08760E-001
		860.37		12.46		
Pb-212	0.522	74.81*	@	10.70	1.23763E+001	3.08655E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	9.85705E-001	2.42348E-001
Bi-214	0.391	609.31*		46.30	6.48188E-001	1.71155E-001
		1120.29		15.10		
		1764.49		15.80		
PB-214	0.579	74.82*	@	6.21	2.13248E+001	5.53893E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	6.36443E-001	3.22338E-001
		351.92*		37.20	4.38175E-001	1.77985E-001
Ac-228	0.989	338.32*		11.40	1.27311E+000	5.37857E-001
		911.07*		27.70	9.82165E-001	5.82120E-001
		969.11*		16.60	1.49315E+000	4.05391E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-097-F-G.CNF

Log Number:
Title: NOL-02-01-097-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN		0.983	2.286320E-001	9.510103E-002
K-40		1.000	2.405837E+001	2.650399E+000
TL-208		0.735	4.678950E-001	2.082026E-001
Pb-212	@	0.522	9.857048E-001	2.423485E-001
Bi-214		0.391	6.481883E-001	1.711551E-001
PB-214	@	0.579	4.845006E-001	1.558107E-001
Ac-228		0.989	1.311558E+000	2.829259E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	1.9488E-001	27.06
F 3	84.85	1.3626E-001	37.00
F 4	129.69	5.5527E-002	62.97
F 9	449.27	1.9873E-002	75.31
F 13	795.53	1.3335E-002	88.94

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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-097-F-G.CNF

Log Number:
Title: NOL-02-01-097-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Co-60	1173.22	100.00	1.8602E-001	1.43E-001	8.6843E-003
	1332.49	100.00	1.4293E-001		-4.5543E-002
Nb-94	702.63	100.00	1.8205E-001	1.53E-001	-4.0187E-002
	871.10	100.00	1.5251E-001		2.0227E-002
Ag-108m	79.20	7.10	9.0101E+000	2.06E-001	-1.3206E+001
	433.93	89.90	2.1499E-001		-1.0361E-001
	614.37	90.40	2.5369E-001		-2.2263E-001
	722.95	90.50	2.0572E-001		-1.1943E-001
Sb-125	176.33	6.89	3.9566E+000	6.49E-001	3.7132E-001
	427.89	29.33	6.4887E-001		-1.5318E-001
	463.38	10.35	1.9569E+000		1.6411E+000
	600.56	17.80	9.7168E-001		-1.7484E-001
	606.64	5.02	4.6431E+000		4.3100E+000
	635.90	11.32	1.6660E+000		1.7425E+000
Cs-134	563.23	8.38	2.0152E+000	1.88E-001	-8.2167E-001
	569.32	15.43	1.1433E+000		3.3534E-001
	604.70	97.60	2.3024E-001		4.6473E-002
	795.84	85.40	1.8804E-001		-1.6771E-001
	801.93	8.73	1.9010E+000		2.1529E-001
Cs-137	661.65	85.12	2.1204E-001	2.12E-001	1.0754E-001
Eu-152	121.78	28.40	1.3111E+000	5.57E-001	4.1772E-001
	244.69	7.49	3.3505E+000		-2.6377E+000
	344.27	26.50	8.2430E-001		-4.0550E-001
	778.89	12.74	1.2609E+000		-1.1503E+000
	867.32	4.16	3.8905E+000		-1.3829E+000
	964.01	14.40	1.5033E+000		2.0710E-001
	1085.78	10.00	1.6497E+000		-7.3601E-001
	1112.02	13.30	1.2950E+000		-2.2860E+000
	1407.95	20.70	5.5653E-001		4.1093E-001
Eu-154	123.07	40.50	9.1826E-001	4.05E-001	6.8135E-001
	247.94	6.60	3.5454E+000		-2.4380E+000
	591.81	4.83	3.4786E+000		-2.0657E+000

723.30	19.70	9.6362E-001	8.5290E-001
756.87	4.33	3.8863E+000	3.1263E+000
873.19	11.50	1.2834E+000	1.5743E-001

	996.32	10.30	1.6290E+000		4.1606E-001
	1004.76	17.90	9.0330E-001		-9.1522E-001
	1274.45	35.50	4.0479E-001		2.6003E-001
Eu-155	86.54	30.90	1.8436E+000	1.84E+000	2.4785E+000
	105.31	20.70	2.0510E+000		3.9075E-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 8/16/2005 4:08:01 PM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-098-F-G.CNF
Log Number:
Title: NOL-02-01-098-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/15/2005 9:30:57 AM

Live Time : 900.0 seconds
Real Time : 900.7 seconds

Energy Calibration Date: 4/11/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-098-F-G.CNF
Log Number:
Title: NOL-02-01-098-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-	304	291.87	72.82	1.13	1.97E+002	49.29	7.45E+002
m	2	285-	304	300.32	74.94	1.14	4.11E+002	58.33	7.21E+002
F	3	331-	344	339.82	84.85	1.15	1.74E+002	115.99	6.83E+002
F	4	947-	961	954.48	238.94	1.34	1.63E+002	32.94	1.84E+002
F	5	1400-	1414	1408.03	352.53	1.44	7.94E+001	65.47	8.98E+001
F	6	2036-	2051	2043.72	511.60	2.32	8.98E+001	22.85	6.61E+001
F	7	2326-	2341	2332.84	583.90	1.59	1.03E+002	23.70	5.49E+001
F	8	2429-	2446	2436.92	609.92	1.61	9.60E+001	22.57	5.56E+001
F	9	3637-	3654	3645.23	911.76	1.77	8.74E+001	20.47	3.26E+001
F	10	4474-	4489	4480.94	1120.34	1.87	2.29E+001	12.69	2.00E+001
F	11	5833-	5859	5845.25	1460.69	2.01	6.11E+002	83.07	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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-098-F-G.CNF

Log Number:
Title: NOL-02-01-098-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	0.989	511.00*	100.00	2.61435E-001	7.59355E-002
K-40	1.000	1460.81*	10.67	2.17179E+001	3.43617E+000
TL-208	0.738	277.35	6.80		
		510.84*	21.60	1.21035E+000	3.65185E-001
		583.14*	84.20	3.70098E-001	9.79237E-002
		860.37	12.46		
Pb-212	0.523	74.81* @	10.70	1.35159E+001	3.27166E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	8.89679E-001	2.27628E-001
Bi-214	0.694	609.31*	46.30	6.31843E-001	1.68125E-001
		1120.29*	15.10	5.39855E-001	3.04435E-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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-098-F-G.CNF

Log Number:
Title: NOL-02-01-098-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN	0.989	1.814942E-001	7.878323E-002
K-40	1.000	2.171785E+001	3.436166E+000
TL-208	0.738	3.700982E-001	9.717811E-002
Pb-212 @	0.523	8.896793E-001	2.276282E-001
Bi-214	0.694	6.103444E-001	1.471734E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.1917E-001	24.99
F 3	84.85	1.9381E-001	66.50
F 5	352.53	8.8208E-002	82.47
F 9	911.76	9.7073E-002	23.43

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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-098-F-G.CNF

Log Number:
Title: NOL-02-01-098-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Co-60	1173.22	100.00	1.8682E-001	1.43E-001	7.1427E-002
	1332.49	100.00	1.4293E-001		5.6586E-002
Nb-94	702.63	100.00	1.8018E-001	1.57E-001	1.4238E-001
	871.10	100.00	1.5653E-001		-4.4239E-002
Ag-108m	79.20	7.10	9.0514E+000	1.97E-001	-2.1348E+001
	433.93	89.90	1.9928E-001		5.9137E-002
	614.37	90.40	2.5268E-001		-1.4028E-001
	722.95	90.50	1.9743E-001		8.3096E-002
Sb-125	176.33	6.89	3.8700E+000	6.33E-001	1.7564E+000
	427.89	29.33	6.3308E-001		3.4335E-001
	463.38	10.35	1.8999E+000		1.4516E+000
	600.56	17.80	1.0117E+000		8.8484E-002
	606.64	5.02	4.5352E+000		1.3413E+000
	635.90	11.32	1.5618E+000		6.9428E-001
Cs-134	563.23	8.38	2.1333E+000	1.91E-001	-6.4800E-001
	569.32	15.43	1.1765E+000		-8.0430E-003
	604.70	97.60	2.3400E-001		1.0596E-001
	795.84	85.40	1.9149E-001		-1.6603E-001
	801.93	8.73	1.8928E+000		-1.4481E+000
Cs-137	661.65	85.12	2.2523E-001	2.25E-001	1.3028E-001
Eu-152	121.78	28.40	1.3400E+000	5.49E-001	7.4165E-001
	244.69	7.49	3.2896E+000		-1.4547E+000
	344.27	26.50	7.8282E-001		-8.2125E-001
	778.89	12.74	1.3284E+000		-9.7834E-001
	867.32	4.16	3.8720E+000		-1.2753E+000
	964.01	14.40	1.4042E+000		1.8502E+000
	1085.78	10.00	1.5790E+000		2.6283E-001
	1112.02	13.30	1.3323E+000		-1.6107E-001
	1407.95	20.70	5.4944E-001		1.1813E-001
Eu-154	123.07	40.50	9.2106E-001	4.11E-001	-4.4011E-001
	247.94	6.60	3.6143E+000		-3.7172E+000
	591.81	4.83	3.7378E+000		2.3482E+000

723.30	19.70	9.1351E-001	7.8049E-001
756.87	4.33	4.0738E+000	3.9526E+000
873.19	11.50	1.3479E+000	-7.1527E-001

	996.32	10.30	1.4473E+000		-1.1886E+000
	1004.76	17.90	8.8438E-001		-2.9716E-001
	1274.45	35.50	4.1091E-001		-4.4685E-001
Eu-155	86.54	30.90	1.8357E+000	1.84E+000	-1.0124E-001
	105.31	20.70	2.0868E+000		-6.4180E-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 8/16/2005 4:08:36 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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-099-F-G.CNF
Log Number:
Title: NOL-02-01-099-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/15/2005 8:44:18 AM

Live Time : 900.0 seconds
Real Time : 900.7 seconds

Energy Calibration Date: 4/11/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-099-F-G.CNF
Log Number:
Title: NOL-02-01-099-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	291.73	72.78	1.13	2.31E+002	49.83	8.40E+002
m	2	283-	306	300.59	75.00	1.14	4.09E+002	58.48	8.44E+002
F	3	936-	961	954.52	238.95	1.34	2.12E+002	34.87	2.96E+002
F	4	1176-	1187	1180.95	295.67	1.39	5.87E+001	21.59	7.72E+001
F	5	1398-	1414	1407.20	352.32	1.44	1.20E+002	54.84	8.51E+001
F	6	2033-	2050	2042.50	511.29	2.32	8.07E+001	22.75	8.54E+001
F	7	2323-	2340	2332.06	583.70	1.59	1.13E+002	24.49	6.72E+001
F	8	2430-	2447	2437.09	609.96	1.61	9.95E+001	22.23	4.57E+001
F	9	2903-	2914	2909.12	727.92	1.68	2.71E+001	14.46	2.68E+001
F	10	3638-	3653	3645.04	911.71	1.77	8.91E+001	21.46	3.42E+001
F	11	3868-	3885	3876.46	969.49	1.80	4.57E+001	16.20	3.11E+001
F	12	5830-	5858	5844.96	1460.61	2.01	7.03E+002	87.55	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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-099-F-G.CNF

Log Number:
Title: NOL-02-01-099-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	0.997	511.00*	100.00	2.34911E-001	7.39599E-002
K-40	0.999	1460.81*	10.67	2.49853E+001	3.71110E+000
TL-208	0.746	277.35	6.80		
		510.84*	21.60	1.08755E+000	3.53738E-001
		583.14*	84.20	4.04766E-001	1.02681E-001
		860.37	12.46		
Bi-212	0.983	727.17*	11.80	7.28069E-001	3.98334E-001
Pb-212	0.523	74.81* @	10.70	1.34392E+001	3.26105E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.15926E+000	2.63242E-001
Bi-214	0.391	609.31*	46.30	6.55148E-001	1.67552E-001
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.584	74.82* @	6.21	2.31560E+001	5.86493E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	7.80895E-001	3.15751E-001
		351.92*	37.20	8.54314E-001	4.16398E-001
Ac-228	0.632	338.32	11.40		
		911.07*	27.70	1.07002E+000	2.85520E-001
		969.11*	16.60	9.35141E-001	3.45410E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-099-F-G.CNF

Log Number:
Title: NOL-02-01-099-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN		0.997	1.474815E-001	7.716126E-002
K-40		0.999	2.498525E+001	3.711104E+000
TL-208		0.746	4.047658E-001	1.018298E-001
Bi-212		0.983	7.280692E-001	3.983344E-001
Pb-212	@	0.523	1.159260E+000	2.632423E-001
Bi-214		0.391	6.551482E-001	1.675520E-001
PB-214	@	0.584	8.076993E-001	2.515961E-001
Ac-228		0.632	1.015269E+000	2.200684E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.5638E-001	21.60

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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-099-F-G.CNF

Log Number:
Title: NOL-02-01-099-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Co-60	1173.22	100.00	1.8682E-001	1.57E-001	1.0942E-001
	1332.49	100.00	1.5684E-001		-3.8882E-002
Nb-94	702.63	100.00	1.7117E-001	1.59E-001	5.7074E-002
	871.10	100.00	1.5889E-001		1.0525E-001
Ag-108m	79.20	7.10	8.9893E+000	2.07E-001	-4.5588E+000
	433.93	89.90	2.0677E-001		-9.4770E-002
	614.37	90.40	2.4962E-001		9.9485E-002
	722.95	90.50	2.0841E-001		-4.3206E-002
Sb-125	176.33	6.89	3.8919E+000	6.47E-001	-1.1884E+000
	427.89	29.33	6.4731E-001		3.3151E-001
	463.38	10.35	1.9220E+000		1.7471E+000
	600.56	17.80	9.8519E-001		-1.3433E-002
	606.64	5.02	4.4617E+000		-1.1735E+000
	635.90	11.32	1.6148E+000		1.3146E+000
Cs-134	563.23	8.38	2.1931E+000	2.09E-001	1.1323E-001
	569.32	15.43	1.1728E+000		4.0822E-001
	604.70	97.60	2.2834E-001		6.1297E-002
	795.84	85.40	2.0863E-001		9.4593E-002
	801.93	8.73	1.9499E+000		-8.2497E-001
Cs-137	661.65	85.12	2.0325E-001	2.03E-001	-1.7288E-001
Eu-152	121.78	28.40	1.3030E+000	6.47E-001	5.0966E-001
	244.69	7.49	3.3752E+000		1.8367E+000
	344.27	26.50	8.0797E-001		-3.3568E-001
	778.89	12.74	1.3715E+000		-3.3760E-001
	867.32	4.16	3.6628E+000		-3.5032E+000
	964.01	14.40	1.4568E+000		3.4768E-001
	1085.78	10.00	1.6411E+000		-2.0279E-002
	1112.02	13.30	1.2501E+000		-2.3372E+000
	1407.95	20.70	6.4710E-001		1.2086E-001
Eu-154	123.07	40.50	8.9592E-001	4.70E-001	2.6455E-001
	247.94	6.60	3.6651E+000		-3.7948E-001
	591.81	4.83	3.4786E+000		-7.8565E-001

723.30	19.70	9.6057E-001	7.4650E-001
756.87	4.33	4.1791E+000	-6.1820E-001
873.19	11.50	1.4159E+000	5.1444E-001

	996.32	10.30	1.6212E+000		4.1420E-001
	1004.76	17.90	9.3994E-001		-5.4190E-001
	1274.45	35.50	4.7014E-001		5.7945E-002
Eu-155	86.54	30.90	1.8325E+000	1.83E+000	4.0271E+000
	105.31	20.70	2.1284E+000		2.9678E+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 8/15/2005 9:41:33 AM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-100-F-G.CNF
Log Number:
Title: NOL-02-01-100-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/12/2005 2:52:37 PM

Live Time : 900.0 seconds
Real Time : 900.8 seconds

Energy Calibration Date: 4/11/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-100-F-G.CNF
Log Number:
Title: NOL-02-01-100-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	291.33	72.68	1.13	1.96E+002	48.85	8.54E+002
m	2	282-	305	300.51	74.98	1.14	3.66E+002	58.34	8.54E+002
F	3	331-	345	338.39	84.49	1.15	1.52E+002	45.26	7.62E+002
F	4	946-	960	954.55	238.96	1.34	2.01E+002	36.10	1.90E+002
F	5	1401-	1415	1407.70	352.45	1.44	7.91E+001	24.08	1.11E+002
F	6	2033-	2053	2042.98	511.41	2.32	1.04E+002	24.86	1.11E+002
F	7	2325-	2342	2332.23	583.75	1.59	1.05E+002	22.84	5.66E+001
F	8	2430-	2447	2437.40	610.04	1.61	9.74E+001	22.23	5.39E+001
F	9	3638-	3652	3645.34	911.79	1.77	1.02E+002	22.80	3.57E+001
M	10	3854-	3884	3859.77	965.32	1.80	2.44E+001	13.54	2.73E+001
m	11	3854-	3884	3876.34	969.46	1.80	6.31E+001	18.43	3.96E+001
F	12	4474-	4488	4481.42	1120.47	1.87	3.69E+001	15.49	2.77E+001
F	13	5325-	5338	5331.98	1332.66	1.96	2.64E+001	38.41	5.18E+000
F	14	5833-	5861	5846.19	1460.92	2.01	6.87E+002	81.75	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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-100-F-G.CNF

Log Number:
Title: NOL-02-01-100-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	0.995	511.00*	100.00	3.02110E-001	8.38475E-002
K-40	1.000	1460.81*	10.67	2.44231E+001	3.51442E+000
TL-208	0.744	277.35	6.80		
		510.84*	21.60	1.39866E+000	4.04639E-001
		583.14*	84.20	3.75303E-001	9.56149E-002
		860.37	12.46		
Pb-212	0.523	74.81* @	10.70	1.20440E+001	3.04194E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.09755E+000	2.61682E-001
Bi-214	0.691	609.31*	46.30	6.41132E-001	1.66722E-001
		1120.29*	15.10	8.70324E-001	3.76470E-001
		1764.49	15.80		
Ac-228	0.631	338.32	11.40		
		911.07*	27.70	1.22446E+000	3.07812E-001
		969.11*	16.60	1.28960E+000	4.00326E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-100-F-G.CNF

Log Number:
Title: NOL-02-01-100-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN	0.995	2.210441E-001	8.631319E-002
K-40	1.000	2.442313E+001	3.514422E+000
TL-208	0.744	3.753031E-001	9.482937E-002
Pb-212 @	0.523	1.097553E+000	2.616816E-001
Bi-214	0.691	6.787110E-001	1.524419E-001
Ac-228	0.631	1.248663E+000	2.440180E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.1823E-001	24.87
F 3	84.49	1.6939E-001	29.69
F 5	352.45	8.7858E-002	30.46
M 10	965.32	2.7078E-002	55.58
F 13	1332.66	2.9296E-002	145.67

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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-100-F-G.CNF

Log Number:
Title: NOL-02-01-100-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Co-60	1173.22	100.00	1.9308E-001	1.52E-001	6.6163E-003
	1332.49	100.00	1.5165E-001		-2.4554E-003
Nb-94	702.63	100.00	1.8143E-001	1.72E-001	3.1241E-002
	871.10	100.00	1.7235E-001		-2.7381E-002
Ag-108m	79.20	7.10	8.9841E+000	2.13E-001	-1.1695E+001
	433.93	89.90	2.1297E-001		-4.4290E-002
	614.37	90.40	2.5115E-001		-4.2426E-003
	722.95	90.50	2.1562E-001		-4.9103E-002
Sb-125	176.33	6.89	3.9566E+000	6.25E-001	-9.2841E-001
	427.89	29.33	6.2504E-001		-1.4041E-001
	463.38	10.35	1.9482E+000		-1.8137E-001
	600.56	17.80	1.0084E+000		-1.9987E-001
	606.64	5.02	4.6697E+000		-7.3771E-001
	635.90	11.32	1.5885E+000		2.1862E-001
Cs-134	563.23	8.38	2.1734E+000	2.08E-001	-2.5869E-002
	569.32	15.43	1.1765E+000		-3.5833E-001
	604.70	97.60	2.2929E-001		-1.0986E-001
	795.84	85.40	2.0785E-001		-8.5434E-003
	801.93	8.73	1.8251E+000		-3.1324E+000
Cs-137	661.65	85.12	2.1839E-001	2.18E-001	1.1086E-002
Eu-152	121.78	28.40	1.3007E+000	5.70E-001	-9.3326E-001
	244.69	7.49	3.4345E+000		-2.3290E+000
	344.27	26.50	8.0522E-001		-8.2636E-001
	778.89	12.74	1.3821E+000		3.6922E-002
	867.32	4.16	4.3080E+000		-3.1360E+000
	964.01	14.40	1.5484E+000		-2.7874E-001
	1085.78	10.00	1.6236E+000		1.3196E-001
	1112.02	13.30	1.3685E+000		-1.3446E+000
	1407.95	20.70	5.7044E-001		-2.0828E-001
Eu-154	123.07	40.50	9.0574E-001	4.54E-001	-4.2726E-001
	247.94	6.60	3.7069E+000		-4.3527E+000
	591.81	4.83	3.7850E+000		8.8114E-001

723.30	19.70	9.9948E-001	-3.3392E-001
756.87	4.33	4.4100E+000	2.2164E-001
873.19	11.50	1.5724E+000	1.0519E+000

	996.32	10.30	1.7702E+000		-1.3630E+000
	1004.76	17.90	9.7943E-001		8.5095E-001
	1274.45	35.50	4.5406E-001		5.4826E-002
Eu-155	86.54	30.90	1.8620E+000	1.86E+000	1.5424E-002
	105.31	20.70	2.1085E+000		-1.4229E+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 8/15/2005 9:47:12 AM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-101-F-G.CNF
Log Number:
Title: NOL-02-01-101-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/12/2005 9:00:28 AM

Live Time : 439.8 seconds
Real Time : 440.3 seconds

Energy Calibration Date: 4/11/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-101-F-G.CNF
Log Number:
Title: NOL-02-01-101-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	286-	307	291.52	72.73	1.13	1.77E+002	42.80	4.97E+002
m	2	286-	307	300.47	74.97	1.14	3.20E+002	51.19	6.82E+002
F	3	335-	347	340.12	84.92	1.15	1.53E+002	40.25	4.78E+002
F	4	949-	964	953.96	238.81	1.34	9.92E+001	26.92	1.75E+002
F	5	1402-	1413	1407.79	352.47	1.44	4.39E+001	19.36	6.44E+001
F	6	2325-	2339	2332.52	583.82	1.59	6.20E+001	18.20	3.37E+001
F	7	2429-	2443	2436.80	609.89	1.61	4.55E+001	18.48	6.00E+001
F	8	3637-	3649	3643.64	911.37	1.77	2.37E+001	13.49	4.50E+001
F	9	4681-	4703	4693.00	1173.26	1.89	2.64E+002	32.50	2.91E+001
F	10	5318-	5341	5330.53	1332.30	1.96	3.41E+002	64.60	1.51E+001
F	11	5831-	5855	5844.04	1460.39	2.01	3.92E+002	63.42	9.51E+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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-101-F-G.CNF

Log Number:
Title: NOL-02-01-101-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
K-40	0.995	1460.81*	10.67	2.84717E+001	5.15591E+000
Co-60	0.999	1173.22*	100.00	1.95197E+000	2.84803E-001
		1332.49*	100.00	2.59341E+000	5.31840E-001
TL-208	0.464	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	4.54330E-001	1.46205E-001
		860.37	12.46		
Pb-212	0.524	74.81* @	10.70	2.15570E+001	5.45202E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.10875E+000	3.47405E-001
Bi-214	0.393	609.31*	46.30	6.12398E-001	2.60368E-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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-101-F-G.CNF

Log Number:
Title: NOL-02-01-101-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
K-40	0.995	2.847169E+001	5.155906E+000
Co-60	0.999	2.094918E+000	2.510700E-001
TL-208	0.464	4.543305E-001	1.462049E-001
Pb-212 @	0.524	1.108749E+000	3.474052E-001
Bi-214	0.393	6.123978E-001	2.603681E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	4.0201E-001	24.21
F 3	84.92	3.4696E-001	26.37
F 5	352.47	9.9770E-002	44.12
F 8	911.37	5.3874E-002	56.94

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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-101-F-G.CNF

Log Number:
Title: NOL-02-01-101-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
+	Co-60	1173.22*	100.00	2.7961E-001	2.15E-001	1.9520E+000
		1332.49*	100.00	2.1548E-001		2.5934E+000
	Nb-94	702.63	100.00	3.5963E-001	3.60E-001	5.8298E-003
		871.10	100.00	3.6705E-001		-1.4789E-001
	Ag-108m	79.20	7.10	1.5591E+001	3.94E-001	1.6938E+000
		433.93	89.90	3.9417E-001		1.5562E-001
		614.37	90.40	4.6563E-001		-4.4159E-001
		722.95	90.50	4.1400E-001		4.5311E-002
	Sb-125	176.33	6.89	7.1013E+000	1.24E+000	-2.4986E+000
		427.89	29.33	1.2386E+000		1.5828E-001
		463.38	10.35	3.6624E+000		-3.4637E+000
		600.56	17.80	1.9390E+000		-1.3723E+000
		606.64	5.02	8.4399E+000		9.4836E+000
		635.90	11.32	3.0375E+000		8.2597E-001
	Cs-134	563.23	8.38	4.4746E+000	4.18E-001	-1.8697E+000
		569.32	15.43	2.5091E+000		7.6641E-001
		604.70	97.60	4.1757E-001		4.3269E-002
		795.84	85.40	4.3171E-001		2.9006E-002
		801.93	8.73	4.3666E+000		6.8819E-001
	Cs-137	661.65	85.12	4.0818E-001	4.08E-001	-5.6716E-001
	Eu-152	121.78	28.40	2.3371E+000	8.55E-001	-1.8247E-001
		244.69	7.49	6.3433E+000		2.0079E-001
		344.27	26.50	1.3997E+000		-1.5434E+000
		778.89	12.74	2.7408E+000		-6.1255E-001
		867.32	4.16	8.9498E+000		1.2747E+000
		964.01	14.40	2.8827E+000		1.6724E+000
		1085.78	10.00	3.5814E+000		-1.0529E+000
		1112.02	13.30	2.8004E+000		-3.8820E+000
		1407.95	20.70	8.5490E-001		-1.0130E-001
	Eu-154	123.07	40.50	1.5848E+000	7.34E-001	-2.0502E+000
		247.94	6.60	6.7666E+000		-4.7029E+000
		591.81	4.83	7.5755E+000		6.5870E+000

723.30	19.70	1.9085E+000	8.0297E-001
756.87	4.33	8.6127E+000	2.8014E-001
873.19	11.50	3.2298E+000	-1.2084E-001

	996.32	10.30	3.4121E+000		-4.7504E+000
	1004.76	17.90	2.0902E+000		9.8385E-001
	1274.45	35.50	7.3412E-001		2.4318E-001
Eu-155	86.54	30.90	3.2092E+000	3.21E+000	3.5645E+000
	105.31	20.70	3.7156E+000		-4.1844E-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 8/15/2005 9:48:57 AM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-102-F-G.CNF
Log Number:
Title: NOL-02-01-102-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/11/2005 2:56:21 PM

Live Time : 900.0 seconds
Real Time : 900.8 seconds

Energy Calibration Date: 4/11/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-102-F-G.CNF
Log Number:
Title: NOL-02-01-102-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	286-	305	292.19	72.90	1.13	2.58E+002	56.34	9.14E+002
m	2	286-	305	300.50	74.98	1.14	4.53E+002	66.36	1.10E+003
M	3	333-	356	339.78	84.84	1.15	2.02E+002	51.68	8.84E+002
m	4	333-	356	350.24	87.46	1.16	1.16E+002	47.35	9.74E+002
F	5	949-	962	955.11	239.10	1.34	1.91E+002	37.05	2.59E+002
F	6	1173-	1186	1180.34	295.52	1.39	3.93E+001	23.87	1.64E+002
F	7	1399-	1414	1408.71	352.70	1.44	5.21E+001	23.96	1.51E+002
F	8	2036-	2052	2044.34	511.75	2.32	7.79E+001	25.05	1.17E+002
F	9	2326-	2340	2333.57	584.08	1.59	1.27E+002	25.90	6.28E+001
F	10	2429-	2446	2437.86	610.15	1.61	1.06E+002	56.37	6.57E+001
F	11	2902-	2915	2909.05	727.91	1.68	3.53E+001	17.14	4.90E+001
F	12	3638-	3653	3646.21	912.01	1.77	9.58E+001	22.05	4.00E+001
F	13	3871-	3887	3878.31	969.95	1.80	6.02E+001	19.01	4.35E+001
F	14	4687-	4705	4695.12	1173.78	1.89	6.72E+001	19.16	3.76E+001
F	15	5323-	5342	5332.60	1332.81	1.96	9.47E+001	20.33	2.00E+001
F	16	5834-	5861	5846.88	1461.09	2.01	7.57E+002	79.48	1.66E+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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-102-F-G.CNF

Log Number:
Title: NOL-02-01-102-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	0.983	511.00*	100.00	2.26711E-001	7.95517E-002
K-40	0.998	1460.81*	10.67	2.69134E+001	3.56731E+000
Co-60	0.994	1173.22*	100.00	2.42745E-001	7.17704E-002
		1332.49*	100.00	3.52043E-001	8.04525E-002
Eu-155	0.318	86.54*	30.90	1.07509E+000	4.88114E-001
		105.31	20.70		
TL-208	0.731	277.35	6.80		
		510.84*	21.60	1.04959E+000	3.78138E-001
		583.14*	84.20	4.54579E-001	1.10455E-001
		860.37	12.46		
Bi-212	0.984	727.17*	11.80	9.48557E-001	4.74287E-001
Pb-212	0.675	74.81* @	10.70	1.49113E+001	3.64756E+000
		77.11 @	18.00		
		87.30* @	8.00	4.15253E+000	1.88534E+000
		238.63*	44.60	1.04309E+000	2.60211E-001
Bi-214	0.386	609.31*	46.30	6.95668E-001	3.81119E-001
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.665	74.82* @	6.21	2.56926E+001	6.55575E+000
		77.11 @	10.50		
		87.30* @	4.67	7.11354E+000	3.27411E+000
		241.98	7.49		
		295.21*	19.20	5.21912E-001	3.29274E-001
		351.92*	37.20	3.71545E-001	1.81837E-001
Ac-228	0.620	338.32	11.40		
		911.07*	27.70	1.15060E+000	2.96005E-001
		969.11*	16.60	1.23047E+000	4.09505E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-102-F-G.CNF

Log Number:
Title: NOL-02-01-102-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN		0.983	1.285224E-001	8.299068E-002
K-40		0.998	2.691341E+001	3.567308E+000
Co-60		0.994	2.911806E-001	5.355681E-002
Eu-155		0.318	7.435900E-001	4.933200E-001
TL-208		0.731	4.545792E-001	1.094574E-001
Bi-212		0.984	9.485574E-001	4.742874E-001
Pb-212	@	0.675	1.043086E+000	2.602112E-001
Bi-214		0.386	6.956681E-001	3.811188E-001
PB-214	@	0.665	4.065604E-001	1.581439E-001
Ac-228		0.620	1.178011E+000	2.398952E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.8619E-001	21.87
M 3	84.84	2.2399E-001	25.64

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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-102-F-G.CNF

Log Number:
Title: NOL-02-01-102-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
+	Co-60	1173.22*	100.00	1.4415E-001	1.12E-001	2.4275E-001
		1332.49*	100.00	1.1243E-001		3.5204E-001
	Nb-94	702.63	100.00	1.9170E-001	1.92E-001	-1.1992E-001
		871.10	100.00	2.0193E-001		2.0522E-002
	Ag-108m	79.20	7.10	1.0136E+001	2.22E-001	-1.9145E+001
		433.93	89.90	2.2193E-001		1.0185E-002
		614.37	90.40	2.7407E-001		-3.1326E-002
		722.95	90.50	2.4788E-001		-1.5334E-001
	Sb-125	176.33	6.89	4.7094E+000	7.08E-001	-7.6950E-001
		427.89	29.33	7.0835E-001		-4.2326E-002
		463.38	10.35	2.0289E+000		-1.3996E+000
		600.56	17.80	1.1657E+000		4.0991E-001
		606.64	5.02	4.9690E+000		5.3516E+000
		635.90	11.32	1.7685E+000		5.4031E-001
	Cs-134	563.23	8.38	2.3510E+000	2.28E-001	-2.7899E-001
		569.32	15.43	1.2704E+000		-5.0323E-001
		604.70	97.60	2.4714E-001		-3.4327E-002
		795.84	85.40	2.2800E-001		-1.2127E-001
		801.93	8.73	2.3623E+000		-2.1093E+000
	Cs-137	661.65	85.12	2.4455E-001	2.45E-001	-1.6637E-001
	Eu-152	121.78	28.40	1.5627E+000	5.91E-001	7.2428E-001
		244.69	7.49	3.8295E+000		-7.1353E-001
		344.27	26.50	9.0016E-001		-1.1446E+000
		778.89	12.74	1.4930E+000		-2.5194E-001
		867.32	4.16	4.7912E+000		-8.6706E+000
		964.01	14.40	1.6308E+000		-4.5697E-001
		1085.78	10.00	1.8600E+000		9.3762E-001
		1112.02	13.30	1.5878E+000		-3.8649E+000
		1407.95	20.70	5.9062E-001		3.5029E-001
	Eu-154	123.07	40.50	1.0833E+000	4.68E-001	4.3600E-001
		247.94	6.60	4.1418E+000		-5.4459E+000
		591.81	4.83	4.1643E+000		5.8281E-001

723.30	19.70	1.1363E+000	-1.2806E-002
756.87	4.33	4.7213E+000	1.7969E+000
873.19	11.50	1.7355E+000	2.4321E-001

		996.32	10.30	1.8193E+000		-2.2041E-001
		1004.76	17.90	1.0577E+000		1.2917E+000
		1274.45	35.50	4.6750E-001		2.8197E-002
+	Eu-155	86.54*	30.90	1.3755E+000	1.38E+000	1.0751E+000
		105.31	20.70	2.4105E+000		9.3026E-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 8/12/2005 2:04:55 PM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-103-F--G.CNF
Log Number:
Title: NOL-02-01-103-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/11/2005 1:57:54 PM

Live Time : 900.0 seconds
Real Time : 900.9 seconds

Energy Calibration Date: 4/11/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-103-F--G.CNF
Log Number:
Title: NOL-02-01-103-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	286-	306	291.88	72.82	1.13	2.93E+002	55.45	8.49E+002
m	2	286-	306	300.46	74.97	1.14	5.08E+002	63.99	1.04E+003
F	3	330-	347	339.42	84.74	1.15	1.76E+002	131.00	1.26E+003
F	4	949-	963	954.76	239.01	1.34	1.99E+002	37.81	2.89E+002
F	5	1348-	1361	1352.57	338.65	1.43	5.67E+001	24.76	1.43E+002
F	6	1399-	1415	1407.82	352.48	1.44	1.16E+002	27.14	1.42E+002
F	7	2036-	2053	2044.01	511.67	2.32	1.10E+002	26.28	1.06E+002
F	8	2324-	2342	2333.13	583.97	1.59	1.26E+002	25.18	6.98E+001
F	9	2429-	2444	2437.25	610.00	1.61	7.97E+001	23.73	8.98E+001
F	10	3637-	3654	3645.80	911.91	1.77	7.91E+001	54.48	4.73E+001
F	11	3870-	3884	3876.19	969.42	1.80	6.34E+001	71.83	4.28E+001
F	12	4684-	4704	4694.99	1173.75	1.89	1.35E+002	24.50	3.42E+001
F	13	5323-	5343	5333.04	1332.92	1.96	1.54E+002	55.68	2.63E+001
F	14	5834-	5860	5846.64	1461.03	2.01	6.71E+002	81.14	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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-103-F--G.CNF

Log Number:
Title: NOL-02-01-103-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	0.986	511.00*	100.00	3.19884E-001	8.86845E-002
K-40	0.998	1460.81*	10.67	2.38372E+001	3.46988E+000
Co-60	0.993	1173.22*	100.00	4.88402E-001	9.64221E-002
		1332.49*	100.00	5.70760E-001	2.11790E-001
TL-208	0.736	277.35	6.80		
		510.84*	21.60	1.48095E+000	4.28019E-001
		583.14*	84.20	4.51696E-001	1.08104E-001
		860.37	12.46		
Pb-212	0.522	74.81* @	10.70	1.66974E+001	3.89101E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.08754E+000	2.67811E-001
Bi-214	0.390	609.31*	46.30	5.24517E-001	1.69357E-001
		1120.29	15.10		
		1764.49	15.80		
Ac-228	0.988	338.32*	11.40	1.30714E+000	6.06908E-001
		911.07*	27.70	9.49484E-001	6.63302E-001
		969.11*	16.60	1.29676E+000	1.47485E+000

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-103-F--G.CNF

Log Number:
Title: NOL-02-01-103-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN		0.986	2.223179E-001	9.165191E-002
K-40		0.998	2.383716E+001	3.469884E+000
Co-60		0.993	5.025420E-001	8.775539E-002
TL-208		0.736	4.516957E-001	1.070974E-001
Pb-212	@	0.522	1.087540E+000	2.678113E-001
Bi-214		0.390	5.245167E-001	1.693567E-001
Ac-228		0.988	1.157038E+000	4.284506E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	3.2535E-001	18.94
F 3	84.74	1.9520E-001	74.57
F 6	352.48	1.2905E-001	23.37

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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-103-F--G.CNF

Log Number:
Title: NOL-02-01-103-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
+	Co-60	1173.22*	100.00	1.4212E-001	1.30E-001	4.8840E-001
		1332.49*	100.00	1.2956E-001		5.7076E-001
	Nb-94	702.63	100.00	1.9576E-001	1.96E-001	1.3077E-002
		871.10	100.00	2.1141E-001		1.1195E-001
	Ag-108m	79.20	7.10	1.0284E+001	2.36E-001	-1.1141E+001
		433.93	89.90	2.4811E-001		3.0225E-001
		614.37	90.40	2.7961E-001		4.4284E-002
		722.95	90.50	2.3647E-001		6.8464E-002
	Sb-125	176.33	6.89	4.7781E+000	7.68E-001	4.7860E-001
		427.89	29.33	7.6830E-001		-2.8415E-002
		463.38	10.35	2.1694E+000		4.9876E-001
		600.56	17.80	1.0900E+000		6.3629E-001
		606.64	5.02	4.8938E+000		5.6688E+000
		635.90	11.32	1.7302E+000		-2.7692E-001
	Cs-134	563.23	8.38	2.3692E+000	2.33E-001	-5.1402E-001
		569.32	15.43	1.2570E+000		2.9476E-001
		604.70	97.60	2.4669E-001		-3.1165E-003
		795.84	85.40	2.3292E-001		-2.0432E-002
		801.93	8.73	2.3491E+000		6.3019E-001
	Cs-137	661.65	85.12	2.5541E-001	2.55E-001	-2.6667E-002
	Eu-152	121.78	28.40	1.5894E+000	5.35E-001	1.6810E+000
		244.69	7.49	3.8233E+000		-6.5647E-001
		344.27	26.50	9.2919E-001		5.0111E-001
		778.89	12.74	1.5959E+000		9.8366E-002
		867.32	4.16	5.0497E+000		-1.7846E+000
		964.01	14.40	1.7593E+000		-4.9218E-001
		1085.78	10.00	1.9849E+000		-1.1263E+000
		1112.02	13.30	1.4436E+000		-1.4617E+000
		1407.95	20.70	5.3493E-001		-5.8308E-001
	Eu-154	123.07	40.50	1.0901E+000	4.93E-001	-8.8033E-001
		247.94	6.60	4.2262E+000		-4.0339E+000
		591.81	4.83	3.8778E+000		1.2520E+000

723.30	19.70	1.0891E+000	3.5247E-001
756.87	4.33	5.0491E+000	2.0936E+000
873.19	11.50	1.8493E+000	7.1874E-001

	996.32	10.30	1.8872E+000		9.8121E-001
	1004.76	17.90	1.0132E+000		3.5016E-001
	1274.45	35.50	4.9322E-001		-2.1556E-001
Eu-155	86.54	30.90	2.1419E+000	2.14E+000	8.0163E-001
	105.31	20.70	2.4307E+000		-2.3943E+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 8/12/2005 2:17:16 PM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-104-F-G.CNF
Log Number:
Title: NOL-02-01-104-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/11/2005 1:00:25 PM

Live Time : 900.0 seconds
Real Time : 900.8 seconds

Energy Calibration Date: 4/11/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-104-F-G.CNF
Log Number:
Title: NOL-02-01-104-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	283-	305	291.89	72.82	1.13	2.61E+002	56.31	1.13E+003
m	2	283-	305	300.33	74.94	1.14	4.45E+002	63.40	1.04E+003
F	3	335-	346	339.19	84.69	1.15	2.13E+002	53.90	8.38E+002
F	4	948-	960	954.93	239.05	1.34	1.83E+002	35.70	2.24E+002
F	5	1402-	1412	1407.64	352.43	1.44	6.05E+001	24.19	1.00E+002
F	6	2031-	2051	2042.17	511.21	2.32	1.15E+002	80.56	1.03E+002
F	7	2325-	2342	2333.14	583.97	1.59	1.06E+002	41.26	9.35E+001
F	8	2428-	2444	2436.88	609.91	1.61	8.46E+001	21.46	5.52E+001
F	9	3636-	3654	3645.68	911.88	1.77	1.01E+002	22.75	5.43E+001
F	10	4684-	4705	4693.91	1173.48	1.89	1.48E+002	52.82	2.80E+001
F	11	5322-	5343	5332.02	1332.67	1.96	1.61E+002	61.61	2.79E+001
F	12	5832-	5858	5845.67	1460.79	2.01	6.67E+002	74.03	1.34E+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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-104-F-G.CNF

Log Number:
Title: NOL-02-01-104-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	0.999	511.00*	100.00	3.35088E-001	2.39147E-001
K-40	1.000	1460.81*	10.67	2.37162E+001	3.25702E+000
Co-60	0.998	1173.22*	100.00	5.35407E-001	1.95351E-001
		1332.49*	100.00	5.97886E-001	2.33803E-001
TL-208	0.738	277.35	6.80		
		510.84*	21.60	1.55133E+000	1.11439E+000
		583.14*	84.20	3.79152E-001	1.55961E-001
		860.37	12.46		
Pb-212	0.522	74.81* @	10.70	1.46575E+001	3.55060E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	9.98386E-001	2.50052E-001
Bi-214	0.393	609.31*	46.30	5.57003E-001	1.57385E-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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-104-F-G.CNF

Log Number:
Title: NOL-02-01-104-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN	0.999	2.531914E-001	2.414933E-001
K-40	1.000	2.371619E+001	3.257021E+000
Co-60	0.998	5.610934E-001	1.499103E-001
TL-208	0.738	3.791518E-001	1.554707E-001
Pb-212 @	0.522	9.983859E-001	2.500523E-001
Bi-214	0.393	5.570031E-001	1.573850E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.9026E-001	21.56
F 3	84.69	2.3651E-001	25.32
F 5	352.43	6.7268E-002	39.96
F 9	911.88	1.1229E-001	22.51

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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-104-F-G.CNF

Log Number:
Title: NOL-02-01-104-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
+	Co-60	1173.22*	100.00	1.3283E-001	1.33E-001	5.3541E-001
		1332.49*	100.00	1.3641E-001		5.9789E-001
	Nb-94	702.63	100.00	1.8754E-001	1.88E-001	-3.2439E-002
		871.10	100.00	1.8808E-001		-5.4101E-002
	Ag-108m	79.20	7.10	9.9710E+000	2.28E-001	-2.3805E+001
		433.93	89.90	2.2770E-001		-1.0978E-001
		614.37	90.40	2.6214E-001		1.1250E-002
		722.95	90.50	2.2994E-001		1.7237E-001
	Sb-125	176.33	6.89	4.6215E+000	7.24E-001	3.1158E+000
		427.89	29.33	7.2382E-001		7.2695E-001
		463.38	10.35	2.1302E+000		-1.8156E+000
		600.56	17.80	1.1050E+000		5.5393E-001
		606.64	5.02	4.6342E+000		3.8116E+000
		635.90	11.32	1.7399E+000		1.2944E-002
	Cs-134	563.23	8.38	2.3510E+000	2.35E-001	1.5557E+000
		569.32	15.43	1.2502E+000		-9.5622E-001
		604.70	97.60	2.3493E-001		5.1630E-002
		795.84	85.40	2.4511E-001		1.1984E-001
		801.93	8.73	2.2888E+000		-1.3563E+000
	Cs-137	661.65	85.12	2.4207E-001	2.42E-001	8.3797E-002
	Eu-152	121.78	28.40	1.5545E+000	6.65E-001	-4.3794E-001
		244.69	7.49	3.8633E+000		-4.7302E+000
		344.27	26.50	9.0016E-001		-1.9786E+000
		778.89	12.74	1.6709E+000		3.9226E-001
		867.32	4.16	4.6866E+000		-2.0951E+000
		964.01	14.40	1.6270E+000		1.7268E+000
		1085.78	10.00	1.7582E+000		-2.9214E+000
		1112.02	13.30	1.3505E+000		-2.8005E+000
		1407.95	20.70	6.6478E-001		2.9104E-001
	Eu-154	123.07	40.50	1.0860E+000	4.23E-001	-2.3474E-001
		247.94	6.60	4.3514E+000		-1.5462E+000
		591.81	4.83	4.0127E+000		6.4005E-001

723.30	19.70	1.0397E+000	-1.2842E-001
756.87	4.33	4.5752E+000	-7.0187E-001
873.19	11.50	1.6476E+000	3.5743E-001

	996.32	10.30	1.7844E+000		-6.1226E-001
	1004.76	17.90	1.0417E+000		5.9594E-001
	1274.45	35.50	4.2288E-001		-3.2049E-001
Eu-155	86.54	30.90	2.1346E+000	2.13E+000	4.6741E+000
	105.31	20.70	2.4043E+000		-6.6307E-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 8/12/2005 3:00:38 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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-105-F-G.CNF
Log Number:
Title: NOL-02-01-105-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/12/2005 2:32:16 PM

Live Time : 900.0 seconds
Real Time : 900.7 seconds

Energy Calibration Date: 4/11/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-105-F-G.CNF
Log Number:
Title: NOL-02-01-105-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	284-	305	291.47	72.72	1.13	2.47E+002	49.76	7.48E+002
m	2	284-	305	300.60	75.01	1.14	3.89E+002	56.61	7.34E+002
F	3	330-	344	339.45	84.75	1.15	1.60E+002	136.90	7.76E+002
F	4	948-	960	954.47	238.94	1.34	2.11E+002	35.46	1.63E+002
F	5	1175-	1187	1181.13	295.71	1.39	5.15E+001	21.68	9.80E+001
F	6	1347-	1360	1353.36	338.84	1.43	4.76E+001	21.10	1.02E+002
F	7	1399-	1414	1407.03	352.28	1.44	9.64E+001	76.86	9.42E+001
F	8	2325-	2339	2332.66	583.85	1.59	1.17E+002	24.32	5.20E+001
F	9	2430-	2445	2437.36	610.03	1.61	8.05E+001	21.28	5.20E+001
F	10	3637-	3655	3645.54	911.84	1.77	1.03E+002	22.16	3.97E+001
F	11	5833-	5860	5846.35	1460.96	2.01	7.25E+002	52.48	2.36E+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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-105-F-G.CNF

Log Number:
Title: NOL-02-01-105-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
K-40	0.999	1460.81*	10.67	2.57509E+001	2.79722E+000
TL-208	0.463	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	4.17678E-001	1.03086E-001
		860.37	12.46		
Pb-212	0.523	74.81* @	10.70	1.27707E+001	3.11897E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.15109E+000	2.64728E-001
Bi-214	0.390	609.31*	46.30	5.29938E-001	1.54829E-001
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.584	74.82* @	6.21	2.20042E+001	5.60643E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	6.84286E-001	3.10452E-001
		351.92*	37.20	6.87163E-001	5.60057E-001
Ac-228	0.528	338.32*	11.40	1.09728E+000	5.16361E-001
		911.07*	27.70	1.23565E+000	3.01620E-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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-105-F-G.CNF

Log Number:
Title: NOL-02-01-105-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
K-40		0.999	2.575087E+001	2.797223E+000
TL-208		0.463	4.176785E-001	1.030855E-001
Pb-212	@	0.523	1.151095E+000	2.647283E-001
Bi-214		0.390	5.299376E-001	1.548286E-001
PB-214	@	0.584	6.849622E-001	2.715260E-001
Ac-228		0.528	1.200449E+000	2.604430E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.7434E-001	20.15
F	3	84.75	1.7758E-001	85.66

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

Errors quoted at 1.960 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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-105-F-G.CNF

Log Number:
Title: NOL-02-01-105-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Co-60	1173.22	100.00	1.9076E-001	1.66E-001	4.6220E-002
	1332.49	100.00	1.6574E-001		2.0199E-001
Nb-94	702.63	100.00	1.8573E-001	1.64E-001	5.1283E-002
	871.10	100.00	1.6426E-001		-6.4748E-002
Ag-108m	79.20	7.10	8.8875E+000	2.10E-001	-1.1176E+001
	433.93	89.90	2.1143E-001		-8.8402E-002
	614.37	90.40	2.4910E-001		-1.1109E-001
	722.95	90.50	2.1040E-001		4.4429E-002
Sb-125	176.33	6.89	4.0890E+000	6.70E-001	9.6236E-001
	427.89	29.33	6.7031E-001		-6.7098E-002
	463.38	10.35	1.8954E+000		1.8636E+000
	600.56	17.80	1.0625E+000		4.8951E-001
	606.64	5.02	4.5078E+000		2.8417E+000
	635.90	11.32	1.4556E+000		-1.0905E+000
Cs-134	563.23	8.38	2.1668E+000	2.19E-001	-2.8347E-001
	569.32	15.43	1.1619E+000		-6.6813E-001
	604.70	97.60	2.2834E-001		2.8386E-002
	795.84	85.40	2.1928E-001		7.1548E-002
	801.93	8.73	2.0744E+000		-7.5633E-001
Cs-137	661.65	85.12	2.1418E-001	2.14E-001	1.0976E-002
Eu-152	121.78	28.40	1.3276E+000	6.10E-001	-6.3469E-003
	244.69	7.49	3.5266E+000		-7.4563E-001
	344.27	26.50	7.9968E-001		-6.4496E-002
	778.89	12.74	1.4487E+000		5.8562E-003
	867.32	4.16	3.9633E+000		-6.2179E+000
	964.01	14.40	1.5075E+000		1.2760E+000
	1085.78	10.00	1.8138E+000		-1.5612E+000
	1112.02	13.30	1.3076E+000		-1.8811E+000
	1407.95	20.70	6.1008E-001		4.1625E-001
Eu-154	123.07	40.50	9.2744E-001	4.23E-001	1.4797E-001
	247.94	6.60	3.7523E+000		-1.3448E+000
	591.81	4.83	3.7850E+000		8.1222E-002

723.30	19.70	9.7873E-001	7.3623E-001
756.87	4.33	3.9182E+000	9.3741E-001
873.19	11.50	1.4551E+000	-8.7676E-002

	996.32	10.30	1.6212E+000		8.5189E-001
	1004.76	17.90	9.0330E-001		-9.1479E-001
	1274.45	35.50	4.2288E-001		-7.7502E-001
Eu-155	86.54	30.90	1.8927E+000	1.89E+000	-7.1353E-002
	105.31	20.70	2.0860E+000		-2.2256E-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 8/15/2005 9:55:09 AM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-106-F-G-I.CNF
Log Number:
Title: NOL-02-01-106-F-G-I
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/12/2005 7:55:19 AM

Live Time : 900.0 seconds
Real Time : 900.9 seconds

Energy Calibration Date: 4/11/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-106-F-G-I.CNF
Log Number:
Title: NOL-02-01-106-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-	315	291.39	72.70	1.13	2.61E+002	57.43	8.24E+002
m	2	287-	315	300.14	74.89	1.14	6.06E+002	66.71	1.01E+003
m	3	287-	315	308.63	77.02	1.14	1.07E+002	50.06	1.06E+003
F	4	330-	344	339.30	84.72	1.15	1.92E+002	52.88	1.03E+003
F	5	943-	959	954.48	238.94	1.34	2.24E+002	114.33	2.57E+002
F	6	1348-	1362	1354.37	339.10	1.43	6.97E+001	23.45	1.19E+002
F	7	1402-	1415	1407.97	352.52	1.44	9.53E+001	26.33	1.22E+002
F	8	1631-	1644	1635.96	409.58	1.48	2.96E+001	18.42	7.67E+001
F	9	2034-	2050	2041.51	511.05	2.32	1.05E+002	27.42	1.27E+002
F	10	2325-	2342	2332.11	583.71	1.59	1.25E+002	26.43	8.80E+001
F	11	2429-	2442	2436.35	609.77	1.61	6.07E+001	22.30	8.58E+001
F	12	2639-	2653	2646.14	662.21	1.64	3.60E+001	19.44	8.65E+001
F	13	3635-	3655	3643.65	911.37	1.77	1.09E+002	58.09	4.73E+001
F	14	3868-	3883	3875.70	969.30	1.80	6.55E+001	18.86	3.55E+001
F	15	4473-	4486	4479.35	1119.95	1.87	3.56E+001	16.62	3.36E+001
F	16	4683-	4703	4692.29	1173.08	1.89	1.53E+002	26.39	4.15E+001
F	17	5319-	5341	5329.81	1332.12	1.96	2.06E+002	56.54	1.73E+001
F	18	5831-	5855	5843.42	1460.23	2.01	9.46E+002	26965.0	1.56E+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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-106-F-G-I.CNF

Log Number:
Title: NOL-02-01-106-F-G-I
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	1.000	511.00*	100.00	3.04540E-001	9.05162E-002
K-40	0.990	1460.81*	10.67	3.36269E+001	9.58196E+002
Co-60	0.998	1173.22*	100.00	5.50829E-001	1.04626E-001
		1332.49*	100.00	7.67367E-001	2.18615E-001
Cs-137	0.990	661.65*	85.12	1.31566E-001	7.27927E-002
TL-208	0.746	277.35	6.80		
		510.84*	21.60	1.40991E+000	4.34587E-001
		583.14*	84.20	4.47809E-001	1.11599E-001
		860.37	12.46		
Pb-212	0.844	74.81* @	10.70	1.99710E+001	4.48883E+000
		77.11* @	18.00	2.01316E+000	1.02372E+000
		87.30 @	8.00		
		238.63*	44.60	1.22289E+000	6.53138E-001
Bi-214	0.696	609.31*	46.30	3.99625E-001	1.55041E-001
		1120.29*	15.10	8.39851E-001	4.01523E-001
		1764.49	15.80		
PB-214	0.386	74.82* @	6.21	3.44105E+001	8.12774E+000
		77.11* @	10.50	3.45114E+000	1.77376E+000
		87.30 @	4.67		
		241.98	7.49		
		295.21	19.20		
		351.92*	37.20	6.79716E-001	2.19502E-001
Ac-228	0.995	338.32*	11.40	1.60895E+000	5.97075E-001
		911.07*	27.70	1.30620E+000	7.13561E-001
		969.11*	16.60	1.33988E+000	4.10358E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-106-F-G-I.CNF

Log Number:
Title: NOL-02-01-106-F-G-I
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN		1.000	2.078129E-001	9.361793E-002
K-40		0.990	3.362692E+001	9.581960E+002
Co-60		0.998	5.911829E-001	9.437436E-002
Cs-137		0.990	1.315656E-001	7.279270E-002
TL-208		0.746	4.478093E-001	1.106411E-001
Pb-212	@	0.844	1.222887E+000	6.531381E-001
Bi-214		0.696	4.567454E-001	1.446329E-001
PB-214	@	0.386	6.797159E-001	2.160951E-001
Ac-228		0.995	1.404193E+000	3.056018E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	72.70	2.9028E-001	21.98
F 4	84.72	2.1349E-001	27.52
F 8	409.58	3.2859E-002	62.28

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

Errors quoted at 1.960 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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-106-F-G-I.CNF

Log Number:
Title: NOL-02-01-106-F-G-I
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
+	Co-60	1173.22*	100.00	1.5547E-001	1.10E-001	5.5083E-001
		1332.49*	100.00	1.1021E-001		7.6737E-001
	Nb-94	702.63	100.00	2.1696E-001	1.89E-001	-6.0144E-002
		871.10	100.00	1.8873E-001		-4.9352E-002
	Ag-108m	79.20	7.10	1.0184E+001	2.32E-001	3.6926E+000
		433.93	89.90	2.3193E-001		3.0247E-002
		614.37	90.40	2.8143E-001		-1.8287E-001
		722.95	90.50	2.5285E-001		3.4905E-001
	Sb-125	176.33	6.89	4.3134E+000	7.21E-001	2.5165E+000
		427.89	29.33	7.2103E-001		-2.9752E-001
		463.38	10.35	2.2901E+000		6.1618E-001
		600.56	17.80	1.2233E+000		-6.0745E-001
		606.64	5.02	5.1718E+000		5.8791E+000
		635.90	11.32	2.0321E+000		1.4319E+000
	Cs-134	563.23	8.38	2.6321E+000	2.54E-001	-6.6190E-001
		569.32	15.43	1.4453E+000		-2.0532E-001
		604.70	97.60	2.5874E-001		3.4589E-002
		795.84	85.40	2.5354E-001		2.4027E-001
		801.93	8.73	2.4208E+000		-7.7688E-001
+	Cs-137	661.65*	85.12	2.0026E-001	2.00E-001	1.3157E-001
	Eu-152	121.78	28.40	1.4949E+000	6.71E-001	-3.9077E-001
		244.69	7.49	3.6973E+000		-7.0475E+000
		344.27	26.50	9.1842E-001		-1.3663E-001
		778.89	12.74	1.5122E+000		-7.8101E-001
		867.32	4.16	4.7317E+000		-7.2475E+000
		964.01	14.40	1.7018E+000		1.6500E-001
		1085.78	10.00	2.0819E+000		8.9177E-002
		1112.02	13.30	1.5878E+000		4.2606E-001
		1407.95	20.70	6.7056E-001		7.2241E-001
	Eu-154	123.07	40.50	1.0474E+000	4.98E-001	6.3352E-001
		247.94	6.60	4.0138E+000		-1.0191E+000
		591.81	4.83	4.5203E+000		1.2690E+000

723.30	19.70	1.1592E+000	5.0481E-001
756.87	4.33	4.7213E+000	-5.6080E+000
873.19	11.50	1.7085E+000	-4.3393E-001

	996.32	10.30	1.9202E+000		6.8151E-001
	1004.76	17.90	1.0927E+000		2.5716E-001
	1274.45	35.50	4.9820E-001		4.6529E-001
Eu-155	86.54	30.90	2.1034E+000	2.10E+000	1.8432E-001
	105.31	20.70	2.4492E+000		1.0740E+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 8/15/2005 9:55:48 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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-107-F-G-I.CNF
Log Number:
Title: NOL-02-01-107-F-G-I
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/12/2005 8:13:04 AM

Live Time : 900.0 seconds
Real Time : 900.8 seconds

Energy Calibration Date: 4/11/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-107-F-G-I.CNF
Log Number:
Title: NOL-02-01-107-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	282-	305	291.93	72.83	1.13	1.88E+002	120.76	1.01E+003
m	2	282-	305	300.25	74.92	1.14	4.85E+002	243.28	1.03E+003
F	3	333-	346	339.03	84.65	1.15	1.77E+002	51.75	9.74E+002
F	4	947-	961	954.43	238.93	1.34	1.98E+002	37.37	2.71E+002
F	5	1344-	1359	1352.75	338.69	1.43	7.15E+001	64.32	1.26E+002
F	6	1399-	1412	1406.80	352.22	1.44	1.09E+002	27.62	1.19E+002
F	7	2029-	2054	2042.94	511.41	2.32	1.80E+002	69.19	1.14E+002
F	8	2323-	2340	2331.39	583.53	1.59	1.29E+002	26.61	9.21E+001
F	9	2429-	2445	2436.38	609.78	1.61	9.21E+001	24.77	9.94E+001
F	10	2638-	2653	2645.27	661.99	1.64	9.14E+001	23.72	7.48E+001
F	11	3636-	3653	3644.39	911.55	1.77	1.18E+002	23.65	4.11E+001
F	12	3868-	3886	3875.57	969.27	1.80	6.45E+001	66.35	5.53E+001
F	13	4682-	4703	4692.44	1173.11	1.89	1.58E+002	27.23	5.77E+001
F	14	5319-	5340	5330.27	1332.23	1.96	1.93E+002	27.97	2.45E+001
F	15	5829-	5856	5843.36	1460.22	2.01	7.59E+002	82.84	1.39E+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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-107-F-G-I.CNF

Log Number:
Title: NOL-02-01-107-F-G-I
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	0.995	511.00*	100.00	5.23452E-001	2.14341E-001
K-40	0.989	1460.81*	10.67	2.69875E+001	3.66610E+000
Co-60	0.999	1173.22*	100.00	5.69061E-001	1.07991E-001
		1332.49*	100.00	7.18784E-001	1.18273E-001
Cs-137	0.996	661.65*	85.12	3.34576E-001	9.53250E-002
TL-208	0.748	277.35	6.80		
		510.84*	21.60	2.42339E+000	1.01186E+000
		583.14*	84.20	4.60428E-001	1.13025E-001
		860.37	12.46		
Pb-212	0.523	74.81* @	10.70	1.59630E+001	8.59868E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.08039E+000	2.65228E-001
Bi-214	0.395	609.31*	46.30	6.06108E-001	1.79709E-001
		1120.29	15.10		
		1764.49	15.80		
Ac-228	0.995	338.32*	11.40	1.65057E+000	1.50631E+000
		911.07*	27.70	1.42009E+000	3.27593E-001
		969.11*	16.60	1.31889E+000	1.36345E+000

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-107-F-G-I.CNF

Log Number:
Title: NOL-02-01-107-F-G-I
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN		0.995	4.239992E-001	2.157021E-001
K-40		0.989	2.698746E+001	3.666098E+000
Co-60		0.999	6.371329E-001	7.974912E-002
Cs-137		0.996	3.345756E-001	9.532498E-002
TL-208		0.748	4.604280E-001	1.120244E-001
Pb-212	@	0.523	1.080388E+000	2.652276E-001
Bi-214		0.395	6.061076E-001	1.797092E-001
Ac-228		0.995	1.424665E+000	3.116366E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.0932E-001	64.10
F 3	84.65	1.9697E-001	29.19
F 6	352.22	1.2075E-001	25.41

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

Errors quoted at 1.960 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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-107-F-G-I.CNF

Log Number:
Title: NOL-02-01-107-F-G-I
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
+	Co-60	1173.22*	100.00	1.8448E-001	1.28E-001	5.6906E-001
		1332.49*	100.00	1.2763E-001		7.1878E-001
	Nb-94	702.63	100.00	2.1226E-001	2.12E-001	1.5956E-001
		871.10	100.00	2.1485E-001		1.3188E-001
	Ag-108m	79.20	7.10	1.0103E+001	2.40E-001	-1.7758E+001
		433.93	89.90	2.4195E-001		-6.5293E-002
		614.37	90.40	2.9167E-001		-2.4241E-002
		722.95	90.50	2.3995E-001		4.4309E-001
	Sb-125	176.33	6.89	4.4131E+000	7.31E-001	1.0432E+000
		427.89	29.33	7.3074E-001		2.4426E-001
		463.38	10.35	2.4426E+000		2.0473E+000
		600.56	17.80	1.1285E+000		-6.6523E-001
		606.64	5.02	5.1718E+000		5.1194E+000
		635.90	11.32	1.7874E+000		-9.4936E-001
	Cs-134	563.23	8.38	2.4111E+000	2.54E-001	-2.2712E+000
		569.32	15.43	1.3545E+000		-3.0420E-001
		604.70	97.60	2.5790E-001		-5.4838E-003
		795.84	85.40	2.5354E-001		-7.1103E-002
		801.93	8.73	2.4526E+000		5.9192E-001
+	Cs-137	661.65*	85.12	1.9032E-001	1.90E-001	3.3458E-001
	Eu-152	121.78	28.40	1.5228E+000	6.65E-001	-3.5257E-001
		244.69	7.49	3.8480E+000		-1.8891E+000
		344.27	26.50	8.7267E-001		3.8216E-001
		778.89	12.74	1.5959E+000		-1.5056E+000
		867.32	4.16	5.2550E+000		-3.0387E+000
		964.01	14.40	1.7236E+000		-9.7670E-002
		1085.78	10.00	2.0409E+000		5.0894E-001
		1112.02	13.30	1.7100E+000		-2.4752E+000
		1407.95	20.70	6.6478E-001		-7.2696E-002
	Eu-154	123.07	40.50	1.0645E+000	5.03E-001	6.1741E-001
		247.94	6.60	4.1566E+000		-2.8358E+000
		591.81	4.83	4.2691E+000		-1.0881E+000

723.30	19.70	1.0971E+000	1.5509E+000
756.87	4.33	4.8374E+000	-5.8689E-001
873.19	11.50	1.8036E+000	1.2351E+000

	996.32	10.30	1.9397E+000		-1.7802E-001
	1004.76	17.90	1.1702E+000		8.4536E-001
	1274.45	35.50	5.0312E-001		7.8555E-002
Eu-155	86.54	30.90	2.0927E+000	2.09E+000	2.7446E+000
	105.31	20.70	2.4161E+000		-2.0607E+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 8/12/2005 12:08:10 PM

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

Filename: C:\GENIE2K\CAMFILES\NOL-02-01-108-F-G-I.CNF
Log Number:
Title: NOL-02-01-108-F-G-I
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/12/2005 10:05:48 AM

Live Time : 900.0 seconds
Real Time : 900.7 seconds

Energy Calibration Date: 4/11/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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-02-01-108-F-G-I.CNF
Log Number:
Title: NOL-02-01-108-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	282-	315	291.60	72.75	1.13	2.21E+002	49.39	8.40E+002
m	2	282-	315	300.41	74.96	1.14	4.83E+002	59.62	8.52E+002
m	3	282-	315	309.45	77.23	1.14	1.08E+002	45.51	8.08E+002
F	4	333-	347	339.21	84.69	1.15	1.14E+002	44.65	8.23E+002
F	5	945-	960	954.47	238.94	1.34	2.12E+002	104.41	1.95E+002
F	6	1348-	1359	1352.51	338.63	1.43	6.27E+001	23.11	9.01E+001
F	7	1399-	1416	1407.85	352.48	1.44	1.18E+002	26.77	1.37E+002
F	8	2034-	2052	2043.09	511.44	2.32	9.69E+001	24.26	1.00E+002
F	9	2325-	2341	2332.65	583.85	1.59	9.99E+001	23.61	6.12E+001
F	10	2426-	2444	2436.25	609.75	1.61	8.30E+001	50.56	7.57E+001
F	11	2639-	2654	2645.47	662.04	1.64	7.78E+001	22.36	6.95E+001
F	12	3385-	3397	3391.41	848.39	1.74	1.38E+001	9.30	1.84E+001
F	13	3636-	3653	3644.57	911.60	1.77	7.97E+001	20.38	4.07E+001
F	14	3868-	3884	3876.16	969.41	1.80	5.21E+001	43.95	2.55E+001
F	15	4685-	4702	4693.35	1173.34	1.89	6.67E+001	17.96	2.19E+001
F	16	5832-	5859	5845.14	1460.66	2.01	7.93E+002	86.06	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
(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

Filename: C:\GENIE2K\CAMFILES\NOL-02-01-108-F-G-I.CNF

Log Number:
Title: NOL-02-01-108-F-G-I
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	0.994	511.00*	100.00	2.82155E-001	8.09396E-002
K-40	0.999	1460.81*	10.67	2.81690E+001	3.81501E+000
Cs-137	0.995	661.65*	85.12	2.84777E-001	8.84329E-002
TL-208	0.741	277.35	6.80		
		510.84*	21.60	1.30627E+000	3.89610E-001
		583.14*	84.20	3.57452E-001	9.68091E-002
		860.37	12.46		
Pb-212	0.844	74.81* @	10.70	1.58953E+001	3.68154E+000
		77.11* @	18.00	2.03842E+000	9.44472E-001
		87.30 @	8.00		
		238.63*	44.60	1.15885E+000	5.98430E-001
Bi-214	0.395	609.31*	46.30	5.46298E-001	3.39780E-001
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.387	74.82* @	6.21	2.73880E+001	6.64767E+000
		77.11* @	10.50	3.49443E+000	1.63998E+000
		87.30 @	4.67		
		241.98	7.49		
		295.21	19.20		
		351.92*	37.20	8.45183E-001	2.37502E-001
Ac-228	0.994	338.32*	11.40	1.44729E+000	5.79482E-001
		911.07*	27.70	9.56504E-001	2.68268E-001
		969.11*	16.60	1.06440E+000	9.05361E-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 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

Filename: C:\GENIE2K\CAMFILES\NOL-02-01-108-F-G-I.CNF

Log Number:
Title: NOL-02-01-108-F-G-I
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN		0.994	2.049457E-001	8.355927E-002
K-40		0.999	2.816902E+001	3.815007E+000
Cs-137		0.995	2.847774E-001	8.843291E-002
TL-208		0.741	3.574516E-001	9.610566E-002
Pb-212	@	0.844	1.158854E+000	5.984302E-001
Bi-214		0.395	5.462982E-001	3.397799E-001
PB-214	@	0.387	8.451833E-001	2.326217E-001
Ac-228		0.994	1.044558E+000	2.350952E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.4579E-001	22.33
F 4	84.69	1.2691E-001	39.09
F 12	848.39	1.5382E-002	67.18
F 15	1173.34	7.4101E-002	26.93

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
(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

Filename: C:\GENIE2K\CAMFILES\NOL-02-01-108-F-G-I.CNF

Log Number:
Title: NOL-02-01-108-F-G-I
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
	Co-60	1173.22	100.00	2.2563E-001	2.11E-001	1.2400E-001
		1332.49	100.00	2.1105E-001		2.4721E-001
	Nb-94	702.63	100.00	1.8512E-001	1.75E-001	-4.6464E-003
		871.10	100.00	1.7519E-001		-7.0667E-002
	Ag-108m	79.20	7.10	9.2981E+000	2.14E-001	-5.1911E-001
		433.93	89.90	2.2484E-001		-3.9555E-002
		614.37	90.40	2.6067E-001		1.3233E-001
		722.95	90.50	2.1433E-001		-4.7286E-002
	Sb-125	176.33	6.89	3.9074E+000	6.79E-001	-1.3458E+000
		427.89	29.33	6.7928E-001		-4.9339E-001
		463.38	10.35	2.0660E+000		4.2356E-001
		600.56	17.80	1.0500E+000		5.1398E-001
		606.64	5.02	4.7049E+000		5.5404E+000
		635.90	11.32	1.5401E+000		-8.4078E-001
	Cs-134	563.23	8.38	2.3141E+000	2.10E-001	1.6057E-001
		569.32	15.43	1.2604E+000		-3.7582E-001
		604.70	97.60	2.3307E-001		-5.6727E-002
		795.84	85.40	2.1019E-001		7.0571E-002
		801.93	8.73	2.0209E+000		-1.7161E+000
+	Cs-137	661.65*	85.12	1.8652E-001	1.87E-001	2.8478E-001
	Eu-152	121.78	28.40	1.3236E+000	6.16E-001	-1.3627E+000
		244.69	7.49	3.3963E+000		-4.9160E+000
		344.27	26.50	7.9689E-001		-2.1918E-001
		778.89	12.74	1.4132E+000		-5.2466E-001
		867.32	4.16	4.5329E+000		-4.4378E-002
		964.01	14.40	1.5116E+000		2.0347E-001
		1085.78	10.00	1.6754E+000		-1.8643E+000
		1112.02	13.30	1.4037E+000		-7.9504E-001
		1407.95	20.70	6.1642E-001		-4.5940E-001
	Eu-154	123.07	40.50	9.2585E-001	4.78E-001	-2.1796E-001
		247.94	6.60	3.7400E+000		-3.8371E+000
		591.81	4.83	3.7378E+000		-3.3476E+000

723.30	19.70	9.8470E-001	-1.4992E-001
756.87	4.33	4.3960E+000	-1.2379E+000
873.19	11.50	1.5302E+000	2.8822E-001

	996.32	10.30	1.7914E+000		-3.8231E-001
	1004.76	17.90	9.9645E-001		1.2922E-001
	1274.45	35.50	4.7796E-001		1.9408E-001
Eu-155	86.54	30.90	1.8636E+000	1.86E+000	2.2421E+000
	105.31	20.70	2.1683E+000		1.0109E+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 8/12/2005 1:50:18 PM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-109-F-G-I.CNF
Log Number:
Title: NOL-02-01-109-F-G-I
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/12/2005 11:39:58 AM

Live Time : 900.0 seconds
Real Time : 900.8 seconds

Energy Calibration Date: 4/11/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-109-F-G-I.CNF
Log Number:
Title: NOL-02-01-109-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	282-	305	291.40	72.70	1.13	2.39E+002	103.52	9.18E+002
m	2	282-	305	300.19	74.90	1.14	3.94E+002	148.37	1.01E+003
F	3	334-	344	339.37	84.73	1.15	1.69E+002	49.30	6.48E+002
F	4	948-	960	954.77	239.01	1.34	2.06E+002	36.57	1.97E+002
F	5	1175-	1186	1180.37	295.52	1.39	5.43E+001	22.94	1.06E+002
F	6	1347-	1358	1352.42	338.61	1.43	4.40E+001	22.38	1.03E+002
F	7	1401-	1414	1407.34	352.36	1.44	1.08E+002	26.54	1.07E+002
F	8	2030-	2050	2041.69	511.09	2.32	1.29E+002	68.19	9.88E+001
F	9	2325-	2341	2332.20	583.74	1.59	1.13E+002	24.88	6.80E+001
F	10	2427-	2445	2436.17	609.73	1.61	1.16E+002	53.76	5.95E+001
F	11	2637-	2654	2645.26	661.99	1.64	1.23E+002	25.47	6.60E+001
F	12	3637-	3654	3644.29	911.53	1.77	1.12E+002	35.00	4.16E+001
F	13	3866-	3882	3874.59	969.02	1.80	5.25E+001	19.11	5.53E+001
F	14	4684-	4701	4692.46	1173.12	1.89	1.26E+002	24.67	3.63E+001
F	15	5321-	5338	5329.85	1332.13	1.96	9.91E+001	21.11	1.75E+001
F	16	5829-	5857	5843.33	1460.21	2.01	7.68E+002	85.73	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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-109-F-G-I.CNF

Log Number:
Title: NOL-02-01-109-F-G-I
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	1.000	511.00*	100.00	3.74887E-001	2.05318E-001
K-40	0.989	1460.81*	10.67	2.72965E+001	3.76352E+000
Co-60	0.998	1173.22*	100.00	4.56313E-001	9.60265E-002
		1332.49*	100.00	3.68253E-001	8.36147E-002
Cs-137	0.996	661.65*	85.12	4.51091E-001	1.07267E-001
TL-208	0.745	277.35	6.80		
		510.84*	21.60	1.73559E+000	9.61058E-001
		583.14*	84.20	4.04128E-001	1.03835E-001
		860.37	12.46		
Pb-212	0.522	74.81* @	10.70	1.29835E+001	5.50890E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.12584E+000	2.66548E-001
Bi-214	0.396	609.31*	46.30	7.66165E-001	3.66581E-001
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.585	74.82* @	6.21	2.23709E+001	9.62990E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	7.21614E-001	3.28191E-001
		351.92*	37.20	7.69177E-001	2.28849E-001
Ac-228	0.996	338.32*	11.40	1.01445E+000	5.40301E-001
		911.07*	27.70	1.34884E+000	4.47968E-001
		969.11*	16.60	1.07400E+000	4.06552E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-109-F-G-I.CNF

Log Number:
Title: NOL-02-01-109-F-G-I
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN		1.000	2.875956E-001	2.065202E-001
K-40		0.989	2.729652E+001	3.763522E+000
Co-60		0.998	4.062278E-001	6.305925E-002
Cs-137		0.996	4.510914E-001	1.072673E-001
TL-208		0.745	4.041278E-001	1.029968E-001
Pb-212	@	0.522	1.125841E+000	2.665479E-001
Bi-214		0.396	7.661649E-001	3.665811E-001
PB-214	@	0.585	7.536163E-001	1.877181E-001
Ac-228		0.996	1.154614E+000	2.629859E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	72.70	2.6585E-001	43.27
F 3	84.73	1.8730E-001	29.25

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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-109-F-G-I.CNF

Log Number:
Title: NOL-02-01-109-F-G-I
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
+	Co-60	1173.22*	100.00	1.3958E-001	1.02E-001	4.5631E-001
		1332.49*	100.00	1.0236E-001		3.6825E-001
	Nb-94	702.63	100.00	1.9918E-001	1.80E-001	1.4229E-001
		871.10	100.00	1.8005E-001		-8.9293E-003
	Ag-108m	79.20	7.10	9.3930E+000	2.37E-001	-1.4834E+001
		433.93	89.90	2.3700E-001		-1.1165E-001
		614.37	90.40	2.7360E-001		-1.9350E-002
		722.95	90.50	2.4508E-001		-3.7897E-002
	Sb-125	176.33	6.89	4.2286E+000	6.98E-001	4.3150E+000
		427.89	29.33	6.9832E-001		-2.1421E-001
		463.38	10.35	2.1499E+000		1.7129E-001
		600.56	17.80	1.0278E+000		1.3306E-001
		606.64	5.02	4.7049E+000		5.5574E+000
		635.90	11.32	1.8336E+000		2.8567E-001
	Cs-134	563.23	8.38	2.4697E+000	2.39E-001	7.0518E-001
		569.32	15.43	1.2604E+000		-6.5922E-001
		604.70	97.60	2.3907E-001		-8.8317E-002
		795.84	85.40	2.4045E-001		1.9864E-002
		801.93	8.73	2.3292E+000		-2.0330E+000
+	Cs-137	661.65*	85.12	1.8757E-001	1.88E-001	4.5109E-001
	Eu-152	121.78	28.40	1.4058E+000	7.20E-001	6.7502E-001
		244.69	7.49	3.5965E+000		-1.7772E+000
		344.27	26.50	9.0016E-001		5.1949E-001
		778.89	12.74	1.5075E+000		6.8061E-001
		867.32	4.16	4.3897E+000		-9.0089E+000
		964.01	14.40	1.7164E+000		2.3643E+000
		1085.78	10.00	1.7662E+000		-4.7228E-001
		1112.02	13.30	1.4933E+000		-1.0033E+000
		1407.95	20.70	7.2035E-001		7.0554E-001
	Eu-154	123.07	40.50	9.6480E-001	4.75E-001	-5.2148E-001
		247.94	6.60	3.8335E+000		-5.5014E+000
		591.81	4.83	4.0347E+000		1.3155E-001

723.30	19.70	1.1286E+000	1.5797E-001
756.87	4.33	4.5617E+000	5.9117E-001
873.19	11.50	1.5545E+000	9.5097E-001

	996.32	10.30	1.6674E+000		-1.6667E+000
	1004.76	17.90	1.0048E+000		2.6291E-001
	1274.45	35.50	4.7537E-001		1.3721E-001
Eu-155	86.54	30.90	1.9510E+000	1.95E+000	2.9005E+000
	105.31	20.70	2.2355E+000		1.2877E+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 8/12/2005 1:51:46 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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-110-F-G-I.CNF
Log Number:
Title: NOL-02-01-110-F-G-I
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/12/2005 11:58:28 AM

Live Time : 900.0 seconds
Real Time : 900.8 seconds

Energy Calibration Date: 4/11/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-110-F-G-I.CNF
Log Number:
Title: NOL-02-01-110-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	291.69	72.77	1.13	2.17E+002	51.95	7.25E+002
m	2	287-	306	300.35	74.95	1.14	4.32E+002	62.21	1.00E+003
F	3	333-	344	339.57	84.78	1.15	1.73E+002	200.26	7.17E+002
F	4	947-	960	954.31	238.90	1.34	1.90E+002	36.74	2.31E+002
F	5	1176-	1187	1180.71	295.61	1.39	5.18E+001	24.76	1.35E+002
F	6	1400-	1416	1406.19	352.07	1.44	1.17E+002	100.44	1.32E+002
F	7	2032-	2051	2041.64	511.08	2.32	1.09E+002	24.18	9.24E+001
F	8	2325-	2340	2331.79	583.63	1.59	1.17E+002	25.59	7.54E+001
F	9	2430-	2442	2436.28	609.76	1.61	7.92E+001	23.08	6.19E+001
F	10	2639-	2653	2645.73	662.11	1.64	1.25E+002	24.47	3.82E+001
F	11	3634-	3651	3643.22	911.26	1.77	9.34E+001	23.02	6.31E+001
F	12	3866-	3881	3874.32	968.95	1.80	4.45E+001	18.68	4.98E+001
F	13	4471-	4490	4481.38	1120.45	1.87	6.36E+001	38.64	1.77E+001
F	14	4682-	4703	4692.66	1173.17	1.89	1.45E+002	97.22	3.66E+001
F	15	5322-	5339	5329.98	1332.16	1.96	1.14E+002	22.88	2.45E+001
F	16	5830-	5856	5843.73	1460.31	2.01	8.10E+002	94.24	2.70E+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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-110-F-G-I.CNF

Log Number:
Title: NOL-02-01-110-F-G-I
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	1.000	511.00*	100.00	3.15782E-001	8.31438E-002
K-40	0.992	1460.81*	10.67	2.87699E+001	4.07936E+000
Co-60	0.998	1173.22*	100.00	5.24363E-001	3.53527E-001
		1332.49*	100.00	4.23831E-001	9.13121E-002
Cs-137	0.994	661.65*	85.12	4.57787E-001	1.04507E-001
TL-208	0.748	277.35	6.80		
		510.84*	21.60	1.46195E+000	4.03016E-001
		583.14*	84.20	4.18352E-001	1.06992E-001
		860.37	12.46		
Pb-212	0.523	74.81* @	10.70	1.42244E+001	3.45877E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.03542E+000	2.58108E-001
Bi-214	0.697	609.31*	46.30	5.21244E-001	1.65234E-001
		1120.29*	15.10	1.49871E+000	9.24155E-001
		1764.49	15.80		
PB-214	0.586	74.82* @	6.21	2.45091E+001	6.21947E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	6.88769E-001	3.48964E-001
		351.92*	37.20	8.34226E-001	7.29660E-001
Ac-228	0.639	338.32	11.40		
		911.07*	27.70	1.12193E+000	3.05063E-001
		969.11*	16.60	9.10355E-001	3.93644E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-110-F-G-I.CNF

Log Number:
Title: NOL-02-01-110-F-G-I
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN		1.000	2.254178E-001	8.624560E-002
K-40		0.992	2.876991E+001	4.079362E+000
Co-60		0.998	4.301180E-001	8.841064E-002
Cs-137		0.994	4.577869E-001	1.045069E-001
TL-208		0.748	4.183524E-001	1.061193E-001
Pb-212	@	0.523	1.035416E+000	2.581078E-001
Bi-214		0.697	5.515237E-001	1.626547E-001
PB-214	@	0.586	7.158456E-001	3.148128E-001
Ac-228		0.639	1.042542E+000	2.411298E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.4144E-001	23.91
F 3	84.78	1.9267E-001	115.49

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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-110-F-G-I.CNF

Log Number:
Title: NOL-02-01-110-F-G-I
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
+	Co-60	1173.22*	100.00	1.5156E-001	1.19E-001	5.2436E-001
		1332.49*	100.00	1.1932E-001		4.2383E-001
	Nb-94	702.63	100.00	1.9461E-001	1.81E-001	4.4014E-002
		871.10	100.00	1.8074E-001		-1.1079E-001
	Ag-108m	79.20	7.10	9.5530E+000	2.39E-001	-8.0641E+000
		433.93	89.90	2.4373E-001		-1.9447E-002
		614.37	90.40	2.7125E-001		-2.4643E-001
		722.95	90.50	2.3938E-001		1.0640E-001
	Sb-125	176.33	6.89	4.1419E+000	7.44E-001	1.2057E+000
		427.89	29.33	7.4438E-001		4.1145E-002
		463.38	10.35	2.1499E+000		1.8522E-001
		600.56	17.80	1.1629E+000		-3.7407E-001
		606.64	5.02	5.0348E+000		7.2260E+000
		635.90	11.32	1.6811E+000		-5.7755E-001
	Cs-134	563.23	8.38	2.3571E+000	2.31E-001	1.6592E+000
		569.32	15.43	1.3196E+000		3.6994E-001
		604.70	97.60	2.5748E-001		-3.2829E-002
		795.84	85.40	2.3083E-001		1.2803E-002
		801.93	8.73	2.2198E+000		-2.3603E+000
+	Cs-137	661.65*	85.12	1.3738E-001	1.37E-001	4.5779E-001
	Eu-152	121.78	28.40	1.3961E+000	6.76E-001	7.1270E-001
		244.69	7.49	3.6424E+000		-6.0259E-001
		344.27	26.50	9.1237E-001		-9.1110E-001
		778.89	12.74	1.4636E+000		-2.5180E+000
		867.32	4.16	4.5796E+000		-4.0855E-001
		964.01	14.40	1.6536E+000		2.7578E-001
		1085.78	10.00	1.9778E+000		1.5233E+000
		1112.02	13.30	1.4492E+000		-2.4880E-002
		1407.95	20.70	6.7629E-001		1.1929E-001
	Eu-154	123.07	40.50	9.7467E-001	5.18E-001	7.6044E-001
		247.94	6.60	3.9364E+000		-8.8416E-001
		591.81	4.83	3.9905E+000		-3.2609E+000

723.30	19.70	1.0998E+000	5.5325E-001
756.87	4.33	4.4658E+000	-2.2572E+000
873.19	11.50	1.6075E+000	8.5870E-001

	996.32	10.30	1.8124E+000		-2.6864E-001
	1004.76	17.90	1.0656E+000		-4.5874E-001
	1274.45	35.50	5.1759E-001		1.7108E-001
Eu-155	86.54	30.90	1.9635E+000	1.96E+000	2.9739E+000
	105.31	20.70	2.2143E+000		7.4111E-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 8/12/2005 1:52:36 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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-111-F-G-I.CNF
Log Number:
Title: NOL-02-01-111-F-G-I
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/12/2005 1:10:01 PM

Live Time : 900.0 seconds
Real Time : 900.8 seconds

Energy Calibration Date: 4/11/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-111-F-G-I.CNF
Log Number:
Title: NOL-02-01-111-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	291.64	72.76	1.13	2.02E+002	50.85	6.35E+002
m	2	288-	304	300.53	74.99	1.14	4.51E+002	60.65	7.93E+002
F	3	331-	355	339.94	84.88	1.15	2.09E+002	172.41	1.30E+003
F	4	739-	751	743.35	186.03	1.28	4.46E+001	28.01	2.37E+002
F	5	796-	805	800.48	200.35	1.30	3.67E+001	25.64	1.54E+002
F	6	947-	959	954.28	238.89	1.34	1.96E+002	35.70	1.87E+002
F	7	1174-	1186	1181.23	295.74	1.39	5.81E+001	66.38	1.27E+002
F	8	1401-	1413	1407.41	352.38	1.44	9.90E+001	26.29	1.04E+002
F	9	2032-	2050	2042.63	511.33	2.32	1.24E+002	25.82	9.99E+001
F	10	2324-	2341	2332.84	583.90	1.59	1.19E+002	67.75	6.77E+001
F	11	2428-	2445	2436.44	609.80	1.61	1.04E+002	23.85	7.23E+001
F	12	2639-	2654	2646.49	662.30	1.64	7.52E+001	48.29	2.87E+001
F	13	2903-	2914	2908.47	727.76	1.68	2.28E+001	15.57	3.61E+001
F	14	3636-	3651	3645.08	911.73	1.77	9.03E+001	22.15	4.05E+001
F	15	3869-	3883	3875.23	969.18	1.80	5.94E+001	26.39	3.67E+001
F	16	4684-	4704	4693.69	1173.43	1.89	6.95E+001	42.28	3.74E+001
F	17	5323-	5341	5332.35	1332.75	1.96	6.35E+001	17.15	1.63E+001
F	18	5831-	5859	5845.21	1460.68	2.01	7.46E+002	76.29	3.54E+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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-111-F-G-I.CNF

Log Number:
Title: NOL-02-01-111-F-G-I
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	0.997	511.00*	100.00	3.61005E-001	9.06108E-002
K-40	0.999	1460.81*	10.67	2.65256E+001	3.45863E+000
Co-60	0.998	1173.22*	100.00	2.50860E-001	1.53982E-001
		1332.49*	100.00	2.36006E-001	6.64048E-002
Cs-137	0.987	661.65*	85.12	2.75198E-001	1.79654E-001
TL-208	0.740	277.35	6.80		
		510.84*	21.60	1.67132E+000	4.41141E-001
		583.14*	84.20	4.26588E-001	2.48980E-001
		860.37	12.46		
Bi-212	0.990	727.17*	11.80	6.13216E-001	4.24990E-001
Pb-212	0.523	74.81* @	10.70	1.48245E+001	3.52415E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.06888E+000	2.57071E-001
Bi-214	0.395	609.31*	46.30	6.87049E-001	1.78786E-001
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.583	74.82* @	6.21	2.55430E+001	6.34900E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	7.73050E-001	8.92040E-001
		351.92*	37.20	7.05843E-001	2.21540E-001
Ac-228	0.633	338.32	11.40		
		911.07*	27.70	1.08434E+000	2.93773E-001
		969.11*	16.60	1.21374E+000	5.54269E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-111-F-G-I.CNF

Log Number:
Title: NOL-02-01-111-F-G-I
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN		0.997	2.688616E-001	1.053259E-001
K-40		0.999	2.652558E+001	3.458634E+000
Co-60		0.998	2.383352E-001	6.097635E-002
Cs-137		0.987	2.751982E-001	1.796543E-001
TL-208		0.740	4.265879E-001	2.485913E-001
Bi-212		0.990	6.132156E-001	4.249897E-001
Pb-212	@	0.523	1.068881E+000	2.570708E-001
Bi-214		0.395	6.870490E-001	1.787861E-001
PB-214	@	0.583	7.097475E-001	2.150089E-001
Ac-228		0.633	1.112722E+000	2.595679E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.2444E-001	25.17
F 3	84.88	2.3239E-001	82.43
F 4	186.03	4.9565E-002	62.80
F 5	200.35	4.0798E-002	69.84

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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-111-F-G-I.CNF

Log Number:
Title: NOL-02-01-111-F-G-I
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
+	Co-60	1173.22*	100.00	1.4977E-001	1.01E-001	2.5086E-001
		1332.49*	100.00	1.0077E-001		2.3601E-001
	Nb-94	702.63	100.00	1.9461E-001	1.84E-001	2.4168E-002
		871.10	100.00	1.8411E-001		5.1147E-002
	Ag-108m	79.20	7.10	9.3830E+000	2.20E-001	-2.8224E+001
		433.93	89.90	2.2387E-001		8.4277E-003
		614.37	90.40	2.7453E-001		-9.6847E-002
		722.95	90.50	2.2008E-001		-4.0621E-002
	Sb-125	176.33	6.89	4.0949E+000	6.90E-001	2.5838E+000
		427.89	29.33	6.8960E-001		1.4473E-001
		463.38	10.35	1.9911E+000		8.0393E-001
		600.56	17.80	1.0594E+000		2.5251E-001
		606.64	5.02	4.8600E+000		6.9695E+000
		635.90	11.32	1.6860E+000		1.1130E-001
	Cs-134	563.23	8.38	2.2703E+000	2.37E-001	-1.4632E+000
		569.32	15.43	1.2738E+000		4.6289E-001
		604.70	97.60	2.4134E-001		2.8827E-002
		795.84	85.40	2.3706E-001		-5.2858E-002
		801.93	8.73	2.1338E+000		-3.0675E+000
+	Cs-137	661.65*	85.12	1.2322E-001	1.23E-001	2.7520E-001
	Eu-152	121.78	28.40	1.3999E+000	5.77E-001	-2.7764E-001
		244.69	7.49	3.5131E+000		-4.8407E+000
		344.27	26.50	8.8277E-001		-1.6323E+000
		778.89	12.74	1.4132E+000		-1.3562E+000
		867.32	4.16	4.3735E+000		-1.5434E+000
		964.01	14.40	1.6346E+000		5.4921E-001
		1085.78	10.00	1.9345E+000		-6.5694E-001
		1112.02	13.30	1.3625E+000		-1.9736E+000
		1407.95	20.70	5.7725E-001		2.7820E-001
	Eu-154	123.07	40.50	9.7881E-001	4.59E-001	6.5766E-001
		247.94	6.60	3.6651E+000		-4.8042E+000
		591.81	4.83	4.0237E+000		3.2092E+000

723.30	19.70	1.0111E+000	8.9626E-001
756.87	4.33	4.2234E+000	6.7356E-001
873.19	11.50	1.5724E+000	8.9277E-001

	996.32	10.30	1.5492E+000		7.5632E-001
	1004.76	17.90	9.4886E-001		5.2970E-001
	1274.45	35.50	4.5949E-001		1.1974E-001
Eu-155	86.54	30.90	1.9101E+000	1.91E+000	1.1562E-001
	105.31	20.70	2.1953E+000		-3.0565E-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 8/12/2005 2:21:21 PM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-112-F-G-I.CNF
Log Number:
Title: NOL-02-01-112-F-G-I
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/12/2005 1:30:27 PM

Live Time : 900.0 seconds
Real Time : 900.7 seconds

Energy Calibration Date: 4/11/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-112-F-G-I.CNF
Log Number:
Title: NOL-02-01-112-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	291.67	72.77	1.13	2.01E+002	50.23	8.49E+002
m	2	284-	305	300.35	74.94	1.14	4.08E+002	59.95	8.74E+002
F	3	331-	343	339.72	84.82	1.15	1.53E+002	137.94	6.74E+002
F	4	945-	961	954.88	239.04	1.34	2.05E+002	86.10	2.24E+002
F	5	1401-	1417	1408.19	352.57	1.44	8.74E+001	24.75	1.22E+002
F	6	2032-	2054	2042.92	511.40	2.32	1.66E+002	26.23	7.78E+001
F	7	2325-	2345	2333.30	584.01	1.59	1.44E+002	26.02	6.46E+001
F	8	2428-	2447	2436.72	609.87	1.61	1.18E+002	59.56	5.54E+001
F	9	2641-	2653	2646.21	662.23	1.64	6.27E+001	19.95	4.09E+001
F	10	2901-	2913	2908.20	727.69	1.68	2.42E+001	15.06	3.68E+001
F	11	3632-	3655	3645.09	911.73	1.77	1.14E+002	48.46	5.06E+001
F	12	3870-	3886	3877.92	969.85	1.80	3.46E+001	16.02	4.07E+001
F	13	4475-	4489	4483.10	1120.88	1.87	3.85E+001	14.88	2.09E+001
F	14	4686-	4702	4693.85	1173.47	1.89	7.37E+001	20.05	3.59E+001
F	15	5324-	5340	5331.66	1332.58	1.96	9.34E+001	20.60	1.65E+001
F	16	5833-	5858	5845.45	1460.74	2.01	7.38E+002	92.76	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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-112-F-G-I.CNF

Log Number:
Title: NOL-02-01-112-F-G-I
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	0.995	511.00*	100.00	4.83091E-001	1.02063E-001
K-40	1.000	1460.81*	10.67	2.62150E+001	3.92057E+000
Co-60	0.999	1173.22*	100.00	2.66312E-001	7.53531E-002
		1332.49*	100.00	3.47221E-001	8.12675E-002
Cs-137	0.990	661.65*	85.12	2.29476E-001	7.78377E-002
TL-208	0.736	277.35	6.80		
		510.84*	21.60	2.23653E+000	5.06585E-001
		583.14*	84.20	5.17141E-001	1.15506E-001
		860.37	12.46		
Bi-212	0.992	727.17*	11.80	6.52205E-001	4.12315E-001
Pb-212	0.522	74.81* @	10.70	1.34338E+001	3.29010E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.11750E+000	5.01826E-001
Bi-214	0.693	609.31*	46.30	7.73860E-001	4.03820E-001
		1120.29*	15.10	9.07732E-001	3.63674E-001
		1764.49	15.80		
Ac-228	0.628	338.32	11.40		
		911.07*	27.70	1.36452E+000	6.02720E-001
		969.11*	16.60	7.08255E-001	3.35916E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-112-F-G-I.CNF

Log Number:
Title: NOL-02-01-112-F-G-I
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN		0.995	3.713884E-001	1.050047E-001
K-40		1.000	2.621499E+001	3.920572E+000
Co-60		0.999	3.037155E-001	5.525542E-002
Cs-137		0.990	2.294763E-001	7.783769E-002
TL-208		0.736	5.171410E-001	1.142694E-001
Bi-212		0.992	6.522045E-001	4.123148E-001
Pb-212	@	0.522	1.117498E+000	5.018261E-001
Bi-214		0.693	8.477792E-001	2.702380E-001
Ac-228		0.628	8.637918E-001	2.934215E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.2301E-001	25.02
F 3	84.82	1.6967E-001	90.33
F 5	352.57	9.7097E-002	28.33

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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-112-F-G-I.CNF

Log Number:
Title: NOL-02-01-112-F-G-I
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
+	Co-60	1173.22*	100.00	1.3585E-001	9.77E-002	2.6631E-001
		1332.49*	100.00	9.7672E-002		3.4722E-001
	Nb-94	702.63	100.00	1.9345E-001	1.69E-001	6.2265E-002
		871.10	100.00	1.6872E-001		-1.2075E-001
	Ag-108m	79.20	7.10	9.2352E+000	2.17E-001	-8.4748E+000
		433.93	89.90	2.2627E-001		-3.9898E-002
		614.37	90.40	2.6018E-001		-1.1114E-003
		722.95	90.50	2.1691E-001		-1.2614E-001
	Sb-125	176.33	6.89	4.0083E+000	7.13E-001	-5.4002E+000
		427.89	29.33	7.1260E-001		-1.8590E-001
		463.38	10.35	1.9869E+000		8.0415E-001
		600.56	17.80	1.1080E+000		7.5052E-001
		606.64	5.02	4.8854E+000		-1.3464E+000
		635.90	11.32	1.5180E+000		-6.3307E-001
	Cs-134	563.23	8.38	2.4348E+000	2.21E-001	1.0777E+000
		569.32	15.43	1.2604E+000		-1.1115E+000
		604.70	97.60	2.4581E-001		-4.7412E-002
		795.84	85.40	2.2076E-001		7.7493E-002
		801.93	8.73	2.0440E+000		-1.3029E+000
+	Cs-137	661.65*	85.12	1.3588E-001	1.36E-001	2.2948E-001
	Eu-152	121.78	28.40	1.3299E+000	5.70E-001	-1.2536E+000
		244.69	7.49	3.4894E+000		-8.6610E-001
		344.27	26.50	8.3234E-001		-1.1028E+000
		778.89	12.74	1.4487E+000		-1.4249E+000
		867.32	4.16	4.2581E+000		-8.1126E-001
		964.01	14.40	1.5075E+000		2.1886E-001
		1085.78	10.00	1.8600E+000		2.1873E-001
		1112.02	13.30	1.4714E+000		1.6532E-001
		1407.95	20.70	5.7044E-001		-8.7761E-001
	Eu-154	123.07	40.50	9.3377E-001	4.83E-001	2.6542E-001
		247.94	6.60	3.7400E+000		-3.2436E+000
		591.81	4.83	3.6045E+000		1.2606E-001

723.30	19.70	9.9654E-001	-4.9129E-001
756.87	4.33	4.1193E+000	-1.6714E+000
873.19	11.50	1.5302E+000	-7.0897E-002

	996.32	10.30	1.6521E+000		8.1026E-001
	1004.76	17.90	1.0007E+000		2.5811E-001
	1274.45	35.50	4.8311E-001		-1.9173E-001
Eu-155	86.54	30.90	1.8844E+000	1.88E+000	-5.6619E-001
	105.31	20.70	2.1196E+000		4.5595E-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 8/12/2005 2:22:09 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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-113-F-G-I.CNF
Log Number:
Title: NOL-02-01-113-F-G-I
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/12/2005 1:49:32 PM

Live Time : 900.0 seconds
Real Time : 900.7 seconds

Energy Calibration Date: 4/11/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-113-F-G-I.CNF
Log Number:
Title: NOL-02-01-113-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-	306	291.36	72.69	1.13	2.27E+002	50.71	8.72E+002
m	2	283-	306	300.31	74.94	1.14	4.22E+002	60.93	9.67E+002
F	3	947-	960	954.76	239.01	1.34	1.88E+002	35.03	2.01E+002
F	4	1346-	1358	1352.45	338.61	1.43	5.22E+001	329.32	1.01E+002
F	5	1401-	1413	1406.98	352.27	1.44	5.88E+001	23.43	1.12E+002
F	6	2323-	2341	2332.49	583.81	1.59	1.40E+002	26.94	8.98E+001
F	7	2431-	2447	2436.84	609.90	1.61	9.26E+001	118.97	5.69E+001
F	8	2640-	2654	2646.63	662.33	1.64	7.20E+001	20.51	5.00E+001
F	9	3635-	3653	3644.61	911.61	1.77	1.20E+002	50.74	3.16E+001
F	10	4476-	4490	4483.49	1120.98	1.87	3.98E+001	16.00	2.98E+001
F	11	4688-	4702	4694.90	1173.73	1.89	4.76E+001	18.22	3.88E+001
F	12	5324-	5340	5331.99	1332.66	1.96	6.76E+001	18.52	2.09E+001
F	13	5833-	5860	5845.53	1460.76	2.01	7.33E+002	89.30	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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-113-F-G-I.CNF

Log Number:
Title: NOL-02-01-113-F-G-I
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
K-40	1.000	1460.81*	10.67	2.60572E+001	3.81066E+000
Co-60	0.996	1173.22*	100.00	1.71845E-001	6.71788E-002
		1332.49*	100.00	2.51218E-001	7.16015E-002
Cs-137	0.986	661.65*	85.12	2.63437E-001	8.11960E-002
TL-208	0.464	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	5.01524E-001	1.17006E-001
		860.37	12.46		
Pb-212	0.522	74.81* @	10.70	1.38737E+001	3.37870E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.02921E+000	2.50277E-001
Bi-214	0.691	609.31*	46.30	6.09898E-001	7.86993E-001
		1120.29*	15.10	9.38375E-001	3.89927E-001
		1764.49	15.80		
Ac-228	0.533	338.32*	11.40	1.20315E+000	7.59980E+000
		911.07*	27.70	1.44231E+000	6.31510E-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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-113-F-G-I.CNF

Log Number:
Title: NOL-02-01-113-F-G-I
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
K-40	1.000	2.605719E+001	3.810659E+000
Co-60	0.996	2.090044E-001	4.899156E-002
Cs-137	0.986	2.634367E-001	8.119601E-002
TL-208	0.464	5.015240E-001	1.170063E-001
Pb-212 @	0.522	1.029212E+000	2.502770E-001
Bi-214	0.691	8.736325E-001	3.493926E-001
Ac-228	0.533	1.440669E+000	6.293408E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.5208E-001	22.35
F 5	352.27	6.5358E-002	39.84

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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-113-F-G-I.CNF

Log Number:
Title: NOL-02-01-113-F-G-I
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
+	Co-60	1173.22*	100.00	1.3671E-001	1.09E-001	1.7184E-001
		1332.49*	100.00	1.0873E-001		2.5122E-001
	Nb-94	702.63	100.00	1.8933E-001	1.85E-001	3.7595E-002
		871.10	100.00	1.8544E-001		1.0179E-001
	Ag-108m	79.20	7.10	9.2679E+000	2.14E-001	-7.3564E+000
		433.93	89.90	2.1398E-001		-8.5259E-002
		614.37	90.40	2.5671E-001		-2.1962E-002
		722.95	90.50	2.2994E-001		1.0613E-001
	Sb-125	176.33	6.89	3.8606E+000	6.27E-001	-1.9765E+000
		427.89	29.33	6.2666E-001		-6.1649E-001
		463.38	10.35	2.0496E+000		1.7388E+000
		600.56	17.80	1.1343E+000		2.9151E-001
		606.64	5.02	4.7398E+000		-4.2081E+000
		635.90	11.32	1.5991E+000		-7.2601E-001
	Cs-134	563.23	8.38	2.2767E+000	2.26E-001	-8.8494E-001
		569.32	15.43	1.2704E+000		-1.3784E+000
		604.70	97.60	2.4179E-001		-2.1224E-001
		795.84	85.40	2.2585E-001		8.4188E-002
		801.93	8.73	2.2407E+000		-1.2612E+000
+	Cs-137	661.65*	85.12	1.5445E-001	1.54E-001	2.6344E-001
	Eu-152	121.78	28.40	1.3623E+000	6.76E-001	-5.3688E-001
		244.69	7.49	3.3469E+000		-3.0157E+000
		344.27	26.50	8.7013E-001		-3.2860E-001
		778.89	12.74	1.5360E+000		-5.2731E-001
		867.32	4.16	4.3244E+000		-4.7004E+000
		964.01	14.40	1.5158E+000		5.3409E-001
		1085.78	10.00	1.8059E+000		-1.4360E+000
		1112.02	13.30	1.4878E+000		2.6402E-001
		1407.95	20.70	6.7629E-001		4.9887E-001
	Eu-154	123.07	40.50	9.5135E-001	4.83E-001	-2.8833E-001
		247.94	6.60	3.5541E+000		-2.1145E+000
		591.81	4.83	4.0892E+000		-6.4159E-001

723.30	19.70	1.0647E+000	1.1097E+000
756.87	4.33	4.3535E+000	1.1421E+000
873.19	11.50	1.5783E+000	1.6199E-001

	996.32	10.30	1.5976E+000		-2.9588E-001
	1004.76	17.90	8.9390E-001		9.4473E-001
	1274.45	35.50	4.8311E-001		3.3175E-001
Eu-155	86.54	30.90	1.8855E+000	1.89E+000	2.3172E+000
	105.31	20.70	2.1753E+000		-3.2403E-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 8/15/2005 9:57:00 AM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-114-F-G-I.CNF
Log Number:
Title: NOL-02-01-114-F-G-I
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/12/2005 2:07:20 PM

Live Time : 900.0 seconds
Real Time : 900.7 seconds

Energy Calibration Date: 4/11/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-114-F-G-I.CNF
Log Number:
Title: NOL-02-01-114-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	282-	315	291.08	72.62	1.13	2.40E+002	49.15	7.25E+002
m	2	282-	315	300.54	74.99	1.14	5.03E+002	58.81	7.93E+002
m	3	282-	315	309.85	77.33	1.14	1.23E+002	44.76	7.59E+002
M	4	334-	355	339.80	84.84	1.15	1.62E+002	45.92	6.59E+002
m	5	334-	355	349.59	87.30	1.16	1.02E+002	43.96	7.69E+002
F	6	948-	959	954.69	238.99	1.34	1.77E+002	34.59	1.80E+002
F	7	1400-	1413	1407.38	352.37	1.44	7.31E+001	24.09	1.10E+002
F	8	2036-	2051	2043.89	511.64	2.32	5.99E+001	23.96	1.18E+002
F	9	2323-	2343	2333.05	583.95	1.59	1.34E+002	52.92	6.86E+001
F	10	2430-	2445	2437.17	609.98	1.61	1.08E+002	23.40	4.85E+001
F	11	2640-	2655	2646.98	662.42	1.64	6.74E+001	20.89	6.36E+001
F	12	2903-	2918	2910.49	728.26	1.68	4.84E+001	1465.18	3.65E+001
F	13	3635-	3653	3645.11	911.73	1.77	7.71E+001	20.09	4.28E+001
F	14	3867-	3884	3876.28	969.44	1.80	6.90E+001	41.30	2.71E+001
F	15	4686-	4702	4694.49	1173.63	1.89	5.95E+001	58.47	2.95E+001
F	16	5324-	5341	5332.66	1332.83	1.96	6.50E+001	17.83	2.01E+001
F	17	5832-	5860	5845.92	1460.85	2.01	7.56E+002	85.73	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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-114-F-G-I.CNF

Log Number:
Title: NOL-02-01-114-F-G-I
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
K-40	1.000	1460.81*	10.67	2.68541E+001	3.74293E+000
Co-60	0.996	1173.22*	100.00	2.14852E-001	2.11866E-001
		1332.49*	100.00	2.41607E-001	6.89299E-002
Cs-137	0.982	661.65*	85.12	2.46758E-001	8.17777E-002
Eu-155	0.323	86.54*	30.90	9.54104E-001	4.50422E-001
		105.31	20.70		
TL-208	0.736	277.35	6.80		
		510.84*	21.60	8.06870E-001	3.48423E-001
		583.14*	84.20	4.77996E-001	1.99679E-001
		860.37	12.46		
Bi-212	0.964	727.17*	11.80	1.30285E+000	3.94180E+001
Pb-212	0.997	74.81* @	10.70	1.65293E+001	3.77294E+000
		77.11* @	18.00	2.30337E+000	9.53858E-001
		87.30* @	8.00	3.68523E+000	1.73976E+000
		238.63*	44.60	9.67887E-001	2.42298E-001
Bi-214	0.391	609.31*	46.30	7.08128E-001	1.77470E-001
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.474	74.82* @	6.21	2.84805E+001	6.82172E+000
		77.11* @	10.50	3.94863E+000	1.66155E+000
		87.30* @	4.67	6.31302E+000	3.01823E+000
		241.98	7.49		
		295.21	19.20		
		351.92*	37.20	5.21472E-001	1.92677E-001
Ac-228	0.632	338.32	11.40		
		911.07*	27.70	9.25400E-001	2.63715E-001
		969.11*	16.60	1.41012E+000	8.57096E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-114-F-G-I.CNF

Log Number:
Title: NOL-02-01-114-F-G-I
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

	Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
X	ANN		0.988		
	K-40		1.000	2.685411E+001	3.742930E+000
	Co-60		0.996	2.390458E-001	6.554798E-002
	Cs-137		0.982	2.467578E-001	8.177771E-002
	Eu-155		0.323	6.247074E-001	4.556779E-001
	TL-208		0.736	5.593059E-001	1.732458E-001
	Bi-212		0.964	1.302850E+000	3.941804E+001
	Pb-212	@	0.997	9.678866E-001	2.422982E-001
	Bi-214		0.391	7.081285E-001	1.774697E-001
	PB-214	@	0.474	5.214715E-001	1.902915E-001
	Ac-228		0.632	9.673191E-001	2.520535E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	72.62	2.6614E-001	20.52
M 4	84.84	1.8039E-001	28.28

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

Errors quoted at 1.960 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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-114-F-G-I.CNF

Log Number:
Title: NOL-02-01-114-F-G-I
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
+	Co-60	1173.22*	100.00	1.2464E-001	1.09E-001	2.1485E-001
		1332.49*	100.00	1.0898E-001		2.4161E-001
	Nb-94	702.63	100.00	1.9287E-001	1.80E-001	1.2394E-001
		871.10	100.00	1.8005E-001		-8.2253E-003
	Ag-108m	79.20	7.10	9.2856E+000	2.21E-001	-4.3258E-001
		433.93	89.90	2.2095E-001		-1.4631E-002
		614.37	90.40	2.6505E-001		-2.5536E-002
		722.95	90.50	2.2134E-001		-7.4264E-002
	Sb-125	176.33	6.89	4.1097E+000	6.95E-001	-2.5305E+000
		427.89	29.33	6.9543E-001		6.5502E-002
		463.38	10.35	1.9911E+000		-1.9178E-001
		600.56	17.80	1.0779E+000		-7.2720E-002
		606.64	5.02	4.7224E+000		5.1396E+000
		635.90	11.32	1.6610E+000		-1.1589E+000
	Cs-134	563.23	8.38	2.3571E+000	2.31E-001	-4.2670E-001
		569.32	15.43	1.2536E+000		-1.7742E-001
		604.70	97.60	2.3540E-001		-7.5598E-002
		795.84	85.40	2.3083E-001		4.2868E-002
		801.93	8.73	2.1265E+000		-1.0885E+000
+	Cs-137	661.65*	85.12	1.7683E-001	1.77E-001	2.4676E-001
	Eu-152	121.78	28.40	1.3618E+000	6.47E-001	-6.8978E-002
		244.69	7.49	3.4276E+000		-6.5652E+000
		344.27	26.50	8.6245E-001		-1.0481E+000
		778.89	12.74	1.3768E+000		3.7882E-002
		867.32	4.16	4.5950E+000		-2.1201E+000
		964.01	14.40	1.5281E+000		1.4086E-001
		1085.78	10.00	1.6839E+000		-1.4821E+000
		1112.02	13.30	1.4209E+000		-8.6828E-001
		1407.95	20.70	6.4710E-001		-1.2413E-001
	Eu-154	123.07	40.50	9.4747E-001	4.59E-001	5.1452E-001
		247.94	6.60	3.6567E+000		-3.4566E+000
		591.81	4.83	4.0237E+000		-1.7060E+000

723.30	19.70	1.0169E+000	-4.0326E-001
756.87	4.33	4.0585E+000	-1.0801E+000
873.19	11.50	1.5783E+000	9.4327E-001

		996.32	10.30	1.6445E+000		-1.6622E-001
		1004.76	17.90	9.3544E-001		1.0071E-001
		1274.45	35.50	4.5949E-001		-1.2301E-001
+	Eu-155	86.54*	30.90	1.2282E+000	1.23E+000	9.5410E-001
		105.31	20.70	2.1480E+000		6.4672E-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 8/16/2005 10:20:50 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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-115-F-G-I.CNF
Log Number:
Title: NOL-02-01-115-F-G-I
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/16/2005 7:54:34 AM

Live Time : 900.0 seconds
Real Time : 900.8 seconds

Energy Calibration Date: 4/11/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-115-F-G-I.CNF
Log Number:
Title: NOL-02-01-115-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	286-	313	291.43	72.71	1.13	1.95E+002	51.08	7.83E+002
m	2	286-	313	300.22	74.91	1.14	4.72E+002	60.06	9.23E+002
m	3	286-	313	309.16	77.16	1.14	1.05E+002	45.45	7.20E+002
F	4	334-	347	339.41	84.74	1.15	2.02E+002	50.01	8.16E+002
F	5	740-	751	744.49	186.31	1.29	5.25E+001	28.27	2.21E+002
F	6	945-	962	954.81	239.02	1.34	1.70E+002	101.57	2.83E+002
F	7	1175-	1189	1181.82	295.89	1.39	5.69E+001	23.04	1.29E+002
F	8	1400-	1413	1407.28	352.34	1.44	7.87E+001	23.53	9.25E+001
F	9	2034-	2053	2043.18	511.46	2.32	1.25E+002	25.96	1.05E+002
F	10	2324-	2341	2332.52	583.82	1.59	1.12E+002	23.44	5.62E+001
F	11	2429-	2446	2436.75	609.88	1.61	1.17E+002	66.27	7.77E+001
F	12	2638-	2653	2646.10	662.20	1.64	4.53E+001	62.93	5.63E+001
F	13	3633-	3655	3645.04	911.72	1.77	1.46E+002	49.12	3.69E+001
F	14	3866-	3884	3875.68	969.29	1.80	7.33E+001	19.98	4.77E+001
F	15	4685-	4704	4693.81	1173.46	1.89	1.38E+002	25.11	4.00E+001
F	16	5321-	5341	5331.35	1332.50	1.96	1.43E+002	24.90	2.63E+001
F	17	5833-	5858	5845.09	1460.65	2.01	7.01E+002	51.28	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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-115-F-G-I.CNF

Log Number:
Title: NOL-02-01-115-F-G-I
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	0.994	511.00*	100.00	3.64765E-001	9.12519E-002
K-40	0.999	1460.81*	10.67	2.49159E+001	2.71855E+000
Co-60	0.999	1173.22*	100.00	4.97525E-001	9.87120E-002
		1332.49*	100.00	5.33079E-001	1.01566E-001
Cs-137	0.991	661.65*	85.12	1.65933E-001	2.31108E-001
TL-208	0.742	277.35	6.80		
		510.84*	21.60	1.68873E+000	4.44404E-001
		583.14*	84.20	4.00065E-001	9.91614E-002
		860.37	12.46		
Pb-212	0.843	74.81* @	10.70	1.55384E+001	3.63118E+000
		77.11* @	18.00	1.98194E+000	9.39717E-001
		87.30 @	8.00		
		238.63*	44.60	9.30456E-001	5.73594E-001
Bi-214	0.393	609.31*	46.30	7.68874E-001	4.46698E-001
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.760	74.82* @	6.21	2.67731E+001	6.55154E+000
		77.11* @	10.50	3.39762E+000	1.63080E+000
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	7.56762E-001	3.31762E-001
		351.92*	37.20	5.61609E-001	1.92267E-001
Ac-228	0.633	338.32	11.40		
		911.07*	27.70	1.75616E+000	6.23476E-001
		969.11*	16.60	1.49839E+000	4.37606E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-115-F-G-I.CNF

Log Number:
Title: NOL-02-01-115-F-G-I
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN		0.994	2.783508E-001	9.368965E-002
K-40		0.999	2.491595E+001	2.718555E+000
Co-60		0.999	5.147954E-001	7.078726E-002
Cs-137		0.991	1.659326E-001	2.311075E-001
TL-208		0.742	4.000653E-001	9.830055E-002
Pb-212	@	0.843	9.304558E-001	5.735937E-001
Bi-214		0.393	7.688742E-001	4.466978E-001
PB-214	@	0.760	6.106740E-001	1.663509E-001
Ac-228		0.633	1.583465E+000	3.581837E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.1674E-001	26.18
F 4	84.74	2.2417E-001	24.79
F 5	186.31	5.8387E-002	53.79

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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-115-F-G-I.CNF

Log Number:
Title: NOL-02-01-115-F-G-I
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
+	Co-60	1173.22*	100.00	1.5112E-001	1.29E-001	4.9752E-001
		1332.49*	100.00	1.2939E-001		5.3308E-001
	Nb-94	702.63	100.00	1.9345E-001	1.86E-001	-1.8723E-001
		871.10	100.00	1.8611E-001		6.4538E-002
	Ag-108m	79.20	7.10	9.4128E+000	2.22E-001	-4.9512E+000
		433.93	89.90	2.2242E-001		-1.2834E-001
		614.37	90.40	2.8682E-001		8.1779E-002
		722.95	90.50	2.3705E-001		8.4877E-002
	Sb-125	176.33	6.89	4.0354E+000	6.93E-001	1.5531E+000
		427.89	29.33	6.9252E-001		-1.3484E-002
		463.38	10.35	2.0537E+000		-3.4311E-001
		600.56	17.80	1.0687E+000		-1.3515E-001
		606.64	5.02	5.0593E+000		7.8649E+000
		635.90	11.32	1.7827E+000		8.3905E-001
	Cs-134	563.23	8.38	2.3692E+000	2.31E-001	-1.8448E+000
		569.32	15.43	1.2903E+000		1.3180E-001
		604.70	97.60	2.5279E-001		-1.9648E-001
		795.84	85.40	2.3083E-001		-1.2989E-001
		801.93	8.73	2.2683E+000		-1.2621E+000
+	Cs-137	661.65*	85.12	1.6713E-001	1.67E-001	1.6593E-001
	Eu-152	121.78	28.40	1.3667E+000	5.35E-001	-5.1333E-001
		244.69	7.49	3.4241E+000		-1.3587E-001
		344.27	26.50	8.0935E-001		-1.6095E+000
		778.89	12.74	1.5075E+000		-1.6354E+000
		867.32	4.16	4.7168E+000		-2.2053E+000
		964.01	14.40	1.6308E+000		1.3250E-001
		1085.78	10.00	1.8059E+000		-1.4879E+000
		1112.02	13.30	1.4878E+000		-1.3855E+000
		1407.95	20.70	5.3493E-001		-5.0350E-001
	Eu-154	123.07	40.50	9.5791E-001	4.78E-001	-2.7891E-001
		247.94	6.60	3.6986E+000		2.9404E-001
		591.81	4.83	4.0892E+000		-6.5724E-001

723.30	19.70	1.0837E+000	5.3641E-001
756.87	4.33	4.1940E+000	-4.5232E-001
873.19	11.50	1.5605E+000	-1.1468E+000

	996.32	10.30	1.9070E+000		3.6750E-001
	1004.76	17.90	1.0537E+000		-1.2385E-001
	1274.45	35.50	4.7796E-001		4.4775E-001
Eu-155	86.54	30.90	1.9500E+000	1.95E+000	2.8910E+000
	105.31	20.70	2.1937E+000		-1.3111E-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 8/17/2005 2:23:40 PM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-116-F-G.CNF
Log Number:
Title: NOL-02-01-116-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/17/2005 1:18:19 PM

Live Time : 900.0 seconds
Real Time : 900.8 seconds

Energy Calibration Date: 6/13/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: RED_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-116-F-G.CNF
Log Number:
Title: NOL-02-01-116-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	284-	306	291.77	72.90	1.13	2.05E+002	51.79	9.42E+002
m	2	284-	306	300.45	75.07	1.13	4.69E+002	62.22	1.08E+003
F	3	331-	344	339.37	84.80	1.15	1.80E+002	124.05	8.15E+002
F	4	950-	960	954.71	238.65	1.34	2.17E+002	37.09	1.74E+002
F	5	1400-	1413	1407.68	351.90	1.44	7.86E+001	24.99	1.24E+002
F	6	2034-	2052	2042.71	510.67	2.33	9.59E+001	24.55	1.05E+002
F	7	2324-	2342	2332.66	583.16	1.60	1.05E+002	23.57	7.42E+001
F	8	2427-	2445	2437.48	609.37	1.62	1.52E+002	59.55	6.59E+001
F	9	2638-	2655	2646.89	661.73	1.65	2.35E+002	32.60	7.18E+001
F	10	3438-	3450	3444.54	861.16	1.76	1.90E+001	14.02	3.04E+001
F	11	3637-	3653	3645.68	911.45	1.79	8.44E+001	51.65	4.05E+001
F	12	3870-	3885	3877.13	969.31	1.81	5.73E+001	17.42	2.25E+001
F	13	4475-	4490	4481.96	1120.54	1.89	3.89E+001	14.54	1.73E+001
F	14	4688-	4701	4695.86	1174.01	1.91	3.17E+001	13.88	1.92E+001
F	15	5325-	5339	5332.82	1333.27	1.98	3.65E+001	14.60	1.69E+001
F	16	5832-	5859	5846.32	1461.65	2.03	7.84E+002	85.05	1.74E+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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-116-F-G.CNF

Log Number:
Title: NOL-02-01-116-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
ANN	0.997	511.00*	100.00	2.89309E-001	8.44380E-002
K-40	0.979	1460.81*	10.67	2.89846E+001	3.92270E+000
Co-60	0.982	1173.22*	100.00	1.19486E-001	5.31361E-002
		1332.49*	100.00	1.41149E-001	5.75630E-002
Cs-137	1.000	661.65*	85.12	9.00055E-001	1.63794E-001
TL-208	0.903	277.35	6.80		
		510.84*	21.60	1.33939E+000	4.05932E-001
		583.14*	84.20	3.91775E-001	1.02026E-001
		860.37*	12.46	5.26715E-001	3.93129E-001
Pb-212	0.525	74.81* @	10.70	1.59030E+001	3.76384E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.21955E+000	2.82919E-001
Bi-214	0.699	609.31*	46.30	1.04489E+000	4.29355E-001
		1120.29*	15.10	9.57344E-001	3.71973E-001
		1764.49	15.80		
Ac-228	0.635	338.32	11.40		
		911.07*	27.70	1.06464E+000	6.62627E-001
		969.11*	16.60	1.22847E+000	3.94988E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-116-F-G.CNF

Log Number:
Title: NOL-02-01-116-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
ANN		0.997	2.028701E-001	8.705200E-002
K-40		0.979	2.898458E+001	3.922700E+000
Co-60		0.982	1.294528E-001	3.904427E-002
Cs-137		1.000	9.000551E-001	1.637945E-001
TL-208		0.903	4.001806E-001	9.802114E-002
Pb-212	@	0.525	1.219550E+000	2.829187E-001
Bi-214		0.699	9.948808E-001	2.811398E-001
Ac-228		0.635	1.185518E+000	3.392829E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.2808E-001	25.23
F 3	84.80	2.0052E-001	68.74
F 5	351.90	8.7315E-002	31.80

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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-116-F-G.CNF

Log Number:
Title: NOL-02-01-116-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
+	Co-60	1173.22*	100.00	1.0164E-001	9.91E-002	1.1949E-001
		1332.49*	100.00	9.9126E-002		1.4115E-001
	Nb-94	702.63	100.00	2.2020E-001	1.96E-001	1.4108E-001
		871.10	100.00	1.9612E-001		2.0846E-001
	Ag-108m	79.20	7.10	1.0155E+001	2.37E-001	-7.0470E+000
		433.93	89.90	2.5725E-001		1.8634E-001
		614.37	90.40	2.9901E-001		-1.7785E-001
		722.95	90.50	2.3719E-001		-3.2420E-002
	Sb-125	176.33	6.89	4.3927E+000	7.80E-001	4.1841E+000
		427.89	29.33	7.8024E-001		-4.9117E-003
		463.38	10.35	2.1992E+000		8.8334E-001
		600.56	17.80	1.2043E+000		7.9757E-001
		606.64	5.02	5.4796E+000		6.7354E+000
		635.90	11.32	1.7525E+000		-1.2905E+000
	Cs-134	563.23	8.38	2.4462E+000	2.35E-001	-9.3424E-002
		569.32	15.43	1.2799E+000		-8.6191E-001
		604.70	97.60	2.8031E-001		5.5139E-002
		795.84	85.40	2.3468E-001		1.5365E-001
		801.93	8.73	2.3068E+000		-7.1403E-001
+	Cs-137	661.65*	85.12	2.0285E-001	2.03E-001	9.0006E-001
	Eu-152	121.78	28.40	1.4547E+000	6.48E-001	2.5421E-001
		244.69	7.49	3.7170E+000		-5.3686E+000
		344.27	26.50	9.2434E-001		-7.2725E-001
		778.89	12.74	1.5404E+000		-1.8332E+000
		867.32	4.16	4.8410E+000		-6.6378E-001
		964.01	14.40	1.5498E+000		-3.0358E-002
		1085.78	10.00	2.0298E+000		8.7364E-001
		1112.02	13.30	1.5429E+000		7.0408E-001
		1407.95	20.70	6.4775E-001		-9.4425E-002
	Eu-154	123.07	40.50	1.0064E+000	4.64E-001	-3.2524E-001
		247.94	6.60	4.0495E+000		-2.7561E+000
		591.81	4.83	4.4617E+000		-4.3846E-001

723.30	19.70	1.0956E+000	8.1546E-001
756.87	4.33	4.1911E+000	-5.2387E-003
873.19	11.50	1.6197E+000	2.5666E-001

	996.32	10.30	1.8987E+000		-1.0186E+000
	1004.76	17.90	1.0953E+000		2.1882E-001
	1274.45	35.50	4.6435E-001		1.2775E-001
Eu-155	86.54	30.90	2.0345E+000	2.03E+000	-4.4265E-001
	105.31	20.70	2.2613E+000		-1.5834E-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 8/12/2005 1:59:13 PM

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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-203-F--G.CNF
Log Number:
Title: NOL-02-01-203-F-G
Description:

Sample Type:
Geometry:

Peak Locate Threshold: 3.00
Peak Locate Range (in channels): 200 - 8192
Identification Energy Tolerance: 1.250 FWHM
Acquisition Started : 8/11/2005 1:41:47 PM

Live Time : 900.0 seconds
Real Time : 901.1 seconds

Energy Calibration Date: 4/11/2005
Efficiency Calibration Date: 8/3/2005
Calibration Efficiency: BLUE_SOIL_2M90D

Y A N K E E R O W E P O R T A B L E I S O C S
(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: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-203-F--G.CNF
Log Number:
Title: NOL-02-01-203-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	287-	306	291.75	72.79	1.13	2.63E+002	56.75	8.79E+002
m	2	287-	306	300.38	74.95	1.14	5.32E+002	67.30	1.18E+003
F	3	334-	346	340.02	84.90	1.15	1.59E+002	51.82	8.97E+002
F	4	947-	961	954.59	238.97	1.34	2.19E+002	103.22	2.82E+002
F	5	1400-	1414	1408.08	352.54	1.44	9.46E+001	64.28	1.26E+002
F	6	2325-	2339	2332.80	583.89	1.59	1.15E+002	76.20	6.00E+001
F	7	2430-	2445	2438.23	610.25	1.61	1.13E+002	23.71	5.38E+001
F	8	3638-	3653	3645.83	911.91	1.77	1.09E+002	24.69	6.02E+001
F	9	3870-	3886	3878.18	969.92	1.80	5.29E+001	18.22	4.25E+001
F	10	4685-	4705	4695.43	1173.86	1.89	1.10E+002	23.27	4.74E+001
F	11	5324-	5342	5332.49	1332.79	1.96	1.44E+002	25.28	2.67E+001
F	12	5833-	5859	5846.93	1461.11	2.01	7.41E+002	88.82	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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-203-F--G.CNF

Log Number:
Title: NOL-02-01-203-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
K-40	0.997	1460.81*	10.67	2.63389E+001	3.80951E+000
Co-60	0.992	1173.22*	100.00	3.98052E-001	8.96437E-002
		1332.49*	100.00	5.36958E-001	1.02984E-001
TL-208	0.462	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	4.12019E-001	2.78145E-001
		860.37	12.46		
Pb-212	0.523	74.81* @	10.70	1.75074E+001	4.08397E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.19740E+000	5.94160E-001
Bi-214	0.383	609.31*	46.30	7.43809E-001	1.81462E-001
		1120.29	15.10		
		1764.49	15.80		
Ac-228	0.623	338.32	11.40		
		911.07*	27.70	1.30916E+000	3.32451E-001
		969.11*	16.60	1.08129E+000	3.89268E-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 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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-203-F--G.CNF

Log Number:
Title: NOL-02-01-203-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/gram)	Wt mean Activity Uncertainty
K-40	0.997	2.633889E+001	3.809513E+000
Co-60	0.992	4.579312E-001	6.761560E-002
TL-208	0.462	4.120187E-001	2.781454E-001
Pb-212 @	0.523	1.197398E+000	5.941603E-001
Bi-214	0.383	7.438088E-001	1.814621E-001
Ac-228	0.623	1.213053E+000	2.528026E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.9226E-001	21.58
F	3	84.90	1.7613E-001	32.69
F	5	352.54	1.0510E-001	67.96

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
(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

Filename: S:\Analyzed Results\NOL-02\NOL-02-01\NOL-02-01-203-F--G.CNF

Log Number:
Title: NOL-02-01-203-F-G
Description:

Geometry:
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-re

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
+	Co-60	1173.22*	100.00	1.6573E-001	1.28E-001	3.9805E-001
		1332.49*	100.00	1.2760E-001		5.3696E-001
	Nb-94	702.63	100.00	2.1121E-001	1.99E-001	-4.6660E-002
		871.10	100.00	1.9949E-001		-9.9796E-002
	Ag-108m	79.20	7.10	1.0477E+001	2.33E-001	-3.3557E+000
		433.93	89.90	2.3333E-001		1.2948E-001
		614.37	90.40	2.7823E-001		-7.0609E-002
		722.95	90.50	2.3530E-001		1.0414E-001
	Sb-125	176.33	6.89	4.5875E+000	6.93E-001	-1.3289E+000
		427.89	29.33	6.9252E-001		-1.5521E-002
		463.38	10.35	2.1499E+000		-1.5023E+000
		600.56	17.80	1.1685E+000		8.2440E-001
		606.64	5.02	5.0348E+000		3.9352E+000
		635.90	11.32	1.8607E+000		2.6375E-001
	Cs-134	563.23	8.38	2.5213E+000	2.50E-001	9.0539E-001
		569.32	15.43	1.3388E+000		-1.2145E+000
		604.70	97.60	2.5020E-001		-1.6163E-003
		795.84	85.40	2.5290E-001		1.6511E-001
		801.93	8.73	2.3820E+000		-3.2221E+000
	Cs-137	661.65	85.12	2.5125E-001	2.51E-001	1.9904E-001
	Eu-152	121.78	28.40	1.5837E+000	5.84E-001	1.1928E+000
		244.69	7.49	3.9391E+000		-3.0200E+000
		344.27	26.50	9.1116E-001		-6.1929E-001
		778.89	12.74	1.5777E+000		6.4215E-001
		867.32	4.16	4.9222E+000		-6.5047E-001
		964.01	14.40	1.5803E+000		2.8763E-001
		1085.78	10.00	1.8676E+000		2.1257E-001
		1112.02	13.30	1.5254E+000		-1.3800E+000
		1407.95	20.70	5.8398E-001		-4.2709E-002
	Eu-154	123.07	40.50	1.0874E+000	4.73E-001	-3.4996E-002
		247.94	6.60	4.1898E+000		-1.0849E+000
		591.81	4.83	4.3206E+000		-5.8301E-002

723.30	19.70	1.0864E+000	9.3154E-001
756.87	4.33	4.6422E+000	1.4444E-001
873.19	11.50	1.7408E+000	-3.3742E-001

	996.32	10.30	1.9070E+000		2.2573E-001
	1004.76	17.90	1.0007E+000		-1.0484E+000
	1274.45	35.50	4.7276E-001		1.4255E-001
Eu-155	86.54	30.90	2.0992E+000	2.10E+000	3.0498E+000
	105.31	20.70	2.4880E+000		-5.9321E-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 4/24/2006 2:44:24 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: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-02-02-101-F-G
Sample ID: NOL-02-02-101
Sample Title: NOL-02-02-101-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 4/18/2006 2:11:08 PM
Live Time: 600.0 seconds
Real Time: 601.1 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-02-02-101-F-G
Log Number: NOL-02-02-101
Title: NOL-02-02-101-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	287-	308	291.99	72.83	0.96	3.63E+002	64.73	1.19E+003
m	2	287-	308	300.43	74.94	0.96	7.35E+002	74.23	1.52E+003
F	3	331-	344	339.55	84.72	0.98	1.88E+002	58.05	1.44E+003
F	4	945-	961	954.60	238.53	1.18	3.31E+002	110.29	4.16E+002
F	5	1177-	1188	1181.21	295.20	1.23	5.65E+001	25.91	1.79E+002
F	6	1348-	1357	1353.54	338.29	1.27	3.95E+001	22.85	1.22E+002
F	7	1397-	1414	1407.31	351.74	1.28	1.36E+002	29.17	2.01E+002
F	8	2033-	2048	2041.85	510.42	2.10	1.23E+002	27.60	1.28E+002
F	9	2323-	2339	2332.34	583.07	1.45	1.62E+002	28.70	9.78E+001
F	10	2427-	2461	2436.24	609.05	1.47	1.45E+002	26.60	1.50E+002
F	11	3633-	3656	3645.10	911.36	1.64	1.59E+002	59.47	5.37E+001
M	12	3852-	3886	3858.98	964.84	1.67	3.94E+001	20.63	3.20E+001
m	13	3852-	3886	3876.39	969.20	1.67	1.16E+002	45.20	5.87E+001
F	14	5831-	5859	5844.95	1461.48	1.90	1.24E+003	106.67	2.59E+001
F	15	7053-	7069	7060.74	1765.52	2.02	6.07E+001	41.44	1.95E+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: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-02-02-101-F-G

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

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/UNITS)	Activity Uncertainty
ANN	0.988	511.00*	100.00	1.76750E-001	4.62134E-002
K-40	0.984	1460.81*	10.67	2.18973E+001	2.58313E+000
TL-208	0.751	277.35	6.80		
		510.84*	21.60	8.18289E-001	2.24145E-001
		583.14*	84.20	2.87642E-001	6.32784E-002
		860.37	12.46		
Pb-212	0.520	74.81* @	10.70	1.10416E+001	2.43440E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	8.45968E-001	3.11181E-001
Bi-214	0.689	609.31*	46.30	4.76913E-001	1.05138E-001
		1120.29	15.10		
		1764.49*	15.80	7.49405E-001	5.16720E-001
PB-214	0.582	74.82* @	6.21	1.90250E+001	4.41606E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	3.55849E-001	1.73893E-001
		351.92*	37.20	4.63352E-001	1.26279E-001
Ac-228	0.998	338.32*	11.40	4.36282E-001	2.61223E-001
		911.07*	27.70	9.56778E-001	3.73987E-001
		969.11*	16.60	1.18665E+000	4.77924E-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-02-02-101-F-G

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

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/UNITS)	Wt mean Activity Uncertainty
ANN		0.988	1.146198E-001	4.814970E-002
K-40		0.984	2.189726E+001	2.583129E+000
TL-208		0.751	2.876419E-001	6.258017E-002
Pb-212	@	0.520	8.459676E-001	3.111814E-001
Bi-214		0.689	4.877459E-001	1.030266E-001
PB-214	@	0.582	4.262340E-001	1.021790E-001
Ac-228		0.998	7.038865E-001	1.954316E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	6.0441E-001	17.85
F 3	84.72	3.1316E-001	30.89
M 12	964.84	6.5732E-002	52.32

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:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-02-02-101-F-G
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/UNITS)	Nuclide MDA (pCi/UNITS)	Activity (pCi/UNITS)
Co-60	1173.22	100.00	1.1191E-001	8.51E-002	3.3419E-002
	1332.49	100.00	8.5105E-002		1.5680E-002
Nb-94	702.63	100.00	9.7771E-002	9.19E-002	-3.6742E-002
	871.10	100.00	9.1866E-002		1.3634E-002
Ag-108m	79.20	7.10	4.9273E+000	1.24E-001	-3.0010E+000
	433.93	89.90	1.2429E-001		3.8667E-002
	614.37	90.40	1.2543E-001		1.9880E-002
	722.95	90.50	1.2692E-001		1.0978E-001
Sb-125	176.33	6.89	2.3282E+000	3.86E-001	7.9133E-001
	427.89	29.33	3.8601E-001		3.4438E-001
	463.38	10.35	1.0831E+000		8.1573E-002
	600.56	17.80	5.7447E-001		-3.6045E-001
	606.64	5.02	2.6225E+000		-2.6496E-001
	635.90	11.32	8.6440E-001		1.6002E-001
Cs-134	563.23	8.38	1.2121E+000	1.25E-001	-1.8296E-001
	569.32	15.43	6.6378E-001		-2.4963E-001
	604.70	97.60	1.3069E-001		-7.2649E-002
	795.84	85.40	1.2506E-001		8.0079E-002
	801.93	8.73	1.1326E+000		-1.0489E+000
Cs-137	661.65	85.12	1.3597E-001	1.36E-001	9.3116E-002
Eu-152	121.78	28.40	7.5308E-001	3.85E-001	-1.9729E-001
	244.69	7.49	1.9207E+000		1.0208E+000
	344.27	26.50	4.6833E-001		4.4842E-001
	778.89	12.74	7.0525E-001		-1.3446E+000
	867.32	4.16	2.2779E+000		-7.4057E-001
	964.01	14.40	8.9798E-001		-1.0299E-001
	1085.78	10.00	9.2888E-001		-2.8911E-001
	1112.02	13.30	8.1876E-001		6.1720E-001
	1407.95	20.70	3.8514E-001		6.6807E-002
Eu-154	123.07	40.50	5.2733E-001	2.58E-001	1.8264E-001
	247.94	6.60	2.0165E+000		-2.3068E+000
	591.81	4.83	2.1530E+000		-4.0973E-001
	723.30	19.70	5.8687E-001		2.5035E-001
	756.87	4.33	2.3251E+000		1.8239E+000
	873.19	11.50	7.6020E-001		-3.0176E-001
	996.32	10.30	9.5798E-001		-1.0994E-001
	1004.76	17.90	5.3343E-001		-3.7960E-001
	1274.45	35.50	2.5807E-001		9.1765E-002
Eu-155	86.54	30.90	1.0528E+000	1.05E+000	-2.7062E-001
	105.31	20.70	1.2505E+000		5.7745E-001
Am-241	59.54	35.90	1.3185E+000	1.32E+000	-4.8593E-001
Cm-243	228.19	10.56	1.3724E+000	9.40E-001	-5.8012E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/UNIT)	Nuclide MDA (pCi/UNIT)	Activity (pCi/UNIT)
Cm-243	277.60	14.00	9.4021E-001	9.40E-001	3.5430E-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 5/4/2006 7:09:23 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: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-02-02-101
Sample Title: NOL-02-02-101-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/4/2006 6:59:21 PM
Live Time: 600.0 seconds
Real Time: 600.9 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-02-02-101
Title: NOL-02-02-101-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	296-	308	300.78	75.02	0.82	3.87E+002	120.73	1.28E+003
2	833-	842	838.05	209.38	0.61	4.07E+001	44.62	2.09E+002
3	949-	962	955.23	238.69	1.26	2.36E+002	66.12	3.25E+002
4	1397-	1417	1408.23	351.97	1.18	1.39E+002	57.98	2.02E+002
5	2327-	2345	2334.34	583.57	1.80	1.61E+002	43.08	9.42E+001
6	2431-	2449	2438.59	609.64	1.77	2.09E+002	39.91	5.97E+001
7	3637-	3656	3647.70	912.01	1.72	1.34E+002	35.40	5.49E+001
8	3870-	3887	3879.18	969.90	1.33	6.78E+001	31.43	5.83E+001
9	5836-	5863	5849.29	1462.57	1.78	1.10E+003	66.83	1.37E+001
10	6355-	6368	6361.13	1590.57	0.28	1.01E+001	12.04	7.94E+000
11	7060-	7074	7066.90	1767.07	0.92	2.81E+001	15.84	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: 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	0.897	1460.81*	10.67	1.84932E+001	1.87054E+000
TL-208	0.467	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	2.72156E-001	8.10679E-002
		860.37	12.46		
Pb-212	0.520	74.81* @	10.70	5.53181E+000	2.03660E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	5.72885E-001	1.84161E-001
Bi-214	0.396	609.31*	46.30	6.53676E-001	1.48360E-001
		1120.29	15.10		
		1764.49	15.80		
Ac-228	0.612	338.32	11.40		
		911.07*	27.70	7.67625E-001	2.21030E-001
		969.11*	16.60	6.58877E-001	3.13316E-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	0.897	1.849325E+001	1.870543E+000
TL-208	0.467	2.721565E-001	8.106791E-002
Pb-212 @	0.520	5.728855E-001	1.841607E-001
Bi-214	0.396	6.536757E-001	1.483600E-001
Ac-228	0.612	7.314890E-001	1.806108E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	209.38	6.7893E-002	109.53
4	351.97	2.3096E-001	41.84
10	1590.57	1.6759E-002	119.72
11	1767.07	4.6917E-002	56.27

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	1.0086E-001	7.61E-002	2.5184E-003
	1332.49	100.00	7.6066E-002		-7.1177E-002
Nb-94	702.63	100.00	9.7147E-002	8.68E-002	3.7957E-002
	871.10	100.00	8.6849E-002		-3.8838E-002
Ag-108m	79.20	7.10	4.1370E+000	1.10E-001	-3.4893E+000
	433.93	89.90	1.1235E-001		2.2989E-002
	614.37	90.40	1.3402E-001		3.9323E-003
	722.95	90.50	1.0969E-001		1.3231E-002
Sb-125	176.33	6.89	2.0438E+000	3.38E-001	9.3489E-001
	427.89	29.33	3.3834E-001		8.4274E-002
	463.38	10.35	9.8996E-001		-4.9590E-001
	600.56	17.80	5.1516E-001		-1.8513E-001
	606.64	5.02	2.6097E+000		-2.1282E+000
	635.90	11.32	8.1163E-001		4.3206E-001
Cs-134	563.23	8.38	1.1923E+000	1.04E-001	6.0046E-001
	569.32	15.43	5.9034E-001		-2.2885E-001
	604.70	97.60	1.1486E-001		-7.4982E-002
	795.84	85.40	1.0353E-001		-3.1682E-003
	801.93	8.73	9.4153E-001		-1.1993E+000
Cs-137	661.65	85.12	1.1608E-001	1.16E-001	2.0399E-002
Eu-152	121.78	28.40	6.2931E-001	2.97E-001	-2.0779E-001
	244.69	7.49	1.6831E+000		-9.7791E-001
	344.27	26.50	4.1946E-001		5.7489E-002
	778.89	12.74	6.8865E-001		-8.5124E-001
	867.32	4.16	2.1319E+000		-2.6791E+000
	964.01	14.40	7.7762E-001		6.4875E-001
	1085.78	10.00	9.2323E-001		4.0465E-001
	1112.02	13.30	6.8851E-001		1.9868E-001
	1407.95	20.70	2.9704E-001		-7.2644E-002
Eu-154	123.07	40.50	4.4170E-001	2.45E-001	-1.4813E-002
	247.94	6.60	1.7643E+000		-8.4918E-001
	591.81	4.83	1.8468E+000		-9.1935E-001
	723.30	19.70	5.1699E-001		3.6322E-001
	756.87	4.33	2.1760E+000		-1.4549E+000
	873.19	11.50	7.6671E-001		-3.6736E-001
	996.32	10.30	8.0299E-001		-7.6025E-001
	1004.76	17.90	4.8126E-001		-6.0640E-002
	1274.45	35.50	2.4466E-001		-1.4440E-001
Eu-155	86.54	30.90	8.7081E-001	8.71E-001	1.4427E+000
	105.31	20.70	1.0454E+000		9.7918E-001
Am-241	59.54	35.90	1.0524E+000	1.05E+000	9.0842E-001
Cm-243	228.19	10.56	1.1828E+000	8.35E-001	-5.2435E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	8.3500E-001	8.35E-001	-2.8657E-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 4/24/2006 2:44:46 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: BLUE6279

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-02-02-102-F-G
Sample ID: NOL-02-02-102
Sample Title: NOL-02-02-102-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 4/18/2006 2:26:59 PM
Live Time: 600.0 seconds
Real Time: 601.1 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-02-02-102-F-G
Log Number: NOL-02-02-102
Title: NOL-02-02-102-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	283-	316	291.65	72.74	0.96	3.91E+002	119.56	1.34E+003
m	2	283-	316	300.18	74.87	0.96	7.72E+002	208.31	1.23E+003
m	3	283-	316	308.65	76.99	0.96	1.68E+002	68.72	1.31E+003
F	4	332-	345	339.23	84.64	0.98	2.39E+002	58.99	1.44E+003
F	5	938-	960	954.51	238.51	1.18	2.57E+002	43.05	5.62E+002
F	6	1171-	1189	1180.15	294.93	1.23	1.22E+002	69.33	2.17E+002
F	7	1400-	1413	1407.48	351.78	1.28	1.42E+002	30.23	1.64E+002
F	8	2036-	2054	2044.03	510.97	2.10	1.58E+002	27.86	1.12E+002
F	9	2110-	2120	2115.45	528.83	1.41	2.63E+001	16.07	4.61E+001
F	10	2325-	2341	2332.43	583.09	1.45	1.80E+002	29.34	8.83E+001
F	11	2430-	2448	2436.73	609.17	1.47	1.99E+002	30.84	9.59E+001
F	12	2637-	2653	2645.78	661.45	1.50	4.94E+001	44.43	6.64E+001
F	13	3436-	3449	3444.10	861.09	1.62	2.82E+001	16.64	5.42E+001
F	14	3635-	3654	3645.05	911.34	1.64	1.14E+002	55.42	5.48E+001
F	15	3869-	3884	3876.19	969.15	1.67	7.20E+001	21.59	6.48E+001
F	16	5832-	5858	5845.17	1461.54	1.90	1.25E+003	105.44	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-02-02-102-F-G

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

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/UNITS)	Activity Uncertainty
ANN	1.000	511.00*	100.00	2.26096E-001	5.03118E-002
K-40	0.982	1460.81*	10.67	2.19939E+001	2.57291E+000
Cs-137	0.999	661.65*	85.12	9.05383E-002	8.21118E-002
TL-208	0.901	277.35	6.80		
		510.84*	21.60	1.04674E+000	2.48116E-001
		583.14*	84.20	3.20443E-001	6.67738E-002
		860.37*	12.46	3.71531E-001	2.24128E-001
Pb-212	0.843	74.81* @	10.70	1.16039E+001	3.87061E+000
		77.11* @	18.00	1.44451E+000	6.55352E-001
		87.30 @	8.00		
		238.63*	44.60	6.56315E-001	1.50540E-001
Bi-214	0.397	609.31*	46.30	6.52620E-001	1.29164E-001
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.762	74.82* @	6.21	1.99938E+001	6.82528E+000
		77.11* @	10.50	2.47630E+000	1.13857E+000
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	7.69923E-001	4.55563E-001
		351.92*	37.20	4.86885E-001	1.31560E-001
Ac-228	0.632	338.32	11.40		
		911.07*	27.70	6.86451E-001	3.42270E-001
		969.11*	16.60	7.35235E-001	2.33455E-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-02-02-102-F-G

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

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/UNITS)	Wt mean Activity Uncertainty
ANN		1.000	1.559981E-001	5.213439E-002
K-40		0.982	2.199387E+001	2.572908E+000
Cs-137		0.999	9.053833E-002	8.211184E-002
TL-208		0.901	3.245256E-001	6.326216E-002
Pb-212	@	0.843	6.563147E-001	1.505396E-001
Bi-214		0.397	6.526196E-001	1.291642E-001
PB-214	@	0.762	5.086725E-001	1.263954E-001
Ac-228		0.632	7.197457E-001	1.928637E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	6.5204E-001	30.56
F 4	84.64	3.9793E-001	24.70
F 9	528.83	4.3761E-002	61.19

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:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-02-02-102-F-G
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/UNITS)	Nuclide MDA (pCi/UNITS)	Activity (pCi/UNITS)
	Co-60	1173.22	100.00	1.1790E-001	8.83E-002	-2.1033E-002
		1332.49	100.00	8.8266E-002		9.8345E-002
	Nb-94	702.63	100.00	1.0945E-001	9.32E-002	-1.0218E-002
		871.10	100.00	9.3201E-002		-1.8395E-002
	Ag-108m	79.20	7.10	4.9126E+000	1.20E-001	4.8226E-001
		433.93	89.90	1.2326E-001		-9.5650E-002
		614.37	90.40	1.4027E-001		-8.3532E-002
		722.95	90.50	1.1990E-001		1.2603E-001
	Sb-125	176.33	6.89	2.3053E+000	3.93E-001	3.6231E-001
		427.89	29.33	3.9331E-001		3.2871E-001
		463.38	10.35	1.0849E+000		5.3995E-001
		600.56	17.80	5.4392E-001		-1.3058E-001
		606.64	5.02	2.8813E+000		-7.7739E-001
		635.90	11.32	8.9761E-001		-2.1569E-001
	Cs-134	563.23	8.38	1.3200E+000	1.24E-001	3.7574E-001
		569.32	15.43	6.8389E-001		4.0270E-001
		604.70	97.60	1.3692E-001		-1.5961E-001
		795.84	85.40	1.2441E-001		3.8243E-002
		801.93	8.73	1.1930E+000		-3.9790E-001
+	Cs-137	661.65*	85.12	9.2562E-002	9.26E-002	9.0538E-002
	Eu-152	121.78	28.40	7.4037E-001	3.47E-001	-7.3736E-001
		244.69	7.49	1.8839E+000		-2.9552E-001
		344.27	26.50	4.3985E-001		-2.9529E-001
		778.89	12.74	7.5502E-001		-5.4664E-001
		867.32	4.16	2.3242E+000		-1.0081E+000
		964.01	14.40	8.7525E-001		-1.7403E-001
		1085.78	10.00	9.6216E-001		3.4207E-001
		1112.02	13.30	7.8902E-001		7.9943E-002
		1407.95	20.70	3.4651E-001		6.0877E-002
	Eu-154	123.07	40.50	5.1989E-001	2.56E-001	2.0054E-001
		247.94	6.60	2.0595E+000		9.5107E-001
		591.81	4.83	2.2423E+000		5.5214E-001
		723.30	19.70	5.5088E-001		3.2242E-001
		756.87	4.33	2.3318E+000		9.5305E-001
		873.19	11.50	8.1083E-001		-9.3986E-001
		996.32	10.30	8.4314E-001		-5.6970E-001
		1004.76	17.90	5.2754E-001		1.6025E-001
		1274.45	35.50	2.5571E-001		-2.3962E-002
	Eu-155	86.54	30.90	1.0522E+000	1.05E+000	1.3434E-001
		105.31	20.70	1.2345E+000		-1.9490E-001
	Am-241	59.54	35.90	1.2887E+000	1.29E+000	-5.4418E-001
	Cm-243	228.19	10.56	1.3344E+000	9.63E-001	3.7423E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/UNIT)	Nuclide MDA (pCi/UNIT)	Activity (pCi/UNIT)
Cm-243	277.60	14.00	9.6290E-001	9.63E-001	-1.6493E-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 5/4/2006 8:19:45 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: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-02-02-102
Sample Title: NOL-02-02-102-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/4/2006 8:09:43 PM
Live Time: 600.0 seconds
Real Time: 600.9 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-02-02-102
Title: NOL-02-02-102-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-	317	291.38	72.67	1.29	4.32E+002	59.39	1.01E+003
m	2	284-	317	300.66	75.00	1.29	7.96E+002	69.65	1.27E+003
m	3	284-	317	309.64	77.24	1.29	2.12E+002	53.08	1.28E+003
M	4	332-	353	339.76	84.77	0.98	2.36E+002	55.78	9.95E+002
m	5	332-	353	349.97	87.32	0.99	8.26E+001	47.09	8.33E+002
	6	950-	960	955.12	238.66	1.14	2.70E+002	55.67	2.23E+002
	7	1178-	1188	1182.43	295.50	0.67	5.60E+001	38.29	1.36E+002
	8	1348-	1362	1354.50	338.53	1.03	7.03E+001	44.68	1.55E+002
	9	1399-	1415	1408.30	351.99	1.39	1.72E+002	48.94	1.44E+002
	10	2037-	2048	2043.70	510.89	1.14	6.71E+001	36.62	1.09E+002
	11	2325-	2340	2333.59	583.38	0.98	1.68E+002	39.58	7.99E+001
	12	2430-	2450	2438.29	609.56	1.13	1.76E+002	43.17	8.40E+001
	13	3639-	3656	3647.10	911.86	1.10	1.43E+002	32.14	3.85E+001
M	14	3855-	3886	3860.96	965.34	1.57	2.24E+001	14.00	3.32E+001
m	15	3855-	3886	3878.21	969.65	1.57	9.83E+001	21.06	3.28E+001
	16	4476-	4493	4484.45	1121.26	0.74	5.87E+001	26.56	3.83E+001
	17	5835-	5862	5848.44	1462.36	1.94	1.09E+003	67.42	2.03E+001
	18	7058-	7072	7065.45	1766.70	0.54	4.17E+001	16.20	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

N U C L I 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	0.920	1460.81*	10.67	1.83471E+001	1.86700E+000
TL-208	0.750	277.35	6.80		
		510.84*	21.60	4.23558E-001	2.40781E-001
		583.14*	84.20	2.84492E-001	7.65492E-002
		860.37	12.46		
Pb-212	1.000	74.81* @	10.70	1.13769E+001	2.44183E+000
		77.11* @	18.00	1.72762E+000	5.49626E-001
		87.30* @	8.00	1.28097E+000	7.71866E-001
		238.63*	44.60	6.55714E-001	1.69972E-001
Bi-214	0.958	609.31*	46.30	5.49688E-001	1.50860E-001
		1120.29*	15.10	6.54061E-001	3.04232E-001
		1764.49*	15.80	4.90507E-001	1.96566E-001
PB-214	0.849	74.82* @	6.21	1.96028E+001	4.44148E+000
		77.11* @	10.50	2.96164E+000	9.67818E-001
		87.30* @	4.67	2.19438E+000	1.33261E+000
		241.98	7.49		
		295.21*	19.20	3.36430E-001	2.36701E-001
		351.92*	37.20	5.60249E-001	1.84869E-001
Ac-228	0.986	338.32*	11.40	7.38820E-001	4.83707E-001
		911.07*	27.70	8.15977E-001	2.06482E-001
		969.11*	16.60	9.55593E-001	2.27902E-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		1.000		
	K-40		0.920	1.834714E+001	1.867000E+000
X	Eu-155		0.320		
	TL-208		0.750	2.972580E-001	7.295117E-002
	Pb-212	@	1.000	6.557145E-001	1.699717E-001
	Bi-214		0.958	5.446771E-001	1.113697E-001
	PB-214	@	0.849	4.754488E-001	1.456971E-001
	Ac-228		0.986	8.661726E-001	1.458924E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	7.1978E-001	13.75
M 4	84.77	3.9397E-001	23.60
M 14	965.34	3.7356E-002	62.47

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: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	9.8200E-002	7.56E-002	7.3920E-002
	1332.49	100.00	7.5596E-002		4.7473E-002
Nb-94	702.63	100.00	9.6620E-002	8.19E-002	1.0415E-001
	871.10	100.00	8.1858E-002		1.9834E-002
Ag-108m	79.20	7.10	4.1126E+000	1.06E-001	-6.2704E-001
	433.93	89.90	1.0576E-001		-1.4621E-001
	614.37	90.40	1.3315E-001		1.8734E-002
	722.95	90.50	1.0648E-001		7.0772E-003
Sb-125	176.33	6.89	2.0594E+000	3.29E-001	-4.5113E-001
	427.89	29.33	3.2929E-001		-5.9675E-002
	463.38	10.35	1.0332E+000		9.5279E-001
	600.56	17.80	5.3622E-001		-2.0638E-001
	606.64	5.02	2.6203E+000		4.2263E-001
	635.90	11.32	7.5582E-001		2.5270E-001
Cs-134	563.23	8.38	1.1349E+000	1.05E-001	7.6026E-001
	569.32	15.43	6.1240E-001		3.4698E-001
	604.70	97.60	1.1739E-001		-9.7222E-003
	795.84	85.40	1.0460E-001		7.8273E-003
	801.93	8.73	1.0073E+000		-1.0898E+000
Cs-137	661.65	85.12	1.1814E-001	1.18E-001	8.3975E-002
Eu-152	121.78	28.40	6.3129E-001	3.25E-001	-3.0220E-001
	244.69	7.49	1.7530E+000		9.2066E-001
	344.27	26.50	3.9862E-001		-9.0047E-002
	778.89	12.74	7.4158E-001		-4.4019E-001
	867.32	4.16	2.1014E+000		-3.0473E+000
	964.01	14.40	7.9377E-001		2.7978E-001
	1085.78	10.00	8.7382E-001		-2.2519E-001
	1112.02	13.30	6.6705E-001		-1.5035E-001
	1407.95	20.70	3.2476E-001		-3.3884E-003
Eu-154	123.07	40.50	4.4077E-001	2.35E-001	-1.6510E-002
	247.94	6.60	1.7901E+000		-1.0251E+000
	591.81	4.83	1.9206E+000		-1.8746E-001
	723.30	19.70	4.9329E-001		3.1336E-001
	756.87	4.33	2.0286E+000		-8.6745E-001
	873.19	11.50	7.0009E-001		-1.3242E-001
	996.32	10.30	7.4385E-001		-4.0944E-001
	1004.76	17.90	4.3350E-001		-9.9420E-002
	1274.45	35.50	2.3549E-001		-1.7783E-002
Eu-155	86.54*	30.90	5.4969E-001	5.50E-001	3.3164E-001
	105.31	20.70	1.0478E+000		1.0216E+000
Am-241	59.54	35.90	1.0862E+000	1.09E+000	-1.6418E-001
Cm-243	228.19	10.56	1.1712E+000	8.65E-001	-2.8328E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	8.6492E-001	8.65E-001	-6.6774E-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 4/18/2006 9:14:56 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: NOL-02-02-103
Sample Title: NOL-02-02-103-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 4/18/2006 9:04:55 PM
Live Time: 600.0 seconds
Real Time: 601.1 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
(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-02-02-103
Title: NOL-02-02-103-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	283-	304	291.45	72.69	0.91	3.76E+002	61.68	1.09E+003
m	2	283-	304	300.36	74.92	0.92	6.25E+002	73.44	1.13E+003
F	3	334-	345	339.24	84.64	1.16	3.08E+002	64.48	1.12E+003
F	4	948-	960	954.37	238.47	0.93	2.11E+002	39.76	3.07E+002
F	5	1175-	1190	1181.28	295.22	1.06	1.13E+002	30.68	2.28E+002
F	6	1400-	1414	1407.31	351.74	1.22	1.41E+002	31.08	1.80E+002
F	7	2036-	2054	2044.10	510.98	1.76	1.21E+002	28.02	1.57E+002
F	8	2321-	2340	2332.32	583.06	1.35	1.74E+002	29.30	1.05E+002
F	9	2430-	2443	2436.74	609.18	1.34	1.80E+002	29.72	7.08E+001
F	10	2638-	2651	2646.00	661.51	1.16	4.71E+001	18.50	5.42E+001
F	11	3636-	3653	3644.49	911.20	1.57	1.49E+002	26.32	5.19E+001
F	12	3868-	3884	3875.24	968.91	1.26	5.72E+001	19.28	5.28E+001
F	13	4473-	4487	4479.88	1120.12	1.31	3.34E+001	17.16	4.90E+001
F	14	5829-	5858	5844.61	1461.40	2.03	1.22E+003	67.05	2.60E+001
F	15	7054-	7070	7062.01	1765.84	2.04	4.87E+001	14.61	6.55E+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
(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/GRAM)	Activity Uncertainty
ANN	1.000	511.00*	100.00	1.65182E-001	4.42968E-002
K-40	0.988	1460.81*	10.67	2.04206E+001	1.99955E+000
Cs-137	0.999	661.65*	85.12	8.21702E-002	3.37155E-002
TL-208	0.751	277.35	6.80		
		510.84*	21.60	7.64729E-001	2.14376E-001
		583.14*	84.20	2.94571E-001	6.26805E-002
		860.37	12.46		
Pb-212	0.520	74.81* @	10.70	8.94343E+000	2.04370E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	5.12381E-001	1.25684E-001
Bi-214	0.987	609.31*	46.30	5.61301E-001	1.15710E-001
		1120.29*	15.10	3.72098E-001	1.95285E-001
		1764.49*	15.80	5.72324E-001	1.80984E-001
PB-214	0.582	74.82* @	6.21	1.54098E+001	3.69476E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	6.78422E-001	2.16637E-001
		351.92*	37.20	4.58735E-001	1.26991E-001
Ac-228	0.633	338.32	11.40		
		911.07*	27.70	8.52243E-001	1.79741E-001
		969.11*	16.60	5.55855E-001	1.96324E-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/GRAM)	Wt mean Activity Uncertainty
ANN		1.000	1.015542E-001	4.627323E-002
K-40		0.988	2.042058E+001	1.999547E+000
Cs-137		0.999	8.217020E-002	3.371555E-002
TL-208		0.751	2.945709E-001	6.194105E-002
Pb-212	@	0.520	5.123809E-001	1.256845E-001
Bi-214		0.987	5.261164E-001	8.722381E-002
PB-214	@	0.582	5.149182E-001	1.095557E-001
Ac-228		0.633	7.170937E-001	1.325718E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	6.2693E-001	16.40
F 3	84.64	5.1300E-001	20.95

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/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
	Co-60	1173.22	100.00	1.0376E-001	9.69E-002	4.7446E-002
		1332.49	100.00	9.6938E-002		5.3918E-002
	Nb-94	702.63	100.00	1.0424E-001	9.31E-002	3.7591E-003
		871.10	100.00	9.3068E-002		-7.4537E-003
	Ag-108m	79.20	7.10	4.5967E+000	1.15E-001	-1.6770E+001
		433.93	89.90	1.1739E-001		-9.9698E-002
		614.37	90.40	1.3572E-001		-9.7106E-002
		722.95	90.50	1.1502E-001		3.5094E-002
	Sb-125	176.33	6.89	2.1372E+000	3.63E-001	5.2152E-001
		427.89	29.33	3.6292E-001		-1.4956E-001
		463.38	10.35	1.0082E+000		-8.5610E-001
		600.56	17.80	5.4711E-001		-1.0534E-001
		606.64	5.02	2.7441E+000		5.0461E+000
		635.90	11.32	8.8318E-001		-8.3289E-001
	Cs-134	563.23	8.38	1.2187E+000	1.19E-001	-2.6482E-001
		569.32	15.43	6.6139E-001		-4.2916E-001
		604.70	97.60	1.3463E-001		2.6252E-002
		795.84	85.40	1.1879E-001		5.5397E-002
		801.93	8.73	1.1237E+000		-4.7439E-001
+	Cs-137	661.65*	85.12	7.4860E-002	7.49E-002	8.2170E-002
	Eu-152	121.78	28.40	6.9619E-001	3.40E-001	-3.2607E-001
		244.69	7.49	1.7624E+000		-1.5419E+000
		344.27	26.50	4.3665E-001		-2.5463E-001
		778.89	12.74	7.3490E-001		-1.0246E+000
		867.32	4.16	2.2353E+000		-2.9946E+000
		964.01	14.40	8.1996E-001		2.0796E-001
		1085.78	10.00	9.8615E-001		-4.2520E-001
		1112.02	13.30	7.3193E-001		-6.7715E-002
		1407.95	20.70	3.4024E-001		1.2835E-001
	Eu-154	123.07	40.50	4.8557E-001	2.42E-001	1.1458E-001
		247.94	6.60	1.9505E+000		6.4283E-001
		591.81	4.83	2.0408E+000		-1.9887E-001
		723.30	19.70	5.3094E-001		9.2047E-002
		756.87	4.33	2.1170E+000		-1.1871E+000
		873.19	11.50	8.2518E-001		2.5063E-001
		996.32	10.30	8.9669E-001		-6.7418E-001
		1004.76	17.90	5.2268E-001		-3.5580E-001
		1274.45	35.50	2.4240E-001		1.2268E-001
	Eu-155	86.54	30.90	9.7133E-001	9.71E-001	-2.4727E-003
		105.31	20.70	1.1509E+000		-3.4622E-002
	Am-241	59.54	35.90	1.1873E+000	1.19E+000	3.8827E-001
	Cm-243	228.19	10.56	1.2610E+000	8.89E-001	3.1004E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	8.8893E-001	8.89E-001	3.9042E-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 5/4/2006 9:13:01 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-02-02-103
Sample Title: NOL-02-02-103-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/4/2006 9:02:59 PM
Live Time: 600.0 seconds
Real Time: 600.9 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-02-02-103
Title: NOL-02-02-103-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
	1	295-	308	300.59	74.98	1.30	3.73E+002	130.33	1.46E+003
	2	947-	961	954.62	238.53	1.37	2.85E+002	69.74	3.39E+002
	3	1400-	1418	1408.25	351.97	1.76	1.53E+002	54.21	1.81E+002
	4	2033-	2053	2042.65	510.62	0.68	1.66E+002	46.24	1.08E+002
	5	2324-	2342	2332.23	583.04	1.57	1.88E+002	42.96	8.59E+001
	6	2428-	2447	2437.74	609.43	1.39	1.70E+002	42.32	8.46E+001
	7	3636-	3654	3645.54	911.47	0.98	1.46E+002	32.98	4.04E+001
M	8	3856-	3887	3861.90	965.57	1.55	3.30E+001	15.91	4.32E+001
m	9	3856-	3887	3877.24	969.41	1.55	1.02E+002	22.76	5.45E+001
	10	4478-	4492	4485.04	1121.40	1.04	4.53E+001	25.82	4.37E+001
	11	5832-	5860	5847.11	1462.03	1.98	1.05E+003	65.63	1.47E+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	0.995	511.00*		100.00	2.26904E-001	7.01580E-002
K-40	0.950	1460.81*		10.67	1.76522E+001	1.80404E+000
TL-208	0.751	277.35		6.80		
		510.84*		21.60	1.05048E+000	3.35944E-001
		583.14*		84.20	3.18352E-001	8.36799E-002
		860.37		12.46		
Pb-212	0.520	74.81*	@	10.70	5.32790E+000	2.13547E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	6.92038E-001	2.01292E-001
Bi-214	0.691	609.31*		46.30	5.32159E-001	1.47529E-001
		1120.29*		15.10	5.04833E-001	2.92856E-001
		1764.49		15.80		
Ac-228	0.630	338.32		11.40		
		911.07*		27.70	8.33126E-001	2.11678E-001
		969.11*		16.60	9.95230E-001	2.44640E-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	0.995	1.581403E-001	7.241426E-002
K-40	0.950	1.765219E+001	1.804039E+000
TL-208	0.751	3.183516E-001	8.303422E-002
Pb-212 @	0.520	6.920381E-001	2.012925E-001
Bi-214	0.691	5.266277E-001	1.317555E-001
Ac-228	0.630	9.025288E-001	1.600738E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	351.97	2.5504E-001	35.43
M 8	965.57	5.4930E-002	48.26

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	9.3006E-002	7.79E-002	-2.7571E-002
	1332.49	100.00	7.7919E-002		1.9624E-002
Nb-94	702.63	100.00	9.5823E-002	8.19E-002	-5.0757E-002
	871.10	100.00	8.1858E-002		-1.5192E-002
Ag-108m	79.20	7.10	4.1718E+000	1.17E-001	-2.6316E+000
	433.93	89.90	1.1992E-001		-1.2098E-001
	614.37	90.40	1.3207E-001		-1.2511E-002
	722.95	90.50	1.1665E-001		8.6856E-002
Sb-125	176.33	6.89	2.1275E+000	3.66E-001	7.0337E-001
	427.89	29.33	3.6646E-001		2.0283E-002
	463.38	10.35	1.0576E+000		-4.1952E-002
	600.56	17.80	5.7850E-001		3.1904E-001
	606.64	5.02	2.6308E+000		-4.8032E-001
	635.90	11.32	8.5487E-001		1.0622E+000
Cs-134	563.23	8.38	1.2161E+000	1.10E-001	-6.3234E-001
	569.32	15.43	6.5566E-001		1.2827E-001
	604.70	97.60	1.2387E-001		-2.1554E-002
	795.84	85.40	1.0977E-001		4.8718E-002
	801.93	8.73	1.0178E+000		-4.9818E-001
Cs-137	661.65	85.12	1.2601E-001	1.26E-001	1.6348E-001
Eu-152	121.78	28.40	6.5252E-001	3.00E-001	1.7267E-001
	244.69	7.49	1.7664E+000		-2.9569E-001
	344.27	26.50	3.7843E-001		-6.5137E-001
	778.89	12.74	7.3490E-001		-5.0018E-001
	867.32	4.16	2.0389E+000		-1.3247E+000
	964.01	14.40	8.2339E-001		-1.0637E-001
	1085.78	10.00	8.8106E-001		-1.0001E-001
	1112.02	13.30	7.1184E-001		-5.1244E-001
	1407.95	20.70	2.9994E-001		1.1727E-001
Eu-154	123.07	40.50	4.5371E-001	2.47E-001	-1.4936E-001
	247.94	6.60	1.8867E+000		7.7951E-002
	591.81	4.83	1.9816E+000		-1.4083E-001
	723.30	19.70	5.3962E-001		3.8959E-001
	756.87	4.33	2.1104E+000		-1.6611E+000
	873.19	11.50	7.3564E-001		-3.5057E-001
	996.32	10.30	7.8502E-001		-7.8516E-002
	1004.76	17.90	4.9864E-001		4.6916E-001
	1274.45	35.50	2.4690E-001		3.4583E-002
Eu-155	86.54	30.90	8.8319E-001	8.83E-001	9.4579E-001
	105.31	20.70	1.0460E+000		-2.8874E-001
Am-241	59.54	35.90	1.0687E+000	1.07E+000	7.1906E-001
Cm-243	228.19	10.56	1.1722E+000	8.77E-001	-1.0436E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	8.7660E-001	8.77E-001	3.1947E-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 4/18/2006 9:33:24 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(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-02-02-104
Sample Title: NOL-02-02-104-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 4/18/2006 9:23:23 PM
Live Time: 600.0 seconds
Real Time: 601.1 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
(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-02-02-104
Title: NOL-02-02-104-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	286-	306	291.61	72.73	0.96	3.69E+002	61.21	1.07E+003
m	2	286-	306	300.23	74.89	0.96	6.95E+002	74.40	1.27E+003
F	3	333-	353	339.12	84.61	1.19	3.02E+002	62.36	1.81E+003
F	4	945-	961	954.37	238.47	1.04	3.12E+002	44.14	3.83E+002
F	5	1171-	1186	1180.57	295.04	1.06	8.93E+001	29.28	2.25E+002
F	6	1348-	1358	1353.62	338.31	0.87	7.51E+001	25.54	1.21E+002
F	7	1402-	1417	1407.79	351.86	1.28	1.51E+002	29.79	1.40E+002
F	8	2326-	2342	2331.99	582.98	1.36	1.77E+002	29.37	7.99E+001
F	9	2427-	2446	2436.87	609.21	1.22	1.48E+002	29.04	1.37E+002
F	10	2901-	2915	2908.29	727.10	1.24	4.65E+001	19.13	6.20E+001
F	11	2993-	3002	2997.26	749.35	0.39	1.55E+001	1.28	3.25E+001
F	12	3172-	3184	3178.70	794.72	0.94	3.69E+001	15.94	3.58E+001
F	13	3636-	3653	3644.72	911.26	1.44	1.34E+002	25.75	5.62E+001
F	14	3864-	3884	3875.15	968.89	1.60	9.73E+001	22.18	5.51E+001
F	15	4476-	4489	4482.29	1120.72	1.29	3.91E+001	17.28	4.13E+001
F	16	5832-	5858	5844.59	1461.39	2.00	1.22E+003	66.94	2.96E+001
F	17	7054-	7068	7060.12	1765.37	1.30	4.00E+001	14.21	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/GRAM)	Activity Uncertainty
K-40	0.988	1460.81*	10.67	2.04272E+001	1.99900E+000
TL-208	0.470	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	2.98713E-001	6.31059E-002
		860.37	12.46		
Bi-212	1.000	727.17*	11.80	5.96652E-001	2.55223E-001
Pb-212	0.520	74.81* @	10.70	9.94990E+000	2.22206E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	7.57284E-001	1.60036E-001
Bi-214	0.993	609.31*	46.30	4.62030E-001	1.07067E-001
		1120.29*	15.10	4.35605E-001	1.98130E-001
		1764.49*	15.80	4.70555E-001	1.73461E-001
PB-214	0.582	74.82* @	6.21	1.71439E+001	4.02586E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	5.35588E-001	1.97480E-001
		351.92*	37.20	4.92776E-001	1.27279E-001
Ac-228	0.999	338.32*	11.40	7.89316E-001	2.95576E-001
		911.07*	27.70	7.69167E-001	1.71913E-001
		969.11*	16.60	9.46111E-001	2.37341E-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/GRAM)	Wt mean Activity Uncertainty
K-40		0.988	2.042717E+001	1.998999E+000
TL-208		0.470	2.987125E-001	6.310585E-002
Bi-212		1.000	5.966518E-001	2.552229E-001
Pb-212	@	0.520	7.572838E-001	1.600356E-001
Bi-214		0.993	4.593590E-001	8.277643E-002
PB-214	@	0.582	5.053409E-001	1.069834E-001
Ac-228		0.999	8.226582E-001	1.259534E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	6.1455E-001	16.60
F 3	84.61	5.0372E-001	20.63
F 11	749.35	2.5832E-002	8.25
F 12	794.72	6.1574E-002	43.15

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/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Co-60	1173.22	100.00	1.0841E-001	8.36E-002	6.3302E-002
	1332.49	100.00	8.3640E-002		1.0286E-001
Nb-94	702.63	100.00	9.9996E-002	9.03E-002	6.2742E-002
	871.10	100.00	9.0325E-002		-4.3455E-002
Ag-108m	79.20	7.10	4.4567E+000	1.19E-001	-2.2351E+000
	433.93	89.90	1.1856E-001		3.2185E-002
	614.37	90.40	1.3315E-001		-1.8772E-002
	722.95	90.50	1.2036E-001		-6.6837E-003
Sb-125	176.33	6.89	2.2059E+000	3.70E-001	-2.4935E-001
	427.89	29.33	3.6996E-001		1.2889E-001
	463.38	10.35	1.0730E+000		1.4847E+000
	600.56	17.80	5.5778E-001		-7.5185E-001
	606.64	5.02	2.7774E+000		4.9501E-001
	635.90	11.32	8.8318E-001		2.8823E-001
Cs-134	563.23	8.38	1.2496E+000	1.09E-001	-1.8726E-001
	569.32	15.43	6.8107E-001		1.5014E-001
	604.70	97.60	1.3499E-001		2.7669E-002
	795.84	85.40	1.0875E-001		1.2351E-002
	801.93	8.73	1.0554E+000		-6.0658E-001
Cs-137	661.65	85.12	1.1399E-001	1.14E-001	9.9608E-002
Eu-152	121.78	28.40	6.8837E-001	3.11E-001	4.4262E-001
	244.69	7.49	1.8318E+000		-3.1402E-001
	344.27	26.50	4.1836E-001		1.8426E-001
	778.89	12.74	7.4158E-001		-1.2596E+000
	867.32	4.16	2.2992E+000		-8.9925E-001
	964.01	14.40	8.3358E-001		6.9945E-002
	1085.78	10.00	9.0940E-001		-3.4233E-001
	1112.02	13.30	7.6338E-001		3.6812E-001
	1407.95	20.70	3.1123E-001		-2.4844E-002
Eu-154	123.07	40.50	4.7595E-001	2.73E-001	-1.3814E-001
	247.94	6.60	1.9552E+000		3.0661E-001
	591.81	4.83	2.0505E+000		1.3349E+000
	723.30	19.70	5.5774E-001		-3.0707E-002
	756.87	4.33	2.1695E+000		-1.1375E+000
	873.19	11.50	7.8311E-001		-1.7532E-001
	996.32	10.30	9.0299E-001		1.5191E-002
	1004.76	17.90	5.1724E-001		-5.6088E-002
	1274.45	35.50	2.7323E-001		1.8066E-002
Eu-155	86.54	30.90	9.4702E-001	9.47E-001	-3.3715E-002
	105.31	20.70	1.1175E+000		1.6510E-003
Am-241	59.54	35.90	1.1620E+000	1.16E+000	-2.5552E-001
Cm-243	228.19	10.56	1.2520E+000	8.58E-001	2.0349E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	8.5818E-001	8.58E-001	-3.7870E-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 5/4/2006 8:38:38 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: BLUE6279
Sample ID: NOL-02-02-104
Sample Title: NOL-02-02-104-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/4/2006 8:28:35 PM
Live Time: 600.0 seconds
Real Time: 601.1 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-02-02-104
Title: NOL-02-02-104-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	284-	305	291.92	72.81	0.95	3.71E+002	60.87	1.14E+003
m	2	284-	305	300.45	74.94	0.95	6.31E+002	72.60	1.26E+003
M	3	332-	355	339.26	84.65	1.20	3.29E+002	60.75	1.17E+003
m	4	332-	355	350.64	87.49	1.20	1.29E+002	53.50	1.24E+003
	5	949-	960	955.10	238.65	1.03	3.53E+002	63.13	2.72E+002
	6	1173-	1190	1181.02	295.15	1.49	1.33E+002	58.34	2.31E+002
	7	1348-	1360	1354.34	338.49	1.29	8.81E+001	43.19	1.50E+002
	8	1400-	1415	1407.53	351.79	0.94	1.61E+002	53.64	1.96E+002
	9	2035-	2055	2043.94	510.95	1.00	1.49E+002	53.44	1.64E+002
	10	2325-	2339	2333.31	583.31	1.22	2.02E+002	42.58	9.38E+001
	11	2429-	2447	2438.26	609.56	1.04	1.92E+002	42.77	8.35E+001
	12	2901-	2917	2909.73	727.46	0.76	5.71E+001	31.14	6.19E+001
	13	3638-	3657	3647.09	911.85	1.46	1.53E+002	37.30	5.97E+001
M	14	3856-	3885	3862.15	965.64	1.24	2.30E+001	14.58	4.43E+001
m	15	3856-	3885	3878.21	969.65	1.24	8.20E+001	22.19	5.84E+001
	16	4478-	4492	4483.98	1121.14	1.20	5.06E+001	26.26	4.44E+001
	17	5833-	5863	5848.31	1462.33	1.91	1.24E+003	72.95	3.06E+001
	18	7055-	7072	7063.49	1766.21	0.67	5.48E+001	18.13	9.20E+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	2.03450E-001	7.79366E-002
K-40	0.923	1460.81*	10.67	2.07585E+001	2.07899E+000
Eu-155	0.314	86.54*	30.90	5.15616E-001	2.36790E-001
		105.31	20.70		
TL-208	0.751	277.35	6.80		
		510.84*	21.60	9.41896E-001	3.68926E-001
		583.14*	84.20	3.42322E-001	8.47306E-002
		860.37	12.46		
Bi-212	0.997	727.17*	11.80	7.33283E-001	4.08776E-001
Pb-212	0.677	74.81* @	10.70	9.02853E+000	2.05172E+000
		77.11 @	18.00		
		87.30* @	8.00	1.99157E+000	9.14603E-001
		238.63*	44.60	8.57782E-001	2.04084E-001
Bi-214	0.973	609.31*	46.30	6.01160E-001	1.52708E-001
		1120.29*	15.10	5.64290E-001	2.98892E-001
		1764.49*	15.80	6.43907E-001	2.22584E-001
PB-214	0.669	74.82* @	6.21	1.55564E+001	3.71115E+000
		77.11 @	10.50		
		87.30* @	4.67	3.41168E+000	1.58783E+000
		241.98	7.49		
		295.21*	19.20	7.96301E-001	3.74859E-001
		351.92*	37.20	5.24768E-001	1.95471E-001
Ac-228	0.986	338.32*	11.40	9.26087E-001	4.76614E-001
		911.07*	27.70	8.77806E-001	2.36147E-001
		969.11*	16.60	7.97745E-001	2.31361E-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	1.295081E-001	8.002041E-002
K-40		0.923	2.075847E+001	2.078991E+000
Eu-155		0.314	2.055050E-001	2.439920E-001
TL-208		0.751	3.423216E-001	8.399302E-002
Bi-212		0.997	7.332829E-001	4.087758E-001
Pb-212	@	0.677	8.577824E-001	2.040842E-001
Bi-214		0.973	6.072211E-001	1.160439E-001
PB-214	@	0.669	5.824789E-001	1.713472E-001
Ac-228		0.986	8.465223E-001	1.561427E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	6.1893E-001	16.39
M 3	84.65	5.4824E-001	18.47
M 14	965.64	3.8411E-002	63.25

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
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	1.0248E-001	9.09E-002	-5.8386E-002
		1332.49	100.00	9.0936E-002		1.3678E-001
	Nb-94	702.63	100.00	9.8193E-002	9.25E-002	-5.6836E-002
		871.10	100.00	9.2466E-002		-1.0135E-002
	Ag-108m	79.20	7.10	4.4044E+000	1.23E-001	-6.9924E+000
		433.93	89.90	1.2409E-001		-3.9903E-002
		614.37	90.40	1.4374E-001		1.1226E-002
		722.95	90.50	1.2268E-001		-3.8327E-002
	Sb-125	176.33	6.89	2.2256E+000	3.76E-001	-8.2984E-002
		427.89	29.33	3.7573E-001		-3.8776E-002
		463.38	10.35	1.0949E+000		6.4204E-001
		600.56	17.80	5.9847E-001		2.2575E-002
		606.64	5.02	2.7407E+000		4.3473E-001
		635.90	11.32	8.5487E-001		-3.9035E-001
	Cs-134	563.23	8.38	1.1681E+000	1.24E-001	-1.3588E+000
		569.32	15.43	6.6282E-001		8.2460E-002
		604.70	97.60	1.2544E-001		-5.2290E-002
		795.84	85.40	1.2394E-001		-4.2797E-002
		801.93	8.73	1.1789E+000		-1.1897E+000
	Cs-137	661.65	85.12	1.2242E-001	1.22E-001	7.3800E-002
	Eu-152	121.78	28.40	6.8046E-001	3.71E-001	-1.0416E-001
		244.69	7.49	1.8724E+000		1.3436E+000
		344.27	26.50	4.2922E-001		-5.9193E-001
		778.89	12.74	7.8667E-001		1.6884E-001
		867.32	4.16	2.2136E+000		-1.7815E+000
		964.01	14.40	8.3019E-001		3.9169E-002
		1085.78	10.00	9.5358E-001		-3.8610E-001
		1112.02	13.30	6.9638E-001		-4.7410E-001
		1407.95	20.70	3.7141E-001		3.1066E-001
	Eu-154	123.07	40.50	4.7581E-001	2.58E-001	1.9539E-001
		247.94	6.60	2.0015E+000		3.8347E-001
		591.81	4.83	2.0745E+000		-2.1608E+000
		723.30	19.70	5.7297E-001		7.6001E-003
		756.87	4.33	2.3852E+000		-5.4943E-001
		873.19	11.50	8.0967E-001		1.0607E-003
		996.32	10.30	9.5184E-001		3.8073E-001
		1004.76	17.90	5.3516E-001		2.2338E-001
		1274.45	35.50	2.5777E-001		-4.0848E-001
+	Eu-155	86.54*	30.90	6.6613E-001	6.66E-001	5.1562E-001
		105.31	20.70	1.1021E+000		-1.0281E-002
	Am-241	59.54	35.90	1.1050E+000	1.11E+000	-6.4875E-001
	Cm-243	228.19	10.56	1.3088E+000	9.07E-001	7.5949E-002

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	9.0671E-001	9.07E-001	-6.5622E-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 4/25/2006 8:59:46 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: BRN7722

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
Sample ID: NOL-02-02-105
Sample Title: NOL-02-02-105-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 4/19/2006 1:08:36 AM
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: S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
Log Number: NOL-02-02-105
Title: NOL-02-02-105-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	282-	305	292.18	73.24	0.85	1.54E+002	45.13	7.10E+002
m	2	282-	305	300.35	75.28	0.85	3.10E+002	55.72	7.65E+002
M	3	336-	354	340.86	85.41	0.73	1.06E+002	44.97	6.21E+002
m	4	336-	354	349.86	87.66	0.73	6.66E+001	40.37	6.13E+002
F	5	946-	961	954.83	238.89	0.91	2.48E+002	42.92	3.72E+002
F	6	1173-	1186	1181.09	295.44	1.34	7.82E+001	29.07	1.80E+002
F	7	1348-	1358	1352.78	338.36	0.67	6.74E+001	23.45	1.16E+002
F	8	1398-	1414	1407.74	352.10	1.18	1.32E+002	30.06	1.44E+002
F	9	2031-	2055	2043.40	511.00	2.02	1.47E+002	28.73	1.31E+002
F	10	2292-	2301	2297.02	574.40	0.89	1.69E+001	14.36	3.91E+001
F	11	2322-	2342	2333.10	583.42	1.60	1.73E+002	29.76	8.06E+001
F	12	2430-	2445	2437.33	609.47	1.31	1.46E+002	28.76	7.56E+001
F	13	3174-	3185	3180.67	795.28	0.51	1.55E+001	10.73	3.00E+001
F	14	3637-	3655	3646.56	911.74	1.44	1.22E+002	26.00	6.18E+001
F	15	3870-	3885	3877.90	969.57	1.59	9.20E+001	22.30	3.18E+001
F	16	4476-	4493	4484.31	1121.16	1.76	5.37E+001	18.58	3.38E+001
F	17	5837-	5860	5848.43	1462.15	1.83	8.81E+002	59.06	1.98E+001
F	18	7059-	7072	7064.36	1766.10	2.22	2.96E+001	11.87	5.65E+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\Brn1m180dSoil\NOL

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	2.50312E-001	5.96417E-002
K-40	0.944	1460.81*	10.67	1.87008E+001	1.96539E+000
TL-208	0.751	277.35	6.80		
		510.84*	21.60	1.15885E+000	2.91887E-001
		583.14*	84.20	3.64926E-001	7.88620E-002
		860.37	12.46		
Pb-212	0.725	74.81* @	10.70	9.99464E+000	2.65846E+000
		77.11 @	18.00		
		87.30* @	8.00	1.80453E+000	1.15005E+000
		238.63*	44.60	7.73629E-001	1.80677E-001
Bi-214	0.978	609.31*	46.30	5.70289E-001	1.32364E-001
		1120.29*	15.10	7.38828E-001	2.67420E-001
		1764.49*	15.80	4.62059E-001	1.90894E-001
PB-214	0.696	74.82* @	6.21	1.72210E+001	4.74813E+000
		77.11 @	10.50		
		87.30* @	4.67	3.09127E+000	1.98390E+000
		241.98	7.49		
		295.21*	19.20	5.96775E-001	2.43497E-001
		351.92*	37.20	5.43505E-001	1.53325E-001
Ac-228	0.991	338.32*	11.40	8.94258E-001	3.41473E-001
		911.07*	27.70	8.77511E-001	2.12288E-001
		969.11*	16.60	1.11726E+000	2.94981E-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\Brn1m180dSoil\NOL

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	1.714882E-001	6.197334E-002
K-40		0.944	1.870080E+001	1.965387E+000
TL-208		0.751	3.649260E-001	7.796009E-002
Pb-212	@	0.725	7.736292E-001	1.806768E-001
Bi-214		0.978	5.640629E-001	1.007576E-001
PB-214	@	0.696	5.586294E-001	1.297457E-001
Ac-228		0.991	9.461124E-001	1.538314E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	73.24	2.5737E-001	29.23
M 3	85.41	1.7727E-001	42.28
F 10	574.40	2.8113E-002	85.13
F 13	795.28	2.5888E-002	69.07

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

Errors quoted at 1.960 sigma

Y A N K E E 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\Brn1m180dSoil\NOL
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	1.2030E-001	8.86E-002	-1.7571E-002
	1332.49	100.00	8.8582E-002		-5.8180E-003
Nb-94	702.63	100.00	1.2074E-001	1.12E-001	8.3843E-002
	871.10	100.00	1.1224E-001		7.9847E-002
Ag-108m	79.20	7.10	8.8325E+000	1.41E-001	-9.7031E+000
	433.93	89.90	1.4794E-001		5.7212E-002
	614.37	90.40	1.7524E-001		-3.4112E-002
	722.95	90.50	1.4071E-001		1.2393E-002
Sb-125	176.33	6.89	2.8212E+000	4.43E-001	-4.4275E-001
	427.89	29.33	4.4309E-001		-1.2549E-001
	463.38	10.35	1.2358E+000		-5.6617E-001
	600.56	17.80	6.8183E-001		-3.6124E-001
	606.64	5.02	3.3126E+000		7.2939E+000
	635.90	11.32	1.0075E+000		-9.4281E-002
Cs-134	563.23	8.38	1.5171E+000	1.41E-001	7.8215E-001
	569.32	15.43	8.2501E-001		-3.3883E-001
	604.70	97.60	1.6818E-001		-4.0814E-002
	795.84	85.40	1.4087E-001		1.2015E-001
	801.93	8.73	1.3270E+000		1.0880E+000
Cs-137	661.65	85.12	1.5101E-001	1.51E-001	1.2575E-001
Eu-152	121.78	28.40	9.6137E-001	4.10E-001	4.2500E-001
	244.69	7.49	2.3242E+000		-9.4791E-001
	344.27	26.50	5.2748E-001		-2.7155E-001
	778.89	12.74	9.2324E-001		-4.2065E-001
	867.32	4.16	2.7049E+000		-7.4075E-001
	964.01	14.40	1.0349E+000		-1.2738E-001
	1085.78	10.00	1.1032E+000		-3.0772E-001
	1112.02	13.30	8.6940E-001		2.3366E-001
	1407.95	20.70	4.1016E-001		1.6622E-001
Eu-154	123.07	40.50	6.6948E-001	2.63E-001	2.6060E-001
	247.94	6.60	2.4920E+000		-3.3995E+000
	591.81	4.83	2.4383E+000		1.4818E-001
	723.30	19.70	6.4966E-001		3.0550E-001
	756.87	4.33	2.7955E+000		-1.0736E+000
	873.19	11.50	9.6619E-001		-1.1162E+000
	996.32	10.30	1.0646E+000		2.5107E-001
	1004.76	17.90	6.2079E-001		3.2910E-001
	1274.45	35.50	2.6308E-001		-1.9942E-001
Eu-155	86.54	30.90	1.5601E+000	1.56E+000	1.9557E+000
	105.31	20.70	1.6434E+000		2.6250E-001
Am-241	59.54	35.90	3.3181E+000	3.32E+000	-1.3184E+000
Cm-243	228.19	10.56	1.6778E+000	1.17E+000	9.0589E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	1.1697E+000	1.17E+000	5.6062E-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 5/4/2006 8:55:47 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-02-02-105
Sample Title: NOL-02-02-105-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/4/2006 8:45:45 PM
Live Time: 600.0 seconds
Real Time: 601.0 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-02-02-105
Title: NOL-02-02-105-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	286-	305	291.74	72.76	0.93	3.60E+002	60.56	1.05E+003
m	2	286-	305	300.58	74.98	0.93	6.34E+002	72.62	1.16E+003
M	3	945-	976	955.05	238.64	0.90	2.86E+002	42.11	2.70E+002
m	4	945-	976	967.19	241.68	0.91	9.07E+001	28.48	2.21E+002
	5	1174-	1188	1181.37	295.24	0.56	4.85E+001	53.68	2.44E+002
	6	1344-	1360	1354.31	338.49	1.27	7.70E+001	50.94	1.91E+002
	7	1402-	1414	1408.18	351.96	0.77	1.69E+002	45.31	1.39E+002
	8	2033-	2055	2044.33	511.04	1.33	1.96E+002	51.53	1.27E+002
	9	2325-	2343	2333.78	583.43	1.21	2.33E+002	46.46	9.72E+001
	10	2431-	2448	2438.14	609.53	1.18	1.54E+002	41.54	9.08E+001
	11	2903-	2916	2909.90	727.50	0.79	2.42E+001	29.63	7.38E+001
	12	3638-	3657	3645.99	911.58	1.66	1.73E+002	36.74	5.00E+001
	13	3870-	3886	3877.20	969.40	1.73	9.78E+001	32.97	5.92E+001
	14	4475-	4489	4482.53	1120.78	0.36	4.78E+001	25.28	4.13E+001
	15	5836-	5862	5847.68	1462.17	1.95	1.23E+003	72.07	2.89E+001
	16	7057-	7071	7063.87	1766.31	1.06	4.51E+001	17.12	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: 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	2.67306E-001	7.90718E-002
K-40	0.938	1460.81*		10.67	2.06017E+001	2.05999E+000
TL-208	0.750	277.35		6.80		
		510.84*		21.60	1.23753E+000	3.79768E-001
		583.14*		84.20	3.94093E-001	9.38939E-002
		860.37		12.46		
Bi-212	0.996	727.17*		11.80	3.10567E-001	3.81917E-001
Pb-212	0.520	74.81*	@	10.70	9.06321E+000	2.05740E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	6.96173E-001	1.49658E-001
Bi-214	0.974	609.31*		46.30	4.81471E-001	1.42650E-001
		1120.29*		15.10	5.32373E-001	2.87496E-001
		1764.49*		15.80	5.29840E-001	2.08075E-001
PB-214	0.732	74.82*	@	6.21	1.56162E+001	3.72179E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98*		7.49	1.31787E+000	4.68151E-001
		295.21*		19.20	2.91037E-001	3.25866E-001
		351.92*		37.20	5.50741E-001	1.73943E-001
Ac-228	0.994	338.32*		11.40	8.08905E-001	5.50170E-001
		911.07*		27.70	9.90278E-001	2.39129E-001
		969.11*		16.60	9.51357E-001	3.35707E-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	1.821819E-001	8.158414E-002
K-40		0.938	2.060167E+001	2.059993E+000
TL-208		0.750	3.940933E-001	9.301144E-002
Bi-212		0.996	3.105670E-001	3.819167E-001
Pb-212	@	0.520	6.961732E-001	1.496580E-001
Bi-214		0.974	5.020198E-001	1.088899E-001
PB-214	@	0.732	5.731636E-001	1.458169E-001
Ac-228		0.994	9.584364E-001	1.836029E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	5.9997E-001	16.82

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
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	1.0932E-001	8.82E-002	3.5826E-002
	1332.49	100.00	8.8174E-002		-1.0580E-001
Nb-94	702.63	100.00	1.0350E-001	9.92E-002	-1.5703E-002
	871.10	100.00	9.9161E-002		2.0636E-002
Ag-108m	79.20	7.10	4.3994E+000	1.20E-001	-1.1817E+001
	433.93	89.90	1.2011E-001		-1.5323E-001
	614.37	90.40	1.4010E-001		6.0495E-002
	722.95	90.50	1.2319E-001		-6.0125E-003
Sb-125	176.33	6.89	2.1934E+000	3.81E-001	2.7073E-001
	427.89	29.33	3.8141E-001		2.0743E-001
	463.38	10.35	1.0932E+000		4.0734E-001
	600.56	17.80	5.6303E-001		-1.5188E-001
	606.64	5.02	2.6726E+000		8.1987E-001
	635.90	11.32	8.5928E-001		-6.4478E-002
Cs-134	563.23	8.38	1.2056E+000	1.24E-001	-2.6751E-001
	569.32	15.43	6.9069E-001		-2.1843E-001
	604.70	97.60	1.2407E-001		4.3920E-003
	795.84	85.40	1.2423E-001		1.3181E-001
	801.93	8.73	1.0787E+000		-2.1666E+000
Cs-137	661.65	85.12	1.3002E-001	1.30E-001	7.1578E-002
Eu-152	121.78	28.40	6.7862E-001	3.74E-001	-3.6478E-002
	244.69	7.49	1.8098E+000		-5.2046E-001
	344.27	26.50	4.5470E-001		1.1255E-001
	778.89	12.74	7.4379E-001		1.7769E-001
	867.32	4.16	2.4284E+000		-4.2092E+000
	964.01	14.40	8.8746E-001		-2.4420E-002
	1085.78	10.00	9.7972E-001		-9.2378E-002
	1112.02	13.30	7.3193E-001		2.5024E-001
	1407.95	20.70	3.7369E-001		1.2402E-001
Eu-154	123.07	40.50	4.7006E-001	2.42E-001	3.3901E-001
	247.94	6.60	1.9093E+000		-6.1484E-001
	591.81	4.83	2.1216E+000		1.5067E+000
	723.30	19.70	5.6129E-001		-4.5503E-002
	756.87	4.33	2.1630E+000		-1.8426E+000
	873.19	11.50	8.3788E-001		-2.4569E-001
	996.32	10.30	9.0925E-001		-1.4063E-001
	1004.76	17.90	5.2806E-001		3.0542E-001
	1274.45	35.50	2.4240E-001		-2.1253E-001
Eu-155	86.54	30.90	9.3472E-001	9.35E-001	1.3604E+000
	105.31	20.70	1.1080E+000		-3.0625E-001
Am-241	59.54	35.90	1.1438E+000	1.14E+000	-3.7997E-001
Cm-243	228.19	10.56	1.2913E+000	9.13E-001	2.1856E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	9.1309E-001	9.13E-001	9.1041E-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 4/25/2006 9:00:42 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: BRN7722

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
Sample ID: NOL-02-02-106
Sample Title: NOL-02-02-106-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 4/18/2006 10:05:26 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: S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
Log Number: NOL-02-02-106
Title: NOL-02-02-106-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	287-	305	292.21	73.25	0.69	1.27E+002	42.34	6.05E+002
m	2	287-	305	300.19	75.24	0.70	2.32E+002	50.98	6.49E+002
F	3	335-	348	339.69	85.12	1.00	1.44E+002	50.23	8.61E+002
F	4	951-	960	955.20	238.98	0.81	2.27E+002	40.51	2.28E+002
F	5	1177-	1189	1182.02	295.68	1.05	8.16E+001	28.67	1.65E+002
F	6	1344-	1360	1353.10	338.44	1.36	6.44E+001	26.24	1.64E+002
F	7	1399-	1416	1408.13	352.20	1.06	1.28E+002	31.57	2.16E+002
F	8	2326-	2340	2333.58	583.53	1.16	1.65E+002	28.91	5.63E+001
F	9	2430-	2446	2437.89	609.61	1.10	1.27E+002	26.81	8.27E+001
F	10	2902-	2916	2909.20	727.42	1.19	2.93E+001	17.60	5.64E+001
F	11	3638-	3656	3647.12	911.88	1.51	1.33E+002	25.01	3.12E+001
M	12	3856-	3887	3861.89	965.57	1.29	2.62E+001	13.50	2.68E+001
m	13	3856-	3887	3878.37	969.69	1.29	8.29E+001	21.51	4.08E+001
F	14	5837-	5861	5849.29	1462.37	1.84	9.21E+002	60.43	2.13E+001
F	15	7059-	7072	7066.22	1766.57	1.32	2.59E+001	12.10	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\Brn1m180dSoil\NOL

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	0.925	1460.81*		10.67	1.95397E+001	2.03652E+000
TL-208	0.469	277.35		6.80		
		510.84		21.60		
		583.14*		84.20	3.49113E-001	7.61817E-002
		860.37		12.46		
Bi-212	0.998	727.17*		11.80	4.69483E-001	2.87768E-001
Pb-212	0.578	74.81*	@	10.70	7.49804E+000	2.20738E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	7.08766E-001	1.68303E-001
Bi-214	0.666	609.31*		46.30	4.96821E-001	1.21164E-001
		1120.29		15.10		
		1764.49*		15.80	4.03887E-001	1.92997E-001
PB-214	0.617	74.82*	@	6.21	1.29193E+001	3.91730E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	6.22898E-001	2.42621E-001
		351.92*		37.20	5.25398E-001	1.56638E-001
Ac-228	0.986	338.32*		11.40	8.54882E-001	3.73343E-001
		911.07*		27.70	9.57694E-001	2.10695E-001
		969.11*		16.60	1.00612E+000	2.81587E-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\Brn1m180dSoil\NOL

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		0.925	1.953975E+001	2.036520E+000
TL-208		0.469	3.491130E-001	7.618171E-002
Bi-212		0.998	4.694828E-001	2.877684E-001
Pb-212	@	0.578	7.087660E-001	1.683026E-001
Bi-214		0.666	4.705474E-001	1.026176E-001
PB-214	@	0.617	5.540809E-001	1.315954E-001
Ac-228		0.986	9.546956E-001	1.537326E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	73.25	2.1208E-001	33.27
F 3	85.12	2.3956E-001	34.95
M 12	965.57	4.3698E-002	51.50

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
N U C L I D E M D A R E P O R T

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
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	1.2072E-001	9.22E-002	1.3136E-001
	1332.49	100.00	9.2206E-002		-3.6814E-003
Nb-94	702.63	100.00	1.2622E-001	1.11E-001	-6.5099E-002
	871.10	100.00	1.1145E-001		2.5099E-002
Ag-108m	79.20	7.10	8.7177E+000	1.41E-001	-5.8342E+000
	433.93	89.90	1.4268E-001		1.5296E-002
	614.37	90.40	1.7318E-001		3.6245E-002
	722.95	90.50	1.4105E-001		1.2500E-002
Sb-125	176.33	6.89	2.7374E+000	4.41E-001	-7.9602E-001
	427.89	29.33	4.4079E-001		6.0659E-002
	463.38	10.35	1.3339E+000		7.7368E-001
	600.56	17.80	6.7505E-001		-3.7156E-001
	606.64	5.02	3.0921E+000		3.1218E+000
	635.90	11.32	1.0191E+000		-9.2060E-002
Cs-134	563.23	8.38	1.4536E+000	1.49E-001	-1.1501E+000
	569.32	15.43	8.0875E-001		1.6301E-001
	604.70	97.60	1.5695E-001		-2.4770E-002
	795.84	85.40	1.4885E-001		1.6679E-001
	801.93	8.73	1.3884E+000		-6.1816E-001
Cs-137	661.65	85.12	1.4851E-001	1.49E-001	2.1096E-002
Eu-152	121.78	28.40	9.7807E-001	4.23E-001	2.1251E-001
	244.69	7.49	2.3474E+000		-3.5613E+000
	344.27	26.50	5.5919E-001		-1.2848E-001
	778.89	12.74	9.0061E-001		-4.7801E-001
	867.32	4.16	2.6955E+000		1.3528E+000
	964.01	14.40	1.0178E+000		1.2936E-001
	1085.78	10.00	1.1076E+000		1.0339E+000
	1112.02	13.30	8.3363E-001		-2.0451E-001
	1407.95	20.70	4.2308E-001		2.8975E-001
Eu-154	123.07	40.50	6.8114E-001	2.71E-001	6.7749E-001
	247.94	6.60	2.6423E+000		-4.6682E-001
	591.81	4.83	2.5921E+000		2.1482E+000
	723.30	19.70	6.5285E-001		1.0494E-001
	756.87	4.33	2.5479E+000		-1.0404E+000
	873.19	11.50	9.4165E-001		-4.6283E-001
	996.32	10.30	1.0436E+000		-1.1341E-001
	1004.76	17.90	6.1127E-001		2.0397E-001
	1274.45	35.50	2.7096E-001		-3.0423E-001
Eu-155	86.54	30.90	1.5549E+000	1.55E+000	1.6535E+000
	105.31	20.70	1.6220E+000		-1.2941E+000
Am-241	59.54	35.90	3.3027E+000	3.30E+000	1.5854E-001
Cm-243	228.19	10.56	1.6722E+000	1.13E+000	2.4294E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	1.1350E+000	1.13E+000	-9.0677E-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 5/4/2006 6:45:50 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: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-02-02-106
Sample Title: NOL-02-02-106-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/4/2006 6:35:47 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-02-02-106
Title: NOL-02-02-106-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	284-	316	291.98	72.82	1.19	4.80E+002	65.16	1.33E+003
m	2	284-	316	300.59	74.98	1.19	9.71E+002	77.74	1.50E+003
m	3	284-	316	309.38	77.18	1.20	2.22E+002	57.77	1.50E+003
M	4	332-	356	340.04	84.84	1.22	3.00E+002	62.44	1.44E+003
m	5	332-	356	350.71	87.51	1.23	1.62E+002	57.88	1.51E+003
M	6	947-	976	955.14	238.66	1.28	4.11E+002	47.73	3.77E+002
m	7	947-	976	967.52	241.76	1.29	7.64E+001	32.40	4.50E+002
	8	1347-	1360	1354.45	338.52	0.74	8.25E+001	48.50	1.93E+002
	9	1400-	1418	1407.95	351.90	1.31	2.20E+002	62.81	2.37E+002
	10	1849-	1862	1853.43	463.31	0.63	3.37E+001	34.63	9.73E+001
	11	2035-	2055	2044.25	511.02	0.44	2.17E+002	53.41	1.45E+002
	12	2326-	2342	2334.29	583.55	1.14	2.00E+002	46.85	1.19E+002
	13	2429-	2449	2438.80	609.69	1.07	1.78E+002	47.08	1.10E+002
	14	2642-	2653	2648.22	662.06	1.11	3.77E+001	26.07	5.53E+001
	15	2903-	2919	2910.99	727.77	0.61	7.74E+001	31.47	5.76E+001
	16	3639-	3659	3647.33	911.91	0.66	1.89E+002	41.55	7.25E+001
M	17	3856-	3888	3861.80	965.55	1.69	2.73E+001	16.72	5.58E+001
m	18	3856-	3888	3879.15	969.89	1.69	1.40E+002	25.62	6.61E+001
	19	4477-	4493	4485.75	1121.58	1.28	7.04E+001	28.89	4.66E+001
	20	5510-	5521	5515.82	1379.18	0.47	1.45E+001	13.62	1.35E+001
	21	5836-	5862	5849.88	1462.72	1.92	1.31E+003	73.02	1.69E+001
	22	7060-	7077	7067.88	1767.31	1.37	7.38E+001	20.18	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

N U C L I 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	2.95729E-001	8.31525E-002
K-40	0.881	1460.81*	10.67	2.20462E+001	2.16490E+000
Cs-137	0.994	661.65*	85.12	6.57814E-002	4.61703E-002
Eu-155	0.314	86.54*	30.90	6.48424E-001	2.64169E-001
		105.31	20.70		
TL-208	0.747	277.35	6.80		
		510.84*	21.60	1.36912E+000	4.00874E-001
		583.14*	84.20	3.38982E-001	9.07479E-002
		860.37	12.46		
Bi-212	0.987	727.17*	11.80	9.93255E-001	4.20427E-001
Pb-212	1.000	74.81* @	10.70	1.38783E+001	2.93833E+000
		77.11* @	18.00	1.80881E+000	5.90051E-001
		87.30* @	8.00	2.50454E+000	1.02035E+000
		238.63*	44.60	1.00015E+000	1.95090E-001
Bi-214	0.685	609.31*	46.30	5.55724E-001	1.62191E-001
		1120.29*	15.10	7.85180E-001	3.32716E-001
		1764.49	15.80		
PB-214	0.627	74.82* @	6.21	2.39127E+001	5.35214E+000
		77.11* @	10.50	3.10081E+000	1.03767E+000
		87.30* @	4.67	4.29043E+000	1.77773E+000
		241.98*	7.49	1.11019E+000	5.05695E-001
		295.21	19.20		
		351.92*	37.20	7.18041E-001	2.37164E-001
Ac-228	0.981	338.32*	11.40	8.67109E-001	5.27623E-001
		911.07*	27.70	1.07936E+000	2.68269E-001
		969.11*	16.60	1.35851E+000	2.86840E-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	2.225088E-001	8.539832E-002
K-40		0.881	2.204617E+001	2.164896E+000
Cs-137		0.994	6.578141E-002	4.617034E-002
Eu-155		0.314	2.704246E-001	2.708512E-001
TL-208		0.747	3.389822E-001	9.007295E-002
Bi-212		0.987	9.932552E-001	4.204267E-001
Pb-212	@	1.000	1.000153E+000	1.950900E-001
Bi-214		0.685	5.997812E-001	1.457910E-001
PB-214	@	0.627	7.877857E-001	2.117063E-001
Ac-228		0.981	1.168101E+000	1.836757E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	8.0069E-001	13.56
M 4	84.84	4.9978E-001	20.82
10	463.31	5.6247E-002	102.62
M 17	965.55	4.5557E-002	61.17
20	1379.18	2.4196E-002	93.82
22	1767.31	1.2299E-001	27.35

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: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	1.0627E-001	8.15E-002	6.3284E-002
		1332.49	100.00	8.1490E-002		-5.3960E-002
	Nb-94	702.63	100.00	1.1017E-001	9.57E-002	-2.5820E-002
		871.10	100.00	9.5729E-002		4.3545E-002
	Ag-108m	79.20	7.10	4.5161E+000	1.32E-001	-3.5689E+000
		433.93	89.90	1.3426E-001		-7.9939E-002
		614.37	90.40	1.4787E-001		-1.2913E-002
		722.95	90.50	1.3156E-001		-2.3550E-002
	Sb-125	176.33	6.89	2.3733E+000	4.10E-001	-8.0924E-001
		427.89	29.33	4.1015E-001		3.1838E-002
		463.38	10.35	1.0781E+000		-2.0964E-001
		600.56	17.80	6.1540E-001		9.0458E-002
		606.64	5.02	2.7675E+000		1.1563E+000
		635.90	11.32	9.1265E-001		1.5959E-001
	Cs-134	563.23	8.38	1.3163E+000	1.24E-001	2.9249E-001
		569.32	15.43	7.0286E-001		-2.1760E-001
		604.70	97.60	1.2446E-001		3.6430E-002
		795.84	85.40	1.2423E-001		5.4158E-002
		801.93	8.73	1.0982E+000		-2.0909E+000
+	Cs-137	661.65*	85.12	7.2505E-002	7.25E-002	6.5781E-002
	Eu-152	121.78	28.40	7.0728E-001	3.67E-001	-9.2596E-002
		244.69	7.49	1.9786E+000		3.1495E-001
		344.27	26.50	4.5216E-001		-1.7914E-001
		778.89	12.74	8.2328E-001		-2.5239E-001
		867.32	4.16	2.3476E+000		-4.6132E+000
		964.01	14.40	8.7149E-001		-1.9931E-001
		1085.78	10.00	1.0238E+000		4.2804E-001
		1112.02	13.30	7.5385E-001		-1.6608E-001
		1407.95	20.70	3.6680E-001		1.6083E-001
	Eu-154	123.07	40.50	4.9746E-001	2.40E-001	1.9967E-001
		247.94	6.60	2.1142E+000		2.3531E-001
		591.81	4.83	2.2787E+000		-3.7060E-001
		723.30	19.70	6.1202E-001		1.3799E-001
		756.87	4.33	2.3675E+000		-8.3785E-001
		873.19	11.50	8.0706E-001		-6.4068E-001
		996.32	10.30	8.9034E-001		-6.0815E-001
		1004.76	17.90	5.2448E-001		-3.5287E-001
		1274.45	35.50	2.4012E-001		-1.3411E-001
+	Eu-155	86.54*	30.90	7.3382E-001	7.34E-001	6.4842E-001
		105.31	20.70	1.1517E+000		2.3299E-001
	Am-241	59.54	35.90	1.1533E+000	1.15E+000	-2.8347E-001
	Cm-243	228.19	10.56	1.3481E+000	1.01E+000	-8.5673E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.0110E+000	1.01E+000	1.5258E+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 4/25/2006 9:01:31 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: BRN7722

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
Sample ID: NOL-02-02-107
Sample Title: NOL-02-02-107-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 4/18/2006 8:59:55 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: S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
Log Number: NOL-02-02-107
Title: NOL-02-02-107-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	283-	307	292.12	73.22	0.89	1.54E+002	46.20	7.07E+002
m	2	283-	307	300.23	75.25	0.89	3.16E+002	56.35	7.73E+002
F	3	333-	346	339.46	85.06	0.93	1.15E+002	48.18	8.14E+002
F	4	949-	961	955.21	238.98	1.06	2.33E+002	41.65	2.74E+002
F	5	1176-	1190	1182.00	295.67	0.79	4.26E+001	23.23	1.78E+002
F	6	1348-	1361	1353.30	338.49	1.15	6.80E+001	25.95	1.29E+002
F	7	1403-	1414	1408.30	352.24	1.02	1.14E+002	29.19	1.21E+002
F	8	1847-	1856	1851.65	463.07	0.59	2.19E+001	15.80	6.63E+001
F	9	2033-	2054	2043.60	511.05	1.73	1.45E+002	29.16	1.27E+002
F	10	2208-	2217	2212.18	553.19	0.39	2.05E+001	5.77	3.44E+001
F	11	2325-	2341	2333.34	583.48	1.12	1.64E+002	29.52	8.50E+001
F	12	2431-	2446	2438.06	609.65	1.04	1.23E+002	25.32	5.71E+001
F	13	3438-	3449	3443.21	860.91	1.03	2.59E+001	13.87	2.53E+001
F	14	3637-	3655	3646.19	911.65	1.53	1.36E+002	26.05	4.29E+001
M	15	3854-	3887	3861.57	965.49	1.30	3.90E+001	15.25	2.93E+001
m	16	3854-	3887	3877.93	969.58	1.30	1.05E+002	22.94	3.33E+001
F	17	5837-	5861	5848.88	1462.26	1.86	9.38E+002	60.88	0.00E+000
F	18	7060-	7075	7067.02	1766.77	1.63	3.97E+001	13.40	4.89E+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\Brn1m180dSoil\NOL

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	2.47389E-001	6.00249E-002
K-40	0.934	1460.81*	10.67	1.99018E+001	2.06525E+000
TL-208	0.900	277.35	6.80		
		510.84*	21.60	1.14532E+000	2.93212E-001
		583.14*	84.20	3.46211E-001	7.70111E-002
		860.37*	12.46	4.08899E-001	2.24430E-001
Pb-212	0.578	74.81* @	10.70	1.02027E+001	2.70380E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	7.27229E-001	1.72884E-001
Bi-214	0.660	609.31*	46.30	4.78499E-001	1.15028E-001
		1120.29	15.10		
		1764.49*	15.80	6.19464E-001	2.18093E-001
PB-214	0.616	74.82* @	6.21	1.75795E+001	4.83034E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	3.25348E-001	1.85503E-001
		351.92*	37.20	4.66742E-001	1.43082E-001
Ac-228	0.992	338.32*	11.40	9.03292E-001	3.72502E-001
		911.07*	27.70	9.76219E-001	2.18209E-001
		969.11*	16.60	1.27977E+000	3.09048E-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\Brn1m180dSoil\NOL

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	1.712036E-001	6.201360E-002
K-40		0.934	1.990175E+001	2.065253E+000
TL-208		0.900	3.527084E-001	7.212405E-002
Pb-212	@	0.578	7.272287E-001	1.728838E-001
Bi-214		0.660	5.091782E-001	1.017435E-001
PB-214	@	0.616	4.139996E-001	1.132957E-001
Ac-228		0.992	1.044799E+000	1.607924E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	73.22	2.5722E-001	29.94
F 3	85.06	1.9172E-001	41.89
F 8	463.07	3.6450E-002	72.25
F 10	553.19	3.4110E-002	28.19
M 15	965.49	6.5077E-002	39.06

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:S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
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	1.1905E-001	9.63E-002	3.7314E-002
	1332.49	100.00	9.6250E-002		6.9736E-002
Nb-94	702.63	100.00	1.1974E-001	1.13E-001	-1.4962E-001
	871.10	100.00	1.1341E-001		3.4685E-002
Ag-108m	79.20	7.10	8.7133E+000	1.38E-001	3.1730E+000
	433.93	89.90	1.3827E-001		-7.8764E-002
	614.37	90.40	1.6331E-001		-4.9995E-002
	722.95	90.50	1.4382E-001		4.3235E-002
Sb-125	176.33	6.89	2.7642E+000	4.20E-001	-7.9087E-001
	427.89	29.33	4.2031E-001		-1.9231E-001
	463.38	10.35	1.2880E+000		5.1327E-001
	600.56	17.80	6.4001E-001		1.7258E-002
	606.64	5.02	2.9780E+000		5.6563E+000
	635.90	11.32	1.0220E+000		1.3023E-001
Cs-134	563.23	8.38	1.4807E+000	1.40E-001	8.1664E-001
	569.32	15.43	7.8464E-001		1.7199E-001
	604.70	97.60	1.4974E-001		-1.4988E-002
	795.84	85.40	1.4046E-001		3.4954E-002
	801.93	8.73	1.3884E+000		-1.0616E+000
Cs-137	661.65	85.12	1.4560E-001	1.46E-001	1.9922E-001
Eu-152	121.78	28.40	9.6848E-001	3.61E-001	7.2345E-001
	244.69	7.49	2.3209E+000		-2.3391E+000
	344.27	26.50	5.2679E-001		-8.5310E-002
	778.89	12.74	8.4738E-001		1.3425E-001
	867.32	4.16	2.8244E+000		1.4147E+000
	964.01	14.40	1.0518E+000		0.0000E+000
	1085.78	10.00	9.8673E-001		-1.6201E-001
	1112.02	13.30	8.5009E-001		1.7042E-001
	1407.95	20.70	3.6100E-001		-2.9549E-001
Eu-154	123.07	40.50	6.7800E-001	2.71E-001	8.0370E-001
	247.94	6.60	2.5299E+000		-4.4195E+000
	591.81	4.83	2.4192E+000		-1.6696E-001
	723.30	19.70	6.5444E-001		3.2276E-002
	756.87	4.33	2.6163E+000		-9.0916E-001
	873.19	11.50	9.7650E-001		-8.4250E-001
	996.32	10.30	9.7799E-001		-5.4022E-003
	1004.76	17.90	5.7665E-001		5.1895E-002
	1274.45	35.50	2.7096E-001		8.0070E-002
Eu-155	86.54	30.90	1.4944E+000	1.49E+000	1.0816E+000
	105.31	20.70	1.6197E+000		7.1118E-001
Am-241	59.54	35.90	3.2677E+000	3.27E+000	1.6364E-001
Cm-243	228.19	10.56	1.6393E+000	1.13E+000	-7.6263E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	1.1329E+000	1.13E+000	1.3720E+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 5/4/2006 9:29:18 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-02-02-107
Sample Title: NOL-02-02-107-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/4/2006 9:19:16 PM
Live Time: 600.0 seconds
Real Time: 601.0 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-02-02-107
Title: NOL-02-02-107-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	284-	316	292.14	72.86	1.10	3.66E+002	60.15	1.19E+003
m	2	284-	316	300.50	74.95	1.11	9.01E+002	74.46	1.30E+003
m	3	284-	316	309.07	77.10	1.11	2.06E+002	53.51	1.17E+003
	4	331-	344	339.20	84.63	1.12	2.16E+002	114.96	1.17E+003
	5	945-	960	954.69	238.55	0.79	3.35E+002	75.02	3.77E+002
	6	1173-	1186	1181.32	295.23	0.83	9.83E+001	50.44	2.05E+002
	7	1343-	1358	1353.26	338.22	0.57	7.98E+001	49.43	1.83E+002
	8	1403-	1415	1408.15	351.95	1.06	1.58E+002	44.22	1.31E+002
	9	2031-	2054	2043.21	510.76	1.58	1.93E+002	53.06	1.35E+002
	10	2325-	2340	2333.17	583.27	1.70	2.30E+002	43.02	8.39E+001
	11	2428-	2448	2437.69	609.41	1.49	2.01E+002	44.68	8.69E+001
	12	2641-	2652	2646.99	661.75	0.97	3.90E+001	27.52	6.30E+001
	13	2902-	2916	2909.25	727.34	0.79	4.32E+001	28.39	5.78E+001
	14	3172-	3184	3178.48	794.67	0.76	2.26E+001	25.06	5.34E+001
	15	3636-	3653	3645.96	911.57	1.35	1.79E+002	35.33	4.49E+001
	16	3869-	3883	3876.58	969.24	1.22	9.30E+001	29.23	4.50E+001
	17	4475-	4492	4482.92	1120.87	0.93	6.20E+001	30.28	5.40E+001
	18	5832-	5859	5846.64	1461.91	1.92	1.17E+003	69.26	1.78E+001
	19	7056-	7072	7063.01	1766.09	0.79	6.22E+001	16.08	1.80E+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	0.998	511.00*	100.00	2.63448E-001	8.06957E-002
K-40	0.959	1460.81*	10.67	1.95791E+001	1.96535E+000
Cs-137	1.000	661.65*	85.12	6.80794E-002	4.86960E-002
TL-208	0.751	277.35	6.80		
		510.84*	21.60	1.21967E+000	3.86642E-001
		583.14*	84.20	3.89520E-001	8.87256E-002
		860.37	12.46		
Bi-212	0.999	727.17*	11.80	5.54638E-001	3.69993E-001
Pb-212	0.843	74.81* @	10.70	1.28806E+001	2.73990E+000
		77.11* @	18.00	1.68807E+000	5.48494E-001
		87.30 @	8.00		
		238.63*	44.60	8.15473E-001	2.22731E-001
Bi-214	0.979	609.31*	46.30	6.27989E-001	1.59531E-001
		1120.29*	15.10	6.91267E-001	3.45452E-001
		1764.49*	15.80	7.30880E-001	2.02636E-001
PB-214	0.763	74.82* @	6.21	2.21937E+001	4.98827E+000
		77.11* @	10.50	2.89383E+000	9.64783E-001
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	5.89764E-001	3.18549E-001
		351.92*	37.20	5.13526E-001	1.67675E-001
Ac-228	0.995	338.32*	11.40	8.38465E-001	5.35751E-001
		911.07*	27.70	1.02531E+000	2.34064E-001
		969.11*	16.60	9.04260E-001	2.99572E-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		0.998	1.793122E-001	8.289493E-002
K-40		0.959	1.957907E+001	1.965350E+000
Cs-137		1.000	6.807939E-002	4.869604E-002
TL-208		0.751	3.895198E-001	8.781279E-002
Bi-212		0.999	5.546383E-001	3.699926E-001
Pb-212	@	0.843	8.154728E-001	2.227309E-001
Bi-214		0.979	6.701412E-001	1.178299E-001
PB-214	@	0.763	5.300661E-001	1.483751E-001
Ac-228		0.995	9.644884E-001	1.743958E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	6.1067E-001	16.42
4	84.63	3.6065E-001	53.13
14	794.67	3.7675E-002	110.84

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	1.1022E-001	8.66E-002	9.4344E-002
		1332.49	100.00	8.6554E-002		-2.5404E-003
	Nb-94	702.63	100.00	1.0569E-001	9.77E-002	7.4802E-002
		871.10	100.00	9.7746E-002		1.6701E-002
	Ag-108m	79.20	7.10	4.2887E+000	1.20E-001	3.6659E-001
		433.93	89.90	1.2050E-001		-2.6753E-002
		614.37	90.40	1.3615E-001		6.9634E-002
		722.95	90.50	1.2243E-001		5.2050E-002
	Sb-125	176.33	6.89	2.1522E+000	3.60E-001	1.4434E-001
		427.89	29.33	3.5994E-001		-1.5468E-001
		463.38	10.35	1.0190E+000		-5.8455E-001
		600.56	17.80	5.5778E-001		4.2934E-001
		606.64	5.02	2.6898E+000		-2.0707E-002
		635.90	11.32	8.8318E-001		3.3024E-001
	Cs-134	563.23	8.38	1.2394E+000	1.20E-001	-9.2082E-001
		569.32	15.43	6.7968E-001		-4.6727E-001
		604.70	97.60	1.2466E-001		-3.2627E-002
		795.84	85.40	1.1972E-001		1.1415E-001
		801.93	8.73	1.0721E+000		-3.9220E-001
+	Cs-137	661.65*	85.12	7.6932E-002	7.69E-002	6.8079E-002
	Eu-152	121.78	28.40	6.8837E-001	3.50E-001	-6.0003E-002
		244.69	7.49	1.8318E+000		-6.7936E-001
		344.27	26.50	4.3560E-001		-3.2082E-001
		778.89	12.74	7.1447E-001		-1.2512E+000
		867.32	4.16	2.3476E+000		-1.6233E+000
		964.01	14.40	8.5686E-001		4.2534E-001
		1085.78	10.00	9.4692E-001		-3.6266E-001
		1112.02	13.30	6.8321E-001		-7.2298E-001
		1407.95	20.70	3.5015E-001		3.3907E-001
	Eu-154	123.07	40.50	4.8333E-001	2.59E-001	3.8597E-001
		247.94	6.60	2.0288E+000		1.9399E-001
		591.81	4.83	1.9816E+000		-6.3571E-001
		723.30	19.70	5.7065E-001		1.7070E-001
		756.87	4.33	2.2396E+000		1.0333E+000
		873.19	11.50	8.4290E-001		2.0577E-001
		996.32	10.30	9.6365E-001		6.3245E-001
		1004.76	17.90	5.1541E-001		-5.4810E-001
		1274.45	35.50	2.5883E-001		8.2125E-002
	Eu-155	86.54	30.90	9.3743E-001	9.37E-001	1.7665E-001
		105.31	20.70	1.0936E+000		-4.4244E-002
	Am-241	59.54	35.90	1.1359E+000	1.14E+000	4.7486E-001
	Cm-243	228.19	10.56	1.2132E+000	9.32E-001	-8.1103E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	9.3195E-001	9.32E-001	2.4575E-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 4/25/2006 9:02:52 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: S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
Sample ID: NOL-02-02-108
Sample Title: NOL-02-02-108-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 4/18/2006 8:42:07 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: S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
Log Number: NOL-02-02-108
Title: NOL-02-02-108-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-	305	291.70	73.12	0.88	1.47E+002	42.21	6.42E+002
m	2	285-	305	300.51	75.32	0.89	2.99E+002	52.60	6.41E+002
F	3	333-	345	338.98	84.94	0.53	1.04E+002	38.81	6.83E+002
F	4	949-	960	955.14	238.96	1.05	2.16E+002	39.48	2.34E+002
F	5	1346-	1359	1353.21	338.47	0.60	4.10E+001	20.23	1.42E+002
F	6	1399-	1416	1408.06	352.18	1.19	1.34E+002	29.38	1.45E+002
F	7	2037-	2053	2043.08	510.92	1.75	9.14E+001	25.01	8.06E+001
F	8	2325-	2342	2333.40	583.49	1.41	1.28E+002	27.05	7.61E+001
F	9	2429-	2445	2437.80	609.59	1.26	1.25E+002	26.07	6.16E+001
F	10	2905-	2916	2909.98	727.62	0.90	3.40E+001	14.69	2.57E+001
F	11	3638-	3656	3646.73	911.79	1.54	1.21E+002	25.29	4.97E+001
F	12	3870-	3888	3877.95	969.59	1.43	8.81E+001	21.85	3.70E+001
F	13	4475-	4491	4483.65	1120.99	1.62	5.77E+001	18.06	2.34E+001
F	14	4948-	4960	4953.44	1238.43	1.01	2.14E+001	12.73	2.43E+001
F	15	5837-	5862	5848.74	1462.23	1.74	8.99E+002	59.85	1.75E+001
F	16	7060-	7074	7066.99	1766.76	1.70	3.28E+001	13.08	8.82E+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: S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL

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	1.56117E-001	4.76464E-002
K-40	0.937	1460.81*	10.67	1.90876E+001	2.00032E+000
TL-208	0.750	277.35	6.80		
		510.84*	21.60	7.22764E-001	2.28346E-001
		583.14*	84.20	2.71217E-001	6.72368E-002
		860.37	12.46		
Bi-212	0.994	727.17*	11.80	5.45883E-001	2.44336E-001
Pb-212	0.578	74.81* @	10.70	9.64298E+000	2.53804E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	6.75237E-001	1.62416E-001
Bi-214	0.962	609.31*	46.30	4.86169E-001	1.17999E-001
		1120.29*	15.10	7.93423E-001	2.62399E-001
		1764.49*	15.80	5.11546E-001	2.10404E-001
Ac-228	0.990	338.32*	11.40	5.44576E-001	2.81891E-001
		911.07*	27.70	8.69856E-001	2.07350E-001
		969.11*	16.60	1.06942E+000	2.87964E-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\Brn1m180dSoil\NOL

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	9.753420E-002	4.977402E-002
K-40		0.937	1.908760E+001	2.000324E+000
TL-208		0.750	2.712171E-001	6.665329E-002
Bi-212		0.994	5.458829E-001	2.443355E-001
Pb-212	@	0.578	6.752372E-001	1.624160E-001
Bi-214		0.962	5.323968E-001	9.581257E-002
Ac-228		0.990	8.346409E-001	1.444838E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.4489E-001	28.73
F 3	84.94	1.7359E-001	37.26
F 6	352.18	2.2385E-001	21.87
F 14	1238.43	3.5686E-002	59.45

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
N U C L I D E M D A R E P O R T

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
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	1.1031E-001	8.67E-002	6.5924E-002
	1332.49	100.00	8.6709E-002		-5.6216E-002
Nb-94	702.63	100.00	1.0741E-001	1.01E-001	3.3088E-003
	871.10	100.00	1.0060E-001		-3.8922E-002
Ag-108m	79.20	7.10	8.2883E+000	1.40E-001	-1.1489E+001
	433.93	89.90	1.4496E-001		-1.6571E-003
	614.37	90.40	1.6304E-001		-4.4331E-003
	722.95	90.50	1.4000E-001		2.2887E-003
Sb-125	176.33	6.89	2.6916E+000	4.49E-001	1.5714E+000
	427.89	29.33	4.4916E-001		1.1784E-001
	463.38	10.35	1.1885E+000		5.9338E-001
	600.56	17.80	6.4896E-001		2.2942E-001
	606.64	5.02	2.9731E+000		4.4903E+000
	635.90	11.32	9.9564E-001		-6.1662E-001
Cs-134	563.23	8.38	1.3761E+000	1.31E-001	9.2206E-001
	569.32	15.43	7.2172E-001		-8.8468E-001
	604.70	97.60	1.4846E-001		-1.8248E-002
	795.84	85.40	1.3062E-001		-1.1857E-001
	801.93	8.73	1.2756E+000		-1.5495E+000
Cs-137	661.65	85.12	1.4560E-001	1.46E-001	5.7681E-002
Eu-152	121.78	28.40	9.1963E-001	3.57E-001	2.1360E-001
	244.69	7.49	2.2135E+000		-2.3680E+000
	344.27	26.50	5.5525E-001		2.0630E-001
	778.89	12.74	8.1304E-001		-2.3439E-001
	867.32	4.16	2.5697E+000		-1.4106E+000
	964.01	14.40	9.6684E-001		5.0935E-001
	1085.78	10.00	8.8178E-001		-4.5357E-001
	1112.02	13.30	8.1683E-001		6.9075E-002
	1407.95	20.70	3.5720E-001		1.4712E-001
Eu-154	123.07	40.50	6.4242E-001	2.71E-001	-1.9861E-001
	247.94	6.60	2.4309E+000		-2.7074E+000
	591.81	4.83	2.4447E+000		6.1526E-001
	723.30	19.70	6.3999E-001		-9.3458E-002
	756.87	4.33	2.4864E+000		9.4420E-001
	873.19	11.50	8.8668E-001		-2.7925E-001
	996.32	10.30	1.0048E+000		1.7816E-001
	1004.76	17.90	6.1127E-001		2.1553E-001
	1274.45	35.50	2.7096E-001		-4.8639E-003
Eu-155	86.54	30.90	1.4543E+000	1.45E+000	1.4396E+000
	105.31	20.70	1.5320E+000		-1.9506E+000
Am-241	59.54	35.90	3.1495E+000	3.15E+000	1.2060E+000
Cm-243	228.19	10.56	1.5690E+000	1.10E+000	-2.8137E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	1.0958E+000	1.10E+000	-1.4300E-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 5/4/2006 4:53:13 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-02-02-108
Sample Title: NOL-02-02-108-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/4/2006 4:43:10 PM
Live Time: 600.0 seconds
Real Time: 601.0 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-02-02-108
Title: NOL-02-02-108-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	286-	306	291.87	72.80	0.90	3.34E+002	59.37	1.05E+003
m	2	286-	306	300.38	74.92	0.90	5.80E+002	70.49	1.14E+003
	3	332-	345	339.18	84.63	0.81	1.85E+002	115.59	1.19E+003
	4	946-	962	955.18	238.67	1.12	2.89E+002	76.63	3.95E+002
M	5	1176-	1205	1182.61	295.55	0.88	6.17E+001	25.96	1.57E+002
m	6	1176-	1205	1201.38	300.24	0.88	3.48E+001	22.12	1.46E+002
	7	1401-	1415	1408.29	351.99	0.78	1.15E+002	49.76	1.84E+002
	8	2036-	2053	2044.02	510.97	1.61	1.34E+002	47.35	1.37E+002
	9	2324-	2344	2333.62	583.39	1.41	1.72E+002	48.61	1.22E+002
	10	2428-	2443	2437.94	609.48	1.45	1.95E+002	41.58	8.56E+001
	11	2906-	2916	2910.70	727.70	0.73	3.33E+001	24.93	5.28E+001
	12	3634-	3656	3646.44	911.69	1.19	1.82E+002	39.87	5.97E+001
	13	3869-	3888	3877.76	969.54	0.77	9.09E+001	30.71	4.31E+001
	14	5835-	5861	5848.65	1462.41	2.16	1.24E+003	70.95	1.69E+001
	15	7056-	7073	7064.60	1766.49	0.50	7.25E+001	18.29	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: 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	1.82143E-001	6.91480E-002
K-40	0.914	1460.81*	10.67	2.07363E+001	2.05796E+000
TL-208	0.750	277.35	6.80		
		510.84*	21.60	8.43256E-001	3.27453E-001
		583.14*	84.20	2.90995E-001	9.05715E-002
		860.37	12.46		
Bi-212	0.990	727.17*	11.80	4.26660E-001	3.23764E-001
Pb-212	0.520	74.81* @	10.70	8.30395E+000	1.91463E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	7.03046E-001	2.16488E-001
Bi-214	0.670	609.31*	46.30	6.10095E-001	1.50022E-001
		1120.29	15.10		
		1764.49*	15.80	8.51958E-001	2.31241E-001
PB-214	0.581	74.82* @	6.21	1.43079E+001	3.45861E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	3.70442E-001	1.67830E-001
		351.92*	37.20	3.75371E-001	1.73792E-001
Ac-228	0.625	338.32	11.40		
		911.07*	27.70	1.04337E+000	2.57811E-001
		969.11*	16.60	8.84384E-001	3.12692E-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	1.192885E-001	7.183303E-002
K-40		0.914	2.073633E+001	2.057959E+000
TL-208		0.750	2.909946E-001	9.007367E-002
Bi-212		0.990	4.266602E-001	3.237636E-001
Pb-212	@	0.520	7.030459E-001	2.164880E-001
Bi-214		0.670	6.817405E-001	1.258559E-001
PB-214	@	0.581	3.728209E-001	1.207263E-001
Ac-228		0.625	9.790313E-001	1.989185E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	5.5685E-001	17.77
3	84.63	3.0894E-001	62.36
m 6	300.24	5.7958E-002	63.62

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	1.0781E-001	9.13E-002	-8.7950E-003
	1332.49	100.00	9.1323E-002		6.3788E-002
Nb-94	702.63	100.00	1.0076E-001	9.03E-002	2.3143E-002
	871.10	100.00	9.0325E-002		6.9807E-002
Ag-108m	79.20	7.10	4.3414E+000	1.20E-001	-7.8805E-001
	433.93	89.90	1.2050E-001		9.3599E-002
	614.37	90.40	1.4051E-001		-3.4530E-001
	722.95	90.50	1.1984E-001		-4.1572E-002
Sb-125	176.33	6.89	2.0606E+000	3.62E-001	-5.3802E-001
	427.89	29.33	3.6173E-001		-2.6891E-001
	463.38	10.35	1.0172E+000		1.9563E-001
	600.56	17.80	5.4305E-001		-2.7081E-001
	606.64	5.02	2.7807E+000		5.6892E+000
	635.90	11.32	8.6149E-001		-7.4419E-002
Cs-134	563.23	8.38	1.2161E+000	1.10E-001	5.9812E-002
	569.32	15.43	6.5277E-001		-7.1229E-002
	604.70	97.60	1.2680E-001		1.0721E-002
	795.84	85.40	1.0977E-001		2.7934E-002
	801.93	8.73	1.0621E+000		-1.2978E+000
Cs-137	661.65	85.12	1.2949E-001	1.29E-001	1.3107E-001
Eu-152	121.78	28.40	6.7058E-001	3.25E-001	-2.7303E-001
	244.69	7.49	1.7810E+000		-5.4151E-001
	344.27	26.50	4.2922E-001		-4.9903E-001
	778.89	12.74	7.1907E-001		-4.6865E-001
	867.32	4.16	2.2281E+000		-4.1509E+000
	964.01	14.40	8.3862E-001		6.7441E-001
	1085.78	10.00	9.1288E-001		-6.0886E-001
	1112.02	13.30	7.5385E-001		5.2877E-001
	1407.95	20.70	3.2476E-001		8.2715E-002
Eu-154	123.07	40.50	4.6832E-001	2.47E-001	2.2332E-001
	247.94	6.60	1.9300E+000		-8.2119E-001
	591.81	4.83	2.0262E+000		1.0519E+000
	723.30	19.70	5.4451E-001		-4.9987E-001
	756.87	4.33	2.2081E+000		2.9734E-001
	873.19	11.50	7.7222E-001		2.8343E-001
	996.32	10.30	8.7750E-001		-1.7651E-001
	1004.76	17.90	4.9292E-001		4.0269E-001
	1274.45	35.50	2.4690E-001		1.5751E-001
Eu-155	86.54	30.90	9.2695E-001	9.27E-001	3.7888E-002
	105.31	20.70	1.0816E+000		6.3417E-001
Am-241	59.54	35.90	1.1111E+000	1.11E+000	-5.3047E-001
Cm-243	228.19	10.56	1.2502E+000	9.38E-001	-1.0506E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	9.3815E-001	9.38E-001	2.4043E-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 4/26/2006 1:48:16 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: BRN7722

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-02-02-109-F-G
Sample ID: NOL-02-02-109
Sample Title: NOL-02-02-109-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 4/18/2006 4:28:33 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: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-02-02-109-F-G
Log Number: NOL-02-02-109
Title: NOL-02-02-109-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-	306	291.44	73.06	0.92	1.76E+002	45.77	6.53E+002
m	2	282-	306	300.44	75.31	0.93	3.16E+002	54.34	6.85E+002
F	3	332-	346	339.18	84.99	1.12	1.62E+002	50.22	8.66E+002
F	4	949-	961	954.76	238.87	0.98	2.50E+002	42.48	2.90E+002
F	5	1174-	1188	1180.87	295.39	1.30	7.60E+001	27.45	1.64E+002
F	6	1401-	1414	1407.97	352.16	1.16	1.29E+002	30.51	1.37E+002
F	7	2034-	2055	2044.80	511.35	2.56	1.24E+002	26.31	1.02E+002
F	8	2326-	2342	2333.54	583.52	1.13	1.42E+002	28.24	8.81E+001
F	9	2429-	2446	2437.98	609.63	1.40	1.50E+002	27.98	6.73E+001
F	10	2640-	2656	2647.23	661.94	1.30	6.63E+001	21.10	5.85E+001
F	11	3639-	3657	3647.32	911.93	1.40	1.17E+002	25.74	6.50E+001
F	12	3870-	3888	3878.43	969.71	1.80	1.01E+002	23.49	4.01E+001
F	13	4481-	4492	4486.95	1121.82	0.88	2.08E+001	12.28	3.78E+001
F	14	5836-	5862	5849.23	1462.35	1.93	9.20E+002	60.53	2.37E+001
F	15	7059-	7074	7065.95	1766.50	1.32	3.39E+001	12.10	4.00E+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-02-02-109-F-G

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

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/g)	Activity Uncertainty
ANN	0.996	511.00*	100.00	2.11998E-001	5.33226E-002
K-40	0.926	1460.81*	10.67	1.95298E+001	2.03719E+000
Cs-137	0.997	661.65*	85.12	1.44340E-001	4.90188E-002
TL-208	0.748	277.35	6.80		
		510.84*	21.60	9.81471E-001	2.59550E-001
		583.14*	84.20	3.01426E-001	7.14707E-002
		860.37	12.46		
Pb-212	0.579	74.81* @	10.70	1.01982E+001	2.65735E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	7.79138E-001	1.80233E-001
Bi-214	0.958	609.31*	46.30	5.85268E-001	1.30793E-001
		1120.29*	15.10	2.86727E-001	1.71640E-001
		1764.49*	15.80	5.29404E-001	1.96063E-001
PB-214	0.618	74.82* @	6.21	1.75717E+001	4.75305E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	5.80142E-001	2.31085E-001
		351.92*	37.20	5.29860E-001	1.53489E-001
Ac-228	0.620	338.32	11.40		
		911.07*	27.70	8.39109E-001	2.08542E-001
		969.11*	16.60	1.22888E+000	3.12879E-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-02-02-109-F-G

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

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/g)	Wt mean Activity Uncertainty
ANN		0.996	1.468897E-001	5.547178E-002
K-40		0.926	1.952984E+001	2.037193E+000
Cs-137		0.997	1.443396E-001	4.901878E-002
TL-208		0.748	3.014258E-001	7.079243E-002
Pb-212	@	0.579	7.791376E-001	1.802333E-001
Bi-214		0.958	4.874178E-001	9.189626E-002
PB-214	@	0.618	5.452524E-001	1.278553E-001
Ac-228		0.620	9.590030E-001	1.735289E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.9351E-001	25.99
F 3	84.99	2.6949E-001	31.06

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:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-02-02-109-F-G
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/g)	Nuclide MDA (pCi/g)	Activity (pCi/g)
	Co-60	1173.22	100.00	1.2558E-001	8.61E-002	1.1794E-001
		1332.49	100.00	8.6075E-002		3.1523E-002
	Nb-94	702.63	100.00	1.2172E-001	1.10E-001	-9.6098E-002
		871.10	100.00	1.1025E-001		1.3939E-002
	Ag-108m	79.20	7.10	8.4721E+000	1.38E-001	-2.4655E+000
		433.93	89.90	1.4165E-001		-5.4348E-002
		614.37	90.40	1.7344E-001		-7.8122E-002
		722.95	90.50	1.3752E-001		7.0223E-002
	Sb-125	176.33	6.89	2.7866E+000	4.38E-001	-1.8699E+000
		427.89	29.33	4.3770E-001		2.6382E-001
		463.38	10.35	1.2701E+000		-6.3335E-002
		600.56	17.80	6.5426E-001		5.4994E-001
		606.64	5.02	3.1567E+000		6.5408E+000
		635.90	11.32	1.0278E+000		-6.4886E-001
	Cs-134	563.23	8.38	1.5007E+000	1.39E-001	-3.7876E-001
		569.32	15.43	8.1420E-001		2.1380E-001
		604.70	97.60	1.5719E-001		-6.6882E-003
		795.84	85.40	1.3880E-001		9.7386E-002
		801.93	8.73	1.2756E+000		-5.7745E-001
+	Cs-137	661.65*	85.12	1.0420E-001	1.04E-001	1.4434E-001
	Eu-152	121.78	28.40	9.5880E-001	3.93E-001	-1.9627E-001
		244.69	7.49	2.3391E+000		-3.7330E-001
		344.27	26.50	5.5722E-001		-1.0889E+000
		778.89	12.74	8.6848E-001		-7.3516E-001
		867.32	4.16	2.7049E+000		-1.3604E+000
		964.01	14.40	1.0178E+000		-1.2048E-001
		1085.78	10.00	1.0628E+000		-1.0287E+000
		1112.02	13.30	8.2696E-001		5.6975E-002
		1407.95	20.70	3.9336E-001		1.1023E-001
	Eu-154	123.07	40.50	6.6729E-001	3.03E-001	1.7972E-001
		247.94	6.60	2.5634E+000		4.0632E-001
		591.81	4.83	2.4886E+000		-2.9328E-002
		723.30	19.70	6.2851E-001		-1.8513E-002
		756.87	4.33	2.5392E+000		-4.2042E-001
		873.19	11.50	9.4520E-001		-6.4518E-001
		996.32	10.30	1.0351E+000		-1.2637E-001
		1004.76	17.90	6.0403E-001		3.9965E-001
		1274.45	35.50	3.0309E-001		2.1270E-001
	Eu-155	86.54	30.90	1.5311E+000	1.53E+000	1.8782E+000
		105.31	20.70	1.6320E+000		-4.4180E-001
	Am-241	59.54	35.90	3.2231E+000	3.22E+000	-2.7834E+000
	Cm-243	228.19	10.56	1.6711E+000	1.12E+000	-9.3084E-002

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/g)	Nuclide MDA (pCi/g)	Activity (pCi/g)
Cm-243	277.60	14.00	1.1161E+000	1.12E+000	-6.8779E-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 5/4/2006 4:13:14 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: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-02-02-109
Sample Title: NOL-02-02-109-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/4/2006 4:03:10 PM
Live Time: 600.0 seconds
Real Time: 601.0 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-02-02-109
Title: NOL-02-02-109-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	284-	308	292.19	72.88	1.07	3.09E+002	59.56	1.31E+003
m	2	284-	308	300.52	74.96	1.07	6.43E+002	71.68	1.35E+003
	3	949-	963	955.15	238.67	0.94	2.96E+002	70.99	3.52E+002
	4	1178-	1187	1182.18	295.44	0.49	6.86E+001	38.77	1.41E+002
	5	1349-	1360	1353.92	338.39	1.06	8.46E+001	38.11	1.16E+002
	6	1402-	1414	1407.83	351.87	0.97	1.33E+002	43.89	1.40E+002
	7	1629-	1641	1636.14	408.96	0.75	4.68E+001	34.37	9.92E+001
	8	2323-	2339	2333.56	583.37	1.42	1.94E+002	41.81	8.40E+001
	9	2430-	2446	2438.54	609.63	1.30	1.96E+002	39.88	6.97E+001
	10	2904-	2919	2911.40	727.88	1.29	5.67E+001	28.54	5.13E+001
	11	3438-	3451	3444.80	861.27	0.47	2.83E+001	22.35	3.57E+001
	12	3637-	3655	3646.79	911.78	1.35	1.73E+002	31.80	2.63E+001
	13	3869-	3888	3878.99	969.85	0.93	8.39E+001	34.87	6.41E+001
	14	4475-	4492	4484.13	1121.18	0.71	7.54E+001	28.26	4.06E+001
	15	5253-	5264	5258.88	1314.92	0.44	9.00E+000	9.60	6.00E+000
	16	5833-	5863	5848.76	1462.44	2.07	1.14E+003	71.04	3.49E+001
	17	7058-	7075	7066.49	1766.96	0.65	6.20E+001	15.43	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	0.912	1460.81*		10.67	1.91763E+001	1.95720E+000
TL-208	0.618	277.35		6.80		
		510.84		21.60		
		583.14*		84.20	3.28288E-001	8.26626E-002
		860.37*		12.46	3.56155E-001	2.84161E-001
Bi-212	0.983	727.17*		11.80	7.28096E-001	3.76128E-001
Pb-212	0.520	74.81*	@	10.70	9.18797E+000	2.07199E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	7.20488E-001	2.06279E-001
Bi-214	0.950	609.31*		46.30	6.13017E-001	1.45645E-001
		1120.29*		15.10	8.40649E-001	3.27480E-001
		1764.49*		15.80	7.28609E-001	1.95445E-001
PB-214	0.582	74.82*	@	6.21	1.58311E+001	3.75051E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	4.11527E-001	2.42793E-001
		351.92*		37.20	4.34314E-001	1.60320E-001
Ac-228	0.986	338.32*		11.40	8.89010E-001	4.24104E-001
		911.07*		27.70	9.88895E-001	2.14594E-001
		969.11*		16.60	8.15716E-001	3.49658E-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		0.912	1.917628E+001	1.957204E+000
TL-208		0.618	3.304618E-001	7.937238E-002
Bi-212		0.983	7.280956E-001	3.761277E-001
Pb-212	@	0.520	7.204876E-001	2.062792E-001
Bi-214		0.950	6.753144E-001	1.099992E-001
PB-214	@	0.582	4.273955E-001	1.337850E-001
Ac-228		0.986	9.332798E-001	1.679444E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	5.1464E-001	19.29
7	408.96	7.8005E-002	73.44
15	1314.92	1.5000E-002	106.70

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
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	1.0280E-001	8.32E-002	2.1752E-002
	1332.49	100.00	8.3214E-002		6.3776E-003
Nb-94	702.63	100.00	9.7932E-002	8.78E-002	-7.8211E-003
	871.10	100.00	8.7811E-002		-2.2655E-002
Ag-108m	79.20	7.10	4.2938E+000	1.20E-001	6.5926E-001
	433.93	89.90	1.2031E-001		2.2902E-002
	614.37	90.40	1.3948E-001		-8.5103E-003
	722.95	90.50	1.2166E-001		-2.2227E-002
Sb-125	176.33	6.89	2.1134E+000	3.56E-001	-5.5659E-001
	427.89	29.33	3.5633E-001		-2.4735E-001
	463.38	10.35	1.0244E+000		9.5110E-001
	600.56	17.80	5.6564E-001		2.0112E-001
	606.64	5.02	2.7000E+000		-4.1873E-001
	635.90	11.32	8.1629E-001		5.1418E-001
Cs-134	563.23	8.38	1.2317E+000	1.11E-001	6.9069E-002
	569.32	15.43	6.4841E-001		6.1766E-001
	604.70	97.60	1.2288E-001		-5.3604E-002
	795.84	85.40	1.1110E-001		1.1926E-001
	801.93	8.73	1.0521E+000		4.1861E-002
Cs-137	661.65	85.12	1.3107E-001	1.31E-001	5.9586E-002
Eu-152	121.78	28.40	6.6580E-001	3.45E-001	-5.3381E-001
	244.69	7.49	1.7191E+000		-2.5017E-001
	344.27	26.50	4.0150E-001		-1.5164E-001
	778.89	12.74	7.3713E-001		-4.2056E-001
	867.32	4.16	2.1768E+000		6.4967E-001
	964.01	14.40	7.8484E-001		-4.1959E-001
	1085.78	10.00	8.5172E-001		-8.5602E-001
	1112.02	13.30	7.1184E-001		5.3796E-001
	1407.95	20.70	3.4523E-001		-1.4461E-001
Eu-154	123.07	40.50	4.6686E-001	2.47E-001	-1.9127E-002
	247.94	6.60	1.8606E+000		-5.5366E-001
	591.81	4.83	1.9916E+000		-1.3073E+000
	723.30	19.70	5.7065E-001		-1.1110E-001
	756.87	4.33	2.1369E+000		-4.7601E-001
	873.19	11.50	7.7222E-001		3.1081E-001
	996.32	10.30	9.1546E-001		-1.0760E+000
	1004.76	17.90	5.1724E-001		-2.9967E-002
	1274.45	35.50	2.4690E-001		-1.6744E-001
Eu-155	86.54	30.90	9.2695E-001	9.27E-001	1.2905E+000
	105.31	20.70	1.0871E+000		6.0800E-001
Am-241	59.54	35.90	1.1138E+000	1.11E+000	-3.3665E-001
Cm-243	228.19	10.56	1.2601E+000	8.64E-001	-2.4641E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	8.6408E-001	8.64E-001	-2.2875E-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 4/25/2006 9:13:42 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: BRN7722

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
Sample ID: NOL-02-02-110
Sample Title: NOL-02-02-110-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 4/18/2006 4:12:05 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: S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
Log Number: NOL-02-02-110
Title: NOL-02-02-110-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-	306	291.92	73.17	0.83	1.49E+002	42.87	5.72E+002
m	2	286-	306	300.53	75.33	0.83	2.64E+002	51.86	6.33E+002
F	3	333-	347	339.30	85.02	1.02	1.57E+002	49.41	8.63E+002
M	4	948-	975	955.31	239.00	0.95	2.45E+002	39.80	2.23E+002
m	5	948-	975	969.14	242.46	0.95	5.58E+001	25.07	1.83E+002
F	6	1171-	1190	1181.00	295.42	1.07	7.82E+001	27.16	2.20E+002
F	7	1349-	1360	1353.67	338.58	1.07	5.69E+001	24.07	1.02E+002
F	8	1400-	1417	1408.09	352.19	1.24	1.30E+002	29.23	1.48E+002
F	9	2037-	2054	2043.63	511.06	1.14	7.82E+001	24.92	1.20E+002
F	10	2325-	2342	2333.65	583.55	1.05	1.62E+002	28.07	6.80E+001
F	11	2431-	2448	2438.03	609.64	1.38	1.54E+002	28.79	7.46E+001
F	12	3070-	3082	3075.14	768.90	0.95	2.02E+001	12.82	2.97E+001
F	13	3176-	3188	3182.73	795.80	1.01	2.60E+001	14.01	2.89E+001
F	14	3634-	3656	3646.28	911.67	1.90	1.37E+002	25.18	3.10E+001
F	15	3871-	3886	3877.87	969.56	1.76	5.36E+001	18.09	2.66E+001
F	16	4478-	4492	4485.62	1121.48	1.52	3.92E+001	15.87	2.43E+001
F	17	4932-	4943	4937.57	1234.46	1.16	1.64E+001	10.40	1.06E+001
F	18	5837-	5862	5849.47	1462.41	1.89	8.82E+002	58.98	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: S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL

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

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/g)	Activity Uncertainty
ANN	1.000	511.00*		100.00	1.33520E-001	4.62291E-002
K-40	0.921	1460.81*		10.67	1.87265E+001	1.96605E+000
TL-208	0.749	277.35		6.80		
		510.84*		21.60	6.18148E-001	2.19897E-001
		583.14*		84.20	3.42062E-001	7.42091E-002
		860.37		12.46		
Pb-212	0.577	74.81*	@	10.70	8.50889E+000	2.35985E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	7.63041E-001	1.72428E-001
Bi-214	0.696	609.31*		46.30	6.01914E-001	1.34558E-001
		1120.29*		15.10	5.38826E-001	2.25721E-001
		1764.49		15.80		
PB-214	0.774	74.82*	@	6.21	1.46611E+001	4.20307E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98*		7.49	1.03967E+000	4.98323E-001
		295.21*		19.20	5.96714E-001	2.30278E-001
		351.92*		37.20	5.32257E-001	1.49459E-001
Ac-228	0.992	338.32*		11.40	7.55711E-001	3.40873E-001
		911.07*		27.70	9.85776E-001	2.13410E-001
		969.11*		16.60	6.50370E-001	2.29906E-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\Brn1m180dSoil\NOL

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

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/g)	Wt mean Activity Uncertainty
ANN		1.000	5.963471E-002	4.886993E-002
K-40		0.921	1.872655E+001	1.966054E+000
TL-208		0.749	3.420617E-001	7.336703E-002
Pb-212	@	0.577	7.630409E-001	1.724278E-001
Bi-214		0.696	5.853731E-001	1.155794E-001
PB-214	@	0.774	5.804281E-001	1.215796E-001
Ac-228		0.992	8.175217E-001	1.421594E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.4896E-001	28.70
F 3	85.02	2.6208E-001	31.42
F 12	768.90	3.3693E-002	63.40
F 13	795.80	4.3374E-002	53.82
F 17	1234.46	2.7317E-002	63.44

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:S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/g)	Nuclide MDA (pCi/g)	Activity (pCi/g)
Co-60	1173.22	100.00	1.1212E-001	8.86E-002	-3.7877E-002
	1332.49	100.00	8.8582E-002		-1.0774E-001
Nb-94	702.63	100.00	1.1428E-001	1.07E-001	3.8393E-002
	871.10	100.00	1.0659E-001		-5.3617E-003
Ag-108m	79.20	7.10	8.4789E+000	1.32E-001	-2.1315E+000
	433.93	89.90	1.3853E-001		-8.6537E-002
	614.37	90.40	1.7318E-001		3.9762E-002
	722.95	90.50	1.3203E-001		7.2292E-003
Sb-125	176.33	6.89	2.6698E+000	4.35E-001	-1.5967E+000
	427.89	29.33	4.3459E-001		1.2650E-001
	463.38	10.35	1.2381E+000		5.3225E-001
	600.56	17.80	6.1612E-001		-3.0318E-001
	606.64	5.02	3.1840E+000		-9.1430E-001
	635.90	11.32	1.0838E+000		5.6881E-001
Cs-134	563.23	8.38	1.4672E+000	1.30E-001	1.9269E-001
	569.32	15.43	7.9956E-001		-2.3843E-002
	604.70	97.60	1.5767E-001		-8.5376E-002
	795.84	85.40	1.3018E-001		3.0368E-002
	801.93	8.73	1.2035E+000		-5.8297E-001
Cs-137	661.65	85.12	1.3921E-001	1.39E-001	1.6467E-002
Eu-152	121.78	28.40	9.1753E-001	3.93E-001	-4.8447E-001
	244.69	7.49	2.2205E+000		7.1969E-001
	344.27	26.50	5.2748E-001		-1.5738E-002
	778.89	12.74	8.7737E-001		2.0087E-001
	867.32	4.16	2.8866E+000		1.8642E+000
	964.01	14.40	8.6826E-001		-7.7667E-004
	1085.78	10.00	9.8673E-001		1.3841E-001
	1112.02	13.30	7.9965E-001		-5.5398E-002
	1407.95	20.70	3.9336E-001		1.8556E-001
Eu-154	123.07	40.50	6.3762E-001	2.73E-001	-6.1892E-002
	247.94	6.60	2.3787E+000		-8.1049E-001
	591.81	4.83	2.4063E+000		1.0448E+000
	723.30	19.70	6.0831E-001		1.9509E-002
	756.87	4.33	2.6078E+000		3.0174E-001
	873.19	11.50	9.2008E-001		9.5566E-002
	996.32	10.30	1.0687E+000		3.2531E-001
	1004.76	17.90	5.9669E-001		-4.0240E-001
	1274.45	35.50	2.7251E-001		8.4821E-003
Eu-155	86.54	30.90	1.5169E+000	1.52E+000	1.4597E+000
	105.31	20.70	1.5715E+000		2.9639E-001
Am-241	59.54	35.90	3.1414E+000	3.14E+000	2.4975E+000
Cm-243	228.19	10.56	1.6278E+000	1.11E+000	4.0869E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/g)	Nuclide MDA (pCi/g)	Activity (pCi/g)
Cm-243	277.60	14.00	1.1076E+000	1.11E+000	-2.2228E-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 5/4/2006 10:09:55 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: BLUE6279
Sample ID: NOL-02-02-110
Sample Title: NOL-02-02-110-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/4/2006 9:59:54 PM
Live Time: 600.0 seconds
Real Time: 601.0 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-02-02-110
Title: NOL-02-02-110-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	292-	308	300.42	74.93	1.16	5.42E+002	159.33	1.94E+003
2	944-	963	954.00	238.38	1.57	2.71E+002	91.26	5.39E+002
3	2322-	2344	2332.80	583.18	1.33	2.32E+002	50.75	1.13E+002
4	2431-	2445	2437.37	609.33	1.55	1.20E+002	39.11	9.58E+001
5	3633-	3658	3646.54	911.72	1.85	1.77E+002	41.66	6.47E+001
6	5831-	5861	5846.42	1461.85	2.63	1.18E+003	71.99	3.50E+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: 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	1.97610E+001	2.00448E+000
TL-208	0.471	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.91893E-001	9.99055E-002
		860.37	12.46		
Pb-212	0.519	74.81* @	10.70	7.75261E+000	2.73906E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	6.57725E-001	2.44598E-001
Bi-214	0.398	609.31*	46.30	3.75276E-001	1.30590E-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	1.976103E+001	2.004476E+000
TL-208		0.471	3.918927E-001	9.990546E-002
Pb-212	@	0.519	6.577253E-001	2.445980E-001
Bi-214		0.398	3.752759E-001	1.305896E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	911.72	2.9555E-001	23.49

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	1.0439E-001	9.13E-002	-3.2123E-004
	1332.49	100.00	9.1323E-002		-3.2688E-002
Nb-94	702.63	100.00	1.0350E-001	9.12E-002	-6.9742E-002
	871.10	100.00	9.1249E-002		9.2157E-002
Ag-108m	79.20	7.10	4.5374E+000	1.20E-001	-5.0134E+000
	433.93	89.90	1.1973E-001		3.9936E-003
	614.37	90.40	1.3359E-001		-6.5077E-003
	722.95	90.50	1.2571E-001		-1.2867E-002
Sb-125	176.33	6.89	2.1650E+000	3.85E-001	-5.7296E-001
	427.89	29.33	3.8533E-001		-1.7885E-002
	463.38	10.35	1.0594E+000		4.6416E-001
	600.56	17.80	5.9354E-001		2.5846E-001
	606.64	5.02	2.6966E+000		5.0903E+000
	635.90	11.32	9.3109E-001		4.0943E-001
Cs-134	563.23	8.38	1.3042E+000	1.23E-001	3.0341E-001
	569.32	15.43	6.7829E-001		4.1246E-001
	604.70	97.60	1.2814E-001		-9.2495E-002
	795.84	85.40	1.2275E-001		2.4425E-001
	801.93	8.73	1.0621E+000		-8.4089E-001
Cs-137	661.65	85.12	1.3941E-001	1.39E-001	1.3684E-001
Eu-152	121.78	28.40	6.9480E-001	3.69E-001	-4.9784E-002
	244.69	7.49	1.8458E+000		-1.7060E+000
	344.27	26.50	4.2922E-001		-2.7682E-001
	778.89	12.74	7.1677E-001		-1.0251E+000
	867.32	4.16	2.1090E+000		-1.1983E+000
	964.01	14.40	8.8270E-001		-5.9004E-002
	1085.78	10.00	8.8823E-001		-7.9652E-001
	1112.02	13.30	6.7518E-001		-8.3608E-001
	1407.95	20.70	3.6911E-001		1.5777E-001
Eu-154	123.07	40.50	4.8822E-001	2.58E-001	-1.2298E-001
	247.94	6.60	1.9458E+000		-9.7890E-001
	591.81	4.83	2.1029E+000		5.6858E-001
	723.30	19.70	5.8891E-001		4.3712E-001
	756.87	4.33	2.1760E+000		3.3908E-001
	873.19	11.50	7.8850E-001		2.9907E-001
	996.32	10.30	8.9985E-001		-2.7222E-001
	1004.76	17.90	5.6425E-001		-3.0530E-001
	1274.45	35.50	2.5777E-001		-5.1007E-002
Eu-155	86.54	30.90	9.4816E-001	9.48E-001	1.3120E+000
	105.31	20.70	1.1178E+000		5.0652E-001
Am-241	59.54	35.90	1.1467E+000	1.15E+000	-2.3022E-001
Cm-243	228.19	10.56	1.2601E+000	8.85E-001	1.1501E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	8.8484E-001	8.85E-001	-8.8815E-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 4/25/2006 9:02:37 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: S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
Sample ID: NOL-02-02-111
Sample Title: NOL-02-02-111-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 4/18/2006 2:39:45 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: S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
Log Number: NOL-02-02-111
Title: NOL-02-02-111-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	283-	305	291.99	73.19	1.06	2.02E+002	47.27	8.18E+002
m	2	283-	305	300.17	75.24	1.06	3.98E+002	58.48	8.45E+002
F	3	333-	346	339.93	85.18	1.11	1.95E+002	53.54	8.83E+002
F	4	949-	961	955.29	239.00	1.03	2.72E+002	44.16	3.04E+002
F	5	1349-	1360	1353.95	338.65	0.50	3.60E+001	20.44	1.69E+002
F	6	1400-	1417	1408.48	352.28	1.40	1.45E+002	32.37	1.95E+002
F	7	1846-	1857	1852.24	463.21	0.51	3.07E+001	15.95	7.91E+001
F	8	2034-	2054	2043.67	511.06	2.05	1.37E+002	28.36	1.17E+002
F	9	2325-	2344	2332.99	583.39	1.16	1.58E+002	30.38	1.18E+002
F	10	2428-	2450	2437.88	609.61	1.43	1.59E+002	28.66	8.50E+001
F	11	3176-	3188	3181.69	795.54	1.19	3.50E+001	16.05	3.25E+001
F	12	3339-	3351	3344.71	836.29	1.18	3.08E+001	14.24	1.95E+001
F	13	3638-	3655	3646.52	911.73	1.53	1.64E+002	29.21	5.82E+001
M	14	3855-	3888	3860.53	965.23	1.34	2.09E+001	14.67	4.55E+001
m	15	3855-	3888	3878.39	969.69	1.34	7.53E+001	21.77	5.53E+001
F	16	4478-	4490	4484.00	1121.08	1.32	2.77E+001	16.26	3.92E+001
F	17	4691-	4703	4697.43	1174.43	1.32	2.50E+001	14.02	2.28E+001
F	18	5835-	5861	5848.49	1462.17	1.86	9.57E+002	61.35	1.34E+001
F	19	6353-	6366	6359.35	1589.87	0.81	1.65E+001	9.22	7.59E+000
F	20	7058-	7073	7066.72	1766.69	2.10	5.42E+001	15.27	4.00E+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\Brn1m180dSoil\NOL

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

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/g)	Activity Uncertainty
ANN	1.000	511.00*	100.00	2.34204E-001	5.78887E-002
K-40	0.943	1460.81*	10.67	2.03007E+001	2.09677E+000
TL-208	0.751	277.35	6.80		
		510.84*	21.60	1.08428E+000	2.82253E-001
		583.14*	84.20	3.33650E-001	7.75661E-002
		860.37	12.46		
Pb-212	0.578	74.81* @	10.70	1.28548E+001	3.14945E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	8.48672E-001	1.91561E-001
Bi-214	0.963	609.31*	46.30	6.19266E-001	1.35316E-001
		1120.29*	15.10	3.81020E-001	2.27306E-001
		1764.49*	15.80	8.45192E-001	2.52737E-001
Ac-228	0.989	338.32*	11.40	4.78029E-001	2.81566E-001
		911.07*	27.70	1.17763E+000	2.49700E-001
		969.11*	16.60	9.14127E-001	2.81164E-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\Brn1m180dSoil\NOL

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

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/g)	Wt mean Activity Uncertainty
ANN		1.000	1.621356E-001	6.021866E-002
K-40		0.943	2.030068E+001	2.096768E+000
TL-208		0.751	3.336503E-001	7.680023E-002
Pb-212	@	0.578	8.486721E-001	1.915607E-001
Bi-214		0.963	6.072812E-001	1.056305E-001
Ac-228		0.989	8.832664E-001	1.556021E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	3.3717E-001	23.36
F 3	85.18	3.2581E-001	27.39
F 6	352.28	2.4204E-001	22.29
F 7	463.21	5.1212E-002	51.90
F 11	795.54	5.8378E-002	45.83
F 12	836.29	5.1254E-002	46.30
M 14	965.23	3.4864E-002	70.14
F 17	1174.43	4.1643E-002	56.10
F 19	1589.87	2.7433E-002	55.99

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:S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/g)	Nuclide MDA (pCi/g)	Activity (pCi/g)
Co-60	1173.22	100.00	1.2154E-001	8.28E-002	2.0414E-002
	1332.49	100.00	8.2827E-002		-4.9086E-002
Nb-94	702.63	100.00	1.2400E-001	1.19E-001	8.1784E-002
	871.10	100.00	1.1909E-001		9.1781E-002
Ag-108m	79.20	7.10	8.7937E+000	1.37E-001	-1.2851E+001
	433.93	89.90	1.5062E-001		-2.8000E-002
	614.37	90.40	1.7626E-001		-8.6715E-002
	722.95	90.50	1.3716E-001		-4.6000E-002
Sb-125	176.33	6.89	2.9489E+000	4.53E-001	-1.8429E+000
	427.89	29.33	4.5292E-001		-2.0278E-001
	463.38	10.35	1.2746E+000		3.7241E-001
	600.56	17.80	7.3687E-001		-2.6068E-002
	606.64	5.02	3.2864E+000		7.0856E-001
	635.90	11.32	1.1000E+000		3.2544E-001
Cs-134	563.23	8.38	1.5812E+000	1.43E-001	6.6100E-001
	569.32	15.43	8.2679E-001		-6.1061E-001
	604.70	97.60	1.6476E-001		1.5531E-002
	795.84	85.40	1.4251E-001		-1.1362E-002
	801.93	8.73	1.4278E+000		2.7373E-001
Cs-137	661.65	85.12	1.5759E-001	1.58E-001	1.0402E-001
Eu-152	121.78	28.40	9.9558E-001	4.39E-001	2.2493E-001
	244.69	7.49	2.4314E+000		-1.2159E+000
	344.27	26.50	5.8103E-001		-1.5669E-001
	778.89	12.74	9.6418E-001		-3.8692E-001
	867.32	4.16	2.9900E+000		-2.5111E+000
	964.01	14.40	1.0243E+000		-2.5989E-001
	1085.78	10.00	1.1120E+000		-6.5647E-001
	1112.02	13.30	8.2022E-001		-6.7318E-001
	1407.95	20.70	4.3866E-001		2.4935E-001
Eu-154	123.07	40.50	6.9182E-001	3.00E-001	3.5611E-001
	247.94	6.60	2.7753E+000		-2.3809E-001
	591.81	4.83	2.6915E+000		4.5990E-001
	723.30	19.70	6.3017E-001		2.7610E-001
	756.87	4.33	2.8807E+000		9.7475E-001
	873.19	11.50	1.0001E+000		1.4816E-001
	996.32	10.30	1.1092E+000		2.9944E-001
	1004.76	17.90	6.3015E-001		3.5324E-001
	1274.45	35.50	3.0032E-001		-1.1891E-001
Eu-155	86.54	30.90	1.6022E+000	1.60E+000	1.5135E+000
	105.31	20.70	1.6628E+000		1.3089E+000
Am-241	59.54	35.90	3.3437E+000	3.34E+000	-1.1380E+000
Cm-243	228.19	10.56	1.7586E+000	1.21E+000	7.7713E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/g)	Nuclide MDA (pCi/g)	Activity (pCi/g)
Cm-243	277.60	14.00	1.2142E+000	1.21E+000	8.3259E-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 5/4/2006 9:48:37 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: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-02-02-111
Sample Title: NOL-02-02-111-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/4/2006 9:38:36 PM
Live Time: 600.0 seconds
Real Time: 601.1 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-02-02-111
Title: NOL-02-02-111-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	284-	306	292.02	72.83	0.92	3.79E+002	61.87	1.19E+003
m	2	284-	306	300.46	74.95	0.92	6.95E+002	75.35	1.23E+003
	3	331-	344	339.72	84.76	1.00	1.22E+002	120.13	1.32E+003
	4	948-	961	954.80	238.58	1.25	3.48E+002	73.03	3.74E+002
	5	1174-	1187	1181.19	295.19	1.13	8.77E+001	53.04	2.33E+002
	6	1346-	1358	1353.11	338.19	0.63	7.39E+001	42.19	1.48E+002
	7	1402-	1417	1407.69	351.83	0.60	1.41E+002	52.57	1.90E+002
	8	2039-	2054	2043.07	510.73	1.05	1.03E+002	43.80	1.31E+002
	9	2324-	2341	2332.79	583.18	1.13	2.08E+002	46.33	1.08E+002
	10	2430-	2446	2437.06	609.26	0.88	1.76E+002	43.57	1.02E+002
	11	2902-	2916	2909.34	727.36	1.26	6.17E+001	26.81	4.33E+001
	12	3635-	3654	3645.45	911.44	1.73	2.09E+002	40.90	6.47E+001
	13	3869-	3886	3876.69	969.27	1.55	9.07E+001	35.03	7.03E+001
	14	4475-	4489	4480.91	1120.37	1.00	2.98E+001	28.98	6.22E+001
	15	4947-	4960	4954.79	1238.88	0.61	2.80E+001	22.86	3.90E+001
	16	5832-	5861	5846.32	1461.83	1.78	1.18E+003	69.18	1.42E+001
	17	7054-	7070	7062.50	1765.97	0.71	4.67E+001	16.07	6.34E+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: 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	0.997	511.00*		100.00	1.40120E-001	6.26771E-002
K-40	0.965	1460.81*		10.67	1.98069E+001	1.97948E+000
TL-208	0.752	277.35		6.80		
		510.84*		21.60	6.48705E-001	2.94968E-001
		583.14*		84.20	3.52451E-001	9.08460E-002
		860.37		12.46		
Bi-212	0.999	727.17*		11.80	7.91471E-001	3.56348E-001
Pb-212	0.520	74.81*	@	10.70	9.94236E+000	2.22675E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	8.46859E-001	2.21707E-001
Bi-214	0.985	609.31*		46.30	5.50928E-001	1.52030E-001
		1120.29*		15.10	3.32502E-001	3.24977E-001
		1764.49*		15.80	5.48281E-001	1.96653E-001
PB-214	0.582	74.82*	@	6.21	1.71310E+001	4.03326E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	5.26441E-001	3.30404E-001
		351.92*		37.20	4.60686E-001	1.87731E-001
Ac-228	0.997	338.32*		11.40	7.77018E-001	4.59730E-001
		911.07*		27.70	1.19805E+000	2.71642E-001
		969.11*		16.60	8.81771E-001	3.52952E-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		0.997	6.399095E-002	6.563010E-002
K-40		0.965	1.980691E+001	1.979478E+000
TL-208		0.752	3.524508E-001	9.011696E-002
Bi-212		0.999	7.914706E-001	3.563478E-001
Pb-212	@	0.520	8.468589E-001	2.217072E-001
Bi-214		0.985	5.237413E-001	1.128002E-001
PB-214	@	0.582	4.767333E-001	1.632234E-001
Ac-228		0.997	1.025841E+000	1.949544E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	6.3149E-001	16.33
3	84.76	2.0340E-001	98.44
15	1238.88	4.6586E-002	81.78

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: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	1.0151E-001	7.70E-002	7.0754E-002
	1332.49	100.00	7.6999E-002		-5.5761E-002
Nb-94	702.63	100.00	1.0948E-001	8.97E-002	7.1835E-002
	871.10	100.00	8.9704E-002		-6.7149E-003
Ag-108m	79.20	7.10	4.5219E+000	1.18E-001	-3.5666E+000
	433.93	89.90	1.1817E-001		-9.9046E-002
	614.37	90.40	1.3803E-001		-9.5048E-003
	722.95	90.50	1.2396E-001		-3.9313E-002
Sb-125	176.33	6.89	2.2431E+000	3.81E-001	1.3011E-001
	427.89	29.33	3.8141E-001		2.5728E-001
	463.38	10.35	1.1499E+000		5.8702E-001
	600.56	17.80	6.1061E-001		1.9286E-002
	606.64	5.02	2.8332E+000		2.9282E-001
	635.90	11.32	8.6149E-001		-2.7318E-001
Cs-134	563.23	8.38	1.2082E+000	1.13E-001	3.0394E-001
	569.32	15.43	6.2313E-001		-2.6283E-001
	604.70	97.60	1.3820E-001		-8.1502E-002
	795.84	85.40	1.1308E-001		-1.6099E-002
	801.93	8.73	1.0820E+000		-2.0801E+000
Cs-137	661.65	85.12	1.3365E-001	1.34E-001	8.5969E-002
Eu-152	121.78	28.40	7.0904E-001	3.30E-001	-1.5720E-001
	244.69	7.49	1.8686E+000		1.9833E-001
	344.27	26.50	4.3665E-001		-1.5981E-001
	778.89	12.74	8.2922E-001		-6.4279E-001
	867.32	4.16	2.2568E+000		-1.1345E+000
	964.01	14.40	8.8270E-001		1.9685E-001
	1085.78	10.00	9.6347E-001		9.6038E-001
	1112.02	13.30	7.3440E-001		-6.2991E-002
	1407.95	20.70	3.3001E-001		3.4336E-002
Eu-154	123.07	40.50	4.9527E-001	2.38E-001	1.0056E-001
	247.94	6.60	2.0030E+000		-9.7927E-001
	591.81	4.83	2.1768E+000		-1.2287E+000
	723.30	19.70	5.6247E-001		-1.3319E-001
	756.87	4.33	2.4716E+000		1.8978E+000
	873.19	11.50	7.6947E-001		-3.5469E-001
	996.32	10.30	9.4886E-001		7.9693E-001
	1004.76	17.90	5.6258E-001		1.5945E-002
	1274.45	35.50	2.3782E-001		-2.0812E-001
Eu-155	86.54	30.90	9.5727E-001	9.57E-001	5.4017E-002
	105.31	20.70	1.1319E+000		3.8759E-001
Am-241	59.54	35.90	1.1474E+000	1.15E+000	-2.4648E-001
Cm-243	228.19	10.56	1.2860E+000	9.47E-001	-6.3851E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	9.4738E-001	9.47E-001	-1.7409E-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 4/25/2006 9:02:21 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: BRN7722

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
Sample ID: NOL-02-02-112
Sample Title: NOL-02-02-112-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 4/18/2006 1:58:59 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: S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
Log Number: NOL-02-02-112
Title: NOL-02-02-112-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	288-	306	291.64	73.11	0.75	1.53E+002	44.67	5.38E+002
m	2	288-	306	300.72	75.37	0.76	2.70E+002	53.47	7.25E+002
F	3	334-	344	339.33	85.03	0.96	8.90E+001	48.66	6.95E+002
F	4	801-	811	805.92	201.66	0.68	5.13E+001	28.55	2.54E+002
F	5	945-	965	954.69	238.85	1.20	2.71E+002	43.96	4.82E+002
F	6	1175-	1188	1180.95	295.41	0.94	6.56E+001	27.79	1.95E+002
F	7	1349-	1361	1353.79	338.62	1.16	7.51E+001	28.56	1.53E+002
F	8	1397-	1417	1408.33	352.25	1.18	1.43E+002	30.33	1.81E+002
F	9	2326-	2340	2333.89	583.61	1.20	1.68E+002	29.82	6.56E+001
F	10	2429-	2445	2437.95	609.62	1.28	1.50E+002	28.34	6.79E+001
F	11	2906-	2917	2911.31	727.95	1.35	2.81E+001	16.82	4.04E+001
F	12	3138-	3150	3143.63	786.02	1.01	2.72E+001	14.94	3.64E+001
F	13	3636-	3659	3647.36	911.94	1.86	1.76E+002	28.00	3.46E+001
F	14	3873-	3887	3879.15	969.89	1.44	7.51E+001	20.65	3.42E+001
F	15	4478-	4491	4484.37	1121.17	1.28	3.50E+001	17.42	4.52E+001
F	16	5834-	5862	5848.98	1462.29	1.94	9.65E+002	61.80	2.18E+001
F	17	6522-	6535	6528.66	1632.19	1.19	9.69E+000	7.94	3.50E+000
F	18	7059-	7074	7066.61	1766.66	1.72	3.70E+001	13.73	8.14E+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: S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL

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

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/g)	Activity Uncertainty
K-40	0.932	1460.81*		10.67	2.04867E+001	2.11442E+000
TL-208	0.467	277.35		6.80		
		510.84		21.60		
		583.14*		84.20	3.55778E-001	7.82531E-002
		860.37		12.46		
Bi-212	0.981	727.17*		11.80	4.50909E-001	2.75086E-001
Pb-212	0.579	74.81*	@	10.70	8.67642E+000	2.41761E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	8.45112E-001	1.90694E-001
Bi-214	0.963	609.31*		46.30	5.86422E-001	1.32044E-001
		1120.29*		15.10	4.81584E-001	2.45089E-001
		1764.49*		15.80	5.76931E-001	2.21764E-001
PB-214	0.617	74.82*	@	6.21	1.49497E+001	4.30465E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	5.00679E-001	2.28149E-001
		351.92*		37.20	5.88260E-001	1.58762E-001
Ac-228	0.982	338.32*		11.40	9.97776E-001	4.10316E-001
		911.07*		27.70	1.26746E+000	2.48342E-001
		969.11*		16.60	9.12303E-001	2.68304E-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\Brn1m180dSoil\NOL

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

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/g)	Wt mean Activity Uncertainty
K-40		0.932	2.048675E+001	2.114421E+000
TL-208		0.467	3.557779E-001	7.825308E-002
Bi-212		0.981	4.509087E-001	2.750855E-001
Pb-212	@	0.579	8.451121E-001	1.906936E-001
Bi-214		0.963	5.658750E-001	1.029586E-001
PB-214	@	0.617	5.596869E-001	1.303152E-001
Ac-228		0.982	1.086148E+000	1.665617E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	73.11	2.5450E-001	29.25
F 3	85.03	1.4829E-001	54.69
F 4	201.66	8.5452E-002	55.68
F 12	786.02	4.5361E-002	54.91
F 17	1632.19	1.6152E-002	81.96

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:S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/g)	Nuclide MDA (pCi/g)	Activity (pCi/g)
Co-60	1173.22	100.00	1.1212E-001	9.22E-002	-5.2984E-002
	1332.49	100.00	9.2206E-002		6.8845E-002
Nb-94	702.63	100.00	1.2303E-001	1.16E-001	1.1857E-002
	871.10	100.00	1.1648E-001		-3.4409E-002
Ag-108m	79.20	7.10	8.7111E+000	1.38E-001	-1.0421E-001
	433.93	89.90	1.5997E-001		2.5558E-002
	614.37	90.40	1.8226E-001		-3.6538E-002
	722.95	90.50	1.3788E-001		-4.2645E-002
Sb-125	176.33	6.89	2.9489E+000	4.42E-001	1.8092E+000
	427.89	29.33	4.4156E-001		-5.8848E-002
	463.38	10.35	1.2701E+000		-4.8519E-001
	600.56	17.80	6.4001E-001		-3.1819E-001
	606.64	5.02	3.1061E+000		4.1869E+000
	635.90	11.32	1.0590E+000		-5.7805E-001
Cs-134	563.23	8.38	1.5171E+000	1.47E-001	4.3085E-001
	569.32	15.43	8.6683E-001		5.6440E-001
	604.70	97.60	1.5425E-001		-8.0803E-002
	795.84	85.40	1.4690E-001		1.0525E-001
	801.93	8.73	1.3478E+000		-9.1473E-001
Cs-137	661.65	85.12	1.4743E-001	1.47E-001	5.4644E-002
Eu-152	121.78	28.40	9.7329E-001	4.51E-001	-6.3931E-001
	244.69	7.49	2.4298E+000		-3.5382E-001
	344.27	26.50	5.6570E-001		-1.9229E-001
	778.89	12.74	8.5346E-001		-9.1464E-001
	867.32	4.16	2.9900E+000		-3.2931E+000
	964.01	14.40	9.6228E-001		2.4819E-002
	1085.78	10.00	1.0536E+000		-9.2269E-001
	1112.02	13.30	8.4026E-001		-1.8306E-001
	1407.95	20.70	4.5071E-001		1.5684E-001
Eu-154	123.07	40.50	6.8348E-001	3.03E-001	-2.7881E-002
	247.94	6.60	2.6385E+000		-3.4064E+000
	591.81	4.83	2.5195E+000		2.7312E+000
	723.30	19.70	6.4323E-001		-8.6053E-002
	756.87	4.33	2.6163E+000		-2.9597E+000
	873.19	11.50	1.0167E+000		2.1937E-001
	996.32	10.30	1.0136E+000		-2.2023E-001
	1004.76	17.90	6.2783E-001		5.9616E-001
	1274.45	35.50	3.0309E-001		2.1865E-001
Eu-155	86.54	30.90	1.5364E+000	1.54E+000	3.0424E+000
	105.31	20.70	1.6357E+000		3.0825E-001
Am-241	59.54	35.90	3.2494E+000	3.25E+000	-1.5930E-001
Cm-243	228.19	10.56	1.7328E+000	1.18E+000	1.0790E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/g)	Nuclide MDA (pCi/g)	Activity (pCi/g)
Cm-243	277.60	14.00	1.1767E+000	1.18E+000	3.7928E-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 5/4/2006 4:29:45 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: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-02-02-112
Sample Title: NOL-02-02-112-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/4/2006 4:19:42 PM
Live Time: 600.0 seconds
Real Time: 601.1 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-02-02-112
Title: NOL-02-02-112-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	285-	308	291.66	72.74	1.05	3.30E+002	61.39	1.18E+003
m	2	285-	308	300.49	74.95	1.05	7.18E+002	74.28	1.41E+003
	3	335-	345	339.79	84.78	0.84	1.34E+002	100.16	1.03E+003
	4	945-	962	954.93	238.61	1.20	3.41E+002	80.85	4.18E+002
	5	1171-	1188	1180.91	295.12	0.82	1.24E+002	56.60	2.17E+002
	6	1349-	1361	1354.59	338.56	0.43	6.50E+001	42.69	1.55E+002
	7	1401-	1417	1407.75	351.85	1.23	2.47E+002	51.12	1.39E+002
	8	1849-	1858	1853.08	463.22	0.43	3.24E+001	27.35	7.16E+001
	9	2034-	2052	2043.75	510.90	1.55	1.35E+002	48.76	1.43E+002
	10	2324-	2342	2334.29	583.56	1.27	2.15E+002	44.72	9.01E+001
	11	2430-	2447	2438.29	609.56	1.36	1.89E+002	39.79	6.87E+001
	12	2638-	2655	2648.71	662.18	0.63	5.16E+001	35.87	8.54E+001
	13	2906-	2917	2910.97	727.77	0.64	2.83E+001	23.95	4.78E+001
	14	3637-	3658	3647.11	911.86	1.05	2.02E+002	37.92	4.61E+001
M	15	3855-	3887	3860.15	965.14	1.43	2.27E+001	15.22	4.64E+001
m	16	3855-	3887	3877.64	969.51	1.43	7.30E+001	20.73	5.74E+001
	17	5837-	5861	5848.76	1462.44	1.83	1.13E+003	67.70	1.71E+001
	18	7059-	7073	7065.78	1766.79	0.89	3.58E+001	15.46	9.23E+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

N U C L I 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	1.84378E-001	7.10521E-002
K-40	0.912	1460.81*	10.67	1.89050E+001	1.90594E+000
Cs-137	0.990	661.65*	85.12	9.00642E-002	6.35087E-002
TL-208	0.748	277.35	6.80		
		510.84*	21.60	8.53601E-001	3.36250E-001
		583.14*	84.20	3.63828E-001	8.92863E-002
		860.37	12.46		
Bi-212	0.987	727.17*	11.80	3.62508E-001	3.10278E-001
Pb-212	0.520	74.81* @	10.70	1.02623E+001	2.27457E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	8.29321E-001	2.35680E-001
Bi-214	0.660	609.31*	46.30	5.91262E-001	1.44034E-001
		1120.29	15.10		
		1764.49*	15.80	4.20313E-001	1.86520E-001
PB-214	0.582	74.82* @	6.21	1.76822E+001	4.12400E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	7.44759E-001	3.62068E-001
		351.92*	37.20	8.05765E-001	2.14151E-001
Ac-228	0.987	338.32*	11.40	6.83399E-001	4.61359E-001
		911.07*	27.70	1.15562E+000	2.54452E-001
		969.11*	16.60	7.10096E-001	2.14832E-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	1.057910E-001	7.357842E-002
K-40		0.912	1.890504E+001	1.905938E+000
Cs-137		0.990	9.006423E-002	6.350866E-002
TL-208		0.748	3.638276E-001	8.849551E-002
Bi-212		0.987	3.625075E-001	3.102778E-001
Pb-212	@	0.520	8.293206E-001	2.356797E-001
Bi-214		0.660	5.274028E-001	1.139998E-001
PB-214	@	0.582	7.899541E-001	1.843231E-001
Ac-228		0.987	8.716752E-001	1.546530E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	5.4999E-001	18.60
3	84.78	2.2289E-001	74.89
8	463.22	5.4042E-002	84.35
M 15	965.14	3.7874E-002	66.96

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	9.7863E-002	8.24E-002	-8.2933E-002
		1332.49	100.00	8.2357E-002		3.8384E-002
	Nb-94	702.63	100.00	1.0076E-001	9.12E-002	2.7694E-002
		871.10	100.00	9.1249E-002		-7.6206E-002
	Ag-108m	79.20	7.10	4.4370E+000	1.16E-001	-2.1372E+000
		433.93	89.90	1.1640E-001		1.0006E-003
		614.37	90.40	1.3530E-001		2.3914E-002
		722.95	90.50	1.1905E-001		-2.0319E-002
	Sb-125	176.33	6.89	2.1501E+000	3.59E-001	-2.3246E+000
		427.89	29.33	3.5934E-001		3.1794E-002
		463.38	10.35	1.1097E+000		4.0355E-001
		600.56	17.80	5.6564E-001		1.5451E-001
		606.64	5.02	2.6587E+000		-1.2806E-001
		635.90	11.32	8.6368E-001		-4.7237E-001
	Cs-134	563.23	8.38	1.1681E+000	1.12E-001	1.0529E-001
		569.32	15.43	6.3217E-001		-5.8400E-001
		604.70	97.60	1.2068E-001		-6.5178E-002
		795.84	85.40	1.1209E-001		2.0138E-002
		801.93	8.73	1.0037E+000		-8.9487E-001
+	Cs-137	661.65*	85.12	1.0140E-001	1.01E-001	9.0064E-002
	Eu-152	121.78	28.40	6.8736E-001	3.30E-001	2.9400E-001
		244.69	7.49	1.7517E+000		-5.4525E-001
		344.27	26.50	4.2219E-001		1.6644E-001
		778.89	12.74	7.1217E-001		-1.0630E+000
		867.32	4.16	2.3613E+000		-1.7323E-001
		964.01	14.40	8.2167E-001		-2.3458E-001
		1085.78	10.00	9.6018E-001		3.8498E-001
		1112.02	13.30	6.9115E-001		3.6880E-001
		1407.95	20.70	3.3001E-001		1.5909E-001
	Eu-154	123.07	40.50	4.7524E-001	2.61E-001	-2.7031E-001
		247.94	6.60	1.8704E+000		-2.4276E+000
		591.81	4.83	2.0792E+000		-7.4945E-001
		723.30	19.70	5.3839E-001		-2.7363E-001
		756.87	4.33	2.2334E+000		1.7422E+000
		873.19	11.50	7.7769E-001		4.9126E-001
		996.32	10.30	8.2055E-001		-4.0947E-001
		1004.76	17.90	4.4860E-001		-9.3395E-002
		1274.45	35.50	2.6094E-001		5.7393E-002
	Eu-155	86.54	30.90	9.4166E-001	9.42E-001	1.4658E+000
		105.31	20.70	1.1335E+000		8.2078E-002
	Am-241	59.54	35.90	1.1464E+000	1.15E+000	-1.4762E-001
	Cm-243	228.19	10.56	1.2529E+000	9.31E-001	2.9534E-002

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	9.3117E-001	9.31E-001	3.7864E-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 4/25/2006 9:03:10 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: BRN7722

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
Sample ID: NOL-02-02-113
Sample Title: NOL-02-02-113-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 4/18/2006 3:56:48 PM
Live Time: 600.0 seconds
Real Time: 600.8 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: S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
Log Number: NOL-02-02-113
Title: NOL-02-02-113-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	282-	316	291.80	73.15	1.03	1.71E+002	44.26	6.40E+002
m	2	282-	316	300.51	75.32	1.03	3.72E+002	53.02	6.48E+002
m	3	282-	316	309.04	77.45	1.04	9.34E+001	40.51	7.03E+002
F	4	336-	344	340.49	85.32	0.94	9.97E+001	44.70	4.62E+002
F	5	947-	961	955.06	238.94	0.97	2.08E+002	38.98	2.87E+002
F	6	1175-	1187	1182.17	295.71	0.93	5.52E+001	24.92	1.43E+002
F	7	1349-	1359	1353.24	338.48	0.80	5.10E+001	22.00	9.93E+001
F	8	1401-	1417	1408.10	352.19	1.48	1.41E+002	29.83	1.27E+002
F	9	2034-	2054	2044.26	511.21	2.76	1.16E+002	25.60	9.38E+001
F	10	2326-	2340	2333.58	583.53	1.32	1.06E+002	25.67	6.75E+001
F	11	2430-	2447	2438.49	609.76	1.23	1.40E+002	27.05	6.75E+001
F	12	3174-	3187	3181.15	795.40	1.02	2.67E+001	13.84	2.60E+001
F	13	3637-	3656	3647.06	911.87	1.34	1.11E+002	24.14	5.02E+001
F	14	3872-	3888	3878.59	969.74	1.49	5.90E+001	19.18	3.76E+001
F	15	4478-	4493	4485.13	1121.36	1.63	3.89E+001	16.49	2.93E+001
F	16	5836-	5861	5849.12	1462.32	1.91	8.59E+002	57.92	1.30E+001
F	17	7060-	7076	7068.29	1767.08	1.55	4.19E+001	14.49	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: S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL

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

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/g)	Activity Uncertainty
ANN	0.999	511.00*	100.00	1.98756E-001	5.13407E-002
K-40	0.929	1460.81*	10.67	1.82291E+001	1.92066E+000
TL-208	0.749	277.35	6.80		
		510.84*	21.60	9.20165E-001	2.49285E-001
		583.14*	84.20	2.24917E-001	6.16902E-002
		860.37	12.46		
Pb-212	0.850	74.81* @	10.70	1.19653E+001	2.90092E+000
		77.11* @	18.00	1.64168E+000	7.81433E-001
		87.30 @	8.00		
		238.63*	44.60	6.47976E-001	1.58478E-001
Bi-214	0.696	609.31*	46.30	5.47415E-001	1.25219E-001
		1120.29*	15.10	5.34757E-001	2.33801E-001
		1764.49	15.80		
PB-214	0.761	74.82* @	6.21	2.06165E+001	5.21761E+000
		77.11* @	10.50	2.81431E+000	1.35598E+000
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	4.21361E-001	2.02940E-001
		351.92*	37.20	5.79309E-001	1.56213E-001
Ac-228	0.986	338.32*	11.40	6.77754E-001	3.10863E-001
		911.07*	27.70	7.94791E-001	1.95967E-001
		969.11*	16.60	7.16460E-001	2.44618E-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\Brn1m180dSoil\NOL

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

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/g)	Wt mean Activity Uncertainty
ANN		0.999	1.501737E-001	5.301814E-002
K-40		0.929	1.822914E+001	1.920662E+000
TL-208		0.749	2.249170E-001	6.125316E-002
Pb-212	@	0.850	6.479764E-001	1.584777E-001
Bi-214		0.696	5.445930E-001	1.103842E-001
PB-214	@	0.761	5.205425E-001	1.237870E-001
Ac-228		0.986	7.473298E-001	1.372317E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	73.15	2.8517E-001	25.87
F 4	85.32	1.6624E-001	44.82
F 12	795.40	4.4446E-002	51.90
F 17	1767.08	6.9821E-002	34.60

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:S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/g)	Nuclide MDA (pCi/g)	Activity (pCi/g)
Co-60	1173.22	100.00	1.0801E-001	8.86E-002	-4.8540E-002
	1332.49	100.00	8.8582E-002		2.1862E-002
Nb-94	702.63	100.00	1.1532E-001	1.05E-001	-2.2477E-002
	871.10	100.00	1.0491E-001		-6.8959E-002
Ag-108m	79.20	7.10	8.1213E+000	1.26E-001	5.4786E-002
	433.93	89.90	1.3344E-001		4.4252E-002
	614.37	90.40	1.6792E-001		3.4144E-004
	722.95	90.50	1.2629E-001		-7.9853E-002
Sb-125	176.33	6.89	2.5462E+000	4.02E-001	-1.1642E-001
	427.89	29.33	4.0213E-001		-3.6869E-001
	463.38	10.35	1.1739E+000		-2.5503E-001
	600.56	17.80	6.4001E-001		3.4820E-001
	606.64	5.02	3.0498E+000		5.7317E+000
	635.90	11.32	9.1487E-001		-4.6997E-001
Cs-134	563.23	8.38	1.4224E+000	1.31E-001	-1.6978E-001
	569.32	15.43	7.6941E-001		-4.3682E-002
	604.70	97.60	1.5101E-001		2.1397E-002
	795.84	85.40	1.3107E-001		2.5471E-002
	801.93	8.73	1.3058E+000		6.6087E-001
Cs-137	661.65	85.12	1.3370E-001	1.34E-001	9.1297E-002
Eu-152	121.78	28.40	8.8894E-001	3.90E-001	5.3696E-001
	244.69	7.49	2.1906E+000		2.1605E-001
	344.27	26.50	5.2048E-001		-3.0353E-001
	778.89	12.74	8.2883E-001		-1.1609E-001
	867.32	4.16	2.7329E+000		1.3759E+000
	964.01	14.40	9.1532E-001		-3.4311E-001
	1085.78	10.00	1.0063E+000		-3.2796E-001
	1112.02	13.30	8.3695E-001		3.1362E-001
	1407.95	20.70	3.8991E-001		2.5892E-001
Eu-154	123.07	40.50	6.1524E-001	2.63E-001	-5.2506E-002
	247.94	6.60	2.4018E+000		-6.5590E-001
	591.81	4.83	2.2941E+000		1.7700E-001
	723.30	19.70	5.8738E-001		-3.3804E-001
	756.87	4.33	2.5392E+000		2.4746E+000
	873.19	11.50	9.2733E-001		4.4976E-001
	996.32	10.30	1.0351E+000		1.1226E+000
	1004.76	17.90	5.7665E-001		2.2335E-001
	1274.45	35.50	2.6308E-001		-4.6871E-001
Eu-155	86.54	30.90	1.4090E+000	1.41E+000	7.5314E-001
	105.31	20.70	1.5218E+000		6.5412E-001
Am-241	59.54	35.90	3.0935E+000	3.09E+000	2.9523E+000
Cm-243	228.19	10.56	1.5940E+000	1.06E+000	-2.4476E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/g)	Nuclide MDA (pCi/g)	Activity (pCi/g)
Cm-243	277.60	14.00	1.0619E+000	1.06E+000	-5.0484E-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 5/5/2006 11:20:15 AM

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

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-02-02-113
Sample Title: NOL-02-02-113-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/5/2006 11:10:13 AM
Live Time: 600.0 seconds
Real Time: 601.0 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-02-02-113
Title: NOL-02-02-113-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	285-	315	291.34	72.66	1.04	4.59E+002	61.71	9.85E+002
m	2	285-	315	300.42	74.93	1.04	7.64E+002	71.09	1.14E+003
m	3	285-	315	308.41	76.93	1.04	1.84E+002	53.30	1.15E+003
	4	332-	346	340.19	84.88	0.61	1.15E+002	125.15	1.37E+003
	5	947-	959	954.60	238.53	1.08	3.67E+002	64.98	2.79E+002
	6	1177-	1185	1180.04	294.91	0.74	8.59E+001	36.71	1.20E+002
	7	1349-	1363	1353.82	338.36	1.01	9.30E+001	49.51	1.88E+002
	8	1399-	1414	1407.21	351.71	0.46	9.70E+001	54.20	2.21E+002
	9	2036-	2052	2042.87	510.68	0.92	1.60E+002	46.07	1.25E+002
	10	2325-	2339	2332.41	583.08	1.39	2.03E+002	41.03	8.08E+001
	11	2427-	2445	2437.07	609.26	1.44	1.68E+002	44.12	9.96E+001
	12	2904-	2916	2909.61	727.43	0.36	2.32E+001	27.25	6.38E+001
	13	3634-	3654	3645.08	911.35	1.39	1.69E+002	37.59	5.49E+001
	14	3868-	3884	3876.69	969.27	1.78	9.94E+001	31.55	5.06E+001
	15	4474-	4489	4481.99	1120.64	0.97	4.00E+001	27.86	5.40E+001
	16	5832-	5859	5845.42	1461.60	1.95	1.21E+003	68.98	6.69E+000
	17	7054-	7071	7062.36	1765.93	0.60	5.50E+001	14.54	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

N U C L I 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	2.17816E-001	6.94251E-002
K-40	0.978	1460.81*	10.67	2.02851E+001	2.00895E+000
TL-208	0.752	277.35	6.80		
		510.84*	21.60	1.00841E+000	3.31795E-001
		583.14*	84.20	3.43910E-001	8.26184E-002
		860.37	12.46		
Bi-212	0.998	727.17*	11.80	2.98282E-001	3.51348E-001
Pb-212	0.843	74.81* @	10.70	1.09210E+001	2.36977E+000
		77.11* @	18.00	1.50869E+000	5.27694E-001
		87.30 @	8.00		
		238.63*	44.60	8.93276E-001	2.11113E-001
Bi-214	0.984	609.31*	46.30	5.25804E-001	1.52218E-001
		1120.29*	15.10	4.46100E-001	3.14162E-001
		1764.49*	15.80	6.46273E-001	1.82612E-001
PB-214	0.761	74.82* @	6.21	1.88171E+001	4.30561E+000
		77.11* @	10.50	2.58633E+000	9.25001E-001
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	5.15343E-001	2.36726E-001
		351.92*	37.20	3.15953E-001	1.84238E-001
Ac-228	0.998	338.32*	11.40	9.77571E-001	5.42368E-001
		911.07*	27.70	9.68129E-001	2.42247E-001
		969.11*	16.60	9.66108E-001	3.23041E-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	1.435309E-001	7.164115E-002
K-40		0.978	2.028512E+001	2.008948E+000
TL-208		0.752	3.439105E-001	8.185473E-002
Bi-212		0.998	2.982823E-001	3.513477E-001
Pb-212	@	0.843	8.932755E-001	2.111134E-001
Bi-214		0.984	5.594868E-001	1.095808E-001
PB-214	@	0.761	3.911675E-001	1.453933E-001
Ac-228		0.998	9.685529E-001	1.825054E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	7.6515E-001	13.44
4	84.88	1.9096E-001	109.23

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
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	7.61E-002	4.1772E-002
	1332.49	100.00	7.6066E-002		3.2385E-004
Nb-94	702.63	100.00	9.6884E-002	8.88E-002	4.4401E-002
	871.10	100.00	8.8763E-002		-3.9625E-002
Ag-108m	79.20	7.10	4.3283E+000	1.22E-001	-1.0143E+000
	433.93	89.90	1.2183E-001		-8.6403E-002
	614.37	90.40	1.3699E-001		-2.1328E-002
	722.95	90.50	1.2421E-001		2.7911E-003
Sb-125	176.33	6.89	2.1745E+000	3.68E-001	-7.9914E-002
	427.89	29.33	3.6821E-001		-1.5373E-001
	463.38	10.35	1.0542E+000		3.4939E-001
	600.56	17.80	5.6303E-001		1.9202E-001
	606.64	5.02	2.6448E+000		3.4776E+000
	635.90	11.32	8.8745E-001		-5.1186E-001
Cs-134	563.23	8.38	1.2135E+000	1.20E-001	-2.9838E-001
	569.32	15.43	6.6849E-001		-2.5932E-001
	604.70	97.60	1.2795E-001		-4.2803E-002
	795.84	85.40	1.2002E-001		1.3723E-001
	801.93	8.73	1.0917E+000		-1.5578E+000
Cs-137	661.65	85.12	1.2491E-001	1.25E-001	4.1051E-002
Eu-152	121.78	28.40	6.9420E-001	3.62E-001	1.7150E-001
	244.69	7.49	1.8228E+000		1.0238E+000
	344.27	26.50	4.3718E-001		-9.0808E-002
	778.89	12.74	7.6340E-001		-9.0672E-001
	867.32	4.16	2.2710E+000		-1.9271E+000
	964.01	14.40	8.7310E-001		4.1987E-001
	1085.78	10.00	9.4357E-001		-1.1807E-001
	1112.02	13.30	6.9377E-001		1.4188E-001
	1407.95	20.70	3.6212E-001		2.7522E-001
Eu-154	123.07	40.50	4.7667E-001	2.57E-001	-2.8383E-001
	247.94	6.60	1.9252E+000		-1.2389E+000
	591.81	4.83	2.1076E+000		7.6682E-001
	723.30	19.70	5.6482E-001		-1.8332E-001
	756.87	4.33	2.4201E+000		3.4002E-001
	873.19	11.50	7.8850E-001		1.0946E-001
	996.32	10.30	8.9669E-001		1.8683E-001
	1004.76	17.90	5.0988E-001		3.2912E-001
	1274.45	35.50	2.5670E-001		5.7602E-002
Eu-155	86.54	30.90	9.3395E-001	9.34E-001	4.7433E-001
	105.31	20.70	1.1125E+000		6.5342E-001
Am-241	59.54	35.90	1.1128E+000	1.11E+000	-6.2215E-001
Cm-243	228.19	10.56	1.2718E+000	8.97E-001	-1.1165E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	8.9706E-001	8.97E-001	-1.8206E-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 4/25/2006 9:04:44 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: BRN7722

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
Sample ID: NOL-02-02-114
Sample Title: NOL-02-02-114-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 4/18/2006 3:41:27 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: S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
Log Number: NOL-02-02-114
Title: NOL-02-02-114-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	288-	306	292.06	73.21	1.02	1.00E+002	41.59	5.56E+002
m	2	288-	306	300.03	75.20	1.02	3.11E+002	53.65	7.90E+002
F	3	334-	344	338.78	84.89	1.00	1.21E+002	47.32	6.05E+002
F	4	833-	842	837.63	209.59	0.48	4.29E+001	24.35	2.18E+002
F	5	949-	961	955.04	238.94	1.03	2.32E+002	40.89	2.64E+002
F	6	1172-	1187	1180.65	295.33	1.37	7.45E+001	27.36	1.72E+002
F	7	1350-	1361	1354.05	338.68	1.05	5.39E+001	24.32	1.21E+002
F	8	1398-	1415	1408.17	352.21	1.25	1.47E+002	29.78	1.36E+002
F	9	2036-	2052	2045.33	511.48	1.41	5.63E+001	25.14	1.37E+002
F	10	2322-	2341	2332.85	583.35	1.62	1.44E+002	28.40	8.75E+001
F	11	2431-	2448	2438.66	609.80	1.18	1.06E+002	25.26	8.19E+001
F	12	3437-	3449	3442.47	860.73	0.57	1.84E+001	12.18	4.44E+001
F	13	3639-	3656	3646.75	911.79	1.59	1.35E+002	25.35	3.15E+001
M	14	3855-	3885	3860.81	965.30	1.14	1.82E+001	12.24	2.75E+001
m	15	3855-	3885	3877.77	969.54	1.14	5.69E+001	18.71	3.74E+001
F	16	4477-	4492	4484.52	1121.21	1.24	3.62E+001	16.71	4.00E+001
F	17	4953-	4964	4958.67	1239.73	0.47	1.94E+001	1.27	2.31E+001
F	18	5835-	5860	5848.82	1462.25	1.87	9.19E+002	60.39	1.61E+001
F	19	7060-	7073	7064.84	1766.22	2.17	2.62E+001	11.48	5.56E+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\Brn1m180dSoil\NOL

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

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/g)	Activity Uncertainty
K-40	0.936	1460.81*		10.67	1.94961E+001	2.03316E+000
TL-208	0.900	277.35		6.80		
		510.84*		21.60	4.45267E-001	2.10860E-001
		583.14*		84.20	3.04827E-001	7.19918E-002
		860.37*		12.46	2.89658E-001	1.95351E-001
Pb-212	0.578	74.81*	@	10.70	1.00696E+001	2.62856E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	7.22515E-001	1.70616E-001
Bi-214	0.971	609.31*		46.30	4.15409E-001	1.11035E-001
		1120.29*		15.10	4.97433E-001	2.35922E-001
		1764.49*		15.80	4.08053E-001	1.83684E-001
PB-214	0.618	74.82*	@	6.21	1.73502E+001	4.70095E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	5.68285E-001	2.29584E-001
		351.92*		37.20	6.04859E-001	1.58716E-001
Ac-228	0.989	338.32*		11.40	7.15533E-001	3.41915E-001
		911.07*		27.70	9.71384E-001	2.13566E-001
		969.11*		16.60	6.90334E-001	2.38433E-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\Brn1m180dSoil\NOL

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

	Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/g)	Wt mean Activity Uncertainty
X	ANN		0.993		
	K-40		0.936	1.949611E+001	2.033161E+000
	TL-208		0.900	3.162535E-001	6.433029E-002
	Pb-212	@	0.578	7.225147E-001	1.706161E-001
	Bi-214		0.971	4.251642E-001	8.814221E-002
	PB-214	@	0.618	5.930322E-001	1.305555E-001
	Ac-228		0.989	8.230086E-001	1.442344E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	73.21	1.6742E-001	41.40
F 3	84.89	2.0093E-001	39.25
F 4	209.59	7.1564E-002	56.70
M 14	965.30	3.0290E-002	67.37
F 17	1239.73	3.2282E-002	6.54

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\Brn1m180dSoil\NOL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/g)	Nuclide MDA (pCi/g)	Activity (pCi/g)
Co-60	1173.22	100.00	1.1693E-001	8.80E-002	4.1056E-002
	1332.49	100.00	8.7962E-002		7.0208E-002
Nb-94	702.63	100.00	1.1428E-001	1.09E-001	1.0858E-001
	871.10	100.00	1.0905E-001		3.7778E-002
Ag-108m	79.20	7.10	8.1843E+000	1.38E-001	-1.7750E+000
	433.93	89.90	1.4621E-001		-1.3640E-001
	614.37	90.40	1.6685E-001		-1.8990E-002
	722.95	90.50	1.3752E-001		5.4357E-002
Sb-125	176.33	6.89	2.7317E+000	4.34E-001	-8.6500E-001
	427.89	29.33	4.3381E-001		-4.5088E-002
	463.38	10.35	1.2473E+000		2.5962E-001
	600.56	17.80	6.4718E-001		5.2094E-003
	606.64	5.02	3.0021E+000		-5.4625E-001
	635.90	11.32	9.8065E-001		5.4912E-002
Cs-134	563.23	8.38	1.4672E+000	1.22E-001	2.4041E-001
	569.32	15.43	7.6362E-001		-1.3929E-001
	604.70	97.60	1.5101E-001		-1.9924E-002
	795.84	85.40	1.2234E-001		-1.4657E-001
	801.93	8.73	1.2535E+000		-9.9177E-001
Cs-137	661.65	85.12	1.4670E-001	1.47E-001	1.2926E-001
Eu-152	121.78	28.40	9.4146E-001	3.83E-001	2.2008E-001
	244.69	7.49	2.2135E+000		-1.2190E+000
	344.27	26.50	5.5260E-001		4.2626E-001
	778.89	12.74	8.4431E-001		-2.3320E-001
	867.32	4.16	2.9041E+000		-2.1507E+000
	964.01	14.40	8.9335E-001		-2.0177E-001
	1085.78	10.00	1.1336E+000		-4.4416E-001
	1112.02	13.30	8.1000E-001		1.9902E-001
	1407.95	20.70	3.8290E-001		3.8445E-001
Eu-154	123.07	40.50	6.4780E-001	3.09E-001	-8.7528E-001
	247.94	6.60	2.4267E+000		-3.9623E+000
	591.81	4.83	2.4192E+000		2.4765E-001
	723.30	19.70	6.3510E-001		4.5158E-001
	756.87	4.33	2.5738E+000		6.3886E-001
	873.19	11.50	9.7308E-001		-2.1637E-001
	996.32	10.30	1.0266E+000		4.8092E-001
	1004.76	17.90	5.9423E-001		3.1031E-001
	1274.45	35.50	3.0855E-001		1.5309E-001
Eu-155	86.54	30.90	1.4616E+000	1.46E+000	1.7503E+000
	105.31	20.70	1.5398E+000		2.4515E-001
Am-241	59.54	35.90	3.1045E+000	3.10E+000	-9.3218E-001
Cm-243	228.19	10.56	1.6745E+000	1.16E+000	2.5607E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/g)	Nuclide MDA (pCi/g)	Activity (pCi/g)
Cm-243	277.60	14.00	1.1606E+000	1.16E+000	1.2367E-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 5/4/2006 10:27:52 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: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-02-02-114
Sample Title: NOL-02-02-114-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/4/2006 10:17:50 PM
Live Time: 600.0 seconds
Real Time: 601.0 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-02-02-114
Title: NOL-02-02-114-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	293-	309	301.44	75.19	1.39	6.30E+002	155.06	1.80E+003
2	945-	961	955.20	238.68	1.87	3.32E+002	79.63	4.19E+002
3	1344-	1359	1354.71	338.59	0.47	9.84E+001	45.67	1.48E+002
4	1398-	1416	1408.70	352.09	1.17	1.30E+002	56.36	2.05E+002
5	2038-	2055	2043.84	510.92	1.01	1.04E+002	47.01	1.44E+002
6	2322-	2343	2332.04	582.99	1.87	1.91E+002	48.92	1.15E+002
7	2903-	2916	2909.57	727.42	0.98	4.32E+001	26.67	5.08E+001
8	3616-	3657	3645.79	911.53	1.79	2.22E+002	57.22	1.00E+002
9	5831-	5861	5846.28	1461.82	2.22	1.21E+003	72.89	3.51E+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: 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	1.42021E-001	6.69500E-002
K-40	0.965	1460.81*	10.67	2.03130E+001	2.04928E+000
TL-208	0.751	277.35	6.80		
		510.84*	21.60	6.57504E-001	3.14570E-001
		583.14*	84.20	3.22835E-001	9.28491E-002
		860.37	12.46		
Bi-212	0.998	727.17*	11.80	5.54322E-001	3.48413E-001
Pb-212	0.520	74.81* @	10.70	8.96232E+000	2.82118E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	8.06521E-001	2.31245E-001
Ac-228	0.536	338.32*	11.40	1.03469E+000	5.06690E-001
		911.07*	27.70	1.26879E+000	3.58554E-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
ANN	1.000	7.228864E-002	6.985239E-002
K-40	0.965	2.031303E+001	2.049282E+000
TL-208	0.751	3.228348E-001	9.225109E-002
Bi-212	0.998	5.543220E-001	3.484134E-001
Pb-212 @	0.520	8.065211E-001	2.312451E-001
Ac-228	0.536	1.190675E+000	2.926849E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	352.09	2.1643E-001	43.41

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

Errors quoted at 1.960 sigma

Y A N K E E 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	1.0344E-001	8.45E-002	3.5870E-002
	1332.49	100.00	8.4483E-002		4.4617E-002
Nb-94	702.63	100.00	1.0151E-001	9.57E-002	-5.0721E-002
	871.10	100.00	9.5729E-002		5.2791E-002
Ag-108m	79.20	7.10	4.4714E+000	1.17E-001	-8.1574E+000
	433.93	89.90	1.2088E-001		6.2642E-002
	614.37	90.40	1.3824E-001		-1.8968E-001
	722.95	90.50	1.1692E-001		-9.8350E-002
Sb-125	176.33	6.89	2.1892E+000	3.60E-001	-1.3677E-002
	427.89	29.33	3.5994E-001		-2.2037E-001
	463.38	10.35	1.1228E+000		-6.1064E-002
	600.56	17.80	5.4980E-001		-1.9501E-001
	606.64	5.02	2.7340E+000		5.7989E+000
	635.90	11.32	8.4371E-001		-4.0698E-001
Cs-134	563.23	8.38	1.2722E+000	1.13E-001	-5.2843E-001
	569.32	15.43	6.7131E-001		2.4332E-001
	604.70	97.60	1.2737E-001		-1.6755E-001
	795.84	85.40	1.1308E-001		7.4704E-002
	801.93	8.73	1.1174E+000		-5.8706E-001
Cs-137	661.65	85.12	1.3107E-001	1.31E-001	4.9832E-002
Eu-152	121.78	28.40	6.8310E-001	3.55E-001	-4.6608E-001
	244.69	7.49	1.8305E+000		-1.6430E+000
	344.27	26.50	4.1560E-001		-4.3834E-001
	778.89	12.74	6.9103E-001		-7.7700E-001
	867.32	4.16	2.2568E+000		-2.3036E+000
	964.01	14.40	7.8664E-001		-7.5945E-001
	1085.78	10.00	9.7000E-001		-7.3361E-002
	1112.02	13.30	7.2945E-001		-9.1112E-003
	1407.95	20.70	3.5499E-001		1.2018E-001
Eu-154	123.07	40.50	4.8008E-001	2.71E-001	1.6604E-001
	247.94	6.60	1.9395E+000		-6.8399E-001
	591.81	4.83	2.1494E+000		1.5098E+000
	723.30	19.70	5.4573E-001		-2.4815E-001
	756.87	4.33	2.2208E+000		9.2550E-001
	873.19	11.50	8.4290E-001		1.3826E-001
	996.32	10.30	9.1546E-001		3.0441E-001
	1004.76	17.90	5.1906E-001		4.1105E-001
	1274.45	35.50	2.7122E-001		-5.8308E-002
Eu-155	86.54	30.90	9.4012E-001	9.40E-001	5.2704E-001
	105.31	20.70	1.1114E+000		-1.1226E-001
Am-241	59.54	35.90	1.1755E+000	1.18E+000	4.8436E-001
Cm-243	228.19	10.56	1.2736E+000	8.93E-001	-7.6774E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	8.9300E-001	8.93E-001	-1.0269E+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 4/25/2006 9:05:00 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: BRN7722

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
Sample ID: NOL-02-02-115
Sample Title: NOL-02-02-115-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 4/18/2006 3:25:35 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: S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
Log Number: NOL-02-02-115
Title: NOL-02-02-115-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	285-	305	291.87	73.16	0.97	1.98E+002	48.03	7.40E+002
m	2	285-	305	300.38	75.29	0.97	2.63E+002	54.09	8.24E+002
M	3	332-	353	339.71	85.12	0.88	1.37E+002	45.93	6.72E+002
m	4	332-	353	349.74	87.63	0.89	1.15E+002	43.27	5.88E+002
F	5	949-	965	955.22	238.98	1.03	2.88E+002	43.34	3.45E+002
F	6	1344-	1361	1353.96	338.66	0.97	6.18E+001	26.64	2.18E+002
F	7	1402-	1415	1407.90	352.14	1.41	1.59E+002	32.42	1.32E+002
F	8	2031-	2056	2043.45	511.01	2.46	1.71E+002	30.05	1.44E+002
F	9	2325-	2340	2333.10	583.42	1.26	1.45E+002	30.15	1.07E+002
F	10	2431-	2446	2438.16	609.68	1.13	1.03E+002	26.68	9.96E+001
F	11	3637-	3655	3646.09	911.63	1.65	1.17E+002	26.67	7.00E+001
M	12	3855-	3887	3861.45	965.46	1.42	1.89E+001	14.92	4.92E+001
m	13	3855-	3887	3877.93	969.58	1.42	7.75E+001	21.53	4.81E+001
F	14	4478-	4492	4484.89	1121.30	1.47	5.75E+001	18.92	3.17E+001
F	15	4690-	4702	4696.32	1174.16	1.09	2.25E+001	13.10	2.09E+001
F	16	5838-	5863	5849.21	1462.35	1.81	9.45E+002	61.66	3.71E+001
F	17	7060-	7075	7067.49	1766.88	1.42	4.03E+001	13.89	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

N U C L I 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\Brn1m180dSoil\NOL

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

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/g)	Activity Uncertainty
ANN	1.000	511.00*	100.00	2.91940E-001	6.47875E-002
K-40	0.927	1460.81*	10.67	2.00591E+001	2.08556E+000
TL-208	0.751	277.35	6.80		
		510.84*	21.60	1.35158E+000	3.19607E-001
		583.14*	84.20	3.06034E-001	7.51921E-002
		860.37	12.46		
Pb-212	0.724	74.81* @	10.70	8.47058E+000	2.40800E+000
		77.11 @	18.00		
		87.30* @	8.00	3.12695E+000	1.32457E+000
		238.63*	44.60	8.97756E-001	1.95198E-001
Bi-214	0.954	609.31*	46.30	4.02203E-001	1.15283E-001
		1120.29*	15.10	7.90619E-001	2.73442E-001
		1764.49*	15.80	6.28131E-001	2.25632E-001
PB-214	0.304	74.82* @	6.21	1.45950E+001	4.28218E+000
		77.11 @	10.50		
		87.30* @	4.67	5.35665E+000	2.30487E+000
		241.98	7.49		
		295.21	19.20		
		351.92*	37.20	6.52836E-001	1.72201E-001
Ac-228	0.992	338.32*	11.40	8.20615E-001	3.76421E-001
		911.07*	27.70	8.42886E-001	2.14693E-001
		969.11*	16.60	9.40598E-001	2.79389E-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\Brn1m180dSoil\NOL

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

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/g)	Wt mean Activity Uncertainty
ANN		1.000	2.258371E-001	6.675751E-002
K-40		0.927	2.005911E+001	2.085559E+000
TL-208		0.751	3.060339E-001	7.452771E-002
Pb-212	@	0.724	8.977557E-001	1.951978E-001
Bi-214		0.954	4.911792E-001	9.610916E-002
PB-214	@	0.304	6.528359E-001	1.681786E-001
Ac-228		0.992	8.692215E-001	1.551110E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	3.2971E-001	24.28
M 3	85.12	2.2842E-001	33.51
M 12	965.46	3.1431E-002	79.13
F 15	1174.16	3.7441E-002	58.32

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:S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/g)	Nuclide MDA (pCi/g)	Activity (pCi/g)
Co-60	1173.22	100.00	1.2236E-001	9.74E-002	6.9639E-002
	1332.49	100.00	9.7373E-002		1.3248E-002
Nb-94	702.63	100.00	1.2140E-001	1.11E-001	8.9586E-002
	871.10	100.00	1.1065E-001		2.0998E-002
Ag-108m	79.20	7.10	8.6300E+000	1.50E-001	-9.3083E+000
	433.93	89.90	1.5396E-001		-3.8262E-002
	614.37	90.40	1.7903E-001		4.1353E-002
	722.95	90.50	1.5050E-001		3.2747E-002
Sb-125	176.33	6.89	2.8363E+000	4.85E-001	3.4032E-001
	427.89	29.33	4.8535E-001		-2.8325E-001
	463.38	10.35	1.2925E+000		6.7912E-001
	600.56	17.80	6.6301E-001		-5.9057E-001
	606.64	5.02	3.1246E+000		6.3111E+000
	635.90	11.32	1.0973E+000		2.8849E-001
Cs-134	563.23	8.38	1.4672E+000	1.38E-001	-9.5281E-001
	569.32	15.43	8.4792E-001		-8.8339E-002
	604.70	97.60	1.5126E-001		-2.6980E-002
	795.84	85.40	1.3797E-001		-3.8583E-002
	801.93	8.73	1.3395E+000		-1.4691E+000
Cs-137	661.65	85.12	1.4779E-001	1.48E-001	-8.2023E-003
Eu-152	121.78	28.40	9.7018E-001	4.20E-001	2.3628E-001
	244.69	7.49	2.3209E+000		-6.0718E-001
	344.27	26.50	5.8417E-001		-1.3155E-001
	778.89	12.74	9.3158E-001		-1.0499E+000
	867.32	4.16	2.9215E+000		-1.5095E+000
	964.01	14.40	1.0243E+000		1.3786E-001
	1085.78	10.00	1.1207E+000		5.0394E-001
	1112.02	13.30	8.5658E-001		4.0459E-001
	1407.95	20.70	4.1989E-001		1.1891E-001
Eu-154	123.07	40.50	6.7464E-001	2.71E-001	5.3428E-001
	247.94	6.60	2.5751E+000		-2.1144E+000
	591.81	4.83	2.6626E+000		-9.9818E-001
	723.30	19.70	6.9741E-001		3.5235E-001
	756.87	4.33	2.7797E+000		6.7272E-001
	873.19	11.50	9.5925E-001		-1.1462E+000
	996.32	10.30	1.1171E+000		6.4941E-001
	1004.76	17.90	5.9915E-001		2.2387E-001
	1274.45	35.50	2.7096E-001		-2.0334E-001
Eu-155	86.54	30.90	1.5200E+000	1.52E+000	3.6436E-001
	105.31	20.70	1.6443E+000		-1.2572E+000
Am-241	59.54	35.90	3.2612E+000	3.26E+000	9.8612E-001
Cm-243	228.19	10.56	1.7393E+000	1.23E+000	1.0249E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/g)	Nuclide MDA (pCi/g)	Activity (pCi/g)
Cm-243	277.60	14.00	1.2305E+000	1.23E+000	1.2101E+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 5/4/2006 10:52:16 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: BLUE6279
Sample ID: NOL-02-02-115
Sample Title: NOL-02-02-115-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/4/2006 10:42:13 PM
Live Time: 600.0 seconds
Real Time: 601.0 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-02-02-115
Title: NOL-02-02-115-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	285-	315	291.69	72.75	0.91	3.46E+002	59.22	1.11E+003
m	2	285-	315	300.55	74.97	0.91	7.53E+002	72.18	1.07E+003
m	3	285-	315	309.12	77.11	0.92	1.40E+002	50.39	1.04E+003
	4	331-	346	339.61	84.73	0.82	2.19E+002	129.69	1.37E+003
	5	944-	960	954.36	238.47	0.94	2.56E+002	75.14	3.88E+002
	6	1175-	1186	1180.75	295.08	0.95	8.03E+001	42.56	1.56E+002
	7	1307-	1318	1311.29	327.73	0.42	4.89E+001	39.27	1.40E+002
	8	1348-	1360	1353.76	338.35	1.08	6.92E+001	40.15	1.33E+002
	9	1402-	1415	1407.86	351.88	1.01	1.35E+002	46.05	1.51E+002
	10	2035-	2053	2042.44	510.57	1.25	1.20E+002	49.19	1.50E+002
	11	2326-	2341	2333.02	583.24	1.37	1.78E+002	41.67	9.12E+001
	12	2428-	2446	2437.12	609.27	1.27	1.98E+002	40.94	6.96E+001
	13	2902-	2916	2908.27	727.09	0.71	4.90E+001	29.68	6.10E+001
	14	3173-	3187	3179.52	794.93	0.36	4.71E+001	26.43	4.69E+001
	15	3635-	3654	3644.54	911.22	1.59	1.79E+002	38.26	5.76E+001
	16	3868-	3886	3875.43	968.96	0.90	1.08E+002	30.90	4.17E+001
	17	4475-	4490	4481.87	1120.61	0.69	4.19E+001	25.47	4.21E+001
	18	5831-	5859	5845.87	1461.71	2.03	1.11E+003	68.76	2.53E+001
	19	7057-	7070	7063.62	1766.24	0.60	3.57E+001	15.69	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: 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	0.994	511.00*	100.00	1.63450E-001	7.06486E-002
K-40	0.972	1460.81*	10.67	1.86813E+001	1.90206E+000
TL-208	0.751	277.35	6.80		
		510.84*	21.60	7.56712E-001	3.32864E-001
		583.14*	84.20	3.00962E-001	8.06760E-002
		860.37	12.46		
Bi-212	1.000	727.17*	11.80	6.28658E-001	3.87948E-001
Pb-212	0.843	74.81* @	10.70	1.07611E+001	2.34805E+000
		77.11* @	18.00	1.14368E+000	4.68914E-001
		87.30 @	8.00		
		238.63*	44.60	6.22258E-001	2.07074E-001
Bi-214	0.978	609.31*	46.30	6.19653E-001	1.48898E-001
		1120.29*	15.10	4.66819E-001	2.88292E-001
		1764.49*	15.80	4.19454E-001	1.89083E-001
PB-214	0.763	74.82* @	6.21	1.85417E+001	4.26378E+000
		77.11* @	10.50	1.96059E+000	8.17074E-001
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	4.81832E-001	2.67944E-001
		351.92*	37.20	4.40730E-001	1.67102E-001
Ac-228	0.999	338.32*	11.40	7.27154E-001	4.37066E-001
		911.07*	27.70	1.02706E+000	2.48832E-001
		969.11*	16.60	1.05329E+000	3.20040E-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		0.994	9.844185E-002	7.273516E-002
K-40		0.972	1.868130E+001	1.902057E+000
TL-208		0.751	3.009625E-001	8.007758E-002
Bi-212		1.000	6.286583E-001	3.879483E-001
Pb-212	@	0.843	6.222579E-001	2.070743E-001
Bi-214		0.978	5.322512E-001	1.083971E-001
PB-214	@	0.763	4.522392E-001	1.417887E-001
Ac-228		0.999	9.848816E-001	1.791762E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	5.7667E-001	17.12
4	84.73	3.6528E-001	59.17
7	327.73	8.1528E-002	80.28
14	794.93	7.8555E-002	56.09

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: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	9.2291E-002	8.28E-002	-1.1075E-002
	1332.49	100.00	8.2787E-002		5.1384E-002
Nb-94	702.63	100.00	9.8193E-002	9.43E-002	-1.2974E-002
	871.10	100.00	9.4261E-002		8.2311E-002
Ag-108m	79.20	7.10	4.3171E+000	1.19E-001	-1.5803E+000
	433.93	89.90	1.1856E-001		-4.7178E-002
	614.37	90.40	1.3551E-001		4.9895E-002
	722.95	90.50	1.2062E-001		1.5416E-002
Sb-125	176.33	6.89	2.1490E+000	3.56E-001	-3.9606E-001
	427.89	29.33	3.5633E-001		-3.2994E-001
	463.38	10.35	1.0949E+000		4.9558E-002
	600.56	17.80	5.6041E-001		4.3093E-001
	606.64	5.02	2.6097E+000		3.8906E-001
	635.90	11.32	8.3468E-001		2.1759E-001
Cs-134	563.23	8.38	1.1681E+000	1.22E-001	4.2748E-001
	569.32	15.43	6.3516E-001		3.7956E-001
	604.70	97.60	1.2308E-001		-4.1141E-002
	795.84	85.40	1.2154E-001		8.4375E-002
	801.93	8.73	1.1638E+000		-4.1738E-001
Cs-137	661.65	85.12	1.2573E-001	1.26E-001	1.2043E-001
Eu-152	121.78	28.40	6.8209E-001	3.27E-001	2.3352E-002
	244.69	7.49	1.8433E+000		1.6321E+000
	344.27	26.50	4.0833E-001		-1.8421E-001
	778.89	12.74	7.1217E-001		-1.3426E+000
	867.32	4.16	2.1090E+000		-3.9751E+000
	964.01	14.40	8.6014E-001		5.8828E-001
	1085.78	10.00	8.8465E-001		-5.4855E-002
	1112.02	13.30	7.0673E-001		9.1852E-002
	1407.95	20.70	3.2740E-001		2.0565E-001
Eu-154	123.07	40.50	4.6977E-001	2.61E-001	-1.6058E-001
	247.94	6.60	1.8883E+000		-2.2411E+000
	591.81	4.83	1.9816E+000		-1.6592E+000
	723.30	19.70	5.5893E-001		-1.1239E-002
	756.87	4.33	2.1500E+000		8.8949E-002
	873.19	11.50	8.4540E-001		-6.2992E-002
	996.32	10.30	8.2402E-001		6.5981E-002
	1004.76	17.90	4.7532E-001		3.6219E-001
	1274.45	35.50	2.6094E-001		2.5360E-001
Eu-155	86.54	30.90	9.3472E-001	9.35E-001	1.7149E-001
	105.31	20.70	1.1222E+000		8.2752E-001
Am-241	59.54	35.90	1.1418E+000	1.14E+000	-4.5358E-001
Cm-243	228.19	10.56	1.2188E+000	8.87E-001	-1.5408E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	8.8730E-001	8.87E-001	4.2819E-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 4/25/2006 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

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: S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
Sample ID: NOL-02-02-116
Sample Title: NOL-02-02-116-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 4/18/2006 3:13:02 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: S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
Log Number: NOL-02-02-116
Title: NOL-02-02-116-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	282-	305	291.66	73.11	1.01	1.94E+002	47.74	7.80E+002
m	2	282-	305	300.64	75.35	1.01	3.50E+002	57.03	7.82E+002
F	3	945-	961	954.77	238.87	1.09	2.59E+002	42.92	3.59E+002
M	4	1171-	1206	1182.29	295.74	1.45	1.03E+002	30.41	2.70E+002
m	5	1171-	1206	1200.70	300.34	1.46	5.50E+001	25.75	1.96E+002
F	6	1307-	1316	1311.38	328.01	1.03	3.34E+001	20.53	1.08E+002
F	7	1349-	1358	1353.72	338.60	1.10	7.53E+001	27.19	1.07E+002
F	8	1400-	1414	1408.32	352.24	1.28	1.53E+002	32.52	1.59E+002
F	9	2032-	2056	2044.44	511.26	2.03	1.46E+002	29.18	1.47E+002
F	10	2326-	2342	2333.63	583.55	1.16	1.18E+002	28.24	1.16E+002
F	11	2429-	2448	2437.94	609.62	1.17	1.62E+002	29.50	9.81E+001
F	12	2903-	2917	2910.99	727.87	1.52	5.29E+001	20.14	4.88E+001
F	13	3640-	3685	3647.40	911.95	1.37	1.41E+002	27.92	1.47E+002
M	14	3854-	3885	3861.65	965.51	1.28	4.73E+001	17.45	4.48E+001
m	15	3854-	3885	3878.27	969.66	1.28	8.29E+001	21.66	4.69E+001
F	16	4478-	4492	4485.09	1121.35	1.66	5.22E+001	18.75	3.54E+001
F	17	5836-	5862	5849.18	1462.34	1.86	1.00E+003	62.65	1.96E+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\Brn1m180dSoil\NOL

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

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/g)	Activity Uncertainty
ANN	0.998	511.00*		100.00	2.49846E-001	6.02416E-002
K-40	0.927	1460.81*		10.67	2.12712E+001	2.17570E+000
TL-208	0.748	277.35		6.80		
		510.84*		21.60	1.15670E+000	2.94460E-001
		583.14*		84.20	2.48593E-001	6.79325E-002
		860.37		12.46		
Bi-212	0.984	727.17*		11.80	8.49146E-001	3.38298E-001
Pb-212	0.579	74.81*	@	10.70	1.12435E+001	2.86718E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	8.07398E-001	1.84265E-001
Bi-214	0.698	609.31*		46.30	6.32137E-001	1.38924E-001
		1120.29*		15.10	7.17971E-001	2.68953E-001
		1764.49		15.80		
PB-214	0.616	74.82*	@	6.21	1.93729E+001	5.13649E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	7.86103E-001	2.67153E-001
		351.92*		37.20	6.29354E-001	1.70068E-001
Ac-228	0.984	338.32*		11.40	1.00064E+000	3.93687E-001
		911.07*		27.70	1.01225E+000	2.31818E-001
		969.11*		16.60	1.00606E+000	2.83262E-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\Brn1m180dSoil\NOL

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

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/g)	Wt mean Activity Uncertainty
ANN		0.998	1.961501E-001	6.197818E-002
K-40		0.927	2.127123E+001	2.175704E+000
TL-208		0.748	2.485933E-001	6.744772E-002
Bi-212		0.984	8.491457E-001	3.382980E-001
Pb-212	@	0.579	8.073977E-001	1.842653E-001
Bi-214		0.698	6.502151E-001	1.234303E-001
PB-214	@	0.616	6.745578E-001	1.434647E-001
Ac-228		0.984	1.008198E+000	1.632487E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	73.11	3.2268E-001	24.66
m 5	300.34	9.1635E-002	46.83
F 6	328.01	5.5682E-002	61.44
M 14	965.51	7.8881E-002	36.87

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\Brn1m180dSoil\NOL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/g)	Nuclide MDA (pCi/g)	Activity (pCi/g)
Co-60	1173.22	100.00	1.2637E-001	9.74E-002	5.2635E-002
	1332.49	100.00	9.7373E-002		6.2222E-002
Nb-94	702.63	100.00	1.2400E-001	1.23E-001	2.5963E-002
	871.10	100.00	1.2309E-001		-1.3941E-002
Ag-108m	79.20	7.10	8.8131E+000	1.44E-001	-1.2000E+001
	433.93	89.90	1.4420E-001		-1.8941E-001
	614.37	90.40	1.8829E-001		1.7661E-002
	722.95	90.50	1.5340E-001		8.4287E-002
Sb-125	176.33	6.89	2.9318E+000	4.42E-001	5.8255E-001
	427.89	29.33	4.4232E-001		-2.2976E-002
	463.38	10.35	1.3209E+000		6.4562E-002
	600.56	17.80	7.2273E-001		-2.2952E-001
	606.64	5.02	3.4110E+000		-1.3337E+000
	635.90	11.32	1.0973E+000		-3.7707E-001
Cs-134	563.23	8.38	1.6153E+000	1.52E-001	-2.0483E-001
	569.32	15.43	8.6852E-001		1.8816E-001
	604.70	97.60	1.7087E-001		-2.0616E-002
	795.84	85.40	1.5154E-001		1.0568E-001
	801.93	8.73	1.3844E+000		-3.6988E-001
Cs-137	661.65	85.12	1.5554E-001	1.56E-001	1.0426E-001
Eu-152	121.78	28.40	9.7159E-001	4.07E-001	-3.0059E-001
	244.69	7.49	2.3391E+000		-1.6707E+000
	344.27	26.50	5.9778E-001		-5.8550E-001
	778.89	12.74	8.6848E-001		-7.0203E-001
	867.32	4.16	3.1865E+000		-1.2245E+000
	964.01	14.40	1.1007E+000		-3.1510E-002
	1085.78	10.00	1.2357E+000		-9.3545E-002
	1112.02	13.30	8.9448E-001		-3.0678E-001
	1407.95	20.70	4.0686E-001		1.5324E-001
Eu-154	123.07	40.50	6.7878E-001	3.02E-001	-1.0266E-001
	247.94	6.60	2.5634E+000		-6.5544E+000
	591.81	4.83	2.8419E+000		2.1192E+000
	723.30	19.70	7.1065E-001		2.7503E-001
	756.87	4.33	2.7638E+000		-1.2338E+000
	873.19	11.50	1.0740E+000		-2.2171E-001
	996.32	10.30	1.0436E+000		-2.1281E-001
	1004.76	17.90	6.3478E-001		-3.2862E-002
	1274.45	35.50	3.0171E-001		-2.1756E-001
Eu-155	86.54	30.90	1.5413E+000	1.54E+000	8.1469E-001
	105.31	20.70	1.6403E+000		-2.5748E-001
Am-241	59.54	35.90	3.2058E+000	3.21E+000	-7.8193E-002
Cm-243	228.19	10.56	1.7714E+000	1.21E+000	1.9872E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/g)	Nuclide MDA (pCi/g)	Activity (pCi/g)
Cm-243	277.60	14.00	1.2103E+000	1.21E+000	9.9810E-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 5/4/2006 11:59:06 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-02-02-116
Sample Title: NOL-02-02-116-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/4/2006 11:49:04 PM
Live Time: 600.0 seconds
Real Time: 601.0 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-02-02-116
Title: NOL-02-02-116-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-	314	291.63	72.74	0.94	4.05E+002	60.45	1.03E+003
m	2	284-	314	300.38	74.92	0.95	6.46E+002	68.34	1.11E+003
m	3	284-	314	309.10	77.10	0.95	1.27E+002	50.56	1.04E+003
M	4	335-	355	338.77	84.52	0.84	1.58E+002	54.20	7.35E+002
m	5	335-	355	350.06	87.35	0.85	9.86E+001	49.00	9.61E+002
	6	945-	961	954.89	238.60	1.21	2.79E+002	71.12	3.32E+002
	7	1175-	1189	1180.74	295.08	0.58	4.21E+001	49.23	2.03E+002
	8	1401-	1414	1407.59	351.81	1.02	1.55E+002	44.93	1.34E+002
	9	2034-	2050	2042.58	510.61	0.65	1.06E+002	44.95	1.34E+002
	10	2321-	2341	2332.42	583.09	1.49	2.15E+002	46.66	9.71E+001
	11	2428-	2446	2437.01	609.24	0.39	1.62E+002	42.79	9.29E+001
	12	2902-	2914	2908.32	727.11	0.46	3.25E+001	25.23	5.05E+001
	13	3638-	3655	3644.62	911.24	0.66	1.06E+002	34.22	6.04E+001
	14	3868-	3883	3876.02	969.11	0.47	6.49E+001	28.84	5.01E+001
	15	4946-	4961	4953.65	1238.59	0.92	3.22E+001	23.16	3.58E+001
	16	5832-	5859	5845.32	1461.58	1.78	1.03E+003	65.49	2.02E+001
	17	7055-	7071	7062.30	1765.91	1.26	5.68E+001	16.42	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	0.995	511.00*	100.00	1.44431E-001	6.43491E-002
K-40	0.980	1460.81*	10.67	1.72403E+001	1.77623E+000
TL-208	0.751	277.35	6.80		
		510.84*	21.60	6.68661E-001	3.02876E-001
		583.14*	84.20	3.63735E-001	9.20803E-002
		860.37	12.46		
Bi-212	1.000	727.17*	11.80	4.16891E-001	3.27380E-001
Pb-212	1.000	74.81* @	10.70	9.23713E+000	2.05755E+000
		77.11* @	18.00	1.04051E+000	4.60938E-001
		87.30* @	8.00	1.52758E+000	8.16092E-001
		238.63*	44.60	6.78132E-001	2.02987E-001
Bi-214	0.684	609.31*	46.30	5.06307E-001	1.47448E-001
		1120.29	15.10		
		1764.49*	15.80	6.66836E-001	2.04101E-001
PB-214	0.850	74.82* @	6.21	1.59158E+001	3.72872E+000
		77.11* @	10.50	1.78374E+000	8.01324E-001
		87.30* @	4.67	2.61684E+000	1.41193E+000
		241.98	7.49		
		295.21*	19.20	2.52578E-001	2.98422E-001
		351.92*	37.20	5.06208E-001	1.69015E-001
Ac-228	0.633	338.32	11.40		
		911.07*	27.70	6.04556E-001	2.07850E-001
		969.11*	16.60	6.30715E-001	2.88076E-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		0.995	6.586400E-002	6.730410E-002
	K-40		0.980	1.724033E+001	1.776235E+000
X	Eu-155		0.320		
	TL-208		0.751	3.637353E-001	9.131407E-002
	Bi-212		1.000	4.168914E-001	3.273795E-001
	Pb-212	@	1.000	6.781316E-001	2.029869E-001
	Bi-214		0.684	5.613565E-001	1.195213E-001
	PB-214	@	0.850	4.446108E-001	1.470658E-001
	Ac-228		0.633	6.135119E-001	1.685566E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	6.7532E-001	14.92
M 4	84.52	2.6251E-001	34.41
15	1238.59	5.3738E-002	71.82

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
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	9.8871E-002	7.65E-002	6.5600E-002
	1332.49	100.00	7.6534E-002		5.4573E-002
Nb-94	702.63	100.00	9.5823E-002	8.94E-002	-1.2213E-002
	871.10	100.00	8.9391E-002		2.1023E-002
Ag-108m	79.20	7.10	4.2825E+000	1.16E-001	-2.8747E-001
	433.93	89.90	1.1560E-001		-6.4838E-003
	614.37	90.40	1.2741E-001		-4.4311E-002
	722.95	90.50	1.1957E-001		3.6367E-002
Sb-125	176.33	6.89	2.0606E+000	3.40E-001	-1.2144E+000
	427.89	29.33	3.3961E-001		-2.2767E-001
	463.38	10.35	1.0420E+000		1.1645E-001
	600.56	17.80	5.3760E-001		-5.7319E-002
	606.64	5.02	2.6203E+000		8.6620E-002
	635.90	11.32	8.5042E-001		3.0505E-001
Cs-134	563.23	8.38	1.1816E+000	1.04E-001	-5.7454E-001
	569.32	15.43	6.4841E-001		4.6295E-001
	604.70	97.60	1.2387E-001		-1.4956E-002
	795.84	85.40	1.0353E-001		-4.6523E-002
	801.93	8.73	1.0178E+000		-6.0246E-001
Cs-137	661.65	85.12	1.2763E-001	1.28E-001	9.5429E-002
Eu-152	121.78	28.40	6.7595E-001	3.22E-001	2.1641E-001
	244.69	7.49	1.7517E+000		1.6830E+000
	344.27	26.50	4.1725E-001		-7.7632E-002
	778.89	12.74	6.4915E-001		-5.0180E-001
	867.32	4.16	1.9743E+000		-3.1458E+000
	964.01	14.40	7.7944E-001		5.4407E-001
	1085.78	10.00	8.8106E-001		-3.0878E-001
	1112.02	13.30	6.1291E-001		-2.9438E-001
	1407.95	20.70	3.2211E-001		-1.5934E-001
Eu-154	123.07	40.50	4.6686E-001	2.38E-001	-2.5847E-001
	247.94	6.60	1.8240E+000		-2.2637E-001
	591.81	4.83	1.9309E+000		-8.9153E-001
	723.30	19.70	5.4573E-001		1.2001E-001
	756.87	4.33	2.0425E+000		-3.9530E-001
	873.19	11.50	7.8311E-001		3.5668E-001
	996.32	10.30	8.8715E-001		3.5051E-001
	1004.76	17.90	4.9674E-001		-2.0174E-001
	1274.45	35.50	2.3782E-001		4.7438E-002
Eu-155	86.54*	30.90	5.8931E-001	5.89E-001	3.9549E-001
	105.31	20.70	1.0572E+000		-6.2635E-001
Am-241	59.54	35.90	1.1037E+000	1.10E+000	-9.1081E-001
Cm-243	228.19	10.56	1.2474E+000	8.85E-001	1.4178E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	8.8484E-001	8.85E-001	4.0892E-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 4/25/2006 9:05:33 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: S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
Sample ID: NOL-02-02-117
Sample Title: NOL-02-02-117-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 4/18/2006 2:24:38 PM
Live Time: 600.0 seconds
Real Time: 600.8 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: S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
Log Number: NOL-02-02-117
Title: NOL-02-02-117-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	282-	306	292.03	73.20	0.87	1.43E+002	42.63	6.30E+002
m	2	282-	306	300.46	75.31	0.87	2.94E+002	54.09	7.04E+002
F	3	332-	345	339.91	85.17	1.29	1.54E+002	48.76	7.39E+002
F	4	945-	960	954.44	238.79	1.15	2.35E+002	40.66	3.01E+002
F	5	1178-	1187	1182.17	295.71	0.87	4.28E+001	23.78	1.14E+002
F	6	1349-	1359	1354.69	338.84	0.93	4.78E+001	23.40	1.09E+002
F	7	1401-	1413	1408.17	352.21	1.01	1.20E+002	29.07	1.17E+002
F	8	2032-	2054	2042.78	510.84	2.14	1.16E+002	26.42	1.15E+002
F	9	2324-	2341	2333.59	583.54	1.31	1.20E+002	27.81	1.06E+002
F	10	2430-	2450	2438.16	609.68	1.56	1.42E+002	27.94	8.54E+001
F	11	3176-	3187	3181.82	795.57	1.30	2.76E+001	15.31	2.95E+001
F	12	3638-	3654	3646.16	911.64	1.33	1.16E+002	23.48	2.78E+001
F	13	3869-	3887	3878.28	969.67	1.81	9.34E+001	22.02	3.09E+001
F	14	4478-	4492	4484.53	1121.21	2.50	5.48E+001	17.31	1.78E+001
F	15	5838-	5861	5848.95	1462.28	1.86	8.53E+002	57.81	1.63E+001
F	16	7056-	7073	7064.80	1766.21	1.71	3.96E+001	14.03	9.04E+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

N U C L I 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\Brn1m180dSoil\NOL

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

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/g)	Activity Uncertainty
ANN	0.999	511.00*		100.00	1.97618E-001	5.24531E-002
K-40	0.933	1460.81*		10.67	1.80995E+001	1.91107E+000
TL-208	0.749	277.35		6.80		
		510.84*		21.60	9.14898E-001	2.54073E-001
		583.14*		84.20	2.54201E-001	6.74964E-002
		860.37		12.46		
Pb-212	0.579	74.81*	@	10.70	9.48474E+000	2.54810E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	7.32914E-001	1.71147E-001
Bi-214	0.973	609.31*		46.30	5.53830E-001	1.28587E-001
		1120.29*		15.10	7.53884E-001	2.51247E-001
		1764.49*		15.80	6.18095E-001	2.27348E-001
PB-214	0.616	74.82*	@	6.21	1.63425E+001	4.54791E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	3.26625E-001	1.89588E-001
		351.92*		37.20	4.91800E-001	1.45004E-001
Ac-228	0.990	338.32*		11.40	6.34535E-001	3.26358E-001
		911.07*		27.70	8.31247E-001	1.93876E-001
		969.11*		16.60	1.13394E+000	2.92578E-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\Brn1m180dSoil\NOL

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

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/g)	Wt mean Activity Uncertainty
ANN		0.999	1.427105E-001	5.441215E-002
K-40		0.933	1.809948E+001	1.911065E+000
TL-208		0.749	2.542014E-001	6.698606E-002
Pb-212	@	0.579	7.329144E-001	1.711475E-001
Bi-214		0.973	5.999534E-001	1.022390E-001
PB-214	@	0.616	4.308374E-001	1.151776E-001
Ac-228		0.990	8.666784E-001	1.448284E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	73.20	2.3878E-001	29.76
F 3	85.17	2.5585E-001	31.77
F 11	795.57	4.5917E-002	55.58

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:S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/g)	Nuclide MDA (pCi/g)	Activity (pCi/g)
Co-60	1173.22	100.00	1.0755E-001	8.22E-002	-1.9279E-002
	1332.49	100.00	8.2161E-002		-8.5236E-002
Nb-94	702.63	100.00	1.1463E-001	1.09E-001	-4.1170E-003
	871.10	100.00	1.0864E-001		-7.2640E-002
Ag-108m	79.20	7.10	8.2906E+000	1.36E-001	-5.2104E+000
	433.93	89.90	1.4217E-001		-5.1376E-002
	614.37	90.40	1.6495E-001		-2.6041E-002
	722.95	90.50	1.3608E-001		6.1543E-002
Sb-125	176.33	6.89	2.7045E+000	4.45E-001	-1.5390E+000
	427.89	29.33	4.4538E-001		1.4616E-001
	463.38	10.35	1.2724E+000		-7.6382E-002
	600.56	17.80	6.9188E-001		-2.4615E-001
	606.64	5.02	3.1476E+000		-1.3301E+000
	635.90	11.32	9.7762E-001		3.0730E-001
Cs-134	563.23	8.38	1.4012E+000	1.34E-001	-2.9616E-001
	569.32	15.43	7.4397E-001		-7.1921E-001
	604.70	97.60	1.5597E-001		-4.1817E-002
	795.84	85.40	1.3370E-001		1.3746E-002
	801.93	8.73	1.2712E+000		-3.1194E-001
Cs-137	661.65	85.12	1.3766E-001	1.38E-001	-1.1823E-001
Eu-152	121.78	28.40	9.1213E-001	3.42E-001	3.1464E-001
	244.69	7.49	2.2413E+000		-3.5761E+000
	344.27	26.50	5.2329E-001		-5.3024E-001
	778.89	12.74	9.2044E-001		1.1535E-001
	867.32	4.16	2.7790E+000		-1.3244E+000
	964.01	14.40	9.4145E-001		2.3754E-001
	1085.78	10.00	1.0160E+000		3.8388E-001
	1112.02	13.30	8.6302E-001		7.4701E-001
	1407.95	20.70	3.4157E-001		-2.4679E-002
Eu-154	123.07	40.50	6.3110E-001	2.89E-001	1.2191E-001
	247.94	6.60	2.4880E+000		-4.9429E-001
	591.81	4.83	2.5439E+000		-1.3472E+000
	723.30	19.70	6.2186E-001		-2.6937E-002
	756.87	4.33	2.4415E+000		-1.2613E+000
	873.19	11.50	9.3810E-001		-2.6481E-001
	996.32	10.30	1.0563E+000		7.2505E-001
	1004.76	17.90	5.6374E-001		-6.1698E-001
	1274.45	35.50	2.8896E-001		-1.7326E-001
Eu-155	86.54	30.90	1.4596E+000	1.46E+000	2.0481E+000
	105.31	20.70	1.5610E+000		2.5703E-001
Am-241	59.54	35.90	3.1004E+000	3.10E+000	-1.2181E+000
Cm-243	228.19	10.56	1.6609E+000	1.13E+000	3.8233E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/g)	Nuclide MDA (pCi/g)	Activity (pCi/g)
Cm-243	277.60	14.00	1.1256E+000	1.13E+000	-9.2795E-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 5/5/2006 11:38:11 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-02-02-117
Sample Title: NOL-02-02-117-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/5/2006 11:28:08 AM
Live Time: 600.0 seconds
Real Time: 601.1 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-02-02-117
Title: NOL-02-02-117-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	287-	317	291.91	72.81	0.98	4.46E+002	62.67	9.05E+002
m	2	287-	317	300.37	74.92	0.98	7.94E+002	72.91	1.15E+003
m	3	287-	317	309.28	77.15	0.99	2.01E+002	53.86	1.14E+003
	4	335-	345	339.52	84.71	0.82	2.41E+002	98.94	9.64E+002
	5	949-	959	954.73	238.56	1.01	3.12E+002	62.43	2.94E+002
	6	1348-	1357	1352.86	338.12	1.18	6.90E+001	37.21	1.29E+002
	7	1400-	1417	1407.67	351.83	1.09	1.50E+002	55.70	2.02E+002
	8	1940-	1949	1944.64	486.11	0.39	2.48E+001	24.07	5.52E+001
	9	2032-	2053	2043.47	510.83	1.19	1.36E+002	57.77	1.95E+002
	10	2322-	2340	2332.85	583.20	1.39	1.82E+002	47.93	1.23E+002
	11	2427-	2445	2437.11	609.27	1.32	1.98E+002	45.55	1.00E+002
	12	2904-	2918	2909.26	727.34	0.83	5.00E+001	28.58	5.60E+001
	13	3173-	3186	3180.27	795.11	0.37	2.43E+001	23.66	4.27E+001
	14	3437-	3449	3443.34	860.90	0.36	3.20E+001	23.88	4.40E+001
	15	3635-	3656	3644.86	911.30	1.45	1.90E+002	38.47	5.21E+001
	16	3869-	3886	3876.25	969.16	1.06	1.06E+002	33.71	5.78E+001
	17	4477-	4489	4482.10	1120.67	0.90	3.71E+001	24.93	4.69E+001
	18	5832-	5858	5845.41	1461.60	1.69	1.32E+003	73.04	1.68E+001
	19	7054-	7069	7060.77	1765.53	0.44	4.88E+001	14.68	2.23E+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

N U C L I 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	1.85121E-001	8.26896E-002
K-40	0.978	1460.81*	10.67	2.20611E+001	2.16590E+000
TL-208	0.902	277.35	6.80		
		510.84*	21.60	8.57042E-001	3.89168E-001
		583.14*	84.20	3.07585E-001	9.04630E-002
		860.37*	12.46	4.01734E-001	3.04039E-001
Bi-212	0.999	727.17*	11.80	6.40957E-001	3.74373E-001
Pb-212	0.843	74.81* @	10.70	1.13532E+001	2.45757E+000
		77.11* @	18.00	1.64279E+000	5.45201E-001
		87.30 @	8.00		
		238.63*	44.60	7.59327E-001	1.92898E-001
Bi-214	0.991	609.31*	46.30	6.17274E-001	1.61267E-001
		1120.29*	15.10	4.13172E-001	2.81428E-001
		1764.49*	15.80	5.73096E-001	1.81702E-001
PB-214	0.390	74.82* @	6.21	1.95618E+001	4.46623E+000
		77.11* @	10.50	2.81622E+000	9.57992E-001
		87.30 @	4.67		
		241.98	7.49		
		295.21	19.20		
		351.92*	37.20	4.87496E-001	1.98865E-001
Ac-228	0.999	338.32*	11.40	7.24935E-001	4.07143E-001
		911.07*	27.70	1.08691E+000	2.53220E-001
		969.11*	16.60	1.03262E+000	3.45181E-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	1.170447E-001	8.476036E-002
K-40		0.978	2.206111E+001	2.165901E+000
TL-208		0.902	3.151686E-001	8.620887E-002
Bi-212		0.999	6.409565E-001	3.743727E-001
Pb-212	@	0.843	7.593267E-001	1.928976E-001
Bi-214		0.991	5.691570E-001	1.108611E-001
PB-214	@	0.390	4.874962E-001	1.969365E-001
Ac-228		0.999	9.989965E-001	1.825102E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	7.4255E-001	14.07
4	84.71	4.0248E-001	40.97
8	486.11	4.1375E-002	96.94
13	795.11	4.0529E-002	97.31

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	9.6844E-002	8.36E-002	2.3173E-002
	1332.49	100.00	8.3640E-002		6.6805E-002
Nb-94	702.63	100.00	1.0593E-001	9.54E-002	1.1373E-001
	871.10	100.00	9.5437E-002		-2.2859E-003
Ag-108m	79.20	7.10	4.4928E+000	1.23E-001	-4.9347E-001
	433.93	89.90	1.2648E-001		-3.5576E-002
	614.37	90.40	1.4112E-001		5.4042E-002
	722.95	90.50	1.2268E-001		-4.0697E-002
Sb-125	176.33	6.89	2.2328E+000	3.81E-001	9.0552E-001
	427.89	29.33	3.8141E-001		4.7886E-002
	463.38	10.35	1.1228E+000		1.1824E+000
	600.56	17.80	5.6434E-001		1.5666E-001
	606.64	5.02	2.7940E+000		6.0931E+000
	635.90	11.32	8.6149E-001		-9.4276E-001
Cs-134	563.23	8.38	1.3259E+000	1.15E-001	1.4427E+000
	569.32	15.43	6.5132E-001		-6.6264E-001
	604.70	97.60	1.3336E-001		-7.0150E-002
	795.84	85.40	1.1501E-001		-1.4848E-002
	801.93	8.73	1.0950E+000		2.9051E-001
Cs-137	661.65	85.12	1.2816E-001	1.28E-001	1.0866E-001
Eu-152	121.78	28.40	6.8918E-001	3.43E-001	-3.5610E-001
	244.69	7.49	1.8446E+000		-5.9964E-001
	344.27	26.50	4.2707E-001		-2.2331E-001
	778.89	12.74	7.6125E-001		-3.0163E-001
	867.32	4.16	2.2208E+000		-2.0471E+000
	964.01	14.40	8.9062E-001		-1.3679E-001
	1085.78	10.00	9.7000E-001		-1.3491E+000
	1112.02	13.30	7.4419E-001		-5.4224E-001
	1407.95	20.70	3.4274E-001		-4.0774E-002
Eu-154	123.07	40.50	4.8473E-001	2.49E-001	5.7987E-001
	247.94	6.60	1.9800E+000		2.7783E-001
	591.81	4.83	2.0745E+000		-2.8684E+000
	723.30	19.70	5.6949E-001		-4.5261E-002
	756.87	4.33	2.2271E+000		3.8168E-001
	873.19	11.50	8.4290E-001		6.6656E-001
	996.32	10.30	9.5184E-001		1.1651E+000
	1004.76	17.90	5.0053E-001		-1.5830E-001
	1274.45	35.50	2.4911E-001		-2.5482E-001
Eu-155	86.54	30.90	9.5462E-001	9.55E-001	1.7606E+000
	105.31	20.70	1.1111E+000		-5.3105E-002
Am-241	59.54	35.90	1.1620E+000	1.16E+000	-1.5341E-001
Cm-243	228.19	10.56	1.3498E+000	9.17E-001	1.0498E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	9.1705E-001	9.17E-001	-6.5454E-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 4/25/2006 9:05:49 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: BRN7722

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
Sample ID: NOL-02-02-118
Sample Title: NOL-02-02-118-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 4/18/2006 2:56:50 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: S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
Log Number: NOL-02-02-118
Title: NOL-02-02-118-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	282-	309	291.82	73.15	1.10	1.85E+002	46.42	8.48E+002
m	2	282-	309	300.43	75.30	1.10	3.75E+002	56.35	9.05E+002
F	3	949-	959	954.81	238.88	0.85	2.52E+002	42.05	2.50E+002
F	4	1126-	1135	1130.17	282.71	0.73	3.58E+001	21.55	1.13E+002
F	5	1175-	1186	1181.82	295.63	0.75	6.64E+001	25.99	1.58E+002
F	6	1349-	1358	1353.65	338.58	1.00	4.92E+001	24.81	1.07E+002
F	7	1399-	1419	1408.43	352.27	1.26	1.41E+002	31.28	2.08E+002
F	8	2036-	2055	2044.79	511.34	1.78	1.24E+002	27.38	9.93E+001
F	9	2324-	2342	2333.57	583.53	1.21	1.61E+002	29.50	9.04E+001
F	10	2430-	2446	2438.54	609.77	1.37	1.43E+002	28.62	8.13E+001
F	11	2903-	2916	2909.93	727.61	1.10	3.34E+001	17.57	5.25E+001
F	12	3176-	3188	3182.00	795.62	0.87	1.99E+001	13.75	4.03E+001
F	13	3637-	3655	3646.75	911.79	1.42	1.46E+002	26.23	3.79E+001
F	14	3871-	3887	3878.28	969.67	1.30	7.43E+001	20.09	3.54E+001
F	15	4476-	4490	4483.39	1120.93	1.31	3.75E+001	16.66	3.41E+001
F	16	5836-	5862	5849.32	1462.37	1.98	9.43E+002	61.15	2.00E+001
F	17	7060-	7076	7067.06	1766.78	1.59	3.95E+001	13.21	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: S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL

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

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)		Yield (%)	Activity (pCi/g)	Activity Uncertainty
ANN	0.996	511.00*		100.00	2.11689E-001	5.48467E-002
K-40	0.924	1460.81*		10.67	2.00033E+001	2.07535E+000
TL-208	0.748	277.35		6.80		
		510.84*		21.60	9.80040E-001	2.66235E-001
		583.14*		84.20	3.40722E-001	7.65601E-002
		860.37		12.46		
Bi-212	0.994	727.17*		11.80	5.35281E-001	2.88887E-001
Pb-212	0.579	74.81*	@	10.70	1.20711E+001	2.98262E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	7.85292E-001	1.79917E-001
Bi-214	0.960	609.31*		46.30	5.57456E-001	1.31077E-001
		1120.29*		15.10	5.15558E-001	2.35699E-001
		1764.49*		15.80	6.16111E-001	2.15053E-001
PB-214	0.616	74.82*	@	6.21	2.07989E+001	5.35634E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	5.06978E-001	2.15924E-001
		351.92*		37.20	5.80386E-001	1.61031E-001
Ac-228	0.988	338.32*		11.40	6.52753E-001	3.45040E-001
		911.07*		27.70	1.04732E+000	2.23597E-001
		969.11*		16.60	9.01619E-001	2.61551E-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\Brn1m180dSoil\NOL

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

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/g)	Wt mean Activity Uncertainty
ANN		0.996	1.380928E-001	5.723529E-002
K-40		0.924	2.000334E+001	2.075348E+000
TL-208		0.748	3.407217E-001	7.575058E-002
Bi-212		0.994	5.352811E-001	2.888865E-001
Pb-212	@	0.579	7.852919E-001	1.799165E-001
Bi-214		0.960	5.627112E-001	1.011050E-001
PB-214	@	0.616	5.541502E-001	1.290859E-001
Ac-228		0.988	9.207693E-001	1.524644E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	73.15	3.0804E-001	25.11
F 4	282.71	5.9675E-002	60.17
F 12	795.62	3.3162E-002	69.08

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:S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/g)	Nuclide MDA (pCi/g)	Activity (pCi/g)
Co-60	1173.22	100.00	1.1736E-001	9.34E-002	-4.5982E-002
	1332.49	100.00	9.3380E-002		7.3271E-002
Nb-94	702.63	100.00	1.1498E-001	1.14E-001	-2.5286E-002
	871.10	100.00	1.1380E-001		1.2511E-001
Ag-108m	79.20	7.10	8.7155E+000	1.40E-001	1.1790E+000
	433.93	89.90	1.4010E-001		6.4749E-002
	614.37	90.40	1.7447E-001		3.1629E-002
	722.95	90.50	1.4348E-001		3.4176E-002
Sb-125	176.33	6.89	2.7963E+000	4.54E-001	-2.7474E+000
	427.89	29.33	4.5366E-001		3.2482E-001
	463.38	10.35	1.2880E+000		8.0911E-001
	600.56	17.80	6.9519E-001		-3.2378E-001
	606.64	5.02	3.1840E+000		4.8110E+000
	635.90	11.32	1.0865E+000		7.1981E-001
Cs-134	563.23	8.38	1.5937E+000	1.42E-001	5.8380E-001
	569.32	15.43	8.2142E-001		-3.1497E-001
	604.70	97.60	1.5840E-001		-6.1480E-002
	795.84	85.40	1.4210E-001		6.0195E-003
	801.93	8.73	1.3601E+000		-3.1587E-001
Cs-137	661.65	85.12	1.3997E-001	1.40E-001	-8.0768E-002
Eu-152	121.78	28.40	9.4408E-001	4.13E-001	4.0896E-001
	244.69	7.49	2.3408E+000		-5.5816E+000
	344.27	26.50	5.4727E-001		-2.2712E-001
	778.89	12.74	9.3158E-001		1.2220E-001
	867.32	4.16	2.7515E+000		-2.5724E-001
	964.01	14.40	9.7816E-001		-7.1516E-002
	1085.78	10.00	1.0583E+000		1.1028E-002
	1112.02	13.30	8.4026E-001		2.4250E-001
	1407.95	20.70	4.1343E-001		1.5985E-001
Eu-154	123.07	40.50	6.5006E-001	2.88E-001	-1.7031E-001
	247.94	6.60	2.5516E+000		-1.6946E+000
	591.81	4.83	2.5741E+000		-1.5387E+000
	723.30	19.70	6.6233E-001		2.8248E-001
	756.87	4.33	2.6581E+000		-2.1979E+000
	873.19	11.50	9.5225E-001		-8.0361E-002
	996.32	10.30	1.0436E+000		5.3428E-001
	1004.76	17.90	6.0403E-001		3.2613E-001
	1274.45	35.50	2.8750E-001		-1.8582E-001
Eu-155	86.54	30.90	1.5291E+000	1.53E+000	1.2561E+000
	105.31	20.70	1.6443E+000		8.8811E-001
Am-241	59.54	35.90	3.3156E+000	3.32E+000	2.1937E+000
Cm-243	228.19	10.56	1.6890E+000	1.12E+000	1.0464E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/g)	Nuclide MDA (pCi/g)	Activity (pCi/g)
Cm-243	277.60	14.00	1.1235E+000	1.12E+000	5.6858E-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 5/5/2006 11:00:41 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-02-02-118
Sample Title: NOL-02-02-118-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/5/2006 10:50:39 AM
Live Time: 600.0 seconds
Real Time: 601.1 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-02-02-118
Title: NOL-02-02-118-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	284-	306	291.89	72.80	0.84	4.06E+002	63.07	1.05E+003
m	2	284-	306	300.37	74.92	0.84	6.77E+002	75.83	1.32E+003
M	3	332-	354	339.95	84.82	1.09	3.72E+002	63.33	1.28E+003
m	4	332-	354	349.74	87.27	1.09	1.42E+002	54.98	1.21E+003
	5	949-	961	954.83	238.59	1.17	3.08E+002	69.33	3.54E+002
	6	1177-	1187	1181.28	295.22	0.55	9.03E+001	42.15	1.55E+002
	7	1346-	1361	1353.42	338.26	1.33	1.03E+002	51.50	1.95E+002
	8	1402-	1412	1407.69	351.83	1.02	1.43E+002	42.45	1.37E+002
	9	2032-	2051	2042.99	510.71	1.30	1.44E+002	50.06	1.45E+002
	10	2324-	2342	2332.60	583.13	1.41	2.03E+002	47.59	1.14E+002
	11	2430-	2444	2436.61	609.14	1.40	1.76E+002	40.97	9.03E+001
	12	2904-	2917	2909.86	727.49	1.03	3.21E+001	26.96	5.69E+001
	13	3438-	3449	3443.66	860.98	1.00	2.81E+001	22.86	4.29E+001
	14	3635-	3654	3645.15	911.37	1.29	1.93E+002	41.50	7.26E+001
	15	3868-	3884	3876.17	969.14	0.60	9.39E+001	35.55	7.51E+001
	16	4476-	4488	4482.17	1120.69	1.47	3.57E+001	25.39	5.03E+001
	17	5832-	5858	5845.45	1461.61	1.87	1.38E+003	74.97	2.00E+001
	18	7055-	7069	7061.06	1765.60	0.35	4.36E+001	16.10	8.44E+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	0.997	511.00*		100.00	1.96424E-001	7.32759E-002
K-40	0.978	1460.81*		10.67	2.30811E+001	2.25239E+000
Eu-155	0.322	86.54*		30.90	5.68767E-001	2.47362E-001
		105.31		20.70		
TL-208	0.902	277.35		6.80		
		510.84*		21.60	9.09372E-001	3.47274E-001
		583.14*		84.20	3.43557E-001	9.21207E-002
		860.37*		12.46	3.52698E-001	2.90413E-001
Bi-212	0.996	727.17*		11.80	4.12147E-001	3.49296E-001
Pb-212	0.677	74.81*	@	10.70	9.68151E+000	2.18579E+000
		77.11	@	18.00		
		87.30*	@	8.00	2.19686E+000	9.55437E-001
		238.63*		44.60	7.48347E-001	2.05365E-001
Bi-214	0.990	609.31*		46.30	5.48624E-001	1.44690E-001
		1120.29*		15.10	3.98023E-001	2.86227E-001
		1764.49*		15.80	5.11860E-001	1.95972E-001
PB-214	0.670	74.82*	@	6.21	1.66815E+001	3.95608E+000
		77.11	@	10.50		
		87.30*	@	4.67	3.76336E+000	1.66123E+000
		241.98		7.49		
		295.21*		19.20	5.41792E-001	2.68914E-001
		351.92*		37.20	4.64184E-001	1.58536E-001
Ac-228	0.998	338.32*		11.40	1.07909E+000	5.67019E-001
		911.07*		27.70	1.10671E+000	2.69477E-001
		969.11*		16.60	9.12891E-001	3.58627E-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		0.997	1.220378E-001	7.565846E-002
K-40		0.978	2.308107E+001	2.252392E+000
Eu-155		0.322	3.018726E-001	2.538312E-001
TL-208		0.902	3.443823E-001	8.721048E-002
Bi-212		0.996	4.121465E-001	3.492958E-001
Pb-212	@	0.677	7.483475E-001	2.053645E-001
Bi-214		0.990	5.161219E-001	1.078261E-001
PB-214	@	0.670	4.839953E-001	1.348284E-001
Ac-228		0.998	1.042106E+000	2.013893E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	6.7717E-001	15.52
M 3	84.82	6.1929E-001	17.04

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: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	8.15E-002	9.8209E-002
		1332.49	100.00	8.1490E-002		3.3842E-002
	Nb-94	702.63	100.00	1.1132E-001	9.25E-002	5.1715E-002
		871.10	100.00	9.2466E-002		-1.7852E-002
	Ag-108m	79.20	7.10	4.5345E+000	1.16E-001	-4.0401E+000
		433.93	89.90	1.2811E-001		1.1587E-002
		614.37	90.40	1.3678E-001		-4.8123E-002
		722.95	90.50	1.1556E-001		-7.0698E-003
	Sb-125	176.33	6.89	2.2246E+000	3.74E-001	-2.2595E-001
		427.89	29.33	3.7401E-001		-2.8136E-002
		463.38	10.35	1.1179E+000		-4.5512E-001
		600.56	17.80	5.7467E-001		1.1365E-001
		606.64	5.02	2.7675E+000		3.9171E+000
		635.90	11.32	8.6149E-001		-4.1905E-001
	Cs-134	563.23	8.38	1.2622E+000	1.23E-001	-2.2958E-001
		569.32	15.43	6.9477E-001		4.7523E-001
		604.70	97.60	1.3354E-001		-6.8746E-002
		795.84	85.40	1.2275E-001		1.1190E-001
		801.93	8.73	1.1237E+000		-4.6211E-001
	Cs-137	661.65	85.12	1.2519E-001	1.25E-001	-9.6919E-002
	Eu-152	121.78	28.40	7.1080E-001	3.48E-001	-2.4500E-001
		244.69	7.49	1.9317E+000		1.1688E+000
		344.27	26.50	4.4188E-001		3.1454E-003
		778.89	12.74	8.0519E-001		-3.5350E-001
		867.32	4.16	2.3131E+000		-1.9628E-003
		964.01	14.40	9.1240E-001		1.5409E-001
		1085.78	10.00	9.3684E-001		-1.3762E-001
		1112.02	13.30	7.6338E-001		-1.4692E-001
		1407.95	20.70	3.4770E-001		-2.3085E-003
	Eu-154	123.07	40.50	4.9321E-001	2.35E-001	-2.6118E-001
		247.94	6.60	2.1012E+000		5.2319E-001
		591.81	4.83	2.1169E+000		2.5989E-001
		723.30	19.70	5.3219E-001		-1.3344E-001
		756.87	4.33	2.4997E+000		-2.0708E+000
		873.19	11.50	7.8311E-001		-4.8622E-002
		996.32	10.30	9.6071E-001		2.3259E-001
		1004.76	17.90	5.9502E-001		2.0779E-001
		1274.45	35.50	2.3549E-001		-1.5341E-001
+	Eu-155	86.54*	30.90	6.5974E-001	6.60E-001	5.6877E-001
		105.31	20.70	1.1341E+000		-1.0033E+000
	Am-241	59.54	35.90	1.1555E+000	1.16E+000	-1.1951E+000
	Cm-243	228.19	10.56	1.3286E+000	9.28E-001	-4.7628E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	9.2805E-001	9.28E-001	-4.3530E-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 4/25/2006 9:06:06 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: BRN7722

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
Sample ID: NOL-02-02-119
Sample Title: NOL-02-02-119-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 4/18/2006 6:33:23 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: S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
Log Number: NOL-02-02-119
Title: NOL-02-02-119-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	288-	306	292.25	73.26	0.82	1.30E+002	43.60	6.01E+002
m	2	288-	306	300.60	75.34	0.82	2.88E+002	54.61	6.94E+002
F	3	347-	355	350.17	87.74	0.68	6.26E+001	43.96	5.65E+002
F	4	949-	961	954.76	238.87	0.96	2.64E+002	41.94	2.58E+002
F	5	1177-	1189	1181.50	295.55	0.80	6.51E+001	26.03	1.68E+002
F	6	1346-	1359	1353.66	338.58	0.90	6.07E+001	24.45	1.44E+002
F	7	1397-	1413	1408.25	352.23	0.70	1.14E+002	27.31	1.72E+002
F	8	2032-	2055	2044.25	511.21	2.29	1.82E+002	30.50	1.26E+002
F	9	2327-	2342	2333.23	583.45	1.03	1.37E+002	27.69	7.88E+001
F	10	2431-	2448	2438.42	609.74	1.54	1.33E+002	27.28	6.83E+001
F	11	2640-	2654	2647.03	661.89	1.13	5.81E+001	20.25	5.75E+001
F	12	3176-	3188	3181.55	795.50	0.63	2.28E+001	13.19	4.28E+001
F	13	3438-	3449	3443.04	860.87	1.02	2.19E+001	13.51	2.79E+001
F	14	3637-	3656	3645.95	911.59	1.58	1.14E+002	24.09	4.16E+001
F	15	3871-	3887	3878.07	969.61	1.49	8.67E+001	21.43	3.10E+001
F	16	4411-	4422	4416.54	1104.22	0.93	1.70E+001	11.24	1.79E+001
F	17	4476-	4491	4483.91	1121.06	1.35	4.65E+001	16.52	2.57E+001
F	18	5508-	5521	5514.88	1378.77	1.41	2.19E+001	10.65	6.72E+000
F	19	5836-	5860	5848.26	1462.11	1.83	8.83E+002	59.53	2.79E+001
F	20	7058-	7071	7064.39	1766.11	1.61	3.51E+001	12.84	5.07E+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\Brn1m180dSoil\NOL

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	3.11370E-001	6.70256E-002
K-40	0.947	1460.81*	10.67	1.87348E+001	1.97390E+000
Cs-137	0.998	661.65*	85.12	1.26548E-001	4.65561E-002
TL-208	0.900	277.35	6.80		
		510.84*	21.60	1.44153E+000	3.31885E-001
		583.14*	84.20	2.89789E-001	6.96759E-002
		860.37*	12.46	3.45626E-001	2.17168E-001
Pb-212	0.724	74.81* @	10.70	9.27301E+000	2.52797E+000
		77.11 @	18.00		
		87.30* @	8.00	1.69229E+000	1.23403E+000
		238.63*	44.60	8.22148E-001	1.83677E-001
Bi-214	0.976	609.31*	46.30	5.18270E-001	1.24095E-001
		1120.29*	15.10	6.39077E-001	2.37203E-001
		1764.49*	15.80	5.47652E-001	2.07642E-001
PB-214	0.695	74.82* @	6.21	1.59776E+001	4.50754E+000
		77.11 @	10.50		
		87.30* @	4.67	2.89900E+000	2.12528E+000
		241.98	7.49		
		295.21*	19.20	4.96585E-001	2.15461E-001
		351.92*	37.20	4.69528E-001	1.36930E-001
Ac-228	0.993	338.32*	11.40	8.06100E-001	3.48453E-001
		911.07*	27.70	8.18872E-001	1.96994E-001
		969.11*	16.60	1.05322E+000	2.82635E-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\Brn1m180dSoil\NOL

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	2.476662E-001	6.851503E-002
K-40		0.947	1.873475E+001	1.973898E+000
Cs-137		0.998	1.265479E-001	4.655606E-002
TL-208		0.900	2.949265E-001	6.578069E-002
Pb-212	@	0.724	8.221476E-001	1.836770E-001
Bi-214		0.976	5.449789E-001	9.717271E-002
PB-214	@	0.695	4.773123E-001	1.155667E-001
Ac-228		0.993	8.796702E-001	1.466105E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	73.26	2.1731E-001	33.44
F 12	795.50	3.8080E-002	57.71
F 16	1104.22	2.8345E-002	66.07
F 18	1378.77	3.6555E-002	48.56

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\Brn1m180dSoil\NOL
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	1.2030E-001	8.73E-002	-2.9474E-002
		1332.49	100.00	8.7338E-002		5.2253E-002
	Nb-94	702.63	100.00	1.2335E-001	1.05E-001	3.0726E-003
		871.10	100.00	1.0533E-001		4.9091E-002
	Ag-108m	79.20	7.10	8.6980E+000	1.37E-001	-2.4016E-001
		433.93	89.90	1.4140E-001		-7.2126E-002
		614.37	90.40	1.6359E-001		-1.0526E-002
		722.95	90.50	1.3680E-001		6.4178E-002
	Sb-125	176.33	6.89	2.8198E+000	4.43E-001	2.6013E-001
		427.89	29.33	4.4309E-001		4.1423E-001
		463.38	10.35	1.2679E+000		6.1216E-001
		600.56	17.80	6.5073E-001		-1.0669E+000
		606.64	5.02	3.1246E+000		-7.0656E-001
		635.90	11.32	9.3734E-001		-8.0238E-002
	Cs-134	563.23	8.38	1.5073E+000	1.39E-001	3.7176E-001
		569.32	15.43	8.1601E-001		2.1753E-001
		604.70	97.60	1.5548E-001		-7.7495E-002
		795.84	85.40	1.3922E-001		1.1251E-001
		801.93	8.73	1.2127E+000		-3.0065E-001
+	Cs-137	661.65*	85.12	9.8163E-002	9.82E-002	1.2655E-001
	Eu-152	121.78	28.40	9.5363E-001	4.07E-001	3.6176E-001
		244.69	7.49	2.3008E+000		-1.1832E+000
		344.27	26.50	5.5854E-001		-2.7102E-001
		778.89	12.74	8.5950E-001		-1.2311E+000
		867.32	4.16	2.8063E+000		1.0029E+000
		964.01	14.40	1.0113E+000		2.6318E-001
		1085.78	10.00	1.1506E+000		6.0717E-002
		1112.02	13.30	7.1501E-001		-3.1966E-001
		1407.95	20.70	4.0686E-001		2.8361E-001
	Eu-154	123.07	40.50	6.5518E-001	2.80E-001	-5.4311E-001
		247.94	6.60	2.5634E+000		-4.8325E+000
		591.81	4.83	2.5980E+000		2.4953E-001
		723.30	19.70	6.3017E-001		3.5305E-001
		756.87	4.33	2.5305E+000		1.3330E-001
		873.19	11.50	8.9796E-001		-1.8360E-001
		996.32	10.30	9.5037E-001		-8.7080E-001
		1004.76	17.90	5.7152E-001		-2.6477E-001
		1274.45	35.50	2.8011E-001		-2.1449E-001
	Eu-155	86.54	30.90	1.5654E+000	1.57E+000	2.5125E+000
		105.31	20.70	1.6178E+000		-3.5300E-001
	Am-241	59.54	35.90	3.2231E+000	3.22E+000	5.0069E-001
	Cm-243	228.19	10.56	1.7089E+000	1.16E+000	-4.8279E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	1.1566E+000	1.16E+000	5.8948E-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 5/5/2006 12:33:06 AM

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

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-02-02-119
Sample Title: NOL-02-02-119-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/5/2006 12:23:05 AM
Live Time: 600.0 seconds
Real Time: 601.1 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-02-02-119
Title: NOL-02-02-119-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-	306	291.65	72.74	1.00	3.75E+002	63.19	1.33E+003
m	2	284-	306	300.28	74.90	1.00	6.22E+002	75.04	1.51E+003
	3	332-	355	339.84	84.79	0.80	2.01E+002	184.04	2.14E+003
	4	949-	960	954.52	238.51	0.99	3.30E+002	66.98	3.31E+002
	5	1174-	1186	1181.23	295.20	1.02	8.31E+001	46.42	1.82E+002
	6	1348-	1360	1352.95	338.15	1.00	7.95E+001	44.99	1.68E+002
	7	1400-	1417	1407.67	351.83	1.09	1.42E+002	58.18	2.27E+002
	8	2034-	2053	2042.23	510.52	2.31	1.95E+002	49.76	1.28E+002
	9	2324-	2342	2332.24	583.04	1.31	2.09E+002	47.01	1.08E+002
	10	2429-	2445	2437.16	609.28	0.63	1.53E+002	42.31	1.00E+002
	11	2642-	2653	2646.98	661.75	1.22	1.77E+001	22.57	4.53E+001
	12	2898-	2916	2908.96	727.27	0.32	8.34E+001	31.48	5.16E+001
	13	3634-	3655	3644.52	911.21	1.01	2.15E+002	41.21	6.05E+001
M	14	3852-	3884	3859.30	964.92	1.38	3.71E+001	17.03	5.52E+001
m	15	3852-	3884	3875.96	969.09	1.38	1.05E+002	23.82	6.33E+001
	16	4474-	4491	4482.79	1120.84	0.88	6.70E+001	28.66	4.50E+001
	17	4949-	4962	4954.20	1238.73	0.60	3.36E+001	22.81	3.64E+001
	18	5831-	5857	5845.10	1461.52	2.06	1.26E+003	73.46	3.14E+001
	19	7052-	7070	7060.90	1765.56	0.45	6.82E+001	19.83	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

N U C L I 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	2.65273E-001	7.67985E-002
K-40	0.982	1460.81*	10.67	2.11961E+001	2.11268E+000
Cs-137	1.000	661.65*	85.12	3.08878E-002	3.95607E-002
TL-208	0.751	277.35	6.80		
		510.84*	21.60	1.22812E+000	3.69424E-001
		583.14*	84.20	3.53620E-001	9.19203E-002
		860.37	12.46		
Bi-212	1.000	727.17*	11.80	1.06962E+000	4.23006E-001
Pb-212	0.520	74.81* @	10.70	8.90655E+000	2.04963E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	8.01777E-001	2.05708E-001
Bi-214	0.990	609.31*	46.30	4.77805E-001	1.44634E-001
		1120.29*	15.10	7.47008E-001	3.29265E-001
		1764.49*	15.80	8.01407E-001	2.46442E-001
PB-214	0.582	74.82* @	6.21	1.53462E+001	3.70311E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	4.98795E-001	2.90927E-001
		351.92*	37.20	4.62583E-001	2.04642E-001
Ac-228	0.999	338.32*	11.40	8.34823E-001	4.90540E-001
		911.07*	27.70	1.22769E+000	2.74891E-001
		969.11*	16.60	1.01775E+000	2.54943E-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	1.888913E-001	7.928447E-002
K-40		0.982	2.119608E+001	2.112678E+000
Cs-137		1.000	3.088785E-002	3.956068E-002
TL-208		0.751	3.536196E-001	9.119501E-002
Bi-212		1.000	1.069624E+000	4.230056E-001
Pb-212	@	0.520	8.017774E-001	2.057081E-001
Bi-214		0.990	5.840918E-001	1.166483E-001
PB-214	@	0.582	4.745698E-001	1.673802E-001
Ac-228		0.999	1.079322E+000	1.746741E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	6.2544E-001	16.84
3	84.79	3.3423E-001	91.77
M 14	964.92	6.1910E-002	45.85
17	1238.73	5.5958E-002	67.94

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	9.8536E-002	7.51E-002	-7.6749E-002
		1332.49	100.00	7.5122E-002		6.9721E-002
	Nb-94	702.63	100.00	9.8452E-002	9.34E-002	-1.2362E-001
		871.10	100.00	9.3368E-002		-4.0939E-002
	Ag-108m	79.20	7.10	4.5412E+000	1.21E-001	-5.3589E-001
		433.93	89.90	1.2069E-001		-1.0054E-001
		614.37	90.40	1.3741E-001		-6.7725E-002
		722.95	90.50	1.2421E-001		1.0932E-002
	Sb-125	176.33	6.89	2.2153E+000	3.76E-001	-1.0043E+000
		427.89	29.33	3.7630E-001		6.0791E-002
		463.38	10.35	1.0764E+000		8.1918E-001
		600.56	17.80	5.5645E-001		5.5842E-001
		606.64	5.02	2.6622E+000		4.7654E+000
		635.90	11.32	8.3468E-001		7.9071E-001
	Cs-134	563.23	8.38	1.2470E+000	1.14E-001	4.2794E-001
		569.32	15.43	6.7411E-001		-1.7607E-001
		604.70	97.60	1.2680E-001		4.5043E-002
		795.84	85.40	1.1373E-001		-3.2540E-002
		801.93	8.73	1.0487E+000		-7.9181E-002
+	Cs-137	661.65*	85.12	6.6277E-002	6.63E-002	3.0888E-002
	Eu-152	121.78	28.40	7.1353E-001	3.53E-001	-2.6129E-002
		244.69	7.49	1.8420E+000		4.4695E-001
		344.27	26.50	4.1615E-001		-5.1921E-001
		778.89	12.74	7.6982E-001		-1.5368E-001
		867.32	4.16	2.2781E+000		-2.2740E+000
		964.01	14.40	9.0778E-001		-2.3705E-001
		1085.78	10.00	9.5358E-001		-4.2251E-002
		1112.02	13.30	7.1944E-001		-2.2528E-001
		1407.95	20.70	3.5258E-001		2.8166E-001
	Eu-154	123.07	40.50	4.9238E-001	2.46E-001	-4.9539E-001
		247.94	6.60	1.9157E+000		-6.4284E-001
		591.81	4.83	1.9866E+000		-7.1895E-001
		723.30	19.70	5.7297E-001		-5.8820E-003
		756.87	4.33	2.2396E+000		4.4337E-001
		873.19	11.50	8.0180E-001		6.5491E-001
		996.32	10.30	8.9034E-001		7.0816E-002
		1004.76	17.90	4.9864E-001		-1.5856E-001
		1274.45	35.50	2.4578E-001		-1.0695E-001
	Eu-155	86.54	30.90	9.4721E-001	9.47E-001	1.3099E-001
		105.31	20.70	1.1450E+000		-1.4454E-001
	Am-241	59.54	35.90	1.1758E+000	1.18E+000	-6.2824E-001
	Cm-243	228.19	10.56	1.2709E+000	9.35E-001	-8.5877E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	9.3506E-001	9.35E-001	-2.2456E-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 4/25/2006 9:06:38 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: BRN7722

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
Sample ID: NOL-02-02-120
Sample Title: NOL-02-02-120-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 4/18/2006 8:19:51 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: S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
Log Number: NOL-02-02-120
Title: NOL-02-02-120-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	284-	305	292.14	73.23	0.75	1.61E+002	43.60	5.39E+002
m	2	284-	305	300.56	75.33	0.76	2.79E+002	52.57	6.65E+002
F	3	332-	344	339.15	84.98	1.15	1.70E+002	50.00	7.18E+002
F	4	948-	961	954.40	238.78	1.11	2.90E+002	43.93	2.88E+002
F	5	1176-	1189	1181.90	295.65	1.09	6.14E+001	27.25	1.73E+002
F	6	1349-	1360	1354.08	338.69	0.89	4.23E+001	23.71	1.32E+002
F	7	1401-	1416	1408.15	352.20	1.25	1.27E+002	30.01	1.45E+002
F	8	2030-	2054	2042.19	510.70	2.37	1.81E+002	29.69	1.13E+002
F	9	2326-	2341	2333.47	583.51	1.37	1.59E+002	29.15	6.73E+001
F	10	2428-	2446	2437.56	609.53	1.36	1.37E+002	27.19	7.60E+001
F	11	2640-	2655	2647.09	661.90	1.35	4.46E+001	19.66	6.17E+001
F	12	3637-	3655	3646.46	911.72	1.57	1.22E+002	24.74	4.03E+001
F	13	3870-	3886	3877.33	969.43	1.18	7.36E+001	20.74	4.68E+001
F	14	5836-	5859	5848.16	1462.08	1.80	9.41E+002	61.26	1.81E+001
F	15	7058-	7074	7066.42	1766.62	2.39	3.71E+001	12.71	2.03E+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\Brn1m180dSoil\NOL

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	3.08517E-001	6.57114E-002
K-40	0.949	1460.81*	10.67	1.99762E+001	2.07501E+000
Cs-137	0.998	661.65*	85.12	9.71241E-002	4.43309E-002
TL-208	0.750	277.35	6.80		
		510.84*	21.60	1.42832E+000	3.25815E-001
		583.14*	84.20	3.36570E-001	7.56394E-002
		860.37	12.46		
Pb-212	0.579	74.81* @	10.70	8.97502E+000	2.44079E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	9.05159E-001	1.97294E-001
Bi-214	0.665	609.31*	46.30	5.33891E-001	1.24777E-001
		1120.29	15.10		
		1764.49*	15.80	5.78091E-001	2.06609E-001
PB-214	0.617	74.82* @	6.21	1.54642E+001	4.35280E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	4.68548E-001	2.22408E-001
		351.92*	37.20	5.21323E-001	1.50973E-001
Ac-228	0.991	338.32*	11.40	5.61972E-001	3.27046E-001
		911.07*	27.70	8.74729E-001	2.04175E-001
		969.11*	16.60	8.93533E-001	2.68670E-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\Brn1m180dSoil\NOL

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	2.358177E-001	6.767056E-002
K-40		0.949	1.997621E+001	2.075009E+000
Cs-137		0.998	9.712405E-002	4.433094E-002
TL-208		0.750	3.365696E-001	7.483986E-002
Pb-212	@	0.579	9.051592E-001	1.972936E-001
Bi-214		0.665	5.457033E-001	1.068098E-001
PB-214	@	0.617	5.046756E-001	1.249128E-001
Ac-228		0.991	8.182868E-001	1.455695E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	73.23	2.6811E-001	27.10
F 3	84.98	2.8272E-001	29.48

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
N U C L I D E M D A R E P O R T

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
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	1.0708E-001	9.51E-002	-1.1824E-001
		1332.49	100.00	9.5113E-002		6.5344E-002
	Nb-94	702.63	100.00	1.1806E-001	1.17E-001	2.8674E-002
		871.10	100.00	1.1723E-001		5.0116E-003
	Ag-108m	79.20	7.10	8.4609E+000	1.36E-001	-9.9518E+000
		433.93	89.90	1.5513E-001		5.2436E-002
		614.37	90.40	1.7498E-001		-1.5023E-001
		722.95	90.50	1.3571E-001		4.9350E-002
	Sb-125	176.33	6.89	2.7977E+000	4.63E-001	-1.2852E+000
		427.89	29.33	4.6326E-001		2.4878E-001
		463.38	10.35	1.2701E+000		-3.5977E-001
		600.56	17.80	7.1152E-001		4.3557E-001
		606.64	5.02	3.1840E+000		5.6405E+000
		635.90	11.32	1.0449E+000		1.0198E-001
	Cs-134	563.23	8.38	1.4672E+000	1.43E-001	-7.2718E-001
		569.32	15.43	7.7325E-001		-5.6686E-001
		604.70	97.60	1.6173E-001		1.8460E-002
		795.84	85.40	1.4251E-001		9.2441E-002
		801.93	8.73	1.3560E+000		-1.1851E+000
+	Cs-137	661.65*	85.12	1.0388E-001	1.04E-001	9.7124E-002
	Eu-152	121.78	28.40	9.4873E-001	4.26E-001	-3.0725E-002
		244.69	7.49	2.3209E+000		-1.3607E+000
		344.27	26.50	5.7787E-001		1.9612E-001
		778.89	12.74	8.8616E-001		6.0352E-002
		867.32	4.16	3.0069E+000		-1.1477E+000
		964.01	14.40	9.9599E-001		3.3027E-001
		1085.78	10.00	1.0160E+000		2.2751E-001
		1112.02	13.30	8.0657E-001		-1.6906E+000
		1407.95	20.70	4.2624E-001		8.2062E-002
	Eu-154	123.07	40.50	6.6267E-001	3.00E-001	6.3918E-001
		247.94	6.60	2.6271E+000		-2.6676E+000
		591.81	4.83	2.4128E+000		1.8429E+000
		723.30	19.70	6.2851E-001		3.0198E-001
		756.87	4.33	2.6498E+000		2.7940E+000
		873.19	11.50	1.0167E+000		8.8860E-001
		996.32	10.30	1.0179E+000		-5.9879E-002
		1004.76	17.90	6.0159E-001		3.9637E-001
		1274.45	35.50	3.0032E-001		-1.3144E-001
	Eu-155	86.54	30.90	1.5211E+000	1.52E+000	2.5314E+000
		105.31	20.70	1.5880E+000		-4.1769E-001
	Am-241	59.54	35.90	3.2098E+000	3.21E+000	-3.0294E+000
	Cm-243	228.19	10.56	1.6767E+000	1.19E+000	-9.6249E-002

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	1.1926E+000	1.19E+000	6.7139E-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 5/5/2006 12:14:47 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-02-02-120
Sample Title: NOL-02-02-120-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/5/2006 12:04:45 AM
Live Time: 600.0 seconds
Real Time: 601.0 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-02-02-120
Title: NOL-02-02-120-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	284-	305	291.62	72.73	0.84	3.32E+002	58.54	9.58E+002
m	2	284-	305	300.18	74.87	0.85	6.16E+002	72.09	1.19E+003
	3	333-	346	338.85	84.55	0.67	1.12E+002	120.48	1.32E+003
	4	945-	962	954.73	238.56	0.88	3.05E+002	78.44	3.96E+002
	5	1177-	1190	1180.97	295.14	0.88	5.75E+001	48.27	1.96E+002
	6	1347-	1361	1352.39	338.01	1.19	8.18E+001	46.18	1.61E+002
	7	1398-	1413	1407.38	351.76	1.03	1.68E+002	49.41	1.56E+002
M	8	2036-	2064	2044.07	510.98	1.72	1.57E+002	28.06	1.12E+002
m	9	2036-	2064	2059.61	514.86	1.02	2.78E+001	16.02	5.74E+001
	10	2323-	2340	2332.47	583.10	0.74	1.58E+002	42.93	9.89E+001
	11	2429-	2446	2436.98	609.24	1.12	1.55E+002	41.89	9.12E+001
	12	2641-	2652	2646.59	661.65	1.43	5.83E+001	27.77	5.67E+001
	13	2904-	2917	2911.09	727.80	1.01	4.28E+001	25.93	4.72E+001
	14	3635-	3656	3645.70	911.51	1.47	1.82E+002	36.54	4.40E+001
	15	3868-	3885	3875.55	968.99	0.85	9.43E+001	29.18	3.87E+001
	16	4471-	4490	4481.38	1120.49	0.72	4.99E+001	33.09	6.71E+001
	17	5832-	5858	5845.27	1461.56	1.76	1.12E+003	68.80	2.68E+001
	18	7055-	7069	7061.73	1765.77	0.63	3.59E+001	15.44	9.11E+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

N U C L I 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	2.13876E-001	4.80078E-002
K-40	0.980	1460.81*		10.67	1.87059E+001	1.90405E+000
Cs-137	1.000	661.65*		85.12	1.01835E-001	4.99286E-002
TL-208	0.752	277.35		6.80		
		510.84*		21.60	9.90168E-001	2.36511E-001
		583.14*		84.20	2.67571E-001	8.05674E-002
		860.37		12.46		
Bi-212	0.986	727.17*		11.80	5.48934E-001	3.38995E-001
Pb-212	0.520	74.81*	@	10.70	8.81506E+000	2.01260E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	7.42395E-001	2.23413E-001
Bi-214	0.988	609.31*		46.30	4.83519E-001	1.43723E-001
		1120.29*		15.10	5.56846E-001	3.73654E-001
		1764.49*		15.80	4.21768E-001	1.86243E-001
PB-214	0.582	74.82*	@	6.21	1.51886E+001	3.63884E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	3.45070E-001	2.95400E-001
		351.92*		37.20	5.48102E-001	1.85151E-001
Ac-228	0.996	338.32*		11.40	8.59675E-001	5.03563E-001
		911.07*		27.70	1.04177E+000	2.41013E-001
		969.11*		16.60	9.17148E-001	2.99568E-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	1.560808E-001	5.102986E-002
K-40		0.980	1.870588E+001	1.904045E+000
Cs-137		1.000	1.018352E-001	4.992862E-002
TL-208		0.752	2.675714E-001	8.009411E-002
Bi-212		0.986	5.489340E-001	3.389955E-001
Pb-212	@	0.520	7.423953E-001	2.234130E-001
Bi-214		0.988	4.686493E-001	1.088476E-001
PB-214	@	0.582	4.908373E-001	1.568819E-001
Ac-228		0.996	9.765490E-001	1.759477E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	5.5291E-001	17.65
3	84.55	1.8607E-001	107.91
m 9	514.86	4.6322E-002	57.63

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
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	1.0118E-001	8.53E-002	7.8984E-002
		1332.49	100.00	8.5318E-002		4.9664E-002
	Nb-94	702.63	100.00	9.5823E-002	9.58E-002	1.4158E-002
		871.10	100.00	9.6020E-002		2.6552E-002
	Ag-108m	79.20	7.10	4.3645E+000	1.18E-001	-7.8347E+000
		433.93	89.90	1.1778E-001		-9.3555E-003
		614.37	90.40	1.3185E-001		-4.0226E-002
		722.95	90.50	1.2191E-001		-1.9339E-002
	Sb-125	176.33	6.89	2.0959E+000	3.83E-001	-9.4227E-001
		427.89	29.33	3.8253E-001		4.5183E-002
		463.38	10.35	1.0332E+000		1.8575E-001
		600.56	17.80	5.4980E-001		1.3532E-001
		606.64	5.02	2.5991E+000		-3.7296E-001
		635.90	11.32	8.3921E-001		-6.0700E-001
	Cs-134	563.23	8.38	1.1816E+000	1.17E-001	-1.9922E-001
		569.32	15.43	6.3664E-001		1.5097E-001
		604.70	97.60	1.2446E-001		8.9572E-003
		795.84	85.40	1.1692E-001		7.8301E-002
		801.93	8.73	1.0385E+000		-1.7032E+000
+	Cs-137	661.65*	85.12	7.3242E-002	7.32E-002	1.0184E-001
	Eu-152	121.78	28.40	6.8168E-001	3.43E-001	-1.6216E-001
		244.69	7.49	1.8111E+000		3.2148E-001
		344.27	26.50	4.3029E-001		2.4640E-001
		778.89	12.74	7.5039E-001		-2.5136E-001
		867.32	4.16	2.2281E+000		-3.7559E+000
		964.01	14.40	8.1996E-001		2.1320E-001
		1085.78	10.00	8.9535E-001		-4.3697E-001
		1112.02	13.30	6.8055E-001		4.3694E-001
		1407.95	20.70	3.4274E-001		1.2621E-001
	Eu-154	123.07	40.50	4.7424E-001	2.38E-001	1.6507E-001
		247.94	6.60	1.9045E+000		-8.3513E-002
		591.81	4.83	1.9916E+000		5.3983E-001
		723.30	19.70	5.6129E-001		-5.2083E-002
		756.87	4.33	2.3015E+000		2.4230E+000
		873.19	11.50	8.2518E-001		6.6698E-001
		996.32	10.30	8.9352E-001		3.0956E-001
		1004.76	17.90	4.8713E-001		1.8671E-001
		1274.45	35.50	2.3782E-001		-3.1902E-001
	Eu-155	86.54	30.90	9.5197E-001	9.52E-001	7.2146E-001
		105.31	20.70	1.1049E+000		4.6690E-001
	Am-241	59.54	35.90	1.1428E+000	1.14E+000	-2.5052E-001
	Cm-243	228.19	10.56	1.2601E+000	8.70E-001	2.6203E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	8.6994E-001	8.70E-001	6.0362E-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 4/25/2006 9:07:30 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: BRN7722

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
Sample ID: NOL-02-02-121
Sample Title: NOL-02-02-121-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 4/18/2006 9:15:14 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: S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
Log Number: NOL-02-02-121
Title: NOL-02-02-121-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	284-	304	291.81	73.15	0.81	1.68E+002	45.55	6.33E+002
m	2	284-	304	300.57	75.34	0.82	2.64E+002	53.95	6.51E+002
F	3	948-	960	955.11	238.95	0.90	2.50E+002	41.04	2.55E+002
F	4	1349-	1359	1353.71	338.59	0.74	3.28E+001	21.60	1.27E+002
F	5	1398-	1413	1408.57	352.31	1.18	1.32E+002	29.50	1.33E+002
F	6	2034-	2053	2043.78	511.09	1.88	1.14E+002	26.44	1.00E+002
F	7	2326-	2344	2333.93	583.62	1.40	1.76E+002	29.84	6.89E+001
F	8	2430-	2447	2438.04	609.65	1.40	1.72E+002	29.33	6.35E+001
F	9	2639-	2652	2645.72	661.56	1.16	2.86E+001	16.66	4.73E+001
F	10	3640-	3655	3647.15	911.89	1.27	1.06E+002	24.93	5.95E+001
M	11	3855-	3886	3862.43	965.71	1.36	2.97E+001	14.28	2.97E+001
m	12	3855-	3886	3878.46	969.71	1.36	9.09E+001	21.00	2.53E+001
F	13	4480-	4493	4485.75	1121.52	0.85	3.76E+001	15.39	3.55E+001
F	14	5837-	5861	5849.05	1462.31	1.81	9.23E+002	60.40	1.23E+001
F	15	7060-	7073	7066.46	1766.63	1.44	2.66E+001	12.18	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\Brn1m180dSoil\NOL

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	1.95154E-001	5.23190E-002
K-40	0.930	1460.81*	10.67	1.95923E+001	2.03936E+000
Cs-137	1.000	661.65*	85.12	6.22271E-002	3.70254E-002
TL-208	0.747	277.35	6.80		
		510.84*	21.60	9.03492E-001	2.53206E-001
		583.14*	84.20	3.73086E-001	7.96316E-002
		860.37	12.46		
Pb-212	0.578	74.81* @	10.70	8.50391E+000	2.40684E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	7.80435E-001	1.77108E-001
Bi-214	0.959	609.31*	46.30	6.71270E-001	1.41145E-001
		1120.29*	15.10	5.16855E-001	2.18671E-001
		1764.49*	15.80	4.15717E-001	1.94534E-001
Ac-228	0.985	338.32*	11.40	4.35173E-001	2.94826E-001
		911.07*	27.70	7.59229E-001	1.99235E-001
		969.11*	16.60	1.10318E+000	2.79938E-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\Brn1m180dSoil\NOL

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	1.145678E-001	5.501119E-002
K-40		0.930	1.959229E+001	2.039357E+000
Cs-137		1.000	6.222712E-002	3.702540E-002
TL-208		0.747	3.730856E-001	7.869795E-002
Pb-212	@	0.578	7.804350E-001	1.771080E-001
Bi-214		0.959	5.689239E-001	1.012565E-001
Ac-228		0.985	7.725929E-001	1.421947E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	73.15	2.7931E-001	27.18
F 5	352.31	2.1947E-001	22.40
M 11	965.71	4.9495E-002	48.07

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

Errors quoted at 1.960 sigma

Y A N K E E 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\Brn1m180dSoil\NOL
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	1.1564E-001	8.98E-002	-3.0789E-002
		1332.49	100.00	8.9807E-002		-1.6759E-003
	Nb-94	702.63	100.00	1.1322E-001	1.09E-001	-8.8607E-002
		871.10	100.00	1.0864E-001		-6.7144E-002
	Ag-108m	79.20	7.10	8.7242E+000	1.35E-001	-1.4915E+001
		433.93	89.90	1.3774E-001		-1.8460E-001
		614.37	90.40	1.7370E-001		-7.0641E-003
		722.95	90.50	1.3535E-001		-1.6424E-001
	Sb-125	176.33	6.89	2.7754E+000	4.35E-001	1.1254E-001
		427.89	29.33	4.3459E-001		2.1080E-002
		463.38	10.35	1.2427E+000		1.6246E-001
		600.56	17.80	6.7334E-001		-3.1188E-001
		606.64	5.02	3.2155E+000		5.3832E+000
		635.90	11.32	9.9266E-001		-5.7195E-001
	Cs-134	563.23	8.38	1.5007E+000	1.33E-001	7.0465E-001
		569.32	15.43	7.8086E-001		2.2074E-001
		604.70	97.60	1.6243E-001		-7.9528E-003
		795.84	85.40	1.3283E-001		6.8529E-002
		801.93	8.73	1.2973E+000		-7.7216E-001
+	Cs-137	661.65*	85.12	8.7739E-002	8.77E-002	6.2227E-002
	Eu-152	121.78	28.40	9.8283E-001	4.07E-001	2.9524E-001
		244.69	7.49	2.1818E+000		-3.3184E+000
		344.27	26.50	5.4593E-001		-5.4583E-002
		778.89	12.74	8.3816E-001		-1.1241E+000
		867.32	4.16	2.8601E+000		-2.2603E+000
		964.01	14.40	9.7816E-001		-1.3017E-001
		1085.78	10.00	1.0674E+000		4.4883E-001
		1112.02	13.30	8.2022E-001		-4.7857E-001
		1407.95	20.70	4.0686E-001		8.3909E-002
	Eu-154	123.07	40.50	6.8035E-001	3.00E-001	5.6818E-001
		247.94	6.60	2.4101E+000		-2.4917E+000
		591.81	4.83	2.4948E+000		1.7943E+000
		723.30	19.70	6.2519E-001		-5.0549E-001
		756.87	4.33	2.5305E+000		-4.0157E-001
		873.19	11.50	9.3452E-001		-9.3506E-001
		996.32	10.30	1.0521E+000		-1.6727E-001
		1004.76	17.90	5.6894E-001		-4.7387E-001
		1274.45	35.50	3.0032E-001		4.7130E-002
	Eu-155	86.54	30.90	1.5115E+000	1.51E+000	2.0870E+000
		105.31	20.70	1.6302E+000		-4.2670E-001
	Am-241	59.54	35.90	3.3014E+000	3.30E+000	6.7543E-001
	Cm-243	228.19	10.56	1.6912E+000	1.12E+000	3.4510E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	1.1150E+000	1.12E+000	-2.1722E-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 5/5/2006 10:24:50 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-02-02-121
Sample Title: NOL-02-02-121-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/5/2006 10:14:47 AM
Live Time: 600.0 seconds
Real Time: 601.1 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-02-02-121
Title: NOL-02-02-121-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	291.86	72.79	0.99	4.50E+002	63.84	1.24E+003
m	2	283-	316	300.43	74.94	1.00	9.34E+002	76.72	1.19E+003
m	3	283-	316	308.55	76.97	1.00	2.42E+002	55.68	1.14E+003
	4	332-	345	339.53	84.72	0.85	1.19E+002	121.56	1.35E+003
	5	949-	959	954.52	238.51	0.99	3.14E+002	60.01	2.62E+002
	6	1175-	1185	1181.00	295.15	0.64	7.18E+001	43.02	1.72E+002
	7	1346-	1357	1352.27	337.98	0.77	5.10E+001	42.25	1.65E+002
	8	1397-	1416	1407.46	351.78	0.72	2.07E+002	62.05	2.27E+002
	9	1845-	1858	1851.09	462.72	0.61	3.57E+001	36.62	1.12E+002
	10	2032-	2053	2042.01	510.46	1.77	1.62E+002	52.02	1.45E+002
	11	2325-	2340	2331.96	582.97	1.43	2.15E+002	43.87	9.52E+001
	12	2427-	2445	2436.51	609.12	1.18	2.24E+002	44.30	8.51E+001
	13	2901-	2915	2907.90	727.00	1.20	4.85E+001	31.32	7.15E+001
	14	3435-	3447	3441.17	860.36	0.53	2.69E+001	22.01	3.71E+001
	15	3635-	3653	3644.17	911.13	1.62	2.36E+002	37.45	3.81E+001
	16	3868-	3884	3875.63	969.01	1.15	9.19E+001	34.69	6.91E+001
	17	4472-	4490	4481.03	1120.40	1.75	6.62E+001	30.00	4.98E+001
	18	5830-	5858	5844.84	1461.46	1.76	1.33E+003	74.59	2.53E+001
	19	7051-	7066	7059.30	1765.16	1.11	5.02E+001	16.13	5.76E+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

N U C L I 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	2.21427E-001	7.70274E-002
K-40	0.985	1460.81*	10.67	2.23381E+001	2.19916E+000
TL-208	0.901	277.35	6.80		
		510.84*	21.60	1.02512E+000	3.66303E-001
		583.14*	84.20	3.63543E-001	8.80480E-002
		860.37*	12.46	3.37923E-001	2.79581E-001
Bi-212	0.999	727.17*	11.80	6.22014E-001	4.08478E-001
Pb-212	0.843	74.81* @	10.70	1.33548E+001	2.83822E+000
		77.11* @	18.00	1.98196E+000	5.99274E-001
		87.30 @	8.00		
		238.63*	44.60	7.64062E-001	1.88768E-001
Bi-214	0.996	609.31*	46.30	6.99232E-001	1.62935E-001
		1120.29*	15.10	7.37937E-001	3.43507E-001
		1764.49*	15.80	5.90304E-001	1.98491E-001
PB-214	0.762	74.82* @	6.21	2.30107E+001	5.16775E+000
		77.11* @	10.50	3.39765E+000	1.05819E+000
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	4.31078E-001	2.68166E-001
		351.92*	37.20	6.73744E-001	2.31337E-001
Ac-228	0.999	338.32*	11.40	5.35784E-001	4.51717E-001
		911.07*	27.70	1.35000E+000	2.64669E-001
		969.11*	16.60	8.93266E-001	3.49981E-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	1.433932E-001	7.909996E-002
K-40		0.985	2.233811E+001	2.199162E+000
TL-208		0.901	3.612663E-001	8.328016E-002
Bi-212		0.999	6.220136E-001	4.084784E-001
Pb-212	@	0.843	7.640621E-001	1.887683E-001
Bi-214		0.996	6.651633E-001	1.182426E-001
PB-214	@	0.762	5.702067E-001	1.751654E-001
Ac-228		0.999	1.067668E+000	1.912479E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	7.4935E-001	14.20
4	84.72	1.9751E-001	102.58
9	462.72	5.9482E-002	102.60

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	1.0471E-001	7.97E-002	6.3154E-002
	1332.49	100.00	7.9726E-002		3.9226E-002
Nb-94	702.63	100.00	1.0424E-001	9.54E-002	-3.1764E-002
	871.10	100.00	9.5437E-002		1.3992E-002
Ag-108m	79.20	7.10	4.5499E+000	1.24E-001	-8.9095E-002
	433.93	89.90	1.2371E-001		-6.5476E-002
	614.37	90.40	1.3423E-001		7.3218E-003
	722.95	90.50	1.2671E-001		2.6920E-002
Sb-125	176.33	6.89	2.3017E+000	3.79E-001	5.4219E-001
	427.89	29.33	3.7858E-001		1.3576E-001
	463.38	10.35	1.1097E+000		4.3077E-001
	600.56	17.80	6.2133E-001		2.5032E-002
	606.64	5.02	2.8943E+000		7.1933E+000
	635.90	11.32	8.5487E-001		-1.4033E-001
Cs-134	563.23	8.38	1.2213E+000	1.24E-001	1.1216E+000
	569.32	15.43	6.7551E-001		2.2011E-002
	604.70	97.60	1.4590E-001		5.5704E-003
	795.84	85.40	1.2364E-001		1.4081E-001
	801.93	8.73	1.0820E+000		-2.3792E+000
Cs-137	661.65	85.12	1.2381E-001	1.24E-001	7.4246E-002
Eu-152	121.78	28.40	7.1139E-001	3.57E-001	-3.2985E-001
	244.69	7.49	1.9353E+000		7.2187E-001
	344.27	26.50	4.4499E-001		-3.8583E-002
	778.89	12.74	8.0112E-001		-1.1914E-001
	867.32	4.16	2.2281E+000		-1.2517E+000
	964.01	14.40	9.2157E-001		3.7384E-001
	1085.78	10.00	9.6674E-001		2.2156E-001
	1112.02	13.30	7.7279E-001		2.5161E-001
	1407.95	20.70	3.5738E-001		-2.7527E-001
Eu-154	123.07	40.50	4.9568E-001	2.59E-001	6.9489E-002
	247.94	6.60	2.0939E+000		1.1257E+000
	591.81	4.83	2.2394E+000		4.4514E-001
	723.30	19.70	5.7757E-001		-7.0683E-003
	756.87	4.33	2.2522E+000		1.4978E-001
	873.19	11.50	8.4789E-001		-3.0015E-001
	996.32	10.30	9.6949E-001		1.0012E-001
	1004.76	17.90	5.2628E-001		-4.0078E-001
	1274.45	35.50	2.5883E-001		-1.7673E-001
Eu-155	86.54	30.90	9.7929E-001	9.79E-001	4.7885E-001
	105.31	20.70	1.1539E+000		-2.2050E-001
Am-241	59.54	35.90	1.1879E+000	1.19E+000	-3.3828E-001
Cm-243	228.19	10.56	1.3277E+000	9.56E-001	-8.1752E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	9.5575E-001	9.56E-001	1.7481E-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 4/25/2006 9:07:13 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: S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
Sample ID: NOL-02-02-122
Sample Title: NOL-02-02-122-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 4/18/2006 9:47:49 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: S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
Log Number: NOL-02-02-122
Title: NOL-02-02-122-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	285-	314	292.27	73.26	1.01	2.73E+002	50.13	7.49E+002
m	2	285-	314	300.49	75.32	1.01	4.04E+002	56.39	7.79E+002
m	3	285-	314	309.81	77.65	1.02	8.39E+001	43.59	7.50E+002
F	4	329-	344	338.75	84.88	1.24	1.87E+002	53.15	9.75E+002
F	5	949-	960	954.81	238.88	1.04	2.57E+002	43.52	2.81E+002
F	6	1175-	1191	1180.82	295.38	1.17	9.00E+001	29.76	2.25E+002
F	7	1349-	1358	1353.78	338.61	0.73	4.74E+001	23.76	1.27E+002
F	8	1402-	1414	1408.18	352.21	1.07	1.43E+002	30.20	1.11E+002
F	9	1847-	1863	1852.08	463.17	0.86	3.83E+001	18.38	9.66E+001
F	10	2034-	2055	2043.78	511.09	2.12	1.37E+002	29.12	1.37E+002
F	11	2325-	2342	2333.40	583.49	1.21	1.81E+002	31.14	9.68E+001
F	12	2429-	2445	2438.18	609.68	1.20	1.37E+002	27.44	7.44E+001
F	13	2904-	2917	2909.99	727.62	1.04	3.00E+001	15.80	6.57E+001
F	14	3638-	3656	3645.95	911.59	1.64	1.54E+002	27.18	3.87E+001
F	15	3870-	3887	3878.04	969.61	1.43	8.04E+001	21.64	4.35E+001
F	16	4475-	4492	4483.85	1121.04	2.07	6.24E+001	18.22	2.02E+001
F	17	5837-	5862	5848.76	1462.23	1.81	9.83E+002	62.54	1.75E+001
F	18	7059-	7073	7066.18	1766.55	2.20	4.32E+001	13.89	3.32E+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: S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL

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	2.33828E-001	5.89529E-002
K-40	0.937	1460.81*	10.67	2.08692E+001	2.14854E+000
TL-208	0.750	277.35	6.80		
		510.84*	21.60	1.08253E+000	2.86891E-001
		583.14*	84.20	3.82013E-001	8.25285E-002
		860.37	12.46		
Bi-212	0.993	727.17*	11.80	4.81399E-001	2.59858E-001
Pb-212	0.849	74.81* @	10.70	1.30083E+001	3.13033E+000
		77.11* @	18.00	1.46336E+000	8.12744E-001
		87.30 @	8.00		
		238.63*	44.60	8.01224E-001	1.84985E-001
Bi-214	0.966	609.31*	46.30	5.35904E-001	1.25735E-001
		1120.29*	15.10	8.58714E-001	2.66754E-001
		1764.49*	15.80	6.73598E-001	2.26932E-001
PB-214	0.762	74.82* @	6.21	2.24137E+001	5.63371E+000
		77.11* @	10.50	2.50862E+000	1.40581E+000
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	6.86381E-001	2.54720E-001
		351.92*	37.20	5.86327E-001	1.58121E-001
Ac-228	0.993	338.32*	11.40	6.29383E-001	3.30661E-001
		911.07*	27.70	1.10378E+000	2.32847E-001
		969.11*	16.60	9.76219E-001	2.81921E-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\Brn1m180dSoil\NOL

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	1.513127E-001	6.153036E-002
K-40		0.937	2.086925E+001	2.148542E+000
TL-208		0.750	3.820133E-001	8.158407E-002
Bi-212		0.993	4.813988E-001	2.598580E-001
Pb-212	@	0.849	8.012242E-001	1.849852E-001
Bi-214		0.966	6.104482E-001	1.016788E-001
PB-214	@	0.762	6.141581E-001	1.343417E-001
Ac-228		0.993	9.558221E-001	1.577748E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	73.26	4.5420E-001	18.40
F 4	84.88	3.1111E-001	28.47
F 9	463.17	6.3898E-002	47.95

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\Brn1m180dSoil\NOL
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	1.1736E-001	9.34E-002	1.0067E-001
	1332.49	100.00	9.3380E-002		2.9201E-002
Nb-94	702.63	100.00	1.2903E-001	1.09E-001	3.5582E-002
	871.10	100.00	1.0864E-001		-1.3908E-002
Ag-108m	79.20	7.10	9.0262E+000	1.45E-001	-1.2540E-001
	433.93	89.90	1.4571E-001		-7.4290E-002
	614.37	90.40	1.7473E-001		-2.9381E-003
	722.95	90.50	1.4484E-001		-5.7274E-002
Sb-125	176.33	6.89	3.0383E+000	4.45E-001	-1.9233E-001
	427.89	29.33	4.4538E-001		3.4375E-002
	463.38	10.35	1.3360E+000		-1.6597E-001
	600.56	17.80	6.8014E-001		-5.3913E-001
	606.64	5.02	3.1200E+000		3.8447E+000
	635.90	11.32	1.0421E+000		-7.3517E-002
Cs-134	563.23	8.38	1.5749E+000	1.46E-001	6.8706E-001
	569.32	15.43	8.6512E-001		-2.9555E-001
	604.70	97.60	1.5767E-001		-3.3193E-002
	795.84	85.40	1.4572E-001		5.1865E-002
	801.93	8.73	1.2800E+000		-6.7701E-001
Cs-137	661.65	85.12	1.3997E-001	1.40E-001	2.9212E-002
Eu-152	121.78	28.40	1.0106E+000	3.72E-001	-1.2692E-002
	244.69	7.49	2.3142E+000		-3.6007E+000
	344.27	26.50	5.6635E-001		-6.4300E-001
	778.89	12.74	9.0061E-001		-1.0155E+000
	867.32	4.16	2.8244E+000		-1.2726E+000
	964.01	14.40	1.0070E+000		-1.2489E-001
	1085.78	10.00	1.1164E+000		-5.5649E-002
	1112.02	13.30	8.2696E-001		-3.6584E-002
	1407.95	20.70	3.7213E-001		-5.4342E-002
Eu-154	123.07	40.50	6.9643E-001	3.09E-001	-3.4520E-001
	247.94	6.60	2.5457E+000		-3.5584E+000
	591.81	4.83	2.6099E+000		7.5376E-001
	723.30	19.70	6.6701E-001		-2.3959E-001
	756.87	4.33	2.8111E+000		1.0460E+000
	873.19	11.50	9.4520E-001		5.2947E-001
	996.32	10.30	1.0769E+000		7.0353E-001
	1004.76	17.90	6.0159E-001		2.3058E-001
	1274.45	35.50	3.0855E-001		-5.1744E-002
Eu-155	86.54	30.90	1.5891E+000	1.59E+000	-2.8172E-001
	105.31	20.70	1.7053E+000		7.3566E-001
Am-241	59.54	35.90	3.4379E+000	3.44E+000	-3.2702E+000
Cm-243	228.19	10.56	1.7693E+000	1.18E+000	2.4437E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	1.1797E+000	1.18E+000	-2.1701E-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 5/5/2006 10:41:40 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: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-02-02-122
Sample Title: NOL-02-02-122-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/5/2006 10:31:38 AM
Live Time: 600.0 seconds
Real Time: 601.1 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-02-02-122
Title: NOL-02-02-122-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	287-	306	291.75	72.77	0.83	3.67E+002	62.86	1.04E+003
m	2	287-	306	300.28	74.90	0.83	7.09E+002	76.97	1.36E+003
M	3	332-	357	339.48	84.70	1.17	3.21E+002	62.65	1.32E+003
m	4	332-	357	349.88	87.30	1.18	1.64E+002	56.90	1.51E+003
M	5	946-	972	954.67	238.55	1.06	4.18E+002	48.45	3.36E+002
m	6	946-	972	968.27	241.95	1.06	5.16E+001	28.76	2.85E+002
	7	1176-	1189	1180.91	295.12	1.01	8.50E+001	50.89	2.11E+002
	8	1399-	1417	1407.30	351.74	1.71	1.90E+002	56.89	1.92E+002
	9	2035-	2051	2041.94	510.45	0.95	1.18E+002	49.92	1.69E+002
	10	2321-	2342	2332.30	583.06	1.19	1.93E+002	51.80	1.35E+002
	11	2430-	2448	2436.78	609.19	1.27	1.99E+002	44.34	9.03E+001
	12	2832-	2843	2837.18	709.31	0.36	2.46E+001	20.56	3.34E+001
	13	3437-	3448	3442.08	860.59	0.37	2.26E+001	22.15	4.14E+001
	14	3636-	3653	3644.49	911.20	1.19	2.04E+002	35.78	3.99E+001
	15	3867-	3886	3875.62	969.00	0.45	1.07E+002	38.61	8.04E+001
	16	4475-	4490	4482.20	1120.70	0.77	4.50E+001	24.97	3.90E+001
	17	4948-	4961	4953.49	1238.55	0.36	2.16E+001	23.44	4.34E+001
	18	5504-	5515	5509.37	1377.57	0.49	2.68E+001	12.84	6.18E+000
	19	5831-	5857	5845.17	1461.54	1.62	1.28E+003	75.83	4.81E+001
	20	7054-	7070	7062.14	1765.88	0.53	4.40E+001	19.87	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: 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	0.989	511.00*	100.00	1.60476E-001	7.14661E-002
K-40	0.982	1460.81*	10.67	2.15196E+001	2.15718E+000
Eu-155	0.321	86.54*	30.90	6.56714E-001	2.62190E-001
		105.31	20.70		
TL-208	0.902	277.35	6.80		
		510.84*	21.60	7.42945E-001	3.36379E-001
		583.14*	84.20	3.27131E-001	9.74591E-002
		860.37*	12.46	2.83466E-001	2.80473E-001
Pb-212	0.677	74.81* @	10.70	1.01499E+001	2.27401E+000
		77.11 @	18.00		
		87.30* @	8.00	2.53656E+000	1.01271E+000
		238.63*	44.60	1.01516E+000	1.98009E-001
Bi-214	0.985	609.31*	46.30	6.20615E-001	1.58156E-001
		1120.29*	15.10	5.02234E-001	2.83418E-001
		1764.49*	15.80	5.16731E-001	2.39102E-001
PB-214	0.819	74.82* @	6.21	1.74886E+001	4.11872E+000
		77.11 @	10.50		
		87.30* @	4.67	4.34528E+000	1.76562E+000
		241.98*	7.49	7.49630E-001	4.36092E-001
		295.21*	19.20	5.10244E-001	3.17236E-001
		351.92*	37.20	6.18261E-001	2.12122E-001
Ac-228	0.633	338.32	11.40		
		911.07*	27.70	1.16815E+000	2.44935E-001
		969.11*	16.60	1.03624E+000	3.90814E-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		0.989	9.082199E-002	7.415214E-002
K-40		0.982	2.151955E+001	2.157181E+000
Eu-155		0.321	3.019796E-001	2.682712E-001
TL-208		0.902	3.224723E-001	9.156084E-002
Pb-212	@	0.677	1.015159E+000	1.980085E-001
Bi-214		0.985	5.735484E-001	1.195913E-001
PB-214	@	0.819	6.081385E-001	1.617611E-001
Ac-228		0.633	1.130950E+000	2.075429E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	6.1244E-001	17.11
M 3	84.70	5.3573E-001	19.49
12	709.31	4.0948E-002	83.69
17	1238.55	3.5949E-002	108.69
18	1377.57	4.4697E-002	47.89

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	9.9868E-002	9.02E-002	6.0584E-002
		1332.49	100.00	9.0156E-002		3.4886E-002
	Nb-94	702.63	100.00	9.9227E-002	9.16E-002	9.7738E-003
		871.10	100.00	9.1555E-002		5.8996E-002
	Ag-108m	79.20	7.10	4.5967E+000	1.23E-001	-2.1038E+000
		433.93	89.90	1.2296E-001		1.4774E-002
		614.37	90.40	1.3678E-001		3.9559E-002
		722.95	90.50	1.3274E-001		5.1197E-002
	Sb-125	176.33	6.89	2.3274E+000	3.86E-001	7.6439E-001
		427.89	29.33	3.8644E-001		1.5496E-001
		463.38	10.35	1.0832E+000		-2.0011E-001
		600.56	17.80	5.9724E-001		-9.3830E-002
		606.64	5.02	2.7708E+000		-3.1356E+000
		635.90	11.32	8.3921E-001		3.9505E-001
	Cs-134	563.23	8.38	1.2265E+000	1.22E-001	-7.8104E-001
		569.32	15.43	6.7551E-001		-7.3583E-002
		604.70	97.60	1.3372E-001		-1.8884E-001
		795.84	85.40	1.2245E-001		1.4016E-001
		801.93	8.73	1.1729E+000		-7.8609E-001
	Cs-137	661.65	85.12	1.3185E-001	1.32E-001	5.9296E-002
	Eu-152	121.78	28.40	7.2683E-001	3.25E-001	-8.4734E-002
		244.69	7.49	1.9035E+000		-4.9063E-001
		344.27	26.50	4.4602E-001		-7.6618E-002
		778.89	12.74	8.0925E-001		-1.1614E-001
		867.32	4.16	2.1620E+000		3.5404E-002
		964.01	14.40	9.2764E-001		1.8869E-001
		1085.78	10.00	9.7325E-001		2.5488E-002
		1112.02	13.30	7.6101E-001		9.6639E-002
		1407.95	20.70	3.2476E-001		9.5892E-002
	Eu-154	123.07	40.50	5.0680E-001	2.87E-001	1.4749E-001
		247.94	6.60	2.0631E+000		6.0341E-001
		591.81	4.83	2.2172E+000		-2.4336E-002
		723.30	19.70	6.1525E-001		5.4538E-001
		756.87	4.33	2.2892E+000		-2.3806E+000
		873.19	11.50	7.9651E-001		5.0865E-001
		996.32	10.30	9.3686E-001		6.9984E-001
		1004.76	17.90	5.2087E-001		1.4918E-001
		1274.45	35.50	2.8687E-001		1.2574E-001
+	Eu-155	86.54*	30.90	7.3678E-001	7.37E-001	6.5671E-001
		105.31	20.70	1.1606E+000		-3.0725E-001
	Am-241	59.54	35.90	1.1710E+000	1.17E+000	-1.0509E+000
	Cm-243	228.19	10.56	1.3732E+000	9.49E-001	6.3564E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	9.4890E-001	9.49E-001	2.4009E-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 4/25/2006 9:08:35 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: BRN7722

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
Sample ID: NOL-02-02-123
Sample Title: NOL-02-02-123-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 4/18/2006 10:22:06 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: S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
Log Number: NOL-02-02-123
Title: NOL-02-02-123-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	291.97	73.19	0.78	1.34E+002	44.64	6.44E+002
m	2	286-	306	300.56	75.33	0.78	3.30E+002	57.36	7.77E+002
M	3	332-	355	339.87	85.16	1.15	1.98E+002	52.04	9.05E+002
m	4	332-	355	350.63	87.85	1.16	9.08E+001	46.10	8.98E+002
F	5	949-	961	954.86	238.89	1.00	2.96E+002	45.12	2.90E+002
F	6	1176-	1186	1181.08	295.44	0.82	5.41E+001	26.22	1.59E+002
F	7	1349-	1358	1353.80	338.62	0.72	5.21E+001	23.69	1.19E+002
F	8	1400-	1415	1408.04	352.18	1.06	1.15E+002	29.62	1.64E+002
F	9	2035-	2054	2042.94	510.88	1.65	1.37E+002	28.91	1.18E+002
F	10	2323-	2340	2333.35	583.48	1.18	1.62E+002	29.49	7.88E+001
F	11	2428-	2448	2438.09	609.66	1.54	1.58E+002	30.43	1.16E+002
F	12	2904-	2916	2910.90	727.85	0.51	2.60E+001	13.33	4.73E+001
F	13	3173-	3186	3180.10	795.14	1.28	3.55E+001	16.92	3.87E+001
F	14	3437-	3451	3443.85	861.07	1.31	2.76E+001	16.76	4.50E+001
F	15	3636-	3655	3646.79	911.80	1.29	1.59E+002	27.95	5.73E+001
F	16	3871-	3886	3878.27	969.67	1.02	7.23E+001	20.25	4.71E+001
F	17	5510-	5523	5516.45	1379.16	0.48	1.31E+001	1.04	1.58E+001
F	18	5838-	5861	5848.91	1462.27	1.80	9.66E+002	62.04	1.69E+001
F	19	7060-	7076	7066.45	1766.62	1.82	4.73E+001	14.25	3.13E+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\Brn1m180dSoil\NOL

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	2.33895E-001	5.86532E-002
K-40	0.933	1460.81*	10.67	2.05060E+001	2.11881E+000
TL-208	0.900	277.35	6.80		
		510.84*	21.60	1.08285E+000	2.85579E-001
		583.14*	84.20	3.42676E-001	7.66938E-002
		860.37*	12.46	4.35625E-001	2.69576E-001
Bi-212	0.985	727.17*	11.80	4.17448E-001	2.19506E-001
Pb-212	0.724	74.81* @	10.70	1.06360E+001	2.78466E+000
		77.11 @	18.00		
		87.30* @	8.00	2.44442E+000	1.33064E+000
		238.63*	44.60	9.21941E-001	2.01773E-001
Bi-214	0.663	609.31*	46.30	6.16947E-001	1.40936E-001
		1120.29	15.10		
		1764.49*	15.80	7.37662E-001	2.34200E-001
PB-214	0.695	74.82* @	6.21	1.83261E+001	4.97906E+000
		77.11 @	10.50		
		87.30* @	4.67	4.18744E+000	2.30131E+000
		241.98	7.49		
		295.21*	19.20	4.12573E-001	2.11760E-001
		351.92*	37.20	4.74152E-001	1.45243E-001
Ac-228	0.988	338.32*	11.40	6.91448E-001	3.32784E-001
		911.07*	27.70	1.14432E+000	2.39989E-001
		969.11*	16.60	8.77964E-001	2.62521E-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\Brn1m180dSoil\NOL

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	1.583992E-001	6.073742E-002
K-40		0.933	2.050601E+001	2.118810E+000
TL-208		0.900	3.495169E-001	7.303073E-002
Bi-212		0.985	4.174480E-001	2.195058E-001
Pb-212	@	0.724	9.219405E-001	2.017727E-001
Bi-214		0.663	6.490403E-001	1.207568E-001
PB-214	@	0.695	4.544513E-001	1.197765E-001
Ac-228		0.988	9.498552E-001	1.563596E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.2318E-001	33.34
M 3	85.16	3.3009E-001	26.27
F 13	795.14	5.9147E-002	47.67
F 17	1379.16	2.1791E-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
N U C L I D E M D A R E P O R T

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
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	1.1693E-001	8.98E-002	-8.7674E-002
	1332.49	100.00	8.9807E-002		-2.9317E-002
Nb-94	702.63	100.00	1.2559E-001	1.19E-001	-6.5562E-002
	871.10	100.00	1.1909E-001		-8.6116E-002
Ag-108m	79.20	7.10	9.0535E+000	1.46E-001	-2.5945E-001
	433.93	89.90	1.5110E-001		-5.1501E-002
	614.37	90.40	1.8900E-001		-3.8715E-002
	722.95	90.50	1.4585E-001		-1.1928E-002
Sb-125	176.33	6.89	2.8851E+000	4.58E-001	-1.7309E+000
	427.89	29.33	4.5812E-001		-1.0115E-001
	463.38	10.35	1.3188E+000		3.5989E-001
	600.56	17.80	6.9021E-001		-3.8797E-001
	606.64	5.02	3.3428E+000		-8.7938E-001
	635.90	11.32	1.0946E+000		-3.0274E-001
Cs-134	563.23	8.38	1.5237E+000	1.47E-001	1.0629E+000
	569.32	15.43	8.5829E-001		3.5216E-002
	604.70	97.60	1.6337E-001		-3.7642E-002
	795.84	85.40	1.4690E-001		4.4524E-002
	801.93	8.73	1.3478E+000		-4.8675E-001
Cs-137	661.65	85.12	1.5101E-001	1.51E-001	1.6501E-001
Eu-152	121.78	28.40	1.0150E+000	4.04E-001	1.6178E-001
	244.69	7.49	2.3703E+000		-8.4135E-002
	344.27	26.50	5.4189E-001		-6.1931E-001
	778.89	12.74	8.9197E-001		-3.0661E-001
	867.32	4.16	2.9645E+000		1.0240E+000
	964.01	14.40	9.7365E-001		-2.5367E-001
	1085.78	10.00	1.1421E+000		-6.0731E-001
	1112.02	13.30	9.0369E-001		7.5237E-001
	1407.95	20.70	4.0353E-001		1.6380E-001
Eu-154	123.07	40.50	7.0914E-001	2.69E-001	3.3249E-001
	247.94	6.60	2.5848E+000		-2.0950E+000
	591.81	4.83	2.6800E+000		8.1211E-001
	723.30	19.70	6.7166E-001		3.5063E-002
	756.87	4.33	2.5738E+000		-1.4695E+000
	873.19	11.50	1.0489E+000		9.6336E-001
	996.32	10.30	1.0004E+000		-1.5251E-001
	1004.76	17.90	6.3938E-001		4.9965E-001
	1274.45	35.50	2.6940E-001		-1.7765E-001
Eu-155	86.54	30.90	1.5839E+000	1.58E+000	2.2997E-001
	105.31	20.70	1.6900E+000		1.8448E+000
Am-241	59.54	35.90	3.3691E+000	3.37E+000	-2.9010E+000
Cm-243	228.19	10.56	1.7187E+000	1.18E+000	-1.3787E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	1.1847E+000	1.18E+000	1.2185E-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 5/5/2006 12:52:37 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: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-02-02-123
Sample Title: NOL-02-02-123-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/5/2006 12:42:28 AM
Live Time: 600.0 seconds
Real Time: 601.1 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-02-02-123
Title: NOL-02-02-123-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-	305	291.71	72.76	0.97	3.49E+002	63.95	1.25E+003
m	2	286-	305	300.47	74.95	0.98	6.84E+002	76.33	1.41E+003
	3	946-	961	954.86	238.59	0.88	3.33E+002	77.29	4.07E+002
	4	1175-	1188	1180.68	295.07	0.85	6.05E+001	52.58	2.39E+002
	5	1348-	1360	1353.20	338.21	1.01	8.17E+001	45.54	1.73E+002
	6	1400-	1417	1406.85	351.63	1.11	1.99E+002	53.95	1.71E+002
	7	2033-	2052	2041.61	510.36	1.65	1.63E+002	50.47	1.41E+002
	8	2325-	2340	2332.24	583.04	1.12	2.25E+002	44.67	9.79E+001
	9	2430-	2448	2436.57	609.13	1.58	1.85E+002	44.14	9.51E+001
	10	3635-	3655	3644.48	911.20	1.71	1.78E+002	38.15	5.53E+001
	11	3869-	3886	3875.97	969.09	1.64	1.04E+002	34.56	6.30E+001
	12	4474-	4489	4482.80	1120.85	0.84	5.18E+001	25.80	4.02E+001
	13	5831-	5858	5844.91	1461.47	2.14	1.32E+003	74.97	3.13E+001
	14	6367-	6380	6373.18	1593.58	0.38	1.91E+001	13.46	8.95E+000
	15	7053-	7069	7061.29	1765.66	1.05	6.28E+001	17.11	4.22E+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	0.986	511.00*		100.00	2.22023E-001	7.51144E-002
K-40	0.985	1460.81*		10.67	2.21864E+001	2.19272E+000
TL-208	0.750	277.35		6.80		
		510.84*		21.60	1.02788E+000	3.57740E-001
		583.14*		84.20	3.80996E-001	9.04133E-002
		860.37		12.46		
Pb-212	0.520	74.81*	@	10.70	9.78488E+000	2.20668E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	8.09074E-001	2.26716E-001
Bi-214	0.988	609.31*		46.30	5.77216E-001	1.55069E-001
		1120.29*		15.10	5.77526E-001	2.94075E-001
		1764.49*		15.80	7.37712E-001	2.14130E-001
PB-214	0.581	74.82*	@	6.21	1.68596E+001	3.99429E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	3.62984E-001	3.21372E-001
		351.92*		37.20	6.47956E-001	2.06375E-001
Ac-228	1.000	338.32*		11.40	8.58629E-001	4.97117E-001
		911.07*		27.70	1.01724E+000	2.47743E-001
		969.11*		16.60	1.01117E+000	3.52329E-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		0.986	1.397275E-001	7.756531E-002
K-40		0.985	2.218640E+001	2.192717E+000
TL-208		0.750	3.809963E-001	8.955671E-002
Pb-212	@	0.520	8.090742E-001	2.267159E-001
Bi-214		0.988	6.239607E-001	1.155017E-001
PB-214	@	0.581	5.647514E-001	1.736524E-001
Ac-228		1.000	9.929148E-001	1.876630E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	5.8109E-001	18.34
14	1593.58	3.1756E-002	70.65

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
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	1.0533E-001	8.24E-002	2.4870E-002
	1332.49	100.00	8.2357E-002		2.6688E-002
Nb-94	702.63	100.00	1.0326E-001	9.54E-002	6.9965E-003
	871.10	100.00	9.5437E-002		1.0733E-002
Ag-108m	79.20	7.10	4.7251E+000	1.21E-001	-7.8693E+000
	433.93	89.90	1.2145E-001		5.1894E-002
	614.37	90.40	1.3119E-001		-4.0707E-002
	722.95	90.50	1.2062E-001		-3.0495E-002
Sb-125	176.33	6.89	2.2877E+000	3.70E-001	-8.1539E-002
	427.89	29.33	3.6996E-001		1.3764E-001
	463.38	10.35	1.1308E+000		4.5534E-001
	600.56	17.80	5.3897E-001		-3.5855E-001
	606.64	5.02	2.6932E+000		-1.7420E+000
	635.90	11.32	8.8745E-001		9.9959E-001
Cs-134	563.23	8.38	1.2239E+000	1.14E-001	7.9757E-002
	569.32	15.43	6.7411E-001		5.8303E-001
	604.70	97.60	1.2699E-001		-1.1790E-001
	795.84	85.40	1.1437E-001		-3.6526E-002
	801.93	8.73	1.1046E+000		-1.3913E-001
Cs-137	661.65	85.12	1.2072E-001	1.21E-001	1.1969E-002
Eu-152	121.78	28.40	7.1294E-001	3.45E-001	-8.5907E-002
	244.69	7.49	1.8762E+000		-9.2449E-001
	344.27	26.50	4.5267E-001		9.5714E-002
	778.89	12.74	7.5475E-001		-9.5513E-001
	867.32	4.16	2.3270E+000		-3.9132E+000
	964.01	14.40	8.8746E-001		1.7464E-001
	1085.78	10.00	1.0083E+000		-3.0088E-001
	1112.02	13.30	7.2696E-001		7.8592E-003
	1407.95	20.70	3.4523E-001		3.7347E-001
Eu-154	123.07	40.50	4.9664E-001	2.39E-001	-2.7830E-001
	247.94	6.60	2.0734E+000		1.3664E-001
	591.81	4.83	2.2306E+000		1.7526E+000
	723.30	19.70	5.5417E-001		3.5656E-002
	756.87	4.33	2.3377E+000		1.0397E+000
	873.19	11.50	8.2262E-001		2.6795E-001
	996.32	10.30	8.1007E-001		-1.3746E+000
	1004.76	17.90	4.9292E-001		-6.5294E-002
	1274.45	35.50	2.3897E-001		-2.6939E-001
Eu-155	86.54	30.90	9.8683E-001	9.87E-001	1.3367E+000
	105.31	20.70	1.1752E+000		6.5200E-002
Am-241	59.54	35.90	1.2126E+000	1.21E+000	-5.0518E-001
Cm-243	228.19	10.56	1.3079E+000	9.40E-001	1.1333E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	9.4047E-001	9.40E-001	2.1384E-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 4/19/2006 12:51:07 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: BLUE6279
Sample ID: NOL-02-02-124
Sample Title: NOL-02-02-124-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 4/19/2006 12:41:15 AM
Live Time: 600.0 seconds
Real Time: 601.1 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
(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-02-02-124
Title: NOL-02-02-124-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	285-	305	292.09	72.85	0.98	3.62E+002	63.73	1.32E+003
m	2	285-	305	300.27	74.90	0.98	6.88E+002	76.29	1.40E+003
F	3	331-	344	339.23	84.64	1.18	2.47E+002	63.42	1.30E+003
F	4	950-	961	954.49	238.50	1.12	3.35E+002	46.34	3.03E+002
F	5	1172-	1188	1180.70	295.07	1.24	8.49E+001	28.80	2.38E+002
F	6	1345-	1362	1353.10	338.18	0.78	6.81E+001	26.08	2.47E+002
F	7	1401-	1417	1407.93	351.90	1.40	1.38E+002	30.25	1.78E+002
F	8	2324-	2339	2331.83	582.94	1.51	2.15E+002	32.51	1.07E+002
F	9	2430-	2445	2436.35	609.08	1.46	1.67E+002	29.25	8.77E+001
F	10	3633-	3654	3644.33	911.16	1.76	1.72E+002	27.45	6.28E+001
F	11	3867-	3885	3875.80	969.05	1.68	1.01E+002	23.84	7.24E+001
F	12	5829-	5858	5844.06	1461.26	2.07	1.28E+003	68.55	4.12E+001
F	13	7053-	7071	7061.87	1765.81	2.57	6.30E+001	16.69	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: BLUE6279

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	0.993	1460.81*	10.67	2.14772E+001	2.08460E+000
TL-208	0.470	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.63509E-001	7.25738E-002
		860.37	12.46		
Pb-212	0.520	74.81* @	10.70	9.84779E+000	2.21763E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	8.15115E-001	1.70359E-001
Bi-214	0.685	609.31*	46.30	5.22653E-001	1.11750E-001
		1120.29	15.10		
		1764.49*	15.80	7.40257E-001	2.09602E-001
PB-214	0.582	74.82* @	6.21	1.69680E+001	4.01466E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	5.09463E-001	1.92919E-001
		351.92*	37.20	4.50838E-001	1.24026E-001
Ac-228	1.000	338.32*	11.40	7.15055E-001	2.96127E-001
		911.07*	27.70	9.85574E-001	1.93736E-001
		969.11*	16.60	9.84809E-001	2.53704E-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/GRAM)	Wt mean Activity Uncertainty
K-40		0.993	2.147716E+001	2.084605E+000
TL-208		0.470	3.635094E-001	7.257383E-002
Pb-212	@	0.520	8.151151E-001	1.703585E-001
Bi-214		0.685	5.708164E-001	9.861023E-002
PB-214	@	0.582	4.679826E-001	1.043266E-001
Ac-228		1.000	9.277794E-001	1.366117E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	6.0278E-001	17.62
F 3	84.64	4.1188E-001	25.66

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

Errors quoted at 1.960 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/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Co-60	1173.22	100.00	1.0086E-001	8.53E-002	-5.2100E-002
	1332.49	100.00	8.5318E-002		3.7363E-002
Nb-94	702.63	100.00	1.0276E-001	9.57E-002	-1.1317E-001
	871.10	100.00	9.5729E-002		8.9277E-002
Ag-108m	79.20	7.10	4.6459E+000	1.20E-001	-7.8066E+000
	433.93	89.90	1.2031E-001		6.4027E-002
	614.37	90.40	1.2943E-001		-4.8728E-002
	722.95	90.50	1.2867E-001		1.3246E-001
Sb-125	176.33	6.89	2.2194E+000	3.77E-001	-1.0796E+000
	427.89	29.33	3.7687E-001		-2.9869E-002
	463.38	10.35	1.1420E+000		9.0285E-001
	600.56	17.80	5.7082E-001		-6.1313E-002
	606.64	5.02	2.7407E+000		4.7408E+000
	635.90	11.32	8.7457E-001		-1.5452E-001
Cs-134	563.23	8.38	1.1897E+000	1.22E-001	-8.3934E-002
	569.32	15.43	7.0018E-001		2.8127E-001
	604.70	97.60	1.3589E-001		-1.4095E-001
	795.84	85.40	1.2185E-001		6.6941E-002
	801.93	8.73	1.1205E+000		-4.1246E-001
Cs-137	661.65	85.12	1.2072E-001	1.21E-001	3.3885E-003
Eu-152	121.78	28.40	7.2242E-001	3.48E-001	4.1622E-001
	244.69	7.49	1.8585E+000		-1.0763E+000
	344.27	26.50	4.3507E-001		-1.1725E-001
	778.89	12.74	7.6769E-001		-9.6583E-002
	867.32	4.16	2.2922E+000		-3.9644E+000
	964.01	14.40	8.9219E-001		2.9071E-002
	1085.78	10.00	9.3346E-001		4.8038E-002
	1112.02	13.30	6.7787E-001		-5.2601E-001
	1407.95	20.70	3.4770E-001		3.8693E-002
Eu-154	123.07	40.50	4.9555E-001	2.41E-001	-1.6695E-001
	247.94	6.60	2.0152E+000		-8.8481E-001
	591.81	4.83	2.0456E+000		-1.2615E+000
	723.30	19.70	5.8440E-001		6.3222E-001
	756.87	4.33	2.3497E+000		3.5621E-001
	873.19	11.50	8.0706E-001		-3.0456E-001
	996.32	10.30	9.2163E-001		2.9853E-001
	1004.76	17.90	5.0617E-001		4.0259E-001
	1274.45	35.50	2.4127E-001		6.1133E-002
Eu-155	86.54	30.90	9.9067E-001	9.91E-001	-8.6060E-002
	105.31	20.70	1.1595E+000		3.9695E-001
Am-241	59.54	35.90	1.1980E+000	1.20E+000	-6.3736E-002
Cm-243	228.19	10.56	1.3123E+000	9.40E-001	-5.8175E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	9.3970E-001	9.40E-001	-1.1417E-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 5/5/2006 1:21:44 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-02-02-124
Sample Title: NOL-02-02-124-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/5/2006 1:11:43 AM
Live Time: 600.0 seconds
Real Time: 600.9 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-02-02-124
Title: NOL-02-02-124-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	291.81	72.78	1.14	3.67E+002	62.56	1.36E+003
m	2	284-	306	300.38	74.93	1.14	6.41E+002	74.31	1.61E+003
	3	946-	961	955.05	238.64	1.07	2.74E+002	73.57	3.78E+002
	4	1349-	1359	1353.87	338.38	0.71	6.04E+001	38.50	1.36E+002
	5	1397-	1417	1407.50	351.79	1.51	1.95E+002	54.21	1.57E+002
	6	2324-	2342	2332.52	583.11	1.28	1.73E+002	43.59	9.50E+001
	7	2427-	2444	2435.98	608.99	1.67	1.57E+002	40.84	8.53E+001
	8	2902-	2916	2909.50	727.40	1.01	5.42E+001	26.11	4.28E+001
	9	3635-	3657	3644.47	911.20	2.02	1.73E+002	37.56	4.93E+001
	10	3867-	3885	3875.91	969.08	0.58	8.50E+001	33.90	6.30E+001
	11	4474-	4491	4481.28	1120.47	1.79	6.03E+001	30.36	5.47E+001
	12	5829-	5859	5844.90	1461.47	1.87	1.15E+003	69.20	1.93E+001
	13	7055-	7068	7061.42	1765.70	0.70	3.55E+001	14.29	6.50E+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	0.985	1460.81*	10.67	1.93351E+001	1.94883E+000
TL-208	0.471	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	2.92781E-001	8.30307E-002
		860.37	12.46		
Bi-212	0.998	727.17*	11.80	6.94981E-001	3.44777E-001
Pb-212	0.520	74.81* @	10.70	9.16457E+000	2.08725E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	6.66420E-001	2.07159E-001
Bi-214	0.987	609.31*	46.30	4.89387E-001	1.41050E-001
		1120.29*	15.10	6.71975E-001	3.45924E-001
		1764.49*	15.80	4.17129E-001	1.73044E-001
Ac-228	1.000	338.32*	11.40	6.34354E-001	4.16613E-001
		911.07*	27.70	9.88708E-001	2.43190E-001
		969.11*	16.60	8.26581E-001	3.40753E-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	1.933510E+001	1.948825E+000
TL-208	0.471	2.927811E-001	8.303071E-002
Bi-212	0.998	6.949815E-001	3.447768E-001
Pb-212 @	0.520	6.664200E-001	2.071594E-001
Bi-214	0.987	4.797450E-001	1.042485E-001
Ac-228	1.000	8.788095E-001	1.787924E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	6.1247E-001	17.02
5	351.79	3.2442E-001	27.85

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: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	8.70E-002	-9.2885E-002
	1332.49	100.00	8.6962E-002		9.1944E-002
Nb-94	702.63	100.00	9.2009E-002	8.81E-002	4.4191E-002
	871.10	100.00	8.8130E-002		3.9194E-002
Ag-108m	79.20	7.10	4.4380E+000	1.14E-001	-8.7798E+000
	433.93	89.90	1.1378E-001		-1.0637E-002
	614.37	90.40	1.2018E-001		-3.9649E-002
	722.95	90.50	1.2191E-001		-2.0226E-003
Sb-125	176.33	6.89	2.2039E+000	3.61E-001	3.3131E-001
	427.89	29.33	3.6054E-001		-1.3710E-001
	463.38	10.35	1.0781E+000		5.7319E-001
	600.56	17.80	5.4711E-001		-9.1411E-003
	606.64	5.02	2.5848E+000		4.6663E+000
	635.90	11.32	7.9746E-001		-1.8015E-001
Cs-134	563.23	8.38	1.1923E+000	1.14E-001	-5.5332E-001
	569.32	15.43	6.5709E-001		3.2615E-001
	604.70	97.60	1.2833E-001		1.7135E-002
	795.84	85.40	1.1405E-001		6.0528E-002
	801.93	8.73	1.0487E+000		-8.9384E-001
Cs-137	661.65	85.12	1.2072E-001	1.21E-001	5.2194E-002
Eu-152	121.78	28.40	6.9958E-001	3.38E-001	4.4749E-001
	244.69	7.49	1.7876E+000		-1.0873E+000
	344.27	26.50	4.2436E-001		-4.8523E-002
	778.89	12.74	7.4819E-001		-7.3126E-001
	867.32	4.16	2.1167E+000		-3.9092E+000
	964.01	14.40	8.5522E-001		4.6555E-001
	1085.78	10.00	8.3664E-001		-5.8336E-001
	1112.02	13.30	7.3440E-001		-1.4399E-001
	1407.95	20.70	3.3771E-001		1.7210E-001
Eu-154	123.07	40.50	4.8036E-001	2.50E-001	-1.6489E-001
	247.94	6.60	1.8932E+000		-2.2216E+000
	591.81	4.83	2.0792E+000		4.7704E-001
	723.30	19.70	5.5655E-001		1.1323E-001
	756.87	4.33	2.0970E+000		-6.9605E-001
	873.19	11.50	7.4139E-001		-9.6863E-001
	996.32	10.30	8.9985E-001		-3.7969E-001
	1004.76	17.90	5.4041E-001		1.7902E-001
	1274.45	35.50	2.5021E-001		-1.8499E-001
Eu-155	86.54	30.90	9.4032E-001	9.40E-001	7.2967E-001
	105.31	20.70	1.1103E+000		-3.2616E-001
Am-241	59.54	35.90	1.1604E+000	1.16E+000	-5.5319E-001
Cm-243	228.19	10.56	1.2637E+000	9.04E-001	4.1929E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	9.0350E-001	9.04E-001	-3.4241E-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 4/18/2006 8:55:57 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-02-02-125
Sample Title: NOL-02-02-125-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 4/18/2006 8:45:56 PM
Live Time: 600.0 seconds
Real Time: 601.1 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
(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-02-02-125
Title: NOL-02-02-125-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	285-	306	291.87	72.80	0.86	3.51E+002	62.64	1.24E+003
m	2	285-	306	300.37	74.92	0.87	7.11E+002	77.59	1.36E+003
M	3	334-	355	339.94	84.82	0.96	2.41E+002	61.62	1.15E+003
m	4	334-	355	350.45	87.45	0.97	1.03E+002	54.00	1.23E+003
F	5	949-	959	954.57	238.52	0.98	3.59E+002	47.15	2.78E+002
F	6	1177-	1185	1179.88	294.87	0.73	6.36E+001	25.22	1.38E+002
F	7	1343-	1359	1352.95	338.15	1.25	8.33E+001	28.45	2.25E+002
F	8	1401-	1413	1407.56	351.80	1.10	1.59E+002	32.54	1.61E+002
F	9	1847-	1858	1851.56	462.84	0.59	3.64E+001	17.74	8.55E+001
F	10	2035-	2052	2043.36	510.80	1.56	1.44E+002	29.24	1.48E+002
F	11	2323-	2342	2332.42	583.09	1.28	2.42E+002	33.40	1.02E+002
F	12	2428-	2445	2436.93	609.22	1.40	1.98E+002	31.18	1.05E+002
F	13	2634-	2655	2646.48	661.63	2.25	1.65E+002	25.18	5.82E+001
M	14	2902-	2938	2909.34	727.36	1.04	3.52E+001	16.62	5.55E+001
m	15	2902-	2938	2931.27	732.84	1.04	2.75E+001	13.75	3.33E+001
F	16	3174-	3188	3180.55	795.18	0.79	2.95E+001	14.78	4.76E+001
F	17	3635-	3656	3644.47	911.20	1.78	1.90E+002	28.48	5.81E+001
F	18	3867-	3885	3875.57	968.99	1.45	8.34E+001	23.62	8.80E+001
F	19	4473-	4490	4481.86	1120.61	1.28	5.20E+001	18.36	4.75E+001
F	20	4685-	4702	4693.33	1173.49	1.96	6.61E+001	18.85	3.56E+001
F	21	5323-	5339	5331.22	1333.02	1.70	5.63E+001	16.61	1.80E+001
F	22	5831-	5858	5845.05	1461.51	1.98	1.24E+003	67.21	6.97E+000
F	23	7054-	7067	7060.80	1765.54	1.91	3.86E+001	14.71	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
(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/GRAM)	Activity Uncertainty
ANN	0.999	511.00*	100.00	1.96539E-001	4.79607E-002
K-40	0.983	1460.81*	10.67	2.07382E+001	2.02236E+000
Co-60	0.994	1173.22*	100.00	1.12782E-001	3.33587E-002
		1332.49*	100.00	9.90640E-002	3.02124E-002
Cs-137	1.000	661.65*	85.12	2.87923E-001	5.55067E-002
TL-208	0.752	277.35	6.80		
		510.84*	21.60	9.09901E-001	2.34145E-001
		583.14*	84.20	4.09731E-001	7.77219E-002
		860.37	12.46		
Bi-212	0.999	727.17*	11.80	4.51779E-001	2.19729E-001
Pb-212	0.677	74.81* @	10.70	1.01708E+001	2.28167E+000
		77.11 @	18.00		
		87.30* @	8.00	1.59603E+000	8.92048E-001
		238.63*	44.60	8.72615E-001	1.78482E-001
Bi-214	0.991	609.31*	46.30	6.18435E-001	1.23608E-001
		1120.29*	15.10	5.79556E-001	2.13755E-001
		1764.49*	15.80	4.53719E-001	1.78675E-001
PB-214	0.669	74.82* @	6.21	1.75246E+001	4.13209E+000
		77.11 @	10.50		
		87.30* @	4.67	2.73410E+000	1.54203E+000
		241.98	7.49		
		295.21*	19.20	3.81820E-001	1.64381E-001
		351.92*	37.20	5.18503E-001	1.36890E-001
Ac-228	0.999	338.32*	11.40	8.75229E-001	3.28905E-001
		911.07*	27.70	1.08670E+000	2.05435E-001
		969.11*	16.60	8.11151E-001	2.44860E-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/GRAM)	Wt mean Activity Uncertainty
	ANN		0.999	1.080367E-001	5.073213E-002
	K-40		0.983	2.073821E+001	2.022355E+000
	Co-60		0.994	1.052455E-001	2.239329E-002
	Cs-137		1.000	2.879234E-001	5.550674E-002
X	Eu-155		0.316		
	TL-208		0.752	4.097309E-001	7.656634E-002
	Bi-212		0.999	4.517791E-001	2.197287E-001
	Pb-212	@	0.677	8.726149E-001	1.784824E-001
	Bi-214		0.991	5.677823E-001	9.180132E-002
	PB-214	@	0.669	4.625309E-001	1.051912E-001
	Ac-228		0.999	9.546775E-001	1.419653E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	5.8479E-001	17.85
M 3	84.82	4.0161E-001	25.57
F 9	462.84	6.0740E-002	48.68
m 15	732.84	4.5888E-002	49.94
F 16	795.18	4.9236E-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
(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/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
+	Co-60	1173.22*	100.00	6.4982E-002	4.81E-002	1.1278E-001
		1332.49*	100.00	4.8129E-002		9.9064E-002
	Nb-94	702.63	100.00	1.0593E-001	9.49E-002	-4.5156E-002
		871.10	100.00	9.4851E-002		-3.3830E-002
	Ag-108m	79.20	7.10	4.6487E+000	1.18E-001	-5.6601E+000
		433.93	89.90	1.2593E-001		-6.0180E-002
		614.37	90.40	1.4334E-001		-5.2981E-002
		722.95	90.50	1.1799E-001		5.1319E-002
	Sb-125	176.33	6.89	2.2553E+000	3.89E-001	-1.5968E+000
		427.89	29.33	3.8921E-001		-1.4756E-002
		463.38	10.35	1.1130E+000		4.7052E-001
		600.56	17.80	5.8356E-001		1.3098E-001
		606.64	5.02	2.8494E+000		6.0551E+000
		635.90	11.32	9.1884E-001		-3.2880E-001
	Cs-134	563.23	8.38	1.2772E+000	1.25E-001	4.3707E-001
		569.32	15.43	6.3516E-001		-6.3394E-001
		604.70	97.60	1.3696E-001		-9.8973E-002
		795.84	85.40	1.2453E-001		4.2433E-002
		801.93	8.73	1.1205E+000		-3.1692E-001
+	Cs-137	661.65*	85.12	9.0131E-002	9.01E-002	2.8792E-001
	Eu-152	121.78	28.40	7.2223E-001	3.55E-001	-3.0154E-001
		244.69	7.49	1.8824E+000		2.9259E-001
		344.27	26.50	4.3401E-001		-3.6982E-001
		778.89	12.74	8.0112E-001		-3.0232E-001
		867.32	4.16	2.3131E+000		-5.2713E+000
		964.01	14.40	9.4410E-001		3.8567E-001
		1085.78	10.00	9.7325E-001		-3.7906E-001
		1112.02	13.30	7.2196E-001		-5.1163E-002
		1407.95	20.70	3.5499E-001		-2.0602E-001
	Eu-154	123.07	40.50	5.0667E-001	2.70E-001	-1.6831E-001
		247.94	6.60	2.0288E+000		1.3808E+000
		591.81	4.83	2.1677E+000		3.3163E-001
		723.30	19.70	5.4694E-001		2.2171E-001
		756.87	4.33	2.2459E+000		-3.9136E-002
		873.19	11.50	8.3282E-001		-1.9688E-001
		996.32	10.30	9.7530E-001		3.0996E-001
		1004.76	17.90	5.3866E-001		-2.8033E-002
		1274.45	35.50	2.7021E-001		-5.7127E-002
	Eu-155	86.54*	30.90	6.6355E-001	6.64E-001	4.1321E-001
		105.31	20.70	1.1447E+000		-8.0936E-001
	Am-241	59.54	35.90	1.1942E+000	1.19E+000	8.8592E-002
	Cm-243	228.19	10.56	1.3071E+000	9.56E-001	-2.7907E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	9.5575E-001	9.56E-001	1.0683E-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 5/5/2006 11:15:54 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-02-02-125
Sample Title: NOL-02-02-125-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/5/2006 11:05:52 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-02-02-125
Title: NOL-02-02-125-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
	1	295-	306	300.67	75.07	1.07	4.20E+002	122.26	1.38E+003
M	2	329-	354	338.92	84.64	1.57	3.06E+002	62.07	1.53E+003
m	3	329-	354	348.62	87.06	1.58	1.39E+002	58.58	1.72E+003
	4	944-	962	954.90	238.67	1.09	3.17E+002	80.33	4.04E+002
	5	1174-	1188	1180.59	295.11	0.80	7.73E+001	49.64	1.96E+002
	6	1346-	1361	1352.89	338.19	0.53	7.11E+001	49.89	1.91E+002
	7	1401-	1415	1408.82	352.18	0.98	1.13E+002	48.29	1.71E+002
	8	2033-	2052	2042.83	510.73	1.39	1.36E+002	48.68	1.36E+002
	9	2326-	2344	2332.82	583.24	1.38	1.80E+002	40.14	7.10E+001
	10	2424-	2445	2436.75	609.23	1.61	1.39E+002	44.12	9.82E+001
	11	3635-	3656	3645.04	911.38	1.03	1.61E+002	37.00	5.21E+001
	12	3870-	3884	3876.32	969.22	0.52	4.98E+001	28.13	5.42E+001
	13	4474-	4488	4481.07	1120.45	0.63	5.52E+001	23.75	3.18E+001
	14	5833-	5860	5846.70	1461.94	2.30	1.06E+003	66.60	2.07E+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

N U C L I 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	1.91789E-001	7.32426E-002
K-40	0.960	1460.81*	10.67	1.83823E+001	1.88227E+000
Eu-155	0.328	86.54*	30.90	5.80801E-001	2.69675E-001
		105.31	20.70		
TL-208	0.752	277.35	6.80		
		510.84*	21.60	8.87910E-001	3.46753E-001
		583.14*	84.20	3.14183E-001	8.11265E-002
		860.37	12.46		
Pb-212	0.677	74.81* @	10.70	6.22225E+000	2.18313E+000
		77.11 @	18.00		
		87.30* @	8.00	2.24334E+000	1.04162E+000
		238.63*	44.60	7.96293E-001	2.37166E-001
Bi-214	0.699	609.31*	46.30	4.47144E-001	1.52388E-001
		1120.29*	15.10	6.35348E-001	2.81325E-001
		1764.49	15.80		
PB-214	0.669	74.82* @	6.21	1.07211E+001	3.84126E+000
		77.11 @	10.50		
		87.30* @	4.67	3.84299E+000	1.80782E+000
		241.98	7.49		
		295.21*	19.20	4.78797E-001	3.17833E-001
		351.92*	37.20	3.79611E-001	1.74256E-001
Ac-228	0.998	338.32*	11.40	7.70980E-001	5.54291E-001
		911.07*	27.70	9.51546E-001	2.44629E-001
		969.11*	16.60	4.99716E-001	2.87312E-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	1.239251E-001	7.527714E-002
K-40		0.960	1.838230E+001	1.882267E+000
Eu-155		0.328	3.138248E-001	2.775253E-001
TL-208		0.752	3.141826E-001	8.047777E-002
Pb-212	@	0.677	7.962926E-001	2.371656E-001
Bi-214		0.699	4.898383E-001	1.339925E-001
PB-214	@	0.669	4.024028E-001	1.517062E-001
Ac-228		0.998	7.626008E-001	1.765583E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	84.64	5.0953E-001	20.30

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: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	8.08E-002	-1.5755E-002
		1332.49	100.00	8.0805E-002		4.9006E-003
	Nb-94	702.63	100.00	1.0157E-001	9.74E-002	-1.8965E-004
		871.10	100.00	9.7376E-002		8.2467E-003
	Ag-108m	79.20	7.10	5.1231E+000	1.18E-001	-5.2427E+000
		433.93	89.90	1.2410E-001		-5.9761E-003
		614.37	90.40	1.3598E-001		-2.4178E-002
		722.95	90.50	1.1840E-001		1.2818E-001
	Sb-125	176.33	6.89	2.2988E+000	3.88E-001	6.1538E-001
		427.89	29.33	3.8758E-001		2.3531E-001
		463.38	10.35	1.0820E+000		-6.5605E-002
		600.56	17.80	5.7663E-001		3.3415E-001
		606.64	5.02	2.6622E+000		4.4963E+000
		635.90	11.32	8.6550E-001		-4.7763E-001
	Cs-134	563.23	8.38	1.2543E+000	1.18E-001	-3.1758E-001
		569.32	15.43	6.9815E-001		3.9469E-001
		604.70	97.60	1.3487E-001		8.1871E-002
		795.84	85.40	1.1842E-001		-4.6392E-002
		801.93	8.73	1.1273E+000		-4.2842E-001
	Cs-137	661.65	85.12	1.2654E-001	1.27E-001	9.4377E-002
	Eu-152	121.78	28.40	7.6159E-001	3.38E-001	2.4086E-001
		244.69	7.49	1.9317E+000		4.1118E-001
		344.27	26.50	4.5432E-001		-4.0212E-001
		778.89	12.74	8.0996E-001		-6.5826E-001
		867.32	4.16	2.4880E+000		-9.4802E-002
		964.01	14.40	8.6261E-001		2.5300E-001
		1085.78	10.00	9.4200E-001		-1.7964E-001
		1112.02	13.30	7.2650E-001		1.0760E-001
		1407.95	20.70	3.3765E-001		-6.0329E-002
	Eu-154	123.07	40.50	5.2668E-001	2.56E-001	-9.4186E-002
		247.94	6.60	2.1175E+000		-1.2251E-001
		591.81	4.83	2.0592E+000		9.1234E-001
		723.30	19.70	5.4657E-001		7.3670E-001
		756.87	4.33	2.2593E+000		-1.7474E+000
		873.19	11.50	8.7077E-001		6.6519E-001
		996.32	10.30	9.2257E-001		2.0971E-001
		1004.76	17.90	5.2451E-001		3.8335E-001
		1274.45	35.50	2.5573E-001		1.8822E-001
+	Eu-155	86.54*	30.90	8.1625E-001	8.16E-001	5.8080E-001
		105.31	20.70	1.2021E+000		2.4996E-001
	Am-241	59.54	35.90	1.2734E+000	1.27E+000	-6.2540E-001
	Cm-243	228.19	10.56	1.3468E+000	9.98E-001	-1.3888E-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	1.6035E-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 4/25/2006 8:54:59 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: BLUE6279

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-02-02-126-F-G
Sample ID: NOL-02-02-126
Sample Title: NOL-02-02-126-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 4/18/2006 2:46:00 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: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-02-02-126-F-G
Log Number: NOL-02-02-126
Title: NOL-02-02-126-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	286-	316	292.05	72.84	0.96	4.36E+002	64.97	1.19E+003
m	2	286-	316	300.36	74.92	0.96	9.78E+002	77.75	1.32E+003
m	3	286-	316	308.88	77.05	0.96	1.83E+002	54.48	1.17E+003
M	4	331-	355	339.98	84.83	0.98	3.33E+002	112.20	1.39E+003
m	5	331-	355	350.13	87.37	0.98	2.76E+002	90.82	2.24E+003
M	6	947-	972	954.52	238.51	1.18	3.49E+002	83.99	3.55E+002
m	7	947-	972	966.40	241.48	1.18	5.27E+001	27.66	3.96E+002
F	8	1176-	1187	1180.89	295.12	1.23	8.92E+001	30.12	2.20E+002
F	9	1343-	1358	1352.99	338.16	1.27	8.30E+001	27.85	2.34E+002
F	10	1402-	1413	1407.61	351.82	1.28	1.45E+002	31.07	1.54E+002
F	11	2032-	2054	2043.58	510.86	2.10	1.76E+002	82.02	1.40E+002
F	12	2325-	2339	2332.80	583.18	1.45	2.04E+002	31.12	8.63E+001
F	13	2432-	2444	2437.03	609.25	1.47	1.72E+002	30.92	9.10E+001
F	14	2638-	2655	2646.48	661.63	1.50	1.70E+002	64.13	6.75E+001
F	15	3634-	3655	3645.01	911.33	1.64	1.57E+002	63.39	8.00E+001
F	16	3868-	3884	3876.43	969.21	1.67	1.08E+002	58.77	5.10E+001
F	17	4476-	4490	4482.53	1120.78	1.75	6.04E+001	19.58	4.74E+001
F	18	4686-	4703	4694.17	1173.70	1.77	1.25E+002	26.84	8.26E+001
F	19	5321-	5342	5331.44	1333.07	1.84	1.52E+002	25.20	2.88E+001
F	20	5832-	5859	5845.15	1461.54	1.90	1.20E+003	104.71	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: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-02-02-126-F-G

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

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/g)	Activity Uncertainty
ANN	0.999	511.00*	100.00	2.52233E-001	1.22332E-001
K-40	0.982	1460.81*	10.67	2.10751E+001	2.51244E+000
Co-60	0.990	1173.22*	100.00	2.23390E-001	5.11742E-002
		1332.49*	100.00	2.80172E-001	5.14415E-002
Cs-137	1.000	661.65*	85.12	3.11645E-001	1.23134E-001
Eu-155	0.319	86.54*	30.90	1.16218E+000	4.45121E-001
		105.31	20.70		
TL-208	0.752	277.35	6.80		
		510.84*	21.60	1.16775E+000	5.74324E-001
		583.14*	84.20	3.62145E-001	7.26683E-002
		860.37	12.46		
Pb-212	1.000	74.81* @	10.70	1.46941E+001	3.10786E+000
		77.11* @	18.00	1.57077E+000	5.60247E-001
		87.30* @	8.00	4.48891E+000	1.71928E+000
		238.63*	44.60	8.91710E-001	2.55946E-001
Bi-214	0.698	609.31*	46.30	5.64684E-001	1.22951E-001
		1120.29*	15.10	7.07530E-001	2.41217E-001
		1764.49	15.80		
PB-214	0.999	74.82* @	6.21	2.53183E+001	5.66155E+000
		77.11* @	10.50	2.69275E+000	9.81244E-001
		87.30* @	4.67	7.68978E+000	3.00198E+000
		241.98*	7.49	8.03946E-001	4.42486E-001
		295.21*	19.20	5.61867E-001	2.12057E-001
		351.92*	37.20	4.97354E-001	1.34919E-001
Ac-228	0.999	338.32*	11.40	9.15811E-001	3.39129E-001
		911.07*	27.70	9.42610E-001	3.96096E-001
		969.11*	16.60	1.09988E+000	6.10947E-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-02-02-126-F-G

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

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/g)	Wt mean Activity Uncertainty
ANN		0.999	1.740097E-001	1.233085E-001
K-40		0.982	2.107510E+001	2.512437E+000
Co-60		0.990	2.516329E-001	3.627977E-002
Cs-137		1.000	3.116451E-001	1.231339E-001
Eu-155		0.319	8.507508E-001	4.503232E-001
TL-208		0.752	3.621454E-001	7.170352E-002
Pb-212	@	1.000	8.917096E-001	2.559460E-001
Bi-214		0.698	5.941422E-001	1.095420E-001
PB-214	@	0.999	5.330608E-001	1.081088E-001
Ac-228		0.999	9.532203E-001	2.373702E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	7.2747E-001	14.89
M 4	84.83	5.5465E-001	33.71

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:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-02-02-126-F-G
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/g)	Nuclide MDA (pCi/g)	Activity (pCi/g)
+	Co-60	1173.22*	100.00	1.0152E-001	6.79E-002	2.2339E-001
		1332.49*	100.00	6.7916E-002		2.8017E-001
	Nb-94	702.63	100.00	1.1224E-001	1.01E-001	-4.0533E-002
		871.10	100.00	1.0113E-001		3.1798E-002
	Ag-108m	79.20	7.10	4.8653E+000	1.32E-001	-3.9310E-001
		433.93	89.90	1.3242E-001		2.5140E-002
		614.37	90.40	1.4860E-001		-6.2992E-002
		722.95	90.50	1.3789E-001		1.3642E-001
	Sb-125	176.33	6.89	2.4695E+000	4.02E-001	5.8843E-001
		427.89	29.33	4.0166E-001		-2.0681E-001
		463.38	10.35	1.1840E+000		7.8957E-001
		600.56	17.80	6.3988E-001		3.3807E-001
		606.64	5.02	2.9749E+000		4.5715E+000
		635.90	11.32	1.0173E+000		-3.7655E-001
	Cs-134	563.23	8.38	1.3771E+000	1.18E-001	-1.0579E+000
		569.32	15.43	7.5332E-001		4.1750E-001
		604.70	97.60	1.4437E-001		-2.8969E-001
		795.84	85.40	1.1839E-001		-3.6747E-002
		801.93	8.73	1.1732E+000		-2.9744E-002
+	Cs-137	661.65*	85.12	9.4434E-002	9.44E-002	3.1165E-001
	Eu-152	121.78	28.40	7.8452E-001	3.78E-001	-5.5260E-002
		244.69	7.49	1.9961E+000		-1.6338E+000
		344.27	26.50	4.7317E-001		-1.3553E-001
		778.89	12.74	8.2601E-001		2.2247E-001
		867.32	4.16	2.5078E+000		-2.4313E+000
		964.01	14.40	9.2181E-001		-5.2968E-001
		1085.78	10.00	1.0455E+000		-1.5107E-001
		1112.02	13.30	7.2570E-001		1.3592E-001
		1407.95	20.70	3.7775E-001		3.3092E-001
	Eu-154	123.07	40.50	5.5081E-001	2.45E-001	4.2182E-001
		247.94	6.60	2.1725E+000		-2.3492E+000
		591.81	4.83	2.3926E+000		-8.5782E-001
		723.30	19.70	6.3579E-001		2.4376E-001
		756.87	4.33	2.4165E+000		-2.2565E+000
		873.19	11.50	8.5834E-001		-8.3675E-001
		996.32	10.30	1.0392E+000		7.0695E-001
		1004.76	17.90	5.6743E-001		4.9815E-001
		1274.45	35.50	2.4480E-001		-2.7339E-001
+	Eu-155	86.54*	30.90	9.3806E-001	9.38E-001	1.1622E+000
		105.31	20.70	1.2703E+000		6.4698E-001
	Am-241	59.54	35.90	1.2890E+000	1.29E+000	2.8909E-001
	Cm-243	228.19	10.56	1.3905E+000	1.03E+000	-9.0325E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/g)	Nuclide MDA (pCi/g)	Activity (pCi/g)
Cm-243	277.60	14.00	1.0271E+000	1.03E+000	2.6339E-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 5/5/2006 10:57:58 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: RED6264

Spectrum File: RED6264
Sample ID: NOL-02-02-126
Sample Title: NOL-02-02-126-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/5/2006 10:47:56 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-02-02-126
Title: NOL-02-02-126-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	282-	309	291.46	72.77	1.41	4.39E+002	69.46	1.64E+003
m	2	282-	309	300.18	74.95	1.41	8.13E+002	79.65	2.10E+003
M	3	330-	356	339.16	84.70	1.54	3.94E+002	66.12	1.62E+003
m	4	330-	356	349.36	87.25	1.54	1.47E+002	60.02	1.96E+003
	5	947-	961	954.20	238.49	1.35	2.94E+002	76.57	4.26E+002
	6	1168-	1190	1179.86	294.92	1.24	1.47E+002	67.28	2.66E+002
	7	1345-	1363	1352.30	338.05	1.46	1.17E+002	53.94	1.90E+002
	8	1396-	1413	1407.58	351.87	1.57	1.49E+002	55.57	2.01E+002
	9	1847-	1858	1851.69	462.93	0.38	3.70E+001	32.23	9.20E+001
	10	2322-	2341	2332.14	583.07	1.51	1.73E+002	45.74	1.05E+002
	11	2427-	2446	2436.51	609.17	1.01	2.09E+002	44.93	8.87E+001
	12	3635-	3654	3644.40	911.22	1.29	1.49E+002	38.09	6.50E+001
M	13	3854-	3885	3860.20	965.19	1.82	4.46E+001	15.98	2.89E+001
m	14	3854-	3885	3876.15	969.18	1.82	1.13E+002	23.63	5.27E+001
	15	4475-	4490	4482.61	1120.83	1.09	5.63E+001	26.40	4.17E+001
	16	5832-	5860	5845.60	1461.67	2.03	1.17E+003	71.50	3.58E+001
	17	7053-	7067	7060.08	1765.37	0.40	4.02E+001	20.17	2.08E+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

N U C L I 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	0.977	1460.81*	10.67	2.01794E+001	2.04930E+000
Eu-155	0.323	86.54*	30.90	6.09718E-001	2.76865E-001
		105.31	20.70		
TL-208	0.471	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.01144E-001	8.89459E-002
		860.37	12.46		
Pb-212	0.677	74.81* @	10.70	1.20650E+001	2.64385E+000
		77.11 @	18.00		
		87.30* @	8.00	2.35504E+000	1.06939E+000
		238.63*	44.60	7.38704E-001	2.24352E-001
Bi-214	0.993	609.31*	46.30	6.74043E-001	1.66813E-001
		1120.29*	15.10	6.48009E-001	3.11321E-001
		1764.49*	15.80	4.87397E-001	2.49462E-001
PB-214	0.669	74.82* @	6.21	2.07884E+001	4.79888E+000
		77.11 @	10.50		
		87.30* @	4.67	4.03432E+000	1.85711E+000
		241.98	7.49		
		295.21*	19.20	9.10911E-001	4.43909E-001
		351.92*	37.20	5.01874E-001	2.04713E-001
Ac-228	0.999	338.32*	11.40	1.27280E+000	6.17900E-001
		911.07*	27.70	8.81068E-001	2.46969E-001
		969.11*	16.60	1.13571E+000	2.65469E-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		0.977	2.017935E+001	2.049302E+000
Eu-155		0.323	3.318169E-001	2.842573E-001
TL-208		0.471	3.011441E-001	8.894593E-002
Pb-212	@	0.677	7.387042E-001	2.243518E-001
Bi-214		0.993	6.216093E-001	1.266698E-001
PB-214	@	0.669	5.733440E-001	1.840841E-001
Ac-228		0.999	1.020788E+000	1.735422E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	7.3225E-001	15.81
M 3	84.70	6.5606E-001	16.80
9	462.93	6.1715E-002	87.04
M 13	965.19	7.4336E-002	35.83

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: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	9.05E-002	-5.4787E-002
		1332.49	100.00	9.0494E-002		-8.2489E-003
	Nb-94	702.63	100.00	1.1126E-001	1.00E-001	5.3048E-002
		871.10	100.00	1.0009E-001		8.5924E-002
	Ag-108m	79.20	7.10	5.4724E+000	1.27E-001	-6.7753E+000
		433.93	89.90	1.3009E-001		2.4170E-002
		614.37	90.40	1.5009E-001		-9.8247E-002
		722.95	90.50	1.2712E-001		1.4973E-001
	Sb-125	176.33	6.89	2.4312E+000	3.97E-001	-3.9302E-001
		427.89	29.33	3.9748E-001		1.5756E-001
		463.38	10.35	1.1829E+000		6.9120E-001
		600.56	17.80	5.9795E-001		-2.8644E-001
		606.64	5.02	2.8713E+000		5.1986E+000
		635.90	11.32	9.2183E-001		-7.0865E-002
	Cs-134	563.23	8.38	1.3199E+000	1.28E-001	6.0939E-001
		569.32	15.43	7.3725E-001		3.5235E-001
		604.70	97.60	1.4452E-001		-6.2697E-002
		795.84	85.40	1.2796E-001		-6.1737E-002
		801.93	8.73	1.2079E+000		-9.3995E-001
	Cs-137	661.65	85.12	1.3327E-001	1.33E-001	3.1615E-002
	Eu-152	121.78	28.40	7.9119E-001	3.27E-001	-1.3717E-001
		244.69	7.49	2.0886E+000		-5.5525E-001
		344.27	26.50	4.6863E-001		-2.1541E-001
		778.89	12.74	8.3333E-001		-1.0969E+000
		867.32	4.16	2.3751E+000		-3.2896E+000
		964.01	14.40	9.3110E-001		-2.5984E-001
		1085.78	10.00	1.0143E+000		-4.7336E-001
		1112.02	13.30	7.2383E-001		-1.1045E-001
		1407.95	20.70	3.2664E-001		-1.0574E-002
	Eu-154	123.07	40.50	5.5473E-001	2.65E-001	1.5134E-002
		247.94	6.60	2.2180E+000		-5.7574E-001
		591.81	4.83	2.4205E+000		2.0598E+000
		723.30	19.70	5.8283E-001		5.7612E-001
		756.87	4.33	2.3818E+000		-1.2748E+000
		873.19	11.50	8.4717E-001		-5.5480E-001
		996.32	10.30	9.4841E-001		4.1865E-002
		1004.76	17.90	5.3590E-001		7.9963E-002
		1274.45	35.50	2.6470E-001		-2.3336E-001
+	Eu-155	86.54*	30.90	8.6859E-001	8.69E-001	6.0972E-001
		105.31	20.70	1.2278E+000		1.4395E-001
	Am-241	59.54	35.90	1.3382E+000	1.34E+000	-3.9195E-001
	Cm-243	228.19	10.56	1.4100E+000	9.97E-001	-6.3905E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Cm-243	277.60	14.00	9.9735E-001	9.97E-001	-6.7939E-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 4/26/2006 8:26:37 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: RED6264

Spectrum File: RED6264
Sample ID: NOL-02-02-126
Sample Title: NOL-02-02-126-F-G-I
Description:

Sample Type:
Geometry:

Acquisition Started: 4/26/2006 8:16:33 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-02-02-126
Title: NOL-02-02-126-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	282-	309	291.58	72.80	1.38	4.63E+002	70.90	1.81E+003
m	2	282-	309	300.43	75.01	1.38	7.89E+002	80.66	2.21E+003
F	3	947-	961	954.62	238.60	1.43	3.16E+002	46.13	3.92E+002
F	4	1175-	1186	1179.89	294.93	1.43	9.50E+001	29.78	1.52E+002
F	5	1342-	1360	1351.43	337.83	2.55	1.25E+002	30.49	2.22E+002
F	6	1397-	1417	1407.83	351.93	1.58	1.82E+002	34.16	2.65E+002
F	7	1748-	1757	1752.94	438.23	0.73	2.68E+001	17.61	7.04E+001
F	8	2033-	2054	2043.06	510.78	1.99	1.54E+002	30.12	1.78E+002
F	9	2321-	2343	2332.01	583.04	1.70	2.03E+002	32.08	1.48E+002
F	10	2426-	2446	2436.14	609.08	1.82	1.59E+002	28.49	1.08E+002
F	11	2633-	2657	2645.95	661.55	1.89	1.99E+002	31.37	1.37E+002
F	12	3632-	3654	3644.86	911.34	1.83	1.58E+002	27.34	6.83E+001
F	13	3868-	3885	3876.22	969.19	1.86	7.90E+001	23.54	7.62E+001
F	14	4684-	4702	4693.88	1173.66	1.79	1.40E+002	27.13	6.13E+001
F	15	5322-	5343	5332.39	1333.33	1.95	1.31E+002	24.81	3.59E+001
F	16	5831-	5860	5846.15	1461.81	2.21	1.06E+003	63.06	1.50E+001
F	17	7057-	7071	7064.05	1766.36	1.17	3.03E+001	13.77	2.19E+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: 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	2.16983E-001	5.15800E-002
K-40	0.969	1460.81*	10.67	1.82796E+001	1.83870E+000
Co-60	0.986	1173.22*	100.00	2.46176E-001	5.14935E-002
		1332.49*	100.00	2.38077E-001	4.86936E-002
Cs-137	1.000	661.65*	85.12	3.58306E-001	7.04824E-002
TL-208	0.752	277.35	6.80		
		510.84*	21.60	1.00455E+000	2.52495E-001
		583.14*	84.20	3.54703E-001	7.25808E-002
		860.37	12.46		
Pb-212	0.521	74.81* @	10.70	1.16998E+001	2.58631E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	7.93630E-001	1.69970E-001
Bi-214	0.675	609.31*	46.30	5.13494E-001	1.11438E-001
		1120.29	15.10		
		1764.49*	15.80	3.68260E-001	1.71089E-001
PB-214	0.582	74.82* @	6.21	2.01591E+001	4.69042E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	5.88265E-001	2.09328E-001
		351.92*	37.20	6.11510E-001	1.53710E-001
Ac-228	0.997	338.32*	11.40	1.35411E+000	3.92840E-001
		911.07*	27.70	9.31895E-001	1.93950E-001
		969.11*	16.60	7.93476E-001	2.50512E-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	1.403675E-001	5.385204E-002
K-40		0.969	1.827957E+001	1.838697E+000
Co-60		0.986	2.419002E-001	3.538001E-002
Cs-137		1.000	3.583060E-001	7.048237E-002
TL-208		0.752	3.547033E-001	7.165438E-002
Pb-212	@	0.521	7.936297E-001	1.699701E-001
Bi-214		0.675	4.702330E-001	9.337691E-002
PB-214	@	0.582	6.033671E-001	1.238954E-001
Ac-228		0.997	9.427166E-001	1.428591E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	7.7250E-001	15.30
F 7	438.23	4.4731E-002	65.62

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: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	8.8102E-002	7.43E-002	2.4618E-001
		1332.49*	100.00	7.4319E-002		2.3808E-001
	Nb-94	702.63	100.00	1.1671E-001	1.04E-001	1.2411E-002
		871.10	100.00	1.0445E-001		-2.5421E-002
	Ag-108m	79.20	7.10	5.6529E+000	1.33E-001	-3.0587E+000
		433.93	89.90	1.4164E-001		4.8085E-002
		614.37	90.40	1.4763E-001		-1.5960E-002
		722.95	90.50	1.3302E-001		1.1401E-002
	Sb-125	176.33	6.89	2.6022E+000	4.20E-001	-1.1153E-001
		427.89	29.33	4.1983E-001		1.9666E-001
		463.38	10.35	1.2151E+000		1.1115E+000
		600.56	17.80	6.2603E-001		-2.7742E-001
		606.64	5.02	2.8508E+000		5.1009E+000
		635.90	11.32	1.0269E+000		3.9276E-001
	Cs-134	563.23	8.38	1.4581E+000	1.30E-001	7.2208E-001
		569.32	15.43	7.8074E-001		3.7692E-001
		604.70	97.60	1.4235E-001		-2.0896E-002
		795.84	85.40	1.2978E-001		1.3463E-001
		801.93	8.73	1.1795E+000		-1.5983E-001
+	Cs-137	661.65*	85.12	1.4594E-001	1.46E-001	3.5831E-001
	Eu-152	121.78	28.40	7.9549E-001	3.71E-001	-2.4884E-001
		244.69	7.49	2.0790E+000		-2.0537E+000
		344.27	26.50	4.9252E-001		-4.1544E-002
		778.89	12.74	8.5807E-001		-6.7324E-001
		867.32	4.16	2.5692E+000		-1.9112E+000
		964.01	14.40	9.7348E-001		3.5628E-001
		1085.78	10.00	1.0076E+000		-5.3468E-001
		1112.02	13.30	7.9247E-001		-1.7618E-001
		1407.95	20.70	3.7103E-001		1.8557E-001
	Eu-154	123.07	40.50	5.5864E-001	2.65E-001	2.6811E-001
		247.94	6.60	2.2224E+000		-5.4531E-001
		591.81	4.83	2.3457E+000		1.1544E+000
		723.30	19.70	6.1802E-001		1.9138E-001
		756.87	4.33	2.2659E+000		-1.5356E+000
		873.19	11.50	8.9624E-001		-6.3984E-001
		996.32	10.30	1.0070E+000		3.1454E-002
		1004.76	17.90	5.8256E-001		4.4958E-001
		1274.45	35.50	2.6470E-001		-1.9257E-001
	Eu-155	86.54	30.90	1.1553E+000	1.16E+000	2.2828E+000
		105.31	20.70	1.2649E+000		-8.1339E-001
	Am-241	59.54	35.90	1.3795E+000	1.38E+000	-1.5888E-001
	Cm-243	228.19	10.56	1.4680E+000	1.07E+000	2.0035E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Cm-243	277.60	14.00	1.0733E+000	1.07E+000	5.3790E-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 4/25/2006 8:55:18 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: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-02-02-127-F-G
Sample ID: NOL-02-02-127
Sample Title: NOL-02-02-127-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 4/18/2006 4:19:04 PM
Live Time: 600.0 seconds
Real Time: 601.1 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-02-02-127-F-G
Log Number: NOL-02-02-127
Title: NOL-02-02-127-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	284-	316	291.86	72.79	0.96	4.39E+002	63.28	1.21E+003
m	2	284-	316	300.50	74.95	0.96	8.19E+002	73.12	1.26E+003
m	3	284-	316	308.63	76.99	0.96	1.57E+002	53.02	1.22E+003
F	4	336-	344	339.51	84.71	0.98	1.58E+002	55.55	8.80E+002
F	5	945-	961	954.30	238.45	1.18	3.30E+002	44.88	4.04E+002
F	6	1175-	1186	1181.47	295.26	1.23	7.59E+001	26.69	1.61E+002
F	7	1403-	1412	1407.52	351.79	1.28	1.45E+002	30.74	1.20E+002
F	8	2035-	2051	2042.47	510.58	2.10	1.21E+002	27.07	1.19E+002
F	9	2324-	2343	2332.22	583.04	1.45	1.72E+002	28.69	1.01E+002
F	10	2428-	2444	2436.68	609.16	1.47	1.61E+002	107.34	7.87E+001
F	11	2639-	2653	2646.26	661.57	1.50	6.19E+001	20.23	6.51E+001
F	12	2902-	2915	2909.44	727.39	1.54	3.42E+001	17.14	5.41E+001
F	13	3173-	3184	3178.09	794.57	1.58	2.20E+001	69.93	4.70E+001
F	14	3636-	3653	3644.56	911.22	1.64	1.62E+002	27.71	6.36E+001
F	15	3867-	3882	3874.89	968.82	1.67	5.11E+001	19.74	6.18E+001
F	16	4473-	4490	4481.40	1120.49	1.75	5.05E+001	17.32	4.03E+001
F	17	4686-	4701	4693.08	1173.43	1.77	4.82E+001	47.26	3.29E+001
F	18	5830-	5858	5844.46	1461.36	1.90	1.23E+003	102.86	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

N U C L I 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-02-02-127-F-G

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

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/g)	Activity Uncertainty
ANN	0.994	511.00*	100.00	1.73148E-001	4.53097E-002
K-40	0.989	1460.81*	10.67	2.17226E+001	2.52489E+000
Cs-137	1.000	661.65*	85.12	1.13540E-001	3.94145E-002
TL-208	0.751	277.35	6.80		
		510.84*	21.60	8.01609E-001	2.19745E-001
		583.14*	84.20	3.05285E-001	6.46401E-002
		860.37	12.46		
Bi-212	0.998	727.17*	11.80	4.60522E-001	2.37212E-001
Pb-212	0.843	74.81* @	10.70	1.22993E+001	2.64886E+000
		77.11* @	18.00	1.34687E+000	5.26991E-001
		87.30 @	8.00		
		238.63*	44.60	8.41682E-001	1.74753E-001
Bi-214	0.699	609.31*	46.30	5.26658E-001	3.57863E-001
		1120.29*	15.10	5.90848E-001	2.12288E-001
		1764.49	15.80		
PB-214	0.762	74.82* @	6.21	2.11921E+001	4.81635E+000
		77.11* @	10.50	2.30892E+000	9.19715E-001
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	4.78286E-001	1.86489E-001
		351.92*	37.20	4.94480E-001	1.33732E-001
Ac-228	0.632	338.32	11.40		
		911.07*	27.70	9.75631E-001	2.00815E-001
		969.11*	16.60	5.21796E-001	2.08759E-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-02-02-127-F-G

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

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/g)	Wt mean Activity Uncertainty
ANN		0.994	1.072059E-001	4.736346E-002
K-40		0.989	2.172264E+001	2.524895E+000
Cs-137		1.000	1.135401E-001	3.941446E-002
TL-208		0.751	3.052854E-001	6.386986E-002
Bi-212		0.998	4.605220E-001	2.372124E-001
Pb-212	@	0.843	8.416818E-001	1.747528E-001
Bi-214		0.699	5.741391E-001	1.825801E-001
PB-214	@	0.762	4.889801E-001	1.086773E-001
Ac-228		0.632	7.575137E-001	1.447246E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	7.3166E-001	14.42
F 4	84.71	2.6399E-001	35.07
F 13	794.57	3.6606E-002	318.41
F 17	1173.43	8.0412E-002	97.95

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-02-02-127-F-G
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/g)	Nuclide MDA (pCi/g)	Activity (pCi/g)
	Co-60	1173.22	100.00	1.1288E-001	9.71E-002	-8.1329E-003
		1332.49	100.00	9.7099E-002		1.8690E-001
	Nb-94	702.63	100.00	1.0338E-001	1.01E-001	-8.5652E-002
		871.10	100.00	1.0082E-001		9.6339E-002
	Ag-108m	79.20	7.10	4.7733E+000	1.20E-001	-5.4780E-001
		433.93	89.90	1.2470E-001		-2.5692E-002
		614.37	90.40	1.3354E-001		-2.8758E-003
		722.95	90.50	1.1990E-001		-4.7759E-002
	Sb-125	176.33	6.89	2.2497E+000	3.85E-001	-2.1593E+000
		427.89	29.33	3.8478E-001		1.3805E-001
		463.38	10.35	1.1015E+000		2.5203E-001
		600.56	17.80	6.2192E-001		2.9921E-001
		606.64	5.02	2.6915E+000		3.0134E+000
		635.90	11.32	8.9060E-001		-6.0249E-001
	Cs-134	563.23	8.38	1.3147E+000	1.22E-001	3.9715E-002
		569.32	15.43	6.9894E-001		2.4147E-001
		604.70	97.60	1.3454E-001		5.1842E-003
		795.84	85.40	1.2243E-001		6.8487E-002
		801.93	8.73	1.1666E+000		4.8728E-001
+	Cs-137	661.65*	85.12	8.7512E-002	8.75E-002	1.1354E-001
	Eu-152	121.78	28.40	7.4531E-001	3.62E-001	-1.1748E-002
		244.69	7.49	1.8770E+000		-1.0847E-001
		344.27	26.50	4.3638E-001		-7.3729E-002
		778.89	12.74	7.5261E-001		-5.0954E-001
		867.32	4.16	2.4361E+000		-1.8113E+000
		964.01	14.40	8.6635E-001		4.1629E-001
		1085.78	10.00	9.4011E-001		-1.1509E+000
		1112.02	13.30	7.8395E-001		9.8644E-001
		1407.95	20.70	3.6249E-001		-1.7694E-001
	Eu-154	123.07	40.50	5.2148E-001	2.52E-001	1.7128E-001
		247.94	6.60	2.0047E+000		-4.4879E-001
		591.81	4.83	2.2031E+000		-7.5578E-001
		723.30	19.70	5.5221E-001		-3.7281E-002
		756.87	4.33	2.2575E+000		-1.0311E+000
		873.19	11.50	8.6375E-001		-7.3913E-001
		996.32	10.30	8.8672E-001		1.8914E-001
		1004.76	17.90	5.0944E-001		-4.4634E-002
		1274.45	35.50	2.5213E-001		-1.9514E-001
	Eu-155	86.54	30.90	1.0010E+000	1.00E+000	5.6858E-001
		105.31	20.70	1.2200E+000		8.6629E-002
	Am-241	59.54	35.90	1.2572E+000	1.26E+000	-9.7251E-001
	Cm-243	228.19	10.56	1.3512E+000	9.68E-001	1.1926E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/g)	Nuclide MDA (pCi/g)	Activity (pCi/g)
Cm-243	277.60	14.00	9.6787E-001	9.68E-001	6.2821E-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 5/5/2006 10:07:14 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-02-02-127
Sample Title: NOL-02-02-127-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/5/2006 9:57:12 AM
Live Time: 600.0 seconds
Real Time: 601.1 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-02-02-127
Title: NOL-02-02-127-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	285-	314	291.73	72.76	0.94	3.95E+002	63.56	1.25E+003
m	2	285-	314	300.49	74.95	0.95	8.59E+002	77.60	1.35E+003
m	3	285-	314	309.60	77.23	0.95	1.25E+002	55.02	1.25E+003
M	4	331-	355	339.35	84.67	1.22	3.87E+002	63.03	1.30E+003
m	5	331-	355	349.96	87.32	1.22	1.63E+002	57.13	1.44E+003
	6	948-	960	954.36	238.47	1.12	3.42E+002	68.93	3.39E+002
	7	1346-	1361	1353.30	338.23	0.88	1.18E+002	49.03	1.69E+002
	8	1403-	1415	1407.25	351.73	1.25	1.65E+002	45.22	1.38E+002
	9	2033-	2052	2041.60	510.36	0.63	1.79E+002	51.86	1.49E+002
	10	2323-	2340	2332.32	583.06	1.18	2.07E+002	46.32	1.08E+002
	11	2426-	2443	2436.79	609.19	1.76	1.68E+002	41.28	8.46E+001
	12	2903-	2915	2908.93	727.26	0.29	2.93E+001	27.70	6.47E+001
	13	3636-	3652	3644.63	911.24	1.32	1.82E+002	37.21	5.72E+001
M	14	3852-	3884	3859.67	965.01	1.28	2.27E+001	15.47	6.52E+001
m	15	3852-	3884	3875.73	969.03	1.28	1.01E+002	23.60	6.12E+001
	16	4383-	4394	4388.69	1097.31	0.49	1.90E+001	17.42	2.40E+001
	17	5830-	5856	5844.57	1461.39	2.00	1.29E+003	71.97	1.32E+001
	18	6349-	6362	6355.97	1589.28	0.29	2.42E+001	13.66	8.80E+000
	19	7051-	7067	7059.77	1765.28	0.71	5.48E+001	16.17	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	0.986	511.00*	100.00	2.44159E-001	7.80847E-002
K-40	0.988	1460.81*	10.67	2.16688E+001	2.12961E+000
Eu-155	0.320	86.54*	30.90	6.52984E-001	2.62577E-001
		105.31	20.70		
TL-208	0.750	277.35	6.80		
		510.84*	21.60	1.13037E+000	3.73104E-001
		583.14*	84.20	3.50200E-001	9.06896E-002
		860.37	12.46		
Bi-212	1.000	727.17*	11.80	3.76038E-001	3.58137E-001
Pb-212	0.999	74.81* @	10.70	1.22884E+001	2.65180E+000
		77.11* @	18.00	1.01693E+000	4.91049E-001
		87.30* @	8.00	2.52215E+000	1.01420E+000
		238.63*	44.60	8.30734E-001	2.12221E-001
Bi-214	0.694	609.31*	46.30	5.25750E-001	1.44247E-001
		1120.29	15.10		
		1764.49*	15.80	6.43290E-001	2.00572E-001
PB-214	0.477	74.82* @	6.21	2.11733E+001	4.82072E+000
		77.11* @	10.50	1.74331E+000	8.51803E-001
		87.30* @	4.67	4.32060E+000	1.76779E+000
		241.98	7.49		
		295.21	19.20		
		351.92*	37.20	5.38407E-001	1.72583E-001
Ac-228	0.999	338.32*	11.40	1.23890E+000	5.50569E-001
		911.07*	27.70	1.04071E+000	2.44298E-001
		969.11*	16.60	9.83317E-001	2.51509E-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		0.986	1.685158E-001	8.046658E-002
K-40		0.988	2.166884E+001	2.129606E+000
Eu-155		0.320	3.565359E-001	2.694878E-001
TL-208		0.750	3.501996E-001	8.996866E-002
Bi-212		1.000	3.760379E-001	3.581373E-001
Pb-212	@	0.999	8.307342E-001	2.122205E-001
Bi-214		0.694	5.658192E-001	1.171068E-001
PB-214	@	0.477	5.384067E-001	1.697389E-001
Ac-228		0.999	1.033644E+000	1.669843E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	6.5891E-001	16.08
M 4	84.67	6.4544E-001	16.28
M 14	965.01	3.7840E-002	68.15
16	1097.31	3.1667E-002	91.70
18	1589.28	4.0341E-002	56.45

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
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	1.0151E-001	8.78E-002	-5.1824E-002
		1332.49	100.00	8.7772E-002		2.1425E-002
	Nb-94	702.63	100.00	9.8970E-002	8.94E-002	3.1424E-002
		871.10	100.00	8.9391E-002		-2.8205E-002
	Ag-108m	79.20	7.10	4.6571E+000	1.24E-001	8.9074E-001
		433.93	89.90	1.2775E-001		1.0811E-001
		614.37	90.40	1.2673E-001		-1.6860E-001
		722.95	90.50	1.2421E-001		-8.2962E-002
	Sb-125	176.33	6.89	2.3066E+000	3.89E-001	9.3227E-001
		427.89	29.33	3.8866E-001		6.2679E-002
		463.38	10.35	1.1130E+000		1.1651E+000
		600.56	17.80	5.8356E-001		5.6550E-001
		606.64	5.02	2.6273E+000		4.1737E+000
		635.90	11.32	8.6587E-001		4.0888E-001
	Cs-134	563.23	8.38	1.2394E+000	1.27E-001	-3.1222E-001
		569.32	15.43	6.6990E-001		-2.4967E-001
		604.70	97.60	1.2984E-001		4.4331E-003
		795.84	85.40	1.2715E-001		-2.8179E-003
		801.93	8.73	1.1577E+000		-3.7889E-003
	Cs-137	661.65	85.12	1.2546E-001	1.25E-001	6.1865E-002
	Eu-152	121.78	28.40	7.1953E-001	3.06E-001	-2.9444E-001
		244.69	7.49	1.8458E+000		1.5998E-001
		344.27	26.50	4.4084E-001		-1.2976E-001
		778.89	12.74	7.2363E-001		-1.2289E+000
		867.32	4.16	2.2922E+000		-1.7933E+000
		964.01	14.40	9.0778E-001		-4.6688E-002
		1085.78	10.00	1.0114E+000		-5.2074E-001
		1112.02	13.30	7.2945E-001		-8.1143E-002
		1407.95	20.70	3.0564E-001		-1.8447E-001
	Eu-154	123.07	40.50	5.0249E-001	2.62E-001	-1.7152E-001
		247.94	6.60	1.9815E+000		1.8724E-001
		591.81	4.83	2.1677E+000		-2.0066E+000
		723.30	19.70	5.6949E-001		-2.6020E-001
		756.87	4.33	2.3556E+000		-5.9120E-001
		873.19	11.50	7.9385E-001		3.0577E-001
		996.32	10.30	9.0925E-001		-1.0735E+000
		1004.76	17.90	5.0803E-001		-3.7814E-002
		1274.45	35.50	2.6199E-001		-1.2971E-001
+	Eu-155	86.54*	30.90	7.2057E-001	7.21E-001	6.5298E-001
		105.31	20.70	1.1739E+000		1.1278E-001
	Am-241	59.54	35.90	1.1911E+000	1.19E+000	2.8480E-001
	Cm-243	228.19	10.56	1.2975E+000	9.23E-001	-9.7827E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	9.2335E-001	9.23E-001	-2.7370E-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 4/25/2006 8:55:35 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: BLUE6279

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-02-02-128-F-G
Sample ID: NOL-02-02-128
Sample Title: NOL-02-02-128-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 4/18/2006 4:34:42 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: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-02-02-128-F-G
Log Number: NOL-02-02-128
Title: NOL-02-02-128-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	285-	316	291.66	72.74	0.96	4.49E+002	107.39	1.30E+003
m	2	285-	316	300.39	74.93	0.96	9.25E+002	183.63	1.41E+003
m	3	285-	316	309.10	77.11	0.96	2.36E+002	68.32	1.24E+003
F	4	331-	344	339.32	84.66	0.98	2.55E+002	144.69	1.39E+003
F	5	948-	961	954.81	238.58	1.18	3.39E+002	44.50	3.37E+002
F	6	1348-	1360	1353.23	338.22	1.27	8.21E+001	26.63	1.54E+002
F	7	1401-	1416	1407.34	351.75	1.28	1.56E+002	30.63	1.76E+002
F	8	1842-	1859	1850.43	462.55	1.37	5.11E+001	50.74	1.08E+002
F	9	2035-	2050	2043.03	510.72	2.10	1.19E+002	27.51	1.28E+002
F	10	2325-	2337	2331.70	582.91	1.45	1.68E+002	29.65	8.13E+001
F	11	2428-	2448	2436.82	609.20	1.47	1.55E+002	26.23	7.97E+001
F	12	2638-	2652	2644.75	661.19	1.50	5.49E+001	19.88	6.98E+001
F	13	3635-	3653	3644.10	911.11	1.64	1.41E+002	25.93	6.45E+001
F	14	3853-	3885	3875.86	969.07	1.67	8.88E+001	21.13	1.02E+002
F	15	4473-	4486	4480.48	1120.26	1.75	2.96E+001	17.16	5.05E+001
F	16	4685-	4704	4693.19	1173.46	1.77	7.41E+001	20.09	5.23E+001
F	17	5321-	5340	5331.57	1333.10	1.84	7.21E+001	41.98	3.25E+001
F	18	5832-	5859	5844.07	1461.27	1.90	1.14E+003	64.74	2.31E+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-02-02-128-F-G

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

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/g)	Activity Uncertainty
ANN	0.997	511.00*	100.00	1.70259E-001	4.56575E-002
K-40	0.993	1460.81*	10.67	2.00868E+001	1.98612E+000
Co-60	0.992	1173.22*	100.00	1.32722E-001	3.74679E-002
		1332.49*	100.00	1.33090E-001	7.82025E-002
Cs-137	0.993	661.65*	85.12	1.00562E-001	3.83070E-002
TL-208	0.750	277.35	6.80		
		510.84*	21.60	7.88238E-001	2.20962E-001
		583.14*	84.20	2.97908E-001	6.54269E-002
		860.37	12.46		
Pb-212	0.844	74.81* @	10.70	1.38894E+001	3.87535E+000
		77.11* @	18.00	2.02518E+000	7.08117E-001
		87.30 @	8.00		
		238.63*	44.60	8.66317E-001	1.77067E-001
Bi-214	0.699	609.31*	46.30	5.06927E-001	1.06276E-001
		1120.29*	15.10	3.46048E-001	2.04217E-001
		1764.49	15.80		
PB-214	0.389	74.82* @	6.21	2.39318E+001	6.89964E+000
		77.11* @	10.50	3.47173E+000	1.24128E+000
		87.30 @	4.67		
		241.98	7.49		
		295.21	19.20		
		351.92*	37.20	5.33626E-001	1.37584E-001
Ac-228	1.000	338.32*	11.40	9.05723E-001	3.26314E-001
		911.07*	27.70	8.48086E-001	1.83836E-001
		969.11*	16.60	9.06404E-001	2.35646E-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-02-02-128-F-G

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

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/g)	Wt mean Activity Uncertainty
ANN		0.997	1.059113E-001	4.774856E-002
K-40		0.993	2.008677E+001	1.986123E+000
Co-60		0.992	1.327905E-001	3.378988E-002
Cs-137		0.993	1.005619E-001	3.830698E-002
TL-208		0.750	2.979077E-001	6.470260E-002
Pb-212	@	0.844	8.663171E-001	1.770673E-001
Bi-214		0.699	4.726421E-001	9.427438E-002
PB-214	@	0.389	5.336262E-001	1.342189E-001
Ac-228		1.000	8.760124E-001	1.324655E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	7.4811E-001	23.92
F 4	84.66	4.2487E-001	56.76
F 8	462.55	8.5162E-002	99.30

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-02-02-128-F-G
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/g)	Nuclide MDA (pCi/g)	Activity (pCi/g)
+	Co-60	1173.22*	100.00	8.4697E-002	6.97E-002	1.3272E-001
		1332.49*	100.00	6.9725E-002		1.3309E-001
	Nb-94	702.63	100.00	9.8060E-002	9.32E-002	9.7494E-002
		871.10	100.00	9.3201E-002		7.6635E-002
	Ag-108m	79.20	7.10	5.0489E+000	1.22E-001	-8.3956E-001
		433.93	89.90	1.2551E-001		1.4289E-001
		614.37	90.40	1.2967E-001		-5.1708E-003
		722.95	90.50	1.2220E-001		1.4520E-001
	Sb-125	176.33	6.89	2.4303E+000	3.96E-001	2.6261E+000
		427.89	29.33	3.9572E-001		-7.3499E-002
		463.38	10.35	1.0941E+000		7.5356E-001
		600.56	17.80	6.0742E-001		-4.3429E-002
		606.64	5.02	2.6725E+000		-3.4197E-001
		635.90	11.32	8.2980E-001		-8.0096E-001
	Cs-134	563.23	8.38	1.3040E+000	1.10E-001	4.9423E-001
		569.32	15.43	6.9745E-001		-5.8684E-003
		604.70	97.60	1.3434E-001		3.6207E-002
		795.84	85.40	1.1020E-001		3.5399E-002
		801.93	8.73	1.1011E+000		-1.7638E-001
+	Cs-137	661.65*	85.12	9.0949E-002	9.09E-002	1.0056E-001
	Eu-152	121.78	28.40	7.6537E-001	3.49E-001	5.9503E-002
		244.69	7.49	1.9234E+000		3.7749E-001
		344.27	26.50	4.5124E-001		-9.4932E-002
		778.89	12.74	7.6219E-001		-5.5581E-001
		867.32	4.16	2.3771E+000		-1.3661E+000
		964.01	14.40	8.8231E-001		8.4406E-002
		1085.78	10.00	9.8723E-001		-9.0163E-001
		1112.02	13.30	6.9176E-001		7.4272E-001
		1407.95	20.70	3.4923E-001		-8.1795E-002
	Eu-154	123.07	40.50	5.3003E-001	2.64E-001	-1.1785E-001
		247.94	6.60	2.0709E+000		5.7733E-001
		591.81	4.83	2.1782E+000		-1.1052E+000
		723.30	19.70	5.5485E-001		3.9161E-001
		756.87	4.33	2.4483E+000		4.1104E-001
		873.19	11.50	8.3074E-001		7.3578E-002
		996.32	10.30	9.0075E-001		5.8014E-001
		1004.76	17.90	5.2357E-001		3.9216E-001
		1274.45	35.50	2.6387E-001		-1.7454E-001
	Eu-155	86.54	30.90	1.0616E+000	1.06E+000	-6.5340E-002
		105.31	20.70	1.2500E+000		4.6980E-001
	Am-241	59.54	35.90	1.3167E+000	1.32E+000	-1.2378E+000
	Cm-243	228.19	10.56	1.4093E+000	9.26E-001	-4.7294E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/g)	Nuclide MDA (pCi/g)	Activity (pCi/g)
Cm-243	277.60	14.00	9.2649E-001	9.26E-001	-1.9324E-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 5/5/2006 9:50:23 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-02-02-128
Sample Title: NOL-02-02-128-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/5/2006 9:40:20 AM
Live Time: 600.0 seconds
Real Time: 601.1 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-02-02-128
Title: NOL-02-02-128-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-	313	291.75	72.77	0.97	4.41E+002	64.43	1.32E+003
m	2	284-	313	300.41	74.93	0.97	8.28E+002	76.35	1.32E+003
	3	333-	343	339.59	84.73	1.30	3.15E+002	101.29	9.91E+002
	4	949-	959	954.37	238.47	1.10	4.01E+002	63.74	2.74E+002
	5	1347-	1357	1352.95	338.15	0.89	1.09E+002	38.48	1.16E+002
	6	1400-	1414	1407.34	351.75	1.13	1.45E+002	48.21	1.60E+002
	7	2032-	2052	2043.97	510.95	1.36	1.81E+002	54.75	1.65E+002
	8	2325-	2338	2332.15	583.02	1.44	2.20E+002	41.42	8.22E+001
	9	2427-	2442	2436.98	609.24	1.46	1.76E+002	38.86	7.20E+001
	10	3171-	3187	3179.36	794.89	0.36	5.82E+001	27.24	4.28E+001
	11	3436-	3449	3442.41	860.67	0.89	3.10E+001	22.14	3.50E+001
	12	3634-	3652	3644.72	911.26	1.73	1.66E+002	39.47	7.10E+001
	13	3865-	3886	3875.63	969.01	1.09	1.14E+002	39.29	7.66E+001
	14	4473-	4489	4480.93	1120.38	0.89	6.48E+001	29.43	5.12E+001
	15	4743-	4754	4748.41	1187.27	0.35	2.40E+001	17.46	2.20E+001
	16	5831-	5857	5844.45	1461.36	1.70	1.25E+003	71.27	1.69E+001
	17	6365-	6378	6371.89	1593.26	0.91	1.83E+001	12.75	8.71E+000
	18	6478-	6491	6484.58	1621.44	0.66	1.10E+001	10.80	7.00E+000
	19	7052-	7067	7060.81	1765.54	0.80	4.44E+001	17.42	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: 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	2.46407E-001	8.18022E-002
K-40	0.989	1460.81*		10.67	2.09350E+001	2.07410E+000
TL-208	0.902	277.35		6.80		
		510.84*		21.60	1.14077E+000	3.90004E-001
		583.14*		84.20	3.71890E-001	8.51854E-002
		860.37*		12.46	3.89479E-001	2.82228E-001
Pb-212	0.520	74.81*	@	10.70	1.18458E+001	2.56577E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	9.74498E-001	2.17610E-001
Bi-214	0.992	609.31*		46.30	5.49591E-001	1.38937E-001
		1120.29*		15.10	7.22844E-001	3.36902E-001
		1764.49*		15.80	5.21193E-001	2.11261E-001
Ac-228	0.999	338.32*		11.40	1.14389E+000	4.42334E-001
		911.07*		27.70	9.50330E-001	2.50973E-001
		969.11*		16.60	1.11178E+000	3.99384E-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	1.657672E-001	8.364250E-002
K-40		0.989	2.093503E+001	2.074103E+000
TL-208		0.902	3.733340E-001	8.078345E-002
Pb-212	@	0.520	9.744983E-001	2.176098E-001
Bi-214		0.992	5.603130E-001	1.097510E-001
Ac-228		0.999	1.023761E+000	1.915426E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	7.3466E-001	14.62
3	84.73	5.2549E-001	32.13
6	351.75	2.4220E-001	33.18
10	794.89	9.7079E-002	46.77
15	1187.27	3.9955E-002	72.82
17	1593.26	3.0478E-002	69.73
18	1621.44	1.8333E-002	98.15

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	1.0248E-001	8.61E-002	2.6345E-002
	1332.49	100.00	8.6144E-002		5.4783E-002
Nb-94	702.63	100.00	1.0101E-001	9.57E-002	2.1646E-002
	871.10	100.00	9.5729E-002		8.1179E-002
Ag-108m	79.20	7.10	4.5277E+000	1.22E-001	2.4146E-001
	433.93	89.90	1.2240E-001		2.4291E-002
	614.37	90.40	1.3075E-001		-1.9455E-001
	722.95	90.50	1.2794E-001		1.1714E-001
Sb-125	176.33	6.89	2.2736E+000	3.89E-001	-1.8078E-001
	427.89	29.33	3.8921E-001		9.5665E-002
	463.38	10.35	1.0747E+000		3.7750E-001
	600.56	17.80	5.6172E-001		1.3718E-001
	606.64	5.02	2.6203E+000		4.9717E+000
	635.90	11.32	8.7457E-001		-1.5011E-001
Cs-134	563.23	8.38	1.2291E+000	1.22E-001	8.1732E-001
	569.32	15.43	6.9748E-001		3.2988E-002
	604.70	97.60	1.2871E-001		-3.2952E-002
	795.84	85.40	1.2245E-001		-8.8675E-003
	801.93	8.73	1.0554E+000		-6.5687E-001
Cs-137	661.65	85.12	1.2709E-001	1.27E-001	6.3485E-002
Eu-152	121.78	28.40	7.0432E-001	3.60E-001	-4.3006E-001
	244.69	7.49	1.8636E+000		7.9374E-001
	344.27	26.50	4.5368E-001		-2.2415E-001
	778.89	12.74	7.5039E-001		-4.6210E-001
	867.32	4.16	2.2710E+000		1.6082E+000
	964.01	14.40	8.9533E-001		-1.0366E-002
	1085.78	10.00	9.6347E-001		-4.3258E-001
	1112.02	13.30	7.7045E-001		-4.2359E-001
	1407.95	20.70	3.5976E-001		7.6500E-002
Eu-154	123.07	40.50	4.8850E-001	2.56E-001	-5.0515E-001
	247.94	6.60	2.0045E+000		-6.1170E-001
	591.81	4.83	2.1169E+000		1.4300E-001
	723.30	19.70	5.9003E-001		3.1610E-001
	756.87	4.33	2.3015E+000		6.5034E-001
	873.19	11.50	8.0967E-001		-1.5958E-001
	996.32	10.30	8.6116E-001		-5.4726E-001
	1004.76	17.90	5.2268E-001		-1.4088E-001
	1274.45	35.50	2.5563E-001		3.6764E-002
Eu-155	86.54	30.90	9.8975E-001	9.90E-001	-7.4177E-001
	105.31	20.70	1.1736E+000		-1.3905E-001
Am-241	59.54	35.90	1.2048E+000	1.20E+000	-8.6512E-001
Cm-243	228.19	10.56	1.3183E+000	9.46E-001	-4.1213E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	9.4585E-001	9.46E-001	4.8670E-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 4/18/2006 6:49:12 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(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-02-02-129
Sample Title: NOL-02-02-129-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 4/18/2006 6:39:10 PM
Live Time: 600.0 seconds
Real Time: 601.1 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
(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-02-02-129
Title: NOL-02-02-129-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	284-	308	291.86	72.79	1.01	3.97E+002	64.44	1.38E+003
m	2	284-	308	300.40	74.93	1.01	7.34E+002	75.87	1.42E+003
M	3	332-	356	339.72	84.76	0.91	2.10E+002	60.12	1.25E+003
m	4	332-	356	349.90	87.31	0.91	1.07E+002	53.60	1.24E+003
M	5	949-	971	954.65	238.54	1.12	2.91E+002	43.17	2.96E+002
m	6	949-	971	966.23	241.44	1.12	7.29E+001	28.95	2.67E+002
F	7	1174-	1187	1180.66	295.06	0.96	7.32E+001	26.02	1.64E+002
F	8	1347-	1359	1352.66	338.07	1.15	7.61E+001	25.64	1.33E+002
F	9	1400-	1415	1407.81	351.87	1.22	1.70E+002	31.82	1.65E+002
F	10	2032-	2052	2043.47	510.83	1.92	1.33E+002	26.86	1.36E+002
F	11	2325-	2341	2332.73	583.16	1.44	1.80E+002	30.26	1.06E+002
F	12	2429-	2445	2436.97	609.23	1.54	1.65E+002	27.67	6.75E+001
F	13	2639-	2653	2646.27	661.57	1.09	3.84E+001	17.82	6.21E+001
F	14	3637-	3653	3645.09	911.35	1.49	1.30E+002	25.22	5.26E+001
F	15	3869-	3886	3877.22	969.40	1.47	8.60E+001	21.94	5.68E+001
F	16	5057-	5068	5062.56	1265.83	0.73	1.46E+001	10.43	2.06E+001
F	17	5832-	5860	5846.17	1461.79	2.03	1.10E+003	63.02	1.05E+001
F	18	7057-	7071	7063.63	1766.25	2.24	3.72E+001	13.28	4.62E+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/GRAM)	Activity Uncertainty
ANN	0.999	511.00*	100.00	1.81717E-001	4.41492E-002
K-40	0.967	1460.81*	10.67	1.84557E+001	1.83031E+000
Cs-137	1.000	661.65*	85.12	6.70975E-002	3.20938E-002
TL-208	0.752	277.35	6.80		
		510.84*	21.60	8.41283E-001	2.15633E-001
		583.14*	84.20	3.04477E-001	6.47583E-002
		860.37	12.46		
Pb-212	0.677	74.81* @	10.70	1.04973E+001	2.32617E+000
		77.11 @	18.00		
		87.30* @	8.00	1.65194E+000	8.91887E-001
		238.63*	44.60	7.06540E-001	1.52590E-001
Bi-214	0.677	609.31*	46.30	5.14284E-001	1.07138E-001
		1120.29	15.10		
		1764.49*	15.80	4.36974E-001	1.62058E-001
PB-214	0.818	74.82* @	6.21	1.80871E+001	4.21764E+000
		77.11 @	10.50		
		87.30* @	4.67	2.82988E+000	1.54274E+000
		241.98*	7.49	1.05847E+000	4.55823E-001
		295.21*	19.20	4.39509E-001	1.72782E-001
		351.92*	37.20	5.52820E-001	1.38842E-001
Ac-228	0.997	338.32*	11.40	7.99262E-001	2.97076E-001
		911.07*	27.70	7.42165E-001	1.67687E-001
		969.11*	16.60	8.36604E-001	2.30613E-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/GRAM)	Wt mean Activity Uncertainty
	ANN		0.999	1.159501E-001	4.626248E-002
	K-40		0.967	1.845566E+001	1.830312E+000
	Cs-137		1.000	6.709746E-002	3.209381E-002
X	Eu-155		0.321		
	TL-208		0.752	3.044767E-001	6.399360E-002
	Pb-212	@	0.677	7.065403E-001	1.525901E-001
	Bi-214		0.677	4.907715E-001	8.937257E-002
	PB-214	@	0.818	5.377181E-001	1.053013E-001
	Ac-228		0.997	7.790422E-001	1.233746E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	6.6236E-001	16.21
M 3	84.76	3.5050E-001	28.59
F 16	1265.83	2.4341E-002	71.44

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/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
	Co-60	1173.22	100.00	1.1170E-001	9.09E-002	5.0749E-002
		1332.49	100.00	9.0936E-002		8.7229E-002
	Nb-94	702.63	100.00	9.1731E-002	8.88E-002	-2.6101E-002
		871.10	100.00	8.8763E-002		-5.7027E-002
	Ag-108m	79.20	7.10	4.6119E+000	1.16E-001	-2.0616E+000
		433.93	89.90	1.2050E-001		-2.5514E-002
		614.37	90.40	1.2876E-001		1.2990E-002
		722.95	90.50	1.1611E-001		5.6473E-002
	Sb-125	176.33	6.89	2.2080E+000	3.62E-001	4.8343E-001
		427.89	29.33	3.6232E-001		-1.3846E-001
		463.38	10.35	1.0490E+000		-3.1375E-001
		600.56	17.80	5.1229E-001		-2.3924E-001
		606.64	5.02	2.5270E+000		5.7294E+000
		635.90	11.32	8.1163E-001		-7.7258E-001
	Cs-134	563.23	8.38	1.2445E+000	1.14E-001	-1.0419E-001
		569.32	15.43	6.5277E-001		-2.0854E-001
		604.70	97.60	1.1843E-001		-3.7249E-002
		795.84	85.40	1.1373E-001		1.0750E-001
		801.93	8.73	1.0108E+000		-1.3428E+000
+	Cs-137	661.65*	85.12	8.2047E-002	8.20E-002	6.7097E-002
	Eu-152	121.78	28.40	7.2415E-001	3.06E-001	1.1889E-002
		244.69	7.49	1.7876E+000		-5.1120E-001
		344.27	26.50	4.2436E-001		-2.5770E-001
		778.89	12.74	7.5692E-001		-1.0350E+000
		867.32	4.16	2.1694E+000		-2.6425E+000
		964.01	14.40	8.6827E-001		4.6336E-002
		1085.78	10.00	9.0940E-001		-8.9449E-001
		1112.02	13.30	7.2196E-001		-3.6309E-001
		1407.95	20.70	3.0564E-001		-1.0988E-001
	Eu-154	123.07	40.50	5.0263E-001	2.50E-001	3.6767E-001
		247.94	6.60	1.9442E+000		-1.3502E-001
		591.81	4.83	1.8360E+000		-1.1442E+000
		723.30	19.70	5.3467E-001		5.0317E-002
		756.87	4.33	2.2522E+000		-1.7914E+000
		873.19	11.50	7.8040E-001		2.6324E-001
		996.32	10.30	8.5785E-001		1.0720E-001
		1004.76	17.90	4.7131E-001		-6.0593E-001
		1274.45	35.50	2.5021E-001		1.0386E-001
	Eu-155	86.54*	30.90	6.6925E-001	6.69E-001	4.2769E-001
		105.31	20.70	1.1558E+000		-1.7676E-001
	Am-241	59.54	35.90	1.2182E+000	1.22E+000	-4.5047E-001
	Cm-243	228.19	10.56	1.2655E+000	8.93E-001	-4.3736E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	8.9300E-001	8.93E-001	-8.2876E-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 4/25/2006 8:56:40 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: BLUE6279

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-02-02-130-F-G
Sample ID: NOL-02-02-130
Sample Title: NOL-02-02-130-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 4/18/2006 4:00:14 PM
Live Time: 600.0 seconds
Real Time: 601.1 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-02-02-130-F-G
Log Number: NOL-02-02-130
Title: NOL-02-02-130-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	283-	306	291.55	72.72	0.96	3.74E+002	98.40	1.34E+003
m	2	283-	306	300.34	74.91	0.96	7.77E+002	171.91	1.51E+003
F	3	331-	344	339.12	84.61	0.98	3.35E+002	137.00	1.24E+003
M	4	947-	973	954.43	238.49	1.18	3.42E+002	43.12	2.68E+002
m	5	947-	973	965.71	241.31	1.18	6.17E+001	27.26	2.85E+002
F	6	1175-	1189	1181.39	295.24	1.23	5.89E+001	25.86	2.12E+002
F	7	1347-	1357	1352.26	337.97	1.27	8.09E+001	25.78	1.15E+002
F	8	1402-	1414	1407.26	351.73	1.28	1.34E+002	30.36	1.57E+002
F	9	2037-	2053	2043.00	510.71	2.10	1.18E+002	26.75	1.03E+002
F	10	2324-	2341	2332.23	583.04	1.45	1.62E+002	28.55	1.00E+002
F	11	2426-	2445	2436.28	609.06	1.47	1.37E+002	26.51	1.05E+002
F	12	2639-	2652	2645.26	661.32	1.50	4.40E+001	17.55	4.98E+001
F	13	3635-	3654	3644.48	911.20	1.64	1.60E+002	60.36	4.50E+001
F	14	3866-	3884	3874.77	968.79	1.67	7.49E+001	20.43	5.66E+001
F	15	4687-	4699	4693.31	1173.49	1.77	2.75E+001	16.06	3.74E+001
F	16	5830-	5857	5844.02	1461.25	1.90	1.12E+003	100.39	1.39E+001
F	17	7052-	7070	7061.87	1765.81	2.02	4.93E+001	15.24	1.39E+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-02-02-130-F-G

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

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/g)	Activity Uncertainty
ANN	0.997	511.00*	100.00	1.68750E-001	4.46157E-002
K-40	0.993	1460.81*	10.67	1.96778E+001	2.37998E+000
Cs-137	0.996	661.65*	85.12	8.05672E-002	3.35388E-002
TL-208	0.751	277.35	6.80		
		510.84*	21.60	7.81251E-001	2.16184E-001
		583.14*	84.20	2.87686E-001	6.30570E-002
		860.37	12.46		
Pb-212	0.520	74.81* @	10.70	1.16707E+001	3.45007E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	8.72319E-001	1.75563E-001
Bi-214	0.685	609.31*	46.30	4.49944E-001	1.03090E-001
		1120.29	15.10		
		1764.49*	15.80	6.08737E-001	1.97657E-001
PB-214	0.730	74.82* @	6.21	2.01090E+001	6.12117E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98*	7.49	9.40391E-001	4.44101E-001
		295.21*	19.20	3.71257E-001	1.74523E-001
		351.92*	37.20	4.56634E-001	1.28858E-001
Ac-228	0.998	338.32*	11.40	8.92731E-001	3.16936E-001
		911.07*	27.70	9.60487E-001	3.79209E-001
		969.11*	16.60	7.65015E-001	2.23454E-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-02-02-130-F-G

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

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/g)	Wt mean Activity Uncertainty
ANN		0.997	1.066102E-001	4.660444E-002
K-40		0.993	1.967776E+001	2.379980E+000
Cs-137		0.996	8.056719E-002	3.353882E-002
TL-208		0.751	2.876856E-001	6.235617E-002
Pb-212	@	0.520	8.723187E-001	1.755633E-001
Bi-214		0.685	4.839024E-001	9.140461E-002
PB-214	@	0.730	4.530639E-001	1.009496E-001
Ac-228		0.998	8.362390E-001	1.645393E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	6.2326E-001	26.31
F 3	84.61	5.5806E-001	40.91
F 15	1173.49	4.5864E-002	58.36

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:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-02-02-130-F-G
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/g)	Nuclide MDA (pCi/g)	Activity (pCi/g)
	Co-60	1173.22	100.00	1.1255E-001	9.91E-002	8.0756E-002
		1332.49	100.00	9.9080E-002		9.3981E-002
	Nb-94	702.63	100.00	9.8347E-002	9.12E-002	-7.4995E-003
		871.10	100.00	9.1192E-002		-2.8284E-002
	Ag-108m	79.20	7.10	4.6764E+000	1.18E-001	-3.9015E+000
		433.93	89.90	1.1947E-001		-1.4473E-001
		614.37	90.40	1.2568E-001		5.3725E-002
		722.95	90.50	1.1757E-001		1.1259E-001
	Sb-125	176.33	6.89	2.3009E+000	3.70E-001	1.6013E+000
		427.89	29.33	3.6968E-001		1.5570E-002
		463.38	10.35	1.0317E+000		-7.8159E-001
		600.56	17.80	5.4691E-001		1.4348E-002
		606.64	5.02	2.6069E+000		4.0477E+000
		635.90	11.32	8.6440E-001		2.7616E-001
	Cs-134	563.23	8.38	1.2121E+000	1.18E-001	1.3344E-001
		569.32	15.43	7.0043E-001		4.6547E-001
		604.70	97.60	1.2945E-001		-6.2063E-003
		795.84	85.40	1.1839E-001		6.0719E-002
		801.93	8.73	1.0650E+000		-6.7141E-001
+	Cs-137	661.65*	85.12	7.6319E-002	7.63E-002	8.0567E-002
	Eu-152	121.78	28.40	7.3768E-001	3.47E-001	4.2860E-001
		244.69	7.49	1.8165E+000		2.3224E-002
		344.27	26.50	4.3696E-001		1.2330E-001
		778.89	12.74	7.7399E-001		-4.0364E-001
		867.32	4.16	2.1902E+000		-2.9404E+000
		964.01	14.40	8.7170E-001		4.3737E-001
		1085.78	10.00	1.0082E+000		1.6545E-001
		1112.02	13.30	6.9465E-001		-5.0833E-001
		1407.95	20.70	3.4651E-001		-1.0369E-001
	Eu-154	123.07	40.50	5.1029E-001	2.46E-001	-8.1527E-002
		247.94	6.60	2.0115E+000		1.3513E+000
		591.81	4.83	2.0490E+000		-1.0367E+000
		723.30	19.70	5.3468E-001		3.0759E-001
		756.87	4.33	2.3118E+000		-2.1783E-001
		873.19	11.50	7.9335E-001		2.4925E-001
		996.32	10.30	8.9376E-001		-2.8923E-002
		1004.76	17.90	5.2158E-001		3.0816E-001
		1274.45	35.50	2.4604E-001		-2.9148E-002
	Eu-155	86.54	30.90	1.0238E+000	1.02E+000	-4.0393E-001
		105.31	20.70	1.1974E+000		1.1892E+000
	Am-241	59.54	35.90	1.2396E+000	1.24E+000	-3.7597E-001
	Cm-243	228.19	10.56	1.2798E+000	9.48E-001	-8.8452E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/g)	Nuclide MDA (pCi/g)	Activity (pCi/g)
Cm-243	277.60	14.00	9.4784E-001	9.48E-001	6.5714E-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 5/5/2006 11:49:08 AM

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

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-02-02-130
Sample Title: NOL-02-02-130-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/5/2006 11:39:06 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-02-02-130
Title: NOL-02-02-130-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	285-	309	291.35	72.74	1.30	3.79E+002	64.42	1.28E+003
m	2	285-	309	300.35	74.99	1.30	7.46E+002	75.67	1.80E+003
	3	946-	963	955.15	238.73	1.08	2.80E+002	79.43	4.19E+002
	4	1398-	1416	1407.69	351.90	1.23	1.85E+002	52.42	1.57E+002
	5	2325-	2342	2332.32	583.12	1.59	1.90E+002	42.94	8.91E+001
	6	2427-	2449	2436.64	609.20	1.39	1.68E+002	46.86	1.04E+002
	7	3635-	3656	3645.18	911.42	0.48	1.40E+002	37.55	6.01E+001
	8	3869-	3888	3877.02	969.40	1.79	1.02E+002	30.69	4.11E+001
	9	4477-	4491	4483.09	1120.95	0.61	5.34E+001	23.12	2.96E+001
	10	5832-	5862	5847.63	1462.18	2.01	9.92E+002	66.28	3.09E+001
	11	7060-	7073	7066.17	1766.89	1.51	3.04E+001	16.13	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: 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	0.943	1460.81*	10.67	1.71675E+001	1.80202E+000
TL-208	0.471	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.31529E-001	8.64832E-002
		860.37	12.46		
Pb-212	0.521	74.81* @	10.70	1.10637E+001	2.44169E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	7.03646E-001	2.27875E-001
Bi-214	0.961	609.31*	46.30	5.39473E-001	1.64900E-001
		1120.29*	15.10	6.14394E-001	2.73869E-001
		1764.49*	15.80	3.69284E-001	1.99230E-001
Ac-228	0.631	338.32	11.40		
		911.07*	27.70	8.27189E-001	2.41576E-001
		969.11*	16.60	1.02297E+000	3.26241E-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	0.943	1.716746E+001	1.802016E+000
TL-208	0.471	3.315286E-001	8.648316E-002
Pb-212 @	0.521	7.036460E-001	2.278748E-001
Bi-214	0.961	4.957984E-001	1.152385E-001
Ac-228	0.631	8.965218E-001	1.941442E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	6.3092E-001	17.02
4	351.90	3.0810E-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	1.1820E-001	9.49E-002	8.1694E-002
	1332.49	100.00	9.4949E-002		1.4520E-002
Nb-94	702.63	100.00	1.0395E-001	9.39E-002	1.3225E-001
	871.10	100.00	9.3948E-002		-1.3926E-001
Ag-108m	79.20	7.10	5.3298E+000	1.19E-001	-6.0158E+000
	433.93	89.90	1.2250E-001		-2.6474E-002
	614.37	90.40	1.4470E-001		1.0855E-002
	722.95	90.50	1.1897E-001		-8.1349E-002
Sb-125	176.33	6.89	2.3824E+000	3.72E-001	-2.6916E-001
	427.89	29.33	3.7191E-001		-3.5113E-001
	463.38	10.35	1.1033E+000		4.7587E-001
	600.56	17.80	6.1088E-001		1.9906E-001
	606.64	5.02	2.7670E+000		9.1081E-001
	635.90	11.32	8.7246E-001		-2.6335E-001
Cs-134	563.23	8.38	1.2757E+000	1.13E-001	-1.5046E-001
	569.32	15.43	6.5968E-001		2.0531E-001
	604.70	97.60	1.3848E-001		5.0717E-002
	795.84	85.40	1.1298E-001		3.7735E-002
	801.93	8.73	1.0617E+000		-7.5678E-001
Cs-137	661.65	85.12	1.3598E-001	1.36E-001	9.1196E-002
Eu-152	121.78	28.40	7.8271E-001	3.46E-001	-4.1705E-002
	244.69	7.49	1.9484E+000		-1.3851E+000
	344.27	26.50	4.4835E-001		-8.6267E-001
	778.89	12.74	7.9472E-001		-4.2323E-001
	867.32	4.16	2.4039E+000		-9.7672E-001
	964.01	14.40	8.4147E-001		8.2141E-002
	1085.78	10.00	9.1656E-001		-2.2654E-001
	1112.02	13.30	7.1578E-001		-6.9235E-001
	1407.95	20.70	3.4566E-001		1.5819E-001
Eu-154	123.07	40.50	5.4537E-001	2.53E-001	4.1431E-001
	247.94	6.60	2.0850E+000		6.3282E-003
	591.81	4.83	2.0335E+000		-2.2138E+000
	723.30	19.70	5.5300E-001		-2.3057E-001
	756.87	4.33	2.3310E+000		5.6033E-001
	873.19	11.50	8.4183E-001		2.5856E-001
	996.32	10.30	9.0602E-001		2.7214E-002
	1004.76	17.90	4.9279E-001		-7.0555E-003
	1274.45	35.50	2.5343E-001		1.3500E-001
Eu-155	86.54	30.90	1.0869E+000	1.09E+000	2.2051E+000
	105.31	20.70	1.2230E+000		9.4679E-002
Am-241	59.54	35.90	1.2959E+000	1.30E+000	-5.1712E-001
Cm-243	228.19	10.56	1.3788E+000	9.51E-001	-2.8257E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Cm-243	277.60	14.00	9.5059E-001	9.51E-001	9.9144E-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 4/25/2006 8:56:22 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-02-02-131-F-G
Sample ID: NOL-02-02-131
Sample Title: NOL-02-02-131-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 4/18/2006 3:03:47 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: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-02-02-131-F-G
Log Number: NOL-02-02-131
Title: NOL-02-02-131-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	288-	314	291.82	72.78	0.96	4.29E+002	105.91	9.32E+002
m	2	288-	314	300.60	74.98	0.96	9.00E+002	181.31	1.47E+003
m	3	288-	314	309.73	77.26	0.97	1.75E+002	59.84	1.35E+003
F	4	333-	345	339.78	84.78	0.98	2.47E+002	58.67	1.31E+003
F	5	945-	960	954.72	238.56	1.18	3.24E+002	44.12	3.90E+002
F	6	1348-	1358	1352.88	338.13	1.27	9.12E+001	27.23	1.27E+002
F	7	1401-	1417	1407.45	351.77	1.28	1.48E+002	86.56	1.84E+002
F	8	2034-	2051	2043.26	510.78	2.10	1.71E+002	29.30	1.24E+002
F	9	2323-	2340	2332.15	583.02	1.45	1.92E+002	30.54	1.01E+002
F	10	2430-	2446	2437.17	609.28	1.47	1.78E+002	84.89	6.81E+001
F	11	2903-	2916	2909.23	727.33	1.54	4.56E+001	57.87	5.31E+001
F	12	3635-	3655	3644.80	911.28	1.64	1.48E+002	55.62	6.25E+001
F	13	3867-	3885	3876.06	969.11	1.67	8.98E+001	22.60	6.86E+001
F	14	4473-	4489	4481.68	1120.56	1.75	5.03E+001	18.17	4.67E+001
F	15	4583-	4594	4589.13	1147.44	1.76	1.76E+001	11.36	1.25E+001
F	16	5830-	5859	5845.51	1461.63	1.90	1.26E+003	99.33	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

N U C L I 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-02-02-131-F-G

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

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/g)	Activity Uncertainty
ANN	0.998	511.00*	100.00	2.44620E-001	5.34752E-002
K-40	0.977	1460.81*	10.67	2.21949E+001	2.50798E+000
TL-208	0.751	277.35	6.80		
		510.84*	21.60	1.13250E+000	2.64282E-001
		583.14*	84.20	3.41910E-001	7.01872E-002
		860.37	12.46		
Bi-212	0.999	727.17*	11.80	6.14112E-001	7.82969E-001
Pb-212	0.843	74.81* @	10.70	1.35005E+001	3.79533E+000
		77.11* @	18.00	1.50018E+000	5.90617E-001
		87.30 @	8.00		
		238.63*	44.60	8.26398E-001	1.71678E-001
Bi-214	0.699	609.31*	46.30	5.84599E-001	2.87513E-001
		1120.29*	15.10	5.88239E-001	2.21633E-001
		1764.49	15.80		
PB-214	0.389	74.82* @	6.21	2.32617E+001	6.75396E+000
		77.11* @	10.50	2.57174E+000	1.03053E+000
		87.30 @	4.67		
		241.98	7.49		
		295.21	19.20		
		351.92*	37.20	5.05508E-001	3.07787E-001
Ac-228	0.999	338.32*	11.40	1.00660E+000	3.39314E-001
		911.07*	27.70	8.88638E-001	3.49534E-001
		969.11*	16.60	9.16772E-001	2.49892E-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-02-02-131-F-G

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

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/g)	Wt mean Activity Uncertainty
ANN		0.998	1.707670E-001	5.553053E-002
K-40		0.977	2.219488E+001	2.507983E+000
TL-208		0.751	3.419099E-001	6.929708E-002
Bi-212		0.999	6.141122E-001	7.829688E-001
Pb-212	@	0.843	8.263976E-001	1.716776E-001
Bi-214		0.699	5.868820E-001	1.755332E-001
PB-214	@	0.389	5.055081E-001	3.064504E-001
Ac-228		0.999	9.334950E-001	1.743833E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	7.1427E-001	24.71
F 4	84.78	4.1092E-001	23.80
F 15	1147.44	2.9268E-002	64.72

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:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-02-02-131-F-G
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/g)	Nuclide MDA (pCi/g)	Activity (pCi/g)
Co-60	1173.22	100.00	1.0928E-001	9.09E-002	8.6314E-002
	1332.49	100.00	9.0882E-002		-3.0227E-003
Nb-94	702.63	100.00	1.0894E-001	9.93E-002	4.5695E-002
	871.10	100.00	9.9284E-002		1.6773E-003
Ag-108m	79.20	7.10	4.8315E+000	1.24E-001	-2.0520E+000
	433.93	89.90	1.2408E-001		-4.8093E-002
	614.37	90.40	1.4710E-001		-5.4212E-003
	722.95	90.50	1.2444E-001		-1.4947E-002
Sb-125	176.33	6.89	2.3271E+000	3.93E-001	-1.0685E+000
	427.89	29.33	3.9331E-001		7.7741E-003
	463.38	10.35	1.1213E+000		-1.7303E-001
	600.56	17.80	5.5136E-001		-1.0900E+000
	606.64	5.02	2.7953E+000		-1.0064E+000
	635.90	11.32	9.1374E-001		7.8095E-001
Cs-134	563.23	8.38	1.2631E+000	1.22E-001	-1.3583E+000
	569.32	15.43	7.0487E-001		4.5216E-001
	604.70	97.60	1.3454E-001		-5.6439E-002
	795.84	85.40	1.2243E-001		1.0091E-001
	801.93	8.73	1.1187E+000		-1.4213E+000
Cs-137	661.65	85.12	1.3762E-001	1.38E-001	7.2398E-002
Eu-152	121.78	28.40	7.5023E-001	3.83E-001	1.4322E-001
	244.69	7.49	1.8894E+000		-1.6733E+000
	344.27	26.50	4.3754E-001		-1.6668E-001
	778.89	12.74	7.9704E-001		-3.7649E-001
	867.32	4.16	2.3319E+000		-3.5117E+000
	964.01	14.40	9.2013E-001		6.0288E-001
	1085.78	10.00	1.0151E+000		1.1745E-001
	1112.02	13.30	7.6069E-001		8.1222E-002
	1407.95	20.70	3.8269E-001		1.6224E-001
Eu-154	123.07	40.50	5.2591E-001	2.50E-001	3.1644E-001
	247.94	6.60	2.1016E+000		9.0606E-001
	591.81	4.83	2.2179E+000		4.2047E-001
	723.30	19.70	5.7301E-001		-1.9126E-001
	756.87	4.33	2.4483E+000		-5.2274E-002
	873.19	11.50	8.3634E-001		-4.4143E-001
	996.32	10.30	8.7604E-001		-9.4569E-001
	1004.76	17.90	5.4310E-001		-2.2217E-001
	1274.45	35.50	2.4971E-001		5.9398E-002
Eu-155	86.54	30.90	1.0421E+000	1.04E+000	9.7494E-002
	105.31	20.70	1.2456E+000		1.0483E+000
Am-241	59.54	35.90	1.2376E+000	1.24E+000	-1.3449E+000
Cm-243	228.19	10.56	1.3466E+000	9.51E-001	5.6555E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/g)	Nuclide MDA (pCi/g)	Activity (pCi/g)
Cm-243	277.60	14.00	9.5120E-001	9.51E-001	-7.3351E-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 5/5/2006 11:33:03 AM

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

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-02-02-131
Sample Title: NOL-02-02-131-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/5/2006 11:23:01 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-02-02-131
Title: NOL-02-02-131-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	282-	309	291.37	72.75	1.30	3.94E+002	65.73	1.66E+003
m	2	282-	309	300.47	75.02	1.30	7.04E+002	75.59	1.91E+003
M	3	334-	357	339.31	84.73	1.07	2.31E+002	61.30	1.08E+003
m	4	334-	357	351.20	87.70	1.08	1.11E+002	55.40	1.35E+003
	5	947-	963	954.93	238.68	0.98	3.18E+002	79.90	4.28E+002
	6	1347-	1358	1353.03	338.23	0.69	3.50E+001	43.09	1.77E+002
	7	1401-	1417	1406.91	351.70	0.90	1.54E+002	51.25	1.68E+002
	8	2031-	2054	2043.49	510.89	0.93	1.63E+002	52.85	1.41E+002
	9	2324-	2343	2332.69	583.21	1.44	2.24E+002	48.37	1.10E+002
	10	2428-	2448	2436.51	609.17	1.79	1.77E+002	41.78	7.68E+001
	11	3634-	3654	3645.27	911.44	1.78	1.77E+002	37.01	4.95E+001
	12	3868-	3886	3877.52	969.52	0.65	7.33E+001	35.55	7.57E+001
	13	4950-	4963	4956.40	1239.31	0.56	3.40E+001	24.23	4.30E+001
	14	5833-	5861	5847.01	1462.02	2.03	1.12E+003	70.74	3.91E+001
	15	7055-	7070	7063.41	1766.20	1.74	4.39E+001	18.30	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	1.000	511.00*	100.00	2.29499E-001	8.05945E-002
K-40	0.955	1460.81*	10.67	1.94478E+001	1.99438E+000
Eu-155	0.307	86.54*	30.90	4.59446E-001	2.45936E-001
		105.31	20.70		
TL-208	0.752	277.35	6.80		
		510.84*	21.60	1.06249E+000	3.83079E-001
		583.14*	84.20	3.90373E-001	9.85495E-002
		860.37	12.46		
Pb-212	0.677	74.81* @	10.70	1.04352E+001	2.33213E+000
		77.11 @	18.00		
		87.30* @	8.00	1.77461E+000	9.49927E-001
		238.63*	44.60	7.97622E-001	2.36356E-001
Bi-214	0.679	609.31*	46.30	5.70777E-001	1.51811E-001
		1120.29	15.10		
		1764.49*	15.80	5.32477E-001	2.28372E-001
Ac-228	0.996	338.32*	11.40	3.79986E-001	4.71008E-001
		911.07*	27.70	1.04961E+000	2.49934E-001
		969.11*	16.60	7.36522E-001	3.65241E-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	1.451781E-001	8.331298E-002
K-40		0.955	1.944778E+001	1.994382E+000
Eu-155		0.307	2.529416E-001	2.534343E-001
TL-208		0.752	3.903733E-001	9.772492E-002
Pb-212	@	0.677	7.976224E-001	2.363561E-001
Bi-214		0.679	5.590394E-001	1.264260E-001
Ac-228		0.996	8.580720E-001	1.889410E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	6.5700E-001	16.67
M 3	84.73	3.8487E-001	26.54
7	351.70	2.5603E-001	33.36
13	1239.31	5.6634E-002	71.31

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: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	1.0536E-001	7.79E-002	3.0877E-004
		1332.49	100.00	7.7940E-002		8.7788E-003
	Nb-94	702.63	100.00	1.0929E-001	9.86E-002	7.8206E-003
		871.10	100.00	9.8592E-002		2.5043E-002
	Ag-108m	79.20	7.10	5.5185E+000	1.28E-001	-4.7301E+000
		433.93	89.90	1.3159E-001		5.3469E-002
		614.37	90.40	1.4215E-001		-6.1181E-003
		722.95	90.50	1.2843E-001		4.8632E-002
	Sb-125	176.33	6.89	2.3865E+000	4.02E-001	-5.4673E-001
		427.89	29.33	4.0205E-001		1.3789E-001
		463.38	10.35	1.1293E+000		7.3306E-002
		600.56	17.80	6.1343E-001		4.8031E-001
		606.64	5.02	2.7917E+000		1.2171E+000
		635.90	11.32	8.8165E-001		-3.0595E-001
	Cs-134	563.23	8.38	1.3626E+000	1.29E-001	9.0800E-001
		569.32	15.43	7.1798E-001		-4.2709E-001
		604.70	97.60	1.3716E-001		2.2860E-002
		795.84	85.40	1.2918E-001		1.0947E-001
		801.93	8.73	1.1504E+000		-1.2861E+000
	Cs-137	661.65	85.12	1.2421E-001	1.24E-001	-5.7552E-002
	Eu-152	121.78	28.40	7.8894E-001	3.83E-001	5.2912E-001
		244.69	7.49	2.0179E+000		-2.1952E-001
		344.27	26.50	4.7690E-001		-2.7559E-001
		778.89	12.74	8.0780E-001		-6.6471E-001
		867.32	4.16	2.4463E+000		-4.4954E+000
		964.01	14.40	9.0996E-001		-4.4063E-002
		1085.78	10.00	9.9081E-001		1.2260E-002
		1112.02	13.30	7.4745E-001		8.4459E-002
		1407.95	20.70	3.8305E-001		2.2394E-001
	Eu-154	123.07	40.50	5.4497E-001	2.37E-001	-2.8792E-001
		247.94	6.60	2.1298E+000		-3.7312E+000
		591.81	4.83	2.1591E+000		7.5475E-001
		723.30	19.70	5.9716E-001		5.3669E-001
		756.87	4.33	2.2460E+000		-1.8094E+000
		873.19	11.50	8.7336E-001		2.7997E-001
		996.32	10.30	9.1929E-001		-4.3481E-001
		1004.76	17.90	4.9688E-001		-2.8701E-001
		1274.45	35.50	2.3671E-001		-3.8776E-001
+	Eu-155	86.54*	30.90	7.1714E-001	7.17E-001	4.5945E-001
		105.31	20.70	1.2145E+000		-6.7450E-001
	Am-241	59.54	35.90	1.3497E+000	1.35E+000	1.0594E+000
	Cm-243	228.19	10.56	1.4254E+000	9.72E-001	-4.5969E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Cm-243	277.60	14.00	9.7228E-001	9.72E-001	-3.7978E-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 4/18/2006 8:36:11 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: NOL-02-02-132
Sample Title: NOL-02-02-132-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 4/18/2006 8:26:11 PM
Live Time: 600.0 seconds
Real Time: 601.1 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
(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-02-02-132
Title: NOL-02-02-132-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-	306	291.71	72.76	0.94	4.10E+002	63.93	1.26E+003
m	2	283-	306	300.38	74.92	0.94	7.40E+002	77.54	1.51E+003
M	3	332-	354	339.03	84.59	0.89	2.59E+002	59.26	1.04E+003
m	4	332-	354	349.46	87.20	0.89	1.40E+002	54.61	1.11E+003
F	5	946-	961	954.19	238.43	0.96	3.37E+002	46.93	4.09E+002
F	6	1175-	1189	1181.50	295.27	1.15	9.35E+001	29.76	2.23E+002
F	7	1345-	1362	1352.88	338.13	1.03	9.81E+001	27.88	2.06E+002
F	8	1399-	1414	1407.57	351.81	1.07	1.43E+002	31.20	1.94E+002
F	9	2033-	2052	2043.42	510.82	2.24	1.67E+002	29.18	1.48E+002
F	10	2326-	2340	2332.22	583.04	1.29	1.99E+002	31.20	8.08E+001
F	11	2430-	2446	2437.20	609.29	1.36	1.80E+002	29.69	8.70E+001
F	12	3637-	3654	3644.70	911.26	1.40	1.51E+002	27.50	6.70E+001
F	13	3731-	3742	3736.49	934.21	0.89	2.27E+001	13.37	2.95E+001
M	14	3852-	3884	3859.42	964.95	1.68	4.95E+001	16.98	4.17E+001
m	15	3852-	3884	3874.18	968.64	1.68	9.44E+001	23.48	9.39E+001
F	16	4474-	4491	4482.92	1120.88	1.75	6.88E+001	19.41	3.58E+001
F	17	5831-	5858	5845.15	1461.53	1.97	1.26E+003	68.13	1.40E+001
F	18	7052-	7068	7062.62	1766.00	2.27	5.08E+001	14.56	6.68E+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/GRAM)	Activity Uncertainty
ANN	0.999	511.00*	100.00	2.27655E-001	5.03609E-002
K-40	0.982	1460.81*	10.67	2.10579E+001	2.05252E+000
Eu-155	0.324	86.54*	30.90	5.64784E-001	2.45904E-001
		105.31	20.70		
TL-208	0.752	277.35	6.80		
		510.84*	21.60	1.05396E+000	2.48533E-001
		583.14*	84.20	3.36207E-001	6.85862E-002
		860.37	12.46		
Pb-212	0.676	74.81* @	10.70	1.05913E+001	2.35369E+000
		77.11 @	18.00		
		87.30* @	8.00	2.18148E+000	9.49806E-001
		238.63*	44.60	8.20021E-001	1.71882E-001
Bi-214	0.982	609.31*	46.30	5.60845E-001	1.15600E-001
		1120.29*	15.10	7.67618E-001	2.31255E-001
		1764.49*	15.80	5.96773E-001	1.81197E-001
PB-214	0.670	74.82* @	6.21	1.82491E+001	4.26637E+000
		77.11 @	10.50		
		87.30* @	4.67	3.73701E+000	1.65139E+000
		241.98	7.49		
		295.21*	19.20	5.61268E-001	2.02032E-001
		351.92*	37.20	4.65329E-001	1.27974E-001
Ac-228	0.997	338.32*	11.40	1.03046E+000	3.34522E-001
		911.07*	27.70	8.65571E-001	1.86234E-001
		969.11*	16.60	9.17415E-001	2.47702E-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/GRAM)	Wt mean Activity Uncertainty
ANN		0.999	1.550345E-001	5.244128E-002
K-40		0.982	2.105791E+001	2.052522E+000
Eu-155		0.324	2.780498E-001	2.504107E-001
TL-208		0.752	3.362070E-001	6.770542E-002
Pb-212	@	0.676	8.200207E-001	1.718824E-001
Bi-214		0.982	6.008551E-001	8.980709E-002
PB-214	@	0.670	4.924871E-001	1.059235E-001
Ac-228		0.997	9.084520E-001	1.359987E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	6.8311E-001	15.60
M 3	84.59	4.3231E-001	22.85
F 13	934.21	3.7852E-002	58.86
M 14	964.95	8.2448E-002	34.32

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
(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/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
	Co-60	1173.22	100.00	1.0719E-001	8.19E-002	-3.6393E-003
		1332.49	100.00	8.1925E-002		3.3906E-002
	Nb-94	702.63	100.00	1.0177E-001	9.63E-002	-5.0083E-003
		871.10	100.00	9.6310E-002		1.8724E-002
	Ag-108m	79.20	7.10	4.6119E+000	1.21E-001	-3.5721E+000
		433.93	89.90	1.2390E-001		1.6271E-003
		614.37	90.40	1.3423E-001		-4.2868E-002
		722.95	90.50	1.2062E-001		2.6186E-002
	Sb-125	176.33	6.89	2.3156E+000	3.89E-001	-1.1145E+000
		427.89	29.33	3.8866E-001		5.9361E-002
		463.38	10.35	1.0848E+000		-1.6395E-001
		600.56	17.80	5.8481E-001		1.0549E-001
		606.64	5.02	2.7541E+000		-9.7872E-001
		635.90	11.32	9.0433E-001		-6.6457E-001
	Cs-134	563.23	8.38	1.2747E+000	1.22E-001	2.7986E-001
		569.32	15.43	7.0286E-001		-3.6886E-001
		604.70	97.60	1.3299E-001		-1.7750E-001
		795.84	85.40	1.2245E-001		7.0498E-002
		801.93	8.73	1.1967E+000		-7.4625E-001
	Cs-137	661.65	85.12	1.2816E-001	1.28E-001	3.0111E-002
	Eu-152	121.78	28.40	7.2415E-001	3.38E-001	-1.9231E-001
		244.69	7.49	1.9809E+000		1.1731E+000
		344.27	26.50	4.4705E-001		-2.3997E-001
		778.89	12.74	7.5039E-001		-1.0668E+000
		867.32	4.16	2.2922E+000		-2.7948E+000
		964.01	14.40	9.2157E-001		4.7296E-002
		1085.78	10.00	9.4692E-001		3.0919E-001
		1112.02	13.30	7.6101E-001		3.5814E-001
		1407.95	20.70	3.3771E-001		-5.7942E-002
	Eu-154	123.07	40.50	5.0801E-001	2.71E-001	2.2857E-001
		247.94	6.60	2.0983E+000		-1.1790E+000
		591.81	4.83	2.0505E+000		2.8921E-001
		723.30	19.70	5.5893E-001		2.7304E-001
		756.87	4.33	2.3910E+000		3.1137E+000
		873.19	11.50	8.0444E-001		-5.7337E-001
		996.32	10.30	8.7426E-001		-1.1674E-001
		1004.76	17.90	4.9292E-001		1.8201E-001
		1274.45	35.50	2.7122E-001		2.3936E-001
+	Eu-155	86.54*	30.90	6.3552E-001	6.36E-001	5.6478E-001
		105.31	20.70	1.1659E+000		1.6487E-001
	Am-241	59.54	35.90	1.2083E+000	1.21E+000	2.1261E-002
	Cm-243	228.19	10.56	1.2957E+000	9.54E-001	6.0408E-002

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	9.5423E-001	9.54E-001	-4.7349E-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 5/5/2006 10:38:00 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-02-02-132
Sample Title: NOL-02-02-132-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/5/2006 10:27:57 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-02-02-132
Title: NOL-02-02-132-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	282-	309	291.73	72.83	1.36	4.64E+002	68.91	1.59E+003
m	2	282-	309	300.01	74.90	1.36	7.68E+002	78.02	1.96E+003
	3	333-	345	339.16	84.69	0.89	2.04E+002	116.16	1.25E+003
	4	948-	961	954.43	238.55	1.39	2.68E+002	70.36	3.67E+002
	5	1173-	1189	1180.43	295.07	1.36	8.13E+001	53.66	2.14E+002
M	6	1322-	1357	1326.34	331.56	0.47	2.79E+001	16.26	7.85E+001
m	7	1322-	1357	1352.94	338.21	0.48	4.82E+001	19.81	6.63E+001
	8	1398-	1413	1405.80	351.43	1.28	9.22E+001	54.17	2.24E+002
	9	2322-	2342	2332.29	583.11	1.81	1.96E+002	47.10	1.05E+002
	10	2427-	2445	2436.12	609.07	1.05	1.56E+002	45.48	1.13E+002
	11	2901-	2914	2907.96	727.07	0.94	4.16E+001	27.14	5.44E+001
	12	3630-	3654	3643.87	911.09	1.10	2.00E+002	46.07	8.48E+001
	13	3867-	3886	3874.98	968.88	1.60	8.47E+001	34.59	6.43E+001
	14	4473-	4489	4481.03	1120.44	2.28	6.37E+001	26.99	4.03E+001
	15	4943-	4958	4949.78	1237.65	0.91	3.34E+001	22.73	3.36E+001
	16	5829-	5859	5844.33	1461.35	2.14	1.20E+003	72.59	3.48E+001
	17	6363-	6376	6369.45	1592.67	0.39	1.62E+001	11.61	5.83E+000
	18	7054-	7070	7061.47	1765.72	0.65	6.15E+001	19.27	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: 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	0.991	1460.81*		10.67	2.08014E+001	2.10086E+000
TL-208	0.471	277.35		6.80		
		510.84		21.60		
		583.14*		84.20	3.42113E-001	9.34987E-002
		860.37		12.46		
Bi-212	1.000	727.17*		11.80	5.51316E-001	3.65080E-001
Pb-212	0.521	74.81*	@	10.70	1.14106E+001	2.51897E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	6.72829E-001	2.05704E-001
Bi-214	0.989	609.31*		46.30	5.02145E-001	1.58976E-001
		1120.29*		15.10	7.32488E-001	3.20045E-001
		1764.49*		15.80	7.46565E-001	2.45486E-001
PB-214	0.579	74.82*	@	6.21	1.96607E+001	4.56889E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	5.03755E-001	3.42972E-001
		351.92*		37.20	3.09668E-001	1.89159E-001
Ac-228	0.999	338.32*		11.40	5.22833E-001	2.29926E-001
		911.07*		27.70	1.18360E+000	3.04537E-001
		969.11*		16.60	8.50449E-001	3.58540E-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		0.991	2.080135E+001	2.100865E+000
TL-208		0.471	3.421129E-001	9.349873E-002
Bi-212		1.000	5.513162E-001	3.650803E-001
Pb-212	@	0.521	6.728289E-001	2.057036E-001
Bi-214		0.989	5.977802E-001	1.231623E-001
PB-214	@	0.579	3.549367E-001	1.656373E-001
Ac-228		0.999	7.809444E-001	1.633487E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	7.7263E-001	14.87
3	84.69	3.4067E-001	56.83
M 6	331.56	4.6564E-002	58.21
15	1237.65	5.5597E-002	68.14
17	1592.67	2.6951E-002	71.78

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: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	1.1213E-001	7.79E-002	1.0864E-002
	1332.49	100.00	7.7940E-002		-4.2311E-002
Nb-94	702.63	100.00	1.0979E-001	9.55E-002	-2.0075E-002
	871.10	100.00	9.5523E-002		-3.2016E-002
Ag-108m	79.20	7.10	5.5083E+000	1.29E-001	-5.9210E+000
	433.93	89.90	1.3271E-001		-2.4036E-002
	614.37	90.40	1.4428E-001		-1.5069E-002
	722.95	90.50	1.2895E-001		-2.9542E-002
Sb-125	176.33	6.89	2.5172E+000	4.01E-001	1.5479E+000
	427.89	29.33	4.0148E-001		-3.0933E-001
	463.38	10.35	1.1464E+000		1.2248E+000
	600.56	17.80	5.9533E-001		-4.8313E-001
	606.64	5.02	2.8577E+000		5.0587E+000
	635.90	11.32	9.4551E-001		6.1186E-001
Cs-134	563.23	8.38	1.3992E+000	1.21E-001	6.8186E-001
	569.32	15.43	7.3725E-001		-3.3444E-002
	604.70	97.60	1.4362E-001		-4.7430E-002
	795.84	85.40	1.2072E-001		5.1087E-002
	801.93	8.73	1.1699E+000		-6.9645E-002
Cs-137	661.65	85.12	1.3245E-001	1.32E-001	5.0011E-003
Eu-152	121.78	28.40	7.7606E-001	3.61E-001	-6.0055E-001
	244.69	7.49	2.0117E+000		-1.7467E+000
	344.27	26.50	4.7071E-001		-5.7705E-001
	778.89	12.74	8.0564E-001		-6.7851E-001
	867.32	4.16	2.3823E+000		-2.2188E+000
	964.01	14.40	8.9836E-001		1.6270E-002
	1085.78	10.00	9.9420E-001		-1.1444E+000
	1112.02	13.30	7.7030E-001		-6.9606E-002
	1407.95	20.70	3.6111E-001		3.4520E-002
Eu-154	123.07	40.50	5.4537E-001	2.46E-001	1.5058E-001
	247.94	6.60	2.1930E+000		2.2917E-001
	591.81	4.83	2.1688E+000		-1.3238E+000
	723.30	19.70	5.9598E-001		3.7662E-001
	756.87	4.33	2.4558E+000		-5.4283E-002
	873.19	11.50	8.3645E-001		-2.4690E-001
	996.32	10.30	9.2584E-001		-1.4374E+000
	1004.76	17.90	5.3590E-001		-3.9373E-001
	1274.45	35.50	2.4641E-001		-2.7379E-002
Eu-155	86.54	30.90	1.1256E+000	1.13E+000	2.0192E+000
	105.31	20.70	1.2332E+000		-1.5920E-001
Am-241	59.54	35.90	1.3659E+000	1.37E+000	6.0352E-001
Cm-243	228.19	10.56	1.4211E+000	1.00E+000	8.6373E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Cm-243	277.60	14.00	1.0043E+000	1.00E+000	9.9332E-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 4/19/2006 12:35:50 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-02-02-133
Sample Title: NOL-02-02-133-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 4/19/2006 12:25:43 AM
Live Time: 600.0 seconds
Real Time: 601.1 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
(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-02-02-133
Title: NOL-02-02-133-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	286-	306	291.94	72.81	0.91	4.07E+002	63.02	1.12E+003
m	2	286-	306	300.29	74.90	0.91	7.07E+002	76.08	1.28E+003
M	3	334-	354	339.42	84.69	1.17	2.81E+002	62.24	1.17E+003
m	4	334-	354	349.42	87.19	1.17	1.05E+002	56.18	1.39E+003
F	5	946-	961	954.48	238.50	1.23	3.56E+002	46.15	3.74E+002
F	6	1173-	1190	1180.97	295.14	1.38	1.25E+002	30.19	2.26E+002
F	7	1346-	1361	1353.18	338.20	1.23	8.40E+001	27.92	1.99E+002
F	8	1397-	1415	1406.75	351.60	1.12	1.55E+002	32.08	2.30E+002
F	9	1845-	1858	1850.93	462.68	1.09	4.21E+001	19.70	8.40E+001
F	10	2032-	2049	2041.51	510.34	1.64	1.26E+002	27.74	1.36E+002
F	11	2326-	2340	2332.14	583.02	1.35	2.15E+002	33.17	1.01E+002
F	12	2428-	2445	2436.41	609.09	1.56	1.93E+002	29.89	8.76E+001
F	13	2901-	2918	2908.72	727.21	1.75	5.76E+001	19.13	5.77E+001
F	14	3177-	3189	3181.90	795.52	1.18	2.92E+001	17.41	5.27E+001
F	15	3636-	3654	3644.93	911.31	1.51	1.80E+002	29.12	6.65E+001
M	16	3852-	3881	3859.22	964.90	1.35	4.01E+001	16.81	4.80E+001
m	17	3852-	3881	3874.88	968.82	1.35	1.14E+002	23.30	4.16E+001
F	18	5829-	5858	5844.29	1461.32	2.09	1.25E+003	67.62	1.87E+001
F	19	7053-	7067	7060.38	1765.43	1.51	4.06E+001	15.16	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: BLUE6279

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	0.985	511.00*	100.00	1.71916E-001	4.44279E-002
K-40	0.991	1460.81*	10.67	2.10452E+001	2.04685E+000
TL-208	0.750	277.35	6.80		
		510.84*	21.60	7.95906E-001	2.15710E-001
		583.14*	84.20	3.63959E-001	7.34625E-002
		860.37	12.46		
Bi-212	1.000	727.17*	11.80	7.38637E-001	2.60302E-001
Pb-212	0.677	74.81* @	10.70	1.01135E+001	2.26163E+000
		77.11 @	18.00		
		87.30* @	8.00	1.63199E+000	9.29419E-001
		238.63*	44.60	8.66402E-001	1.76184E-001
Bi-214	0.691	609.31*	46.30	6.01071E-001	1.19136E-001
		1120.29	15.10		
		1764.49*	15.80	4.76588E-001	1.84411E-001
PB-214	0.668	74.82* @	6.21	1.74259E+001	4.09702E+000
		77.11 @	10.50		
		87.30* @	4.67	2.79570E+000	1.60610E+000
		241.98	7.49		
		295.21*	19.20	7.48366E-001	2.20655E-001
		351.92*	37.20	5.04834E-001	1.34278E-001
Ac-228	0.998	338.32*	11.40	8.82930E-001	3.24375E-001
		911.07*	27.70	1.03147E+000	2.04584E-001
		969.11*	16.60	1.10425E+000	2.54412E-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/GRAM)	Wt mean Activity Uncertainty
	ANN		0.985	9.330034E-002	4.710691E-002
	K-40		0.991	2.104524E+001	2.046850E+000
X	Eu-155		0.324		
	TL-208		0.750	3.639595E-001	7.249860E-002
	Bi-212		1.000	7.386373E-001	2.603021E-001
	Pb-212	@	0.677	8.664020E-001	1.761841E-001
	Bi-214		0.691	5.644154E-001	1.000698E-001
	PB-214	@	0.668	5.706477E-001	1.147081E-001
	Ac-228		0.998	1.025592E+000	1.430819E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	6.7831E-001	15.48
M 3	84.69	4.6839E-001	22.15
F 9	462.68	7.0095E-002	46.85
F 14	795.52	4.8599E-002	59.72
M 16	964.90	6.6770E-002	41.97

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/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Co-60	1173.22	100.00	1.0248E-001	7.46E-002	6.3055E-002
	1332.49	100.00	7.4645E-002		-6.2133E-003
Nb-94	702.63	100.00	1.0521E-001	9.51E-002	4.1790E-002
	871.10	100.00	9.5145E-002		-2.4120E-002
Ag-108m	79.20	7.10	4.5853E+000	1.27E-001	-3.0479E+000
	433.93	89.90	1.2865E-001		3.0566E-004
	614.37	90.40	1.3229E-001		-1.1157E-002
	722.95	90.50	1.2745E-001		-2.7714E-002
Sb-125	176.33	6.89	2.3007E+000	3.95E-001	1.4631E-001
	427.89	29.33	3.9469E-001		6.7149E-002
	463.38	10.35	1.0455E+000		8.5291E-002
	600.56	17.80	5.6823E-001		-2.0263E-001
	606.64	5.02	2.7441E+000		4.5016E+000
	635.90	11.32	9.2498E-001		9.6032E-001
Cs-134	563.23	8.38	1.3091E+000	1.19E-001	-1.8066E-001
	569.32	15.43	7.0820E-001		4.7644E-001
	604.70	97.60	1.3607E-001		-6.1114E-003
	795.84	85.40	1.1941E-001		5.0030E-002
	801.93	8.73	1.0487E+000		4.4484E-001
Cs-137	661.65	85.12	1.2298E-001	1.23E-001	-8.8007E-002
Eu-152	121.78	28.40	7.0649E-001	3.43E-001	1.3872E-001
	244.69	7.49	1.8774E+000		-3.9149E-001
	344.27	26.50	4.3770E-001		1.8870E-001
	778.89	12.74	7.4600E-001		-8.4527E-001
	867.32	4.16	2.3062E+000		-2.3019E-001
	964.01	14.40	9.1853E-001		-3.8202E-002
	1085.78	10.00	9.6674E-001		-3.1936E-001
	1112.02	13.30	7.5863E-001		-3.2022E-001
	1407.95	20.70	3.4274E-001		-9.3385E-002
Eu-154	123.07	40.50	4.9058E-001	2.48E-001	2.1334E-002
	247.94	6.60	2.0896E+000		6.8924E-001
	591.81	4.83	2.1123E+000		8.6822E-001
	723.30	19.70	5.8553E-001		-2.8972E-001
	756.87	4.33	2.4027E+000		4.2082E-001
	873.19	11.50	8.5285E-001		6.4165E-001
	996.32	10.30	9.3384E-001		1.1728E+000
	1004.76	17.90	4.9100E-001		-2.9493E-001
	1274.45	35.50	2.4801E-001		-1.9937E-001
Eu-155	86.54*	30.90	7.0783E-001	7.08E-001	4.2252E-001
	105.31	20.70	1.1721E+000		6.1658E-001
Am-241	59.54	35.90	1.1870E+000	1.19E+000	-3.8420E-001
Cm-243	228.19	10.56	1.2709E+000	9.43E-001	-4.7508E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	9.4278E-001	9.43E-001	-6.4056E-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 5/5/2006 10:22:37 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-02-02-133
Sample Title: NOL-02-02-133-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/5/2006 10:12:35 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-02-02-133
Title: NOL-02-02-133-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	267-	309	291.81	72.85	1.38	4.78E+002	72.03	2.14E+003
m	2	267-	309	300.24	74.96	1.39	8.51E+002	81.65	2.10E+003
	3	334-	345	339.16	84.69	1.24	2.55E+002	111.21	1.18E+003
	4	947-	961	953.83	238.40	1.19	3.04E+002	74.71	3.95E+002
	5	1175-	1185	1180.46	295.08	0.63	4.79E+001	42.26	1.74E+002
	6	1347-	1357	1352.04	337.98	0.88	4.00E+001	41.69	1.73E+002
	7	1398-	1416	1407.46	351.84	1.21	1.67E+002	58.50	2.14E+002
	8	2033-	2054	2042.25	510.58	1.34	1.82E+002	49.58	1.22E+002
	9	2322-	2341	2330.89	582.76	1.36	2.32E+002	46.44	9.43E+001
	10	2426-	2444	2435.15	608.83	1.79	1.38E+002	41.27	9.04E+001
	11	3633-	3653	3643.96	911.11	2.17	1.74E+002	37.88	5.51E+001
	12	3865-	3883	3875.17	968.93	1.96	1.04E+002	34.76	6.20E+001
	13	4472-	4487	4479.62	1120.08	1.31	4.53E+001	29.76	6.17E+001
	14	4945-	4959	4951.74	1238.14	0.44	2.81E+001	24.91	4.59E+001
	15	5828-	5858	5843.74	1461.20	1.97	1.19E+003	71.88	3.10E+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: 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	2.55487E-001	7.78705E-002
K-40	0.995	1460.81*		10.67	2.06588E+001	2.08434E+000
TL-208	0.748	277.35		6.80		
		510.84*		21.60	1.18281E+000	3.73228E-001
		583.14*		84.20	4.04377E-001	9.66578E-002
		860.37		12.46		
Pb-212	0.520	74.81*	@	10.70	1.26233E+001	2.75494E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	7.63053E-001	2.22399E-001
Bi-214	0.695	609.31*		46.30	4.43079E-001	1.43655E-001
		1120.29*		15.10	5.20494E-001	3.46730E-001
		1764.49		15.80		
PB-214	0.583	74.82*	@	6.21	2.17503E+001	5.00255E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	2.96538E-001	2.66400E-001
		351.92*		37.20	5.61241E-001	2.17802E-001
Ac-228	0.999	338.32*		11.40	4.33519E-001	4.57013E-001
		911.07*		27.70	1.02838E+000	2.53320E-001
		969.11*		16.60	1.04428E+000	3.65729E-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	1.681418E-001	8.057049E-002
K-40		0.995	2.065879E+001	2.084339E+000
TL-208		0.748	4.043770E-001	9.575518E-002
Pb-212	@	0.520	7.630533E-001	2.223991E-001
Bi-214		0.695	4.544207E-001	1.327150E-001
PB-214	@	0.583	4.551921E-001	1.686194E-001
Ac-228		0.999	9.303724E-001	1.894994E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	7.9649E-001	15.07
3	84.69	4.2529E-001	43.58
14	1238.14	4.6830E-002	88.66

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

Errors quoted at 1.960 sigma

Y A N K E E 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	1.1671E-001	9.05E-002	1.6329E-002
	1332.49	100.00	9.0494E-002		4.0378E-002
Nb-94	702.63	100.00	1.0627E-001	1.04E-001	-9.1272E-002
	871.10	100.00	1.0445E-001		1.0417E-001
Ag-108m	79.20	7.10	5.5954E+000	1.29E-001	-6.8372E+000
	433.93	89.90	1.3103E-001		6.1658E-002
	614.37	90.40	1.3800E-001		1.4428E-002
	722.95	90.50	1.2869E-001		7.2494E-002
Sb-125	176.33	6.89	2.4869E+000	4.02E-001	3.2058E-001
	427.89	29.33	4.0205E-001		2.9971E-003
	463.38	10.35	1.1598E+000		9.6475E-002
	600.56	17.80	6.3100E-001		-1.0998E-001
	606.64	5.02	2.7313E+000		4.9775E+000
	635.90	11.32	9.3697E-001		4.7930E-001
Cs-134	563.23	8.38	1.3577E+000	1.25E-001	9.3912E-001
	569.32	15.43	7.2768E-001		-8.4020E-002
	604.70	97.60	1.3848E-001		-3.8469E-002
	795.84	85.40	1.2455E-001		3.2448E-002
	801.93	8.73	1.1504E+000		-1.3680E+000
Cs-137	661.65	85.12	1.3190E-001	1.32E-001	6.8784E-002
Eu-152	121.78	28.40	7.9250E-001	2.91E-001	-2.3749E-001
	244.69	7.49	2.0802E+000		-8.3799E-001
	344.27	26.50	4.7894E-001		-4.6684E-001
	778.89	12.74	8.2491E-001		-7.2130E-001
	867.32	4.16	2.6154E+000		-7.4805E-001
	964.01	14.40	9.4544E-001		8.9902E-002
	1085.78	10.00	1.0209E+000		-1.8934E-001
	1112.02	13.30	7.9972E-001		-8.2979E-002
	1407.95	20.70	2.9090E-001		-4.5476E-002
Eu-154	123.07	40.50	5.5421E-001	2.51E-001	-7.6939E-002
	247.94	6.60	2.2121E+000		-1.0315E+000
	591.81	4.83	2.2544E+000		1.8470E+000
	723.30	19.70	5.9361E-001		4.8127E-001
	756.87	4.33	2.5217E+000		5.9968E-001
	873.19	11.50	8.7849E-001		-3.4611E-001
	996.32	10.30	9.6732E-001		-6.1385E-001
	1004.76	17.90	5.4704E-001		1.2988E-001
	1274.45	35.50	2.5112E-001		-3.9260E-002
Eu-155	86.54	30.90	1.1387E+000	1.14E+000	2.3857E+000
	105.31	20.70	1.2604E+000		3.4269E-001
Am-241	59.54	35.90	1.3757E+000	1.38E+000	8.5966E-001
Cm-243	228.19	10.56	1.4762E+000	1.03E+000	2.6940E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Cm-243	277.60	14.00	1.0293E+000	1.03E+000	-4.1107E-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 4/25/2006 9:08:53 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: BRN7722

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
Sample ID: NOL-02-02-134
Sample Title: NOL-02-02-134-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 4/19/2006 12:21:00 AM
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: S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
Log Number: NOL-02-02-134
Title: NOL-02-02-134-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	287-	305	292.35	73.28	0.95	1.96E+002	47.91	6.94E+002
m	2	287-	305	300.39	75.29	0.95	3.26E+002	56.71	8.42E+002
F	3	330-	345	339.13	84.98	1.13	1.58E+002	52.68	1.00E+003
F	4	949-	960	954.67	238.85	0.90	2.50E+002	42.40	2.76E+002
F	5	1346-	1358	1353.40	338.52	0.80	6.07E+001	25.47	1.57E+002
F	6	1399-	1413	1408.37	352.26	0.76	1.10E+002	27.82	1.63E+002
F	7	2326-	2341	2333.65	583.55	1.13	1.49E+002	29.05	8.61E+001
F	8	2431-	2450	2438.20	609.69	1.29	1.22E+002	26.83	8.86E+001
F	9	2903-	2916	2910.06	727.64	1.04	3.78E+001	16.74	4.19E+001
F	10	3174-	3189	3181.00	795.37	1.31	2.80E+001	16.45	4.54E+001
F	11	3638-	3654	3646.34	911.69	1.52	1.07E+002	24.67	4.90E+001
F	12	3873-	3885	3878.29	969.67	1.25	6.82E+001	20.68	3.98E+001
F	13	4477-	4489	4483.75	1121.02	1.18	4.40E+001	16.68	2.73E+001
F	14	5836-	5862	5848.60	1462.19	1.79	9.46E+002	61.33	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\Brn1m180dSoil\NOL

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	0.940	1460.81*	10.67	2.00723E+001	2.08200E+000
TL-208	0.468	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.15684E-001	7.39155E-002
		860.37	12.46		
Bi-212	0.993	727.17*	11.80	6.07301E-001	2.77997E-001
Pb-212	0.579	74.81* @	10.70	1.04992E+001	2.75283E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	7.78471E-001	1.79994E-001
Bi-214	0.701	609.31*	46.30	4.74436E-001	1.19864E-001
		1120.29*	15.10	6.05559E-001	2.38243E-001
		1764.49	15.80		
Ac-228	0.991	338.32*	11.40	8.06650E-001	3.61083E-001
		911.07*	27.70	7.71411E-001	1.98135E-001
		969.11*	16.60	8.27977E-001	2.65592E-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\Brn1m180dSoil\NOL

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	0.940	2.007234E+001	2.081995E+000
TL-208	0.468	3.156839E-001	7.391553E-002
Bi-212	0.993	6.073005E-001	2.779973E-001
Pb-212 @	0.579	7.784713E-001	1.799944E-001
Bi-214	0.701	5.009223E-001	1.070761E-001
Ac-228	0.991	7.940697E-001	1.453723E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	73.28	3.2629E-001	24.47
F 3	84.98	2.6339E-001	33.33
F 6	352.26	1.8257E-001	25.40
F 10	795.37	4.6590E-002	58.84

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:S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
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	1.2518E-001	9.90E-002	-4.6816E-002
	1332.49	100.00	9.9031E-002		2.0943E-002
Nb-94	702.63	100.00	1.1601E-001	1.16E-001	5.8587E-002
	871.10	100.00	1.1648E-001		7.6462E-002
Ag-108m	79.20	7.10	9.0388E+000	1.42E-001	-1.3063E+001
	433.93	89.90	1.5466E-001		-5.4072E-002
	614.37	90.40	1.7084E-001		-1.0093E-002
	722.95	90.50	1.4210E-001		-9.1493E-003
Sb-125	176.33	6.89	2.9158E+000	4.71E-001	-1.1566E-001
	427.89	29.33	4.7122E-001		1.7384E-001
	463.38	10.35	1.3572E+000		8.1066E-001
	600.56	17.80	6.9354E-001		1.5412E-001
	606.64	5.02	3.1885E+000		-5.8081E-001
	635.90	11.32	1.0590E+000		2.1430E-001
Cs-134	563.23	8.38	1.5686E+000	1.42E-001	4.5292E-001
	569.32	15.43	8.7863E-001		2.6311E-001
	604.70	97.60	1.6102E-001		-2.8706E-002
	795.84	85.40	1.4210E-001		2.7728E-003
	801.93	8.73	1.3016E+000		7.5684E-001
Cs-137	661.65	85.12	1.5725E-001	1.57E-001	8.7697E-002
Eu-152	121.78	28.40	1.0144E+000	4.07E-001	-5.7488E-002
	244.69	7.49	2.3946E+000		-2.6736E+000
	344.27	26.50	5.6635E-001		-3.2828E-001
	778.89	12.74	9.4802E-001		-1.4618E-001
	867.32	4.16	2.8778E+000		-4.5652E+000
	964.01	14.40	1.0307E+000		-7.4322E-001
	1085.78	10.00	1.1548E+000		1.8588E-001
	1112.02	13.30	8.7574E-001		-1.1175E-001
	1407.95	20.70	4.0686E-001		1.6603E-001
Eu-154	123.07	40.50	7.0196E-001	2.98E-001	-1.1841E-001
	247.94	6.60	2.6743E+000		-2.8375E+000
	591.81	4.83	2.5741E+000		6.0981E-001
	723.30	19.70	6.5444E-001		-2.2217E-001
	756.87	4.33	2.6247E+000		1.3369E+000
	873.19	11.50	1.0265E+000		6.0831E-001
	996.32	10.30	1.0479E+000		8.5637E-002
	1004.76	17.90	6.0403E-001		-1.9630E-001
	1274.45	35.50	2.9752E-001		3.1243E-002
Eu-155	86.54	30.90	1.5960E+000	1.60E+000	6.0416E-001
	105.31	20.70	1.7031E+000		-1.0393E+000
Am-241	59.54	35.90	3.4068E+000	3.41E+000	-2.9110E-001
Cm-243	228.19	10.56	1.7554E+000	1.16E+000	-5.1657E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	1.1596E+000	1.16E+000	-3.3265E-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 5/5/2006 10:04:57 AM

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

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-02-02-134
Sample Title: NOL-02-02-134-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/5/2006 9:54:54 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-02-02-134
Title: NOL-02-02-134-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	283-	306	291.32	72.73	1.25	4.16E+002	66.32	1.51E+003
m	2	283-	306	300.20	74.95	1.25	7.83E+002	78.83	1.71E+003
	3	948-	963	954.40	238.54	1.30	2.92E+002	79.54	4.46E+002
	4	1174-	1187	1179.71	294.89	0.47	5.60E+001	51.21	2.27E+002
	5	1344-	1363	1352.76	338.16	0.88	9.53E+001	59.59	2.36E+002
	6	1398-	1415	1406.29	351.55	1.43	1.12E+002	59.50	2.49E+002
	7	2032-	2053	2041.02	510.27	1.77	1.63E+002	54.32	1.61E+002
	8	2277-	2286	2281.67	570.45	0.34	2.85E+001	21.41	3.95E+001
	9	2321-	2342	2331.98	583.03	1.59	2.32E+002	50.09	1.12E+002
	10	2427-	2446	2435.91	609.02	1.66	1.62E+002	45.14	1.05E+002
	11	2639-	2650	2644.99	661.30	0.94	3.26E+001	26.77	6.14E+001
	12	3434-	3446	3440.36	860.20	0.93	3.47E+001	23.25	4.03E+001
	13	3634-	3653	3643.28	910.94	1.91	1.71E+002	37.99	5.79E+001
	14	3866-	3884	3874.32	968.72	1.32	8.84E+001	37.00	7.86E+001
	15	4473-	4490	4480.17	1120.22	0.98	5.00E+001	30.69	5.90E+001
	16	5829-	5857	5843.57	1461.16	2.13	1.24E+003	72.30	2.53E+001
	17	6346-	6359	6352.24	1588.36	0.30	1.86E+001	11.45	5.44E+000
	18	7051-	7065	7058.39	1764.95	0.50	4.00E+001	18.13	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: 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	0.983	511.00*		100.00	2.29623E-001	8.24937E-002
K-40	0.996	1460.81*		10.67	2.15185E+001	2.14474E+000
Cs-137	0.996	661.65*		85.12	5.87270E-002	4.86804E-002
TL-208	0.901	277.35		6.80		
		510.84*		21.60	1.06307E+000	3.91658E-001
		583.14*		84.20	4.04186E-001	1.02036E-001
		860.37*		12.46	4.50033E-001	3.06654E-001
Pb-212	0.521	74.81*	@	10.70	1.16285E+001	2.56200E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	7.33958E-001	2.30424E-001
Bi-214	0.997	609.31*		46.30	5.21673E-001	1.58927E-001
		1120.29*		15.10	5.74558E-001	3.58224E-001
		1764.49*		15.80	4.85782E-001	2.25252E-001
PB-214	0.580	74.82*	@	6.21	2.00362E+001	4.64783E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	3.46591E-001	3.22411E-001
		351.92*		37.20	3.76668E-001	2.09544E-001
Ac-228	0.998	338.32*		11.40	1.03279E+000	6.66055E-001
		911.07*		27.70	1.01164E+000	2.53007E-001
		969.11*		16.60	8.87279E-001	3.82950E-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		0.983	1.413442E-001	8.506389E-002
K-40		0.996	2.151848E+001	2.144738E+000
Cs-137		0.996	5.872702E-002	4.868038E-002
TL-208		0.901	4.086969E-001	9.607565E-002
Pb-212	@	0.521	7.339584E-001	2.304242E-001
Bi-214		0.997	5.172723E-001	1.220842E-001
PB-214	@	0.580	3.677362E-001	1.756964E-001
Ac-228		0.998	9.792305E-001	2.012314E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	6.9416E-001	15.92
8	570.45	4.7561E-002	75.03
17	1588.36	3.0938E-002	61.68

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: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	1.1937E-001	9.61E-002	5.5073E-003
		1332.49	100.00	9.6126E-002		1.2034E-001
	Nb-94	702.63	100.00	1.1578E-001	1.01E-001	1.5207E-001
		871.10	100.00	1.0068E-001		-5.5268E-002
	Ag-108m	79.20	7.10	5.5151E+000	1.25E-001	-8.5725E+000
		433.93	89.90	1.2548E-001		-1.0935E-001
		614.37	90.40	1.5070E-001		2.7630E-002
		722.95	90.50	1.3176E-001		7.2608E-002
	Sb-125	176.33	6.89	2.4353E+000	3.92E-001	5.8136E-001
		427.89	29.33	3.9169E-001		-9.1971E-003
		463.38	10.35	1.1697E+000		2.3786E-001
		600.56	17.80	6.1088E-001		3.2752E-001
		606.64	5.02	2.7917E+000		3.2540E+000
		635.90	11.32	9.1526E-001		-1.7303E-001
	Cs-134	563.23	8.38	1.3250E+000	1.27E-001	6.2220E-002
		569.32	15.43	7.4670E-001		5.8842E-003
		604.70	97.60	1.4235E-001		1.2207E-002
		795.84	85.40	1.2704E-001		5.1894E-002
		801.93	8.73	1.1859E+000		-1.5768E+000
+	Cs-137	661.65*	85.12	7.8343E-002	7.83E-002	5.8727E-002
	Eu-152	121.78	28.40	7.9549E-001	3.76E-001	2.5974E-001
		244.69	7.49	2.0179E+000		-4.4094E-001
		344.27	26.50	4.9794E-001		2.9376E-001
		778.89	12.74	7.9472E-001		-8.1398E-001
		867.32	4.16	2.5222E+000		-1.0330E+000
		964.01	14.40	9.5175E-001		-1.0369E-001
		1085.78	10.00	1.0307E+000		-2.0020E-001
		1112.02	13.30	7.8516E-001		6.3739E-001
		1407.95	20.70	3.7589E-001		2.2011E-002
	Eu-154	123.07	40.50	5.5159E-001	2.72E-001	-4.3253E-001
		247.94	6.60	2.1796E+000		-1.8518E+000
		591.81	4.83	2.2868E+000		-7.4055E-002
		723.30	19.70	6.0768E-001		2.1224E-001
		756.87	4.33	2.3629E+000		1.1830E+000
		873.19	11.50	8.8868E-001		4.8870E-001
		996.32	10.30	8.7887E-001		3.0507E-001
		1004.76	17.90	5.0891E-001		-2.4467E-001
		1274.45	35.50	2.7229E-001		-1.1757E-001
	Eu-155	86.54	30.90	1.0956E+000	1.10E+000	1.6076E+000
		105.31	20.70	1.2641E+000		7.6118E-002
	Am-241	59.54	35.90	1.3552E+000	1.36E+000	3.4959E-001
	Cm-243	228.19	10.56	1.4564E+000	1.04E+000	-1.0144E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Cm-243	277.60	14.00	1.0353E+000	1.04E+000	7.8448E-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 4/25/2006 9:09:08 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: BRN7722

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
Sample ID: NOL-02-02-135
Sample Title: NOL-02-02-135-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 4/18/2006 10:38:03 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: S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
Log Number: NOL-02-02-135
Title: NOL-02-02-135-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
F	1	198-	206	201.83	50.66	0.50	4.89E+001	28.61	2.87E+002
M	2	288-	305	291.87	73.16	0.78	1.84E+002	47.82	5.82E+002
m	3	288-	305	300.64	75.36	0.79	3.36E+002	57.43	7.74E+002
F	4	334-	344	339.68	85.11	1.00	1.74E+002	53.33	7.26E+002
F	5	949-	961	955.18	238.97	0.95	2.86E+002	44.38	3.04E+002
F	6	1175-	1186	1181.48	295.54	0.77	7.20E+001	26.88	1.70E+002
F	7	1306-	1318	1312.80	328.37	0.86	4.40E+001	22.57	1.26E+002
F	8	1349-	1361	1354.08	338.69	0.93	5.40E+001	25.07	1.45E+002
F	9	1396-	1413	1407.96	352.15	1.02	1.40E+002	30.09	1.53E+002
F	10	2035-	2054	2043.60	511.05	1.30	8.51E+001	26.81	1.60E+002
F	11	2321-	2342	2333.28	583.46	1.52	1.79E+002	30.40	9.08E+001
F	12	2430-	2449	2438.23	609.69	1.41	1.68E+002	28.86	6.48E+001
F	13	2905-	2917	2910.78	727.82	0.81	2.55E+001	14.68	4.50E+001
F	14	3638-	3655	3646.42	911.71	1.36	1.16E+002	25.30	5.70E+001
F	15	3870-	3889	3878.99	969.84	1.97	9.54E+001	22.95	4.02E+001
F	16	5508-	5521	5513.67	1378.47	1.85	2.71E+001	11.14	4.00E+000
F	17	5838-	5861	5849.07	1462.31	1.82	1.01E+003	63.37	2.08E+001
F	18	7058-	7072	7065.20	1766.31	1.82	3.05E+001	12.34	7.36E+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: S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL

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	1.45338E-001	4.98275E-002
K-40	0.930	1460.81*	10.67	2.14280E+001	2.19504E+000
TL-208	0.750	277.35	6.80		
		510.84*	21.60	6.72861E-001	2.37137E-001
		583.14*	84.20	3.78803E-001	8.10303E-002
		860.37	12.46		
Bi-212	0.987	727.17*	11.80	4.09894E-001	2.40410E-001
Pb-212	0.577	74.81* @	10.70	1.08136E+001	2.81128E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	8.93463E-001	1.96981E-001
Bi-214	0.671	609.31*	46.30	6.54076E-001	1.38413E-001
		1120.29	15.10		
		1764.49*	15.80	4.75744E-001	1.98347E-001
PB-214	0.618	74.82* @	6.21	1.86321E+001	5.02920E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	5.49410E-001	2.24956E-001
		351.92*	37.20	5.76980E-001	1.56789E-001
Ac-228	0.988	338.32*	11.40	7.16674E-001	3.51350E-001
		911.07*	27.70	8.35479E-001	2.05543E-001
		969.11*	16.60	1.15883E+000	3.03893E-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\Brn1m180dSoil\NOL

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	6.351654E-002	5.274475E-002
K-40		0.930	2.142799E+001	2.195040E+000
TL-208		0.750	3.788027E-001	8.008446E-002
Bi-212		0.987	4.098942E-001	2.404095E-001
Pb-212	@	0.577	8.934628E-001	1.969807E-001
Bi-214		0.671	5.956733E-001	1.135077E-001
PB-214	@	0.618	5.679658E-001	1.286293E-001
Ac-228		0.988	8.950798E-001	1.532152E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	50.66	8.1487E-002	58.52
M 2	73.16	3.0729E-001	25.94
F 4	85.11	2.9046E-001	30.60
F 7	328.37	7.3336E-002	51.30
F 16	1378.47	4.5234E-002	41.06

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:S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
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	1.1564E-001	9.22E-002	-1.7995E-001
	1332.49	100.00	9.2206E-002		-8.2202E-002
Nb-94	702.63	100.00	1.2172E-001	1.12E-001	-1.0324E-002
	871.10	100.00	1.1224E-001		-6.0064E-002
Ag-108m	79.20	7.10	9.1516E+000	1.45E-001	-1.3457E+001
	433.93	89.90	1.5158E-001		-1.1508E-002
	614.37	90.40	1.7677E-001		-6.9300E-002
	722.95	90.50	1.4450E-001		1.4389E-002
Sb-125	176.33	6.89	2.8958E+000	4.69E-001	-2.3318E+000
	427.89	29.33	4.6906E-001		-2.3199E-001
	463.38	10.35	1.3403E+000		3.5657E-001
	600.56	17.80	7.3062E-001		5.3370E-001
	606.64	5.02	3.2245E+000		-1.6678E+000
	635.90	11.32	1.1027E+000		1.7338E-002
Cs-134	563.23	8.38	1.5367E+000	1.51E-001	-2.4833E-001
	569.32	15.43	8.3213E-001		-3.0775E-001
	604.70	97.60	1.6149E-001		-1.7537E-002
	795.84	85.40	1.5116E-001		6.8745E-002
	801.93	8.73	1.3844E+000		-2.3228E+000
Cs-137	661.65	85.12	1.4487E-001	1.45E-001	-7.7715E-002
Eu-152	121.78	28.40	1.0019E+000	4.10E-001	5.1445E-001
	244.69	7.49	2.3523E+000		-5.9523E-001
	344.27	26.50	5.6050E-001		4.9576E-002
	778.89	12.74	9.3434E-001		-5.1965E-001
	867.32	4.16	2.7515E+000		-6.5219E-001
	964.01	14.40	9.8489E-001		5.5561E-003
	1085.78	10.00	1.0899E+000		-6.3745E-001
	1112.02	13.30	8.3363E-001		-5.1893E-001
	1407.95	20.70	4.1016E-001		-6.6887E-002
Eu-154	123.07	40.50	6.9682E-001	2.86E-001	8.5046E-002
	247.94	6.60	2.6290E+000		2.1825E-003
	591.81	4.83	2.6452E+000		3.1322E+000
	723.30	19.70	6.6857E-001		1.2869E-001
	756.87	4.33	2.9261E+000		1.4225E+000
	873.19	11.50	1.0101E+000		-1.1917E-002
	996.32	10.30	1.1558E+000		-4.2157E-001
	1004.76	17.90	6.5071E-001		-1.8031E-001
	1274.45	35.50	2.8604E-001		-1.8622E-002
Eu-155	86.54	30.90	1.6200E+000	1.62E+000	3.6226E+000
	105.31	20.70	1.6767E+000		-4.3223E-001
Am-241	59.54	35.90	3.3589E+000	3.36E+000	-7.9597E-001
Cm-243	228.19	10.56	1.7231E+000	1.19E+000	-2.1956E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	1.1897E+000	1.19E+000	-1.0352E+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 5/5/2006 12:37:35 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: RED6264

Spectrum File: RED6264
Sample ID: NOL-02-02-135
Sample Title: NOL-02-02-135-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/5/2006 12:27:33 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-02-02-135
Title: NOL-02-02-135-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-	308	291.01	72.65	1.24	3.14E+002	63.55	1.43E+003
m	2	284-	308	299.66	74.82	1.24	6.76E+002	75.78	1.89E+003
M	3	330-	354	339.17	84.70	1.40	2.66E+002	61.93	1.52E+003
m	4	330-	354	349.87	87.37	1.41	9.29E+001	56.75	1.55E+003
	5	945-	960	952.56	238.09	1.09	2.30E+002	76.02	4.20E+002
	6	1172-	1185	1177.79	294.41	1.04	5.31E+001	48.46	2.02E+002
	7	1397-	1413	1404.70	351.15	1.31	1.63E+002	51.99	1.72E+002
	8	2318-	2340	2328.27	582.10	1.05	1.99E+002	46.61	9.32E+001
	9	2424-	2442	2432.96	608.28	1.83	1.76E+002	44.01	9.74E+001
	10	3630-	3649	3639.25	909.94	2.12	1.38E+002	34.30	4.77E+001
	11	3861-	3880	3868.97	967.38	0.84	4.77E+001	34.97	7.73E+001
	12	4468-	4482	4475.40	1119.03	1.07	5.58E+001	25.98	4.13E+001
	13	5821-	5853	5837.39	1459.62	2.19	1.13E+003	67.16	8.25E+000
	14	7044-	7058	7051.85	1763.31	0.42	4.96E+001	16.53	7.43E+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
K-40	0.956	1460.81*	10.67	1.95775E+001	1.96518E+000
TL-208	0.448	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.46871E-001	9.30353E-002
		860.37	12.46		
Pb-212	0.672	74.81* @	10.70	1.00551E+001	2.27057E+000
		77.11 @	18.00		
		87.30* @	8.00	1.49094E+000	9.56064E-001
		238.63*	44.60	5.75720E-001	2.10967E-001
Bi-214	0.962	609.31*	46.30	5.65356E-001	1.57883E-001
		1120.29*	15.10	6.40968E-001	3.06403E-001
		1764.49*	15.80	6.01228E-001	2.09273E-001
PB-214	0.657	74.82* @	6.21	1.73253E+001	4.10944E+000
		77.11 @	10.50		
		87.30* @	4.67	2.55407E+000	1.64912E+000
		241.98	7.49		
		295.21*	19.20	3.28607E-001	3.04941E-001
		351.92*	37.20	5.45770E-001	1.96987E-001
Ac-228	0.586	338.32	11.40		
		911.07*	27.70	8.17658E-001	2.23555E-001
		969.11*	16.60	4.78806E-001	3.54560E-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		0.956	1.957749E+001	1.965180E+000
X	Eu-155		0.320		
	TL-208		0.448	3.468706E-001	9.303530E-002
	Pb-212	@	0.672	5.757203E-001	2.109675E-001
	Bi-214		0.962	5.874268E-001	1.165614E-001
	PB-214	@	0.657	4.818303E-001	1.654656E-001
	Ac-228		0.586	7.212677E-001	1.891042E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	5.2250E-001	20.27
M 3	84.70	4.4357E-001	23.27

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: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	9.25E-002	2.6392E-003
	1332.49	100.00	9.2547E-002		8.7808E-002
Nb-94	702.63	100.00	1.0104E-001	9.89E-002	-6.8753E-003
	871.10	100.00	9.8893E-002		-3.4995E-002
Ag-108m	79.20	7.10	5.2758E+000	1.21E-001	-2.4739E+000
	433.93	89.90	1.2170E-001		9.7439E-002
	614.37	90.40	1.3210E-001		-5.7924E-002
	722.95	90.50	1.2092E-001		1.2925E-001
Sb-125	176.33	6.89	2.3441E+000	3.61E-001	-8.9288E-001
	427.89	29.33	3.6128E-001		-2.5861E-001
	463.38	10.35	1.1379E+000		6.0141E-001
	600.56	17.80	5.9137E-001		4.2058E-002
	606.64	5.02	2.8474E+000		6.3415E+000
	635.90	11.32	9.1306E-001		3.2137E-001
Cs-134	563.23	8.38	1.2783E+000	1.24E-001	-5.4747E-001
	569.32	15.43	6.9092E-001		6.7406E-001
	604.70	97.60	1.4577E-001		-7.4520E-004
	795.84	85.40	1.2392E-001		-1.1640E-001
	801.93	8.73	1.1859E+000		-1.7222E-001
Cs-137	661.65	85.12	1.3678E-001	1.37E-001	6.9717E-002
Eu-152	121.78	28.40	7.5788E-001	3.06E-001	-9.0605E-002
	244.69	7.49	1.9561E+000		-2.0868E+000
	344.27	26.50	4.3052E-001		-6.0096E-001
	778.89	12.74	8.5807E-001		-1.1880E-001
	867.32	4.16	2.3679E+000		-1.5162E+000
	964.01	14.40	8.3610E-001		3.7723E-001
	1085.78	10.00	9.6673E-001		-9.2579E-001
	1112.02	13.30	7.7777E-001		-9.6916E-001
	1407.95	20.70	3.0634E-001		-1.0440E-001
Eu-154	123.07	40.50	5.2530E-001	2.40E-001	-3.8442E-002
	247.94	6.60	2.0677E+000		6.3893E-001
	591.81	4.83	2.1688E+000		3.8837E-001
	723.30	19.70	5.5427E-001		4.9063E-001
	756.87	4.33	2.3052E+000		-1.2939E+000
	873.19	11.50	8.7849E-001		-1.2852E-001
	996.32	10.30	9.6106E-001		7.1763E-001
	1004.76	17.90	5.5614E-001		-5.6444E-002
	1274.45	35.50	2.4040E-001		9.7202E-002
Eu-155	86.54*	30.90	7.7300E-001	7.73E-001	3.8600E-001
	105.31	20.70	1.2057E+000		-3.1375E-001
Am-241	59.54	35.90	1.3242E+000	1.32E+000	-1.9795E-001
Cm-243	228.19	10.56	1.3566E+000	9.53E-001	2.6836E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Cm-243	277.60	14.00	9.5302E-001	9.53E-001	-7.3580E-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 4/25/2006 9:09:24 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: BRN7722

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
Sample ID: NOL-02-02-136
Sample Title: NOL-02-02-136-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 4/18/2006 9:31:01 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: S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
Log Number: NOL-02-02-136
Title: NOL-02-02-136-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	286-	305	291.93	73.18	0.77	1.88E+002	46.42	5.83E+002
m	2	286-	305	300.28	75.27	0.77	3.31E+002	54.96	6.15E+002
F	3	950-	961	954.82	238.88	1.02	2.95E+002	44.58	2.59E+002
F	4	1175-	1185	1180.56	295.31	0.97	5.25E+001	26.89	1.52E+002
F	5	1345-	1364	1353.48	338.54	1.40	1.02E+002	28.12	1.77E+002
F	6	1402-	1419	1408.87	352.38	1.68	1.63E+002	31.82	1.55E+002
F	7	2034-	2054	2043.53	511.03	2.00	1.13E+002	27.37	1.23E+002
F	8	2324-	2342	2333.80	583.59	1.24	1.61E+002	29.56	9.21E+001
F	9	2429-	2447	2438.32	609.72	1.36	1.44E+002	29.40	1.05E+002
F	10	3439-	3450	3444.42	861.22	0.54	1.97E+001	11.57	3.14E+001
F	11	3639-	3656	3646.83	911.81	1.40	1.44E+002	26.16	3.60E+001
M	12	3856-	3886	3861.71	965.53	1.26	2.99E+001	14.77	3.28E+001
m	13	3856-	3886	3877.88	969.57	1.26	7.87E+001	21.40	4.12E+001
F	14	4476-	4488	4482.23	1120.64	0.91	2.22E+001	14.67	4.41E+001
F	15	5835-	5862	5848.86	1462.26	1.86	1.09E+003	65.74	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\Brn1m180dSoil\NOL

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	1.93150E-001	5.35646E-002
K-40	0.935	1460.81*		10.67	2.31967E+001	2.33947E+000
TL-208	0.897	277.35		6.80		
		510.84*		21.60	8.94214E-001	2.58514E-001
		583.14*		84.20	3.39706E-001	7.65824E-002
		860.37*		12.46	3.10485E-001	1.86410E-001
Pb-212	0.579	74.81*	@	10.70	1.06948E+001	2.74610E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	9.21725E-001	2.00580E-001
Bi-214	0.703	609.31*		46.30	5.63302E-001	1.34025E-001
		1120.29*		15.10	3.05428E-001	2.04442E-001
		1764.49		15.80		
PB-214	0.616	74.82*	@	6.21	1.84274E+001	4.91706E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	4.00679E-001	2.15934E-001
		351.92*		37.20	6.70255E-001	1.72180E-001
Ac-228	0.989	338.32*		11.40	1.35271E+000	4.29455E-001
		911.07*		27.70	1.03356E+000	2.22333E-001
		969.11*		16.60	9.55640E-001	2.78376E-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\Brn1m180dSoil\NOL

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	1.206711E-001	5.566856E-002
K-40		0.935	2.319669E+001	2.339474E+000
TL-208		0.897	3.355515E-001	7.018424E-002
Pb-212	@	0.579	9.217249E-001	2.005802E-001
Bi-214		0.703	4.857891E-001	1.120866E-001
PB-214	@	0.616	5.654759E-001	1.346225E-001
Ac-228		0.989	1.052361E+000	1.610469E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	73.18	3.1397E-001	24.64
M 12	965.53	4.9916E-002	49.32

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:S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
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	1.1433E-001	9.57E-002	1.5031E-002
	1332.49	100.00	9.5683E-002		8.2673E-002
Nb-94	702.63	100.00	1.2140E-001	1.13E-001	-2.0292E-002
	871.10	100.00	1.1341E-001		8.6465E-002
Ag-108m	79.20	7.10	8.7177E+000	1.43E-001	-9.5106E+000
	433.93	89.90	1.4596E-001		-4.3284E-002
	614.37	90.40	1.7903E-001		-8.5740E-002
	722.95	90.50	1.4313E-001		1.2635E-001
Sb-125	176.33	6.89	2.8972E+000	4.50E-001	-1.1238E-001
	427.89	29.33	4.4992E-001		-3.9123E-002
	463.38	10.35	1.3572E+000		2.2143E+000
	600.56	17.80	6.8855E-001		-1.5050E-001
	606.64	5.02	3.2951E+000		7.3380E+000
	635.90	11.32	1.0506E+000		4.4783E-001
Cs-134	563.23	8.38	1.5812E+000	1.46E-001	-5.5072E-002
	569.32	15.43	8.2322E-001		9.6604E-002
	604.70	97.60	1.5912E-001		-1.4510E-002
	795.84	85.40	1.4572E-001		1.3709E-001
	801.93	8.73	1.3016E+000		-2.4872E+000
Cs-137	661.65	85.12	1.4597E-001	1.46E-001	3.4329E-002
Eu-152	121.78	28.40	9.6308E-001	3.97E-001	-5.0657E-001
	244.69	7.49	2.3735E+000		9.0373E-001
	344.27	26.50	5.4861E-001		6.9154E-003
	778.89	12.74	9.8528E-001		4.2624E-001
	867.32	4.16	2.8778E+000		1.3859E-001
	964.01	14.40	9.8489E-001		-3.3073E-001
	1085.78	10.00	1.0765E+000		6.9760E-002
	1112.02	13.30	8.4026E-001		1.8593E-001
	1407.95	20.70	3.9678E-001		1.9013E-001
Eu-154	123.07	40.50	6.7345E-001	3.02E-001	1.6782E-001
	247.94	6.60	2.5770E+000		-3.7702E+000
	591.81	4.83	2.5500E+000		-1.0820E-002
	723.30	19.70	6.6233E-001		8.2074E-001
	756.87	4.33	2.8500E+000		-4.8524E-001
	873.19	11.50	9.4873E-001		-5.1131E-001
	996.32	10.30	1.0810E+000		-2.4326E-001
	1004.76	17.90	6.1842E-001		2.4956E-001
	1274.45	35.50	3.0171E-001		1.0385E-002
Eu-155	86.54	30.90	1.5314E+000	1.53E+000	1.2646E+000
	105.31	20.70	1.6448E+000		-2.2593E-001
Am-241	59.54	35.90	3.3361E+000	3.34E+000	1.0705E+000
Cm-243	228.19	10.56	1.7851E+000	1.17E+000	5.3615E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	1.1687E+000	1.17E+000	-5.6001E-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 5/5/2006 1:01:22 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-02-02-136
Sample Title: NOL-02-02-136-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/5/2006 12:51:20 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-02-02-136
Title: NOL-02-02-136-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-	307	291.33	72.73	1.28	3.44E+002	63.14	1.48E+003
m	2	282-	307	300.17	74.94	1.28	7.19E+002	76.32	1.80E+003
	3	332-	345	339.25	84.72	1.03	1.76E+002	118.09	1.25E+003
	4	944-	961	954.86	238.66	1.28	2.13E+002	78.43	4.27E+002
	5	1173-	1186	1180.61	295.11	0.42	8.74E+001	47.43	1.81E+002
	6	1401-	1415	1407.45	351.84	0.67	1.15E+002	49.66	1.82E+002
	7	2034-	2054	2042.80	510.72	1.06	1.56E+002	51.10	1.44E+002
	8	2325-	2344	2333.26	583.35	1.36	1.48E+002	48.54	1.31E+002
	9	2429-	2447	2437.59	609.44	0.98	1.63E+002	39.85	7.38E+001
	10	3176-	3188	3182.15	795.63	0.58	2.52E+001	24.07	4.68E+001
	11	3634-	3656	3646.99	911.87	1.51	1.21E+002	40.22	7.72E+001
	12	3868-	3887	3877.61	969.54	0.44	7.37E+001	33.96	6.43E+001
	13	5327-	5345	5335.29	1334.06	1.10	6.23E+001	20.39	1.37E+001
	14	5835-	5864	5848.36	1462.36	2.06	1.14E+003	70.71	3.59E+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	2.19157E-001	7.77790E-002
K-40	0.927	1460.81*		10.67	1.96428E+001	2.00657E+000
TL-208	0.751	277.35		6.80		
		510.84*		21.60	1.01462E+000	3.69498E-001
		583.14*		84.20	2.58935E-001	9.11984E-002
		860.37		12.46		
Pb-212	0.521	74.81*	@	10.70	1.06683E+001	2.37819E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	5.34493E-001	2.13964E-001
Bi-214	0.398	609.31*		46.30	5.25734E-001	1.43747E-001
		1120.29		15.10		
		1764.49		15.80		
PB-214	0.583	74.82*	@	6.21	1.83818E+001	4.30948E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	5.41122E-001	3.07558E-001
		351.92*		37.20	3.85343E-001	1.78856E-001
Ac-228	0.622	338.32		11.40		
		911.07*		27.70	7.14402E-001	2.51622E-001
		969.11*		16.60	7.39659E-001	3.49745E-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	1.632274E-001	8.021402E-002
K-40		0.927	1.964283E+001	2.006572E+000
TL-208		0.751	2.589350E-001	9.080717E-002
Pb-212	@	0.521	5.344925E-001	2.139643E-001
Bi-214		0.398	5.257336E-001	1.437465E-001
PB-214	@	0.583	4.247109E-001	1.546126E-001
Ac-228		0.622	7.230164E-001	2.042538E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	5.7312E-001	18.36
3	84.72	2.9415E-001	66.91
10	795.63	4.2031E-002	95.43
13	1334.06	1.0376E-001	32.75

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	1.1459E-001	9.65E-002	-1.3240E-002
	1332.49	100.00	9.6515E-002		-9.9843E-005
Nb-94	702.63	100.00	1.0157E-001	9.49E-002	7.5307E-003
	871.10	100.00	9.4896E-002		-3.7060E-002
Ag-108m	79.20	7.10	5.3518E+000	1.17E-001	-1.3811E+000
	433.93	89.90	1.2703E-001		2.3787E-002
	614.37	90.40	1.4470E-001		4.1733E-003
	722.95	90.50	1.1726E-001		7.0094E-002
Sb-125	176.33	6.89	2.3855E+000	3.86E-001	6.0380E-001
	427.89	29.33	3.8580E-001		1.1812E-002
	463.38	10.35	1.0802E+000		5.6830E-002
	600.56	17.80	5.9401E-001		7.5172E-002
	606.64	5.02	2.7061E+000		5.5956E+000
	635.90	11.32	9.1964E-001		-5.3043E-001
Cs-134	563.23	8.38	1.2967E+000	1.30E-001	2.6809E-001
	569.32	15.43	7.0814E-001		-9.1191E-001
	604.70	97.60	1.3487E-001		-2.7442E-002
	795.84	85.40	1.3038E-001		1.3996E-001
	801.93	8.73	1.2079E+000		-1.0705E-001
Cs-137	661.65	85.12	1.3757E-001	1.38E-001	7.1561E-002
Eu-152	121.78	28.40	7.6354E-001	3.03E-001	2.7657E-001
	244.69	7.49	1.9199E+000		-7.2989E-001
	344.27	26.50	4.6232E-001		-8.0183E-001
	778.89	12.74	8.4373E-001		7.2016E-003
	867.32	4.16	2.4463E+000		-3.9563E-001
	964.01	14.40	8.8492E-001		1.8638E-001
	1085.78	10.00	1.0009E+000		3.9160E-001
	1112.02	13.30	7.2650E-001		-5.5603E-001
	1407.95	20.70	3.0332E-001		-5.5667E-002
Eu-154	123.07	40.50	5.3216E-001	2.38E-001	-1.5781E-001
	247.94	6.60	2.0344E+000		-1.5396E+000
	591.81	4.83	2.1444E+000		1.0702E+000
	723.30	19.70	5.3875E-001		2.1684E-001
	756.87	4.33	2.2791E+000		-3.0086E+000
	873.19	11.50	8.2559E-001		7.7215E-001
	996.32	10.30	8.5081E-001		-4.4444E-001
	1004.76	17.90	5.0092E-001		-3.7863E-001
	1274.45	35.50	2.3795E-001		-2.6549E-001
Eu-155	86.54	30.90	1.0752E+000	1.08E+000	1.7456E+000
	105.31	20.70	1.2035E+000		8.5532E-001
Am-241	59.54	35.90	1.3059E+000	1.31E+000	-6.3521E-001
Cm-243	228.19	10.56	1.3673E+000	9.58E-001	-1.5394E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Cm-243	277.60	14.00	9.5787E-001	9.58E-001	6.4040E-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 4/25/2006 9:09:41 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: BRN7722

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
Sample ID: NOL-02-02-137
Sample Title: NOL-02-02-137-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 4/18/2006 7:09:32 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: S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
Log Number: NOL-02-02-137
Title: NOL-02-02-137-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	282-	307	292.07	73.21	0.78	1.84E+002	45.37	5.70E+002
m	2	282-	307	300.29	75.27	0.78	3.24E+002	54.69	6.12E+002
F	3	334-	344	339.62	85.10	1.13	1.43E+002	51.17	6.74E+002
F	4	944-	959	954.53	238.81	0.98	2.87E+002	43.54	3.19E+002
F	5	1176-	1191	1181.18	295.47	1.39	1.02E+002	29.35	1.64E+002
F	6	1401-	1413	1408.17	352.21	1.15	1.33E+002	31.45	1.40E+002
F	7	2033-	2055	2043.68	511.07	2.33	1.36E+002	27.85	1.21E+002
F	8	2325-	2341	2333.47	583.51	1.23	1.44E+002	27.87	7.02E+001
F	9	2430-	2447	2436.92	609.37	1.25	1.58E+002	29.50	9.11E+001
F	10	3436-	3449	3443.06	860.88	1.21	2.58E+001	15.47	3.47E+001
F	11	3635-	3657	3645.65	911.52	1.69	1.69E+002	27.83	4.14E+001
F	12	3870-	3885	3876.67	969.27	1.29	8.57E+001	22.06	4.33E+001
F	13	4165-	4176	4170.61	1042.74	0.45	1.36E+001	2.49	2.04E+001
F	14	4476-	4489	4483.25	1120.89	1.50	5.20E+001	17.14	2.10E+001
F	15	5835-	5860	5847.28	1461.86	1.82	9.19E+002	60.64	3.18E+001
F	16	7057-	7071	7064.18	1766.06	1.55	3.15E+001	13.22	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

N U C L I 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\Brn1m180dSoil\NOL

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	2.33040E-001	5.70838E-002
K-40	0.965	1460.81*		10.67	1.94914E+001	2.03611E+000
TL-208	0.900	277.35		6.80		
		510.84*		21.60	1.07889E+000	2.78578E-001
		583.14*		84.20	3.05200E-001	7.10922E-002
		860.37*		12.46	4.07688E-001	2.48956E-001
Pb-212	0.579	74.81*	@	10.70	1.04731E+001	2.70726E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	8.94818E-001	1.95288E-001
Bi-214	0.982	609.31*		46.30	6.14768E-001	1.37742E-001
		1120.29*		15.10	7.15037E-001	2.47751E-001
		1764.49*		15.80	4.91461E-001	2.11930E-001
PB-214	0.618	74.82*	@	6.21	1.80455E+001	4.84512E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	7.77759E-001	2.59373E-001
		351.92*		37.20	5.46332E-001	1.58225E-001
Ac-228	0.631	338.32		11.40		
		911.07*		27.70	1.21429E+000	2.43854E-001
		969.11*		16.60	1.04104E+000	2.89152E-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\Brn1m180dSoil\NOL

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	1.654732E-001	5.892870E-002
K-40		0.965	1.949142E+001	2.036111E+000
TL-208		0.900	3.128079E-001	6.772991E-002
Pb-212	@	0.579	8.948180E-001	1.952876E-001
Bi-214		0.982	6.025858E-001	1.046774E-001
PB-214	@	0.618	6.090975E-001	1.350755E-001
Ac-228		0.631	1.142285E+000	1.864132E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	73.21	3.0680E-001	24.65
F 3	85.10	2.3814E-001	35.81
F 13	1042.74	2.2686E-002	18.30

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\Brn1m180dSoil\NOL
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	1.2676E-001	9.79E-002	7.8337E-002
	1332.49	100.00	9.7929E-002		7.6635E-002
Nb-94	702.63	100.00	1.2685E-001	1.07E-001	1.1274E-002
	871.10	100.00	1.0741E-001		3.1401E-002
Ag-108m	79.20	7.10	8.5725E+000	1.44E-001	-8.0915E-001
	433.93	89.90	1.4420E-001		5.6101E-002
	614.37	90.40	1.8078E-001		1.8098E-002
	722.95	90.50	1.4619E-001		3.5544E-002
Sb-125	176.33	6.89	2.7935E+000	4.41E-001	-6.8808E-001
	427.89	29.33	4.4079E-001		1.4242E-001
	463.38	10.35	1.3122E+000		1.0472E+000
	600.56	17.80	7.1474E-001		-4.4438E-001
	606.64	5.02	3.3643E+000		5.6405E+000
	635.90	11.32	1.0307E+000		-1.1382E+000
Cs-134	563.23	8.38	1.4363E+000	1.30E-001	-1.1448E+000
	569.32	15.43	8.2858E-001		4.8959E-001
	604.70	97.60	1.7043E-001		-9.9637E-002
	795.84	85.40	1.3018E-001		-5.7828E-002
	801.93	8.73	1.1988E+000		-1.2582E+000
Cs-137	661.65	85.12	1.5277E-001	1.53E-001	1.2471E-001
Eu-152	121.78	28.40	9.8895E-001	4.04E-001	1.5265E-001
	244.69	7.49	2.3391E+000		-6.9596E+000
	344.27	26.50	5.6246E-001		-1.2587E+000
	778.89	12.74	9.0632E-001		-2.1706E+000
	867.32	4.16	2.7973E+000		-9.3386E-001
	964.01	14.40	1.0601E+000		-5.7556E-001
	1085.78	10.00	1.1631E+000		1.4046E-001
	1112.02	13.30	8.7574E-001		3.2241E-001
	1407.95	20.70	4.0353E-001		2.5406E-001
Eu-154	123.07	40.50	6.8718E-001	2.89E-001	6.4103E-001
	247.94	6.60	2.5575E+000		-4.8450E+000
	591.81	4.83	2.4383E+000		-4.0544E-001
	723.30	19.70	6.7781E-001		3.8709E-001
	756.87	4.33	2.6163E+000		1.0637E+000
	873.19	11.50	9.6964E-001		2.7855E-001
	996.32	10.30	1.1012E+000		1.5022E-001
	1004.76	17.90	6.5296E-001		3.9995E-001
	1274.45	35.50	2.8896E-001		6.1813E-002
Eu-155	86.54	30.90	1.5462E+000	1.55E+000	1.2954E+000
	105.31	20.70	1.6256E+000		-2.8176E-001
Am-241	59.54	35.90	3.3001E+000	3.30E+000	-1.3985E+000
Cm-243	228.19	10.56	1.7012E+000	1.16E+000	-2.2300E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	1.1606E+000	1.16E+000	1.8828E-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 5/5/2006 12:59:09 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: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-02-02-137
Sample Title: NOL-02-02-137-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/5/2006 12:49:06 PM
Live Time: 600.0 seconds
Real Time: 601.1 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-02-02-137
Title: NOL-02-02-137-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	284-	307	291.87	72.80	0.94	4.37E+002	65.17	1.29E+003
m	2	284-	307	300.41	74.93	0.94	7.48E+002	77.66	1.53E+003
	3	334-	346	339.90	84.81	0.77	1.41E+002	120.26	1.36E+003
M	4	939-	973	942.73	235.56	1.01	5.04E+001	27.87	2.03E+002
m	5	939-	973	954.95	238.62	1.02	3.51E+002	44.53	2.97E+002
m	6	939-	973	967.39	241.73	1.02	8.82E+001	29.67	2.69E+002
	7	1175-	1191	1181.98	295.39	0.52	7.85E+001	59.44	2.68E+002
	8	1348-	1358	1353.98	338.40	0.82	7.07E+001	38.73	1.34E+002
	9	1397-	1417	1408.07	351.93	1.00	2.30E+002	61.21	2.05E+002
	10	1846-	1856	1851.95	462.93	1.14	3.56E+001	30.89	8.94E+001
	11	2107-	2118	2113.89	528.44	0.56	2.09E+001	26.24	6.31E+001
	12	2321-	2343	2332.67	583.15	1.21	2.26E+002	49.51	1.06E+002
	13	2430-	2445	2437.38	609.34	1.27	1.55E+002	41.51	9.77E+001
	14	2901-	2918	2909.84	727.49	1.20	3.35E+001	34.51	8.25E+001
	15	3635-	3657	3645.45	911.44	1.77	2.03E+002	39.91	5.45E+001
	16	3868-	3886	3876.30	969.18	1.32	1.05E+002	34.57	6.11E+001
	17	4948-	4959	4953.95	1238.67	0.61	1.60E+001	18.79	3.00E+001
	18	5832-	5861	5846.94	1461.98	1.79	1.30E+003	74.35	2.98E+001
	19	7055-	7069	7062.36	1765.93	0.56	4.94E+001	15.87	5.60E+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	0.953	1460.81*		10.67	2.17776E+001	2.15972E+000
TL-208	0.471	277.35		6.80		
		510.84		21.60		
		583.14*		84.20	3.81790E-001	9.74256E-002
		860.37		12.46		
Bi-212	0.996	727.17*		11.80	4.29622E-001	4.45662E-001
Pb-212	0.520	74.81*	@	10.70	1.06995E+001	2.37317E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	8.53117E-001	1.72083E-001
Bi-214	0.684	609.31*		46.30	4.85133E-001	1.42721E-001
		1120.29		15.10		
		1764.49*		15.80	5.80418E-001	1.95277E-001
PB-214	0.732	74.82*	@	6.21	1.84356E+001	4.30246E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98*		7.49	1.28195E+000	4.80914E-001
		295.21*		19.20	4.70937E-001	3.65455E-001
		351.92*		37.20	7.50275E-001	2.35522E-001
Ac-228	0.997	338.32*		11.40	7.42717E-001	4.23333E-001
		911.07*		27.70	1.16474E+000	2.64818E-001
		969.11*		16.60	1.01966E+000	3.52649E-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		0.953	2.177765E+001	2.159721E+000
TL-208		0.471	3.817898E-001	9.742560E-002
Bi-212		0.996	4.296218E-001	4.456622E-001
Pb-212	@	0.520	8.531168E-001	1.720825E-001
Bi-214		0.684	5.183093E-001	1.152268E-001
PB-214	@	0.732	7.572235E-001	1.830667E-001
Ac-228		0.997	1.038432E+000	1.893863E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	7.2779E-001	14.93
3	84.81	2.3426E-001	85.56
M 4	235.56	8.4002E-002	55.29
10	462.93	5.9263E-002	86.87
11	528.44	3.4772E-002	125.78
17	1238.67	2.6667E-002	117.44

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	9.7524E-002	7.84E-002	-2.1870E-002
	1332.49	100.00	7.8375E-002		4.5302E-002
Nb-94	702.63	100.00	1.0375E-001	9.28E-002	-1.5748E-002
	871.10	100.00	9.2768E-002		-9.6901E-003
Ag-108m	79.20	7.10	4.6637E+000	1.18E-001	-3.3352E-001
	433.93	89.90	1.1817E-001		-6.2843E-002
	614.37	90.40	1.3948E-001		-5.0249E-003
	722.95	90.50	1.2140E-001		-2.1505E-002
Sb-125	176.33	6.89	2.2584E+000	3.66E-001	-2.8680E-001
	427.89	29.33	3.6646E-001		4.1662E-002
	463.38	10.35	1.1468E+000		8.2311E-001
	600.56	17.80	5.7210E-001		3.3110E-002
	606.64	5.02	2.7137E+000		5.7401E+000
	635.90	11.32	8.6368E-001		7.4148E-001
Cs-134	563.23	8.38	1.2622E+000	1.24E-001	-4.5847E-002
	569.32	15.43	6.8932E-001		1.4267E-001
	604.70	97.60	1.2871E-001		2.4389E-002
	795.84	85.40	1.2364E-001		9.7166E-002
	801.93	8.73	1.1729E+000		-9.8355E-001
Cs-137	661.65	85.12	1.2601E-001	1.26E-001	7.4310E-002
Eu-152	121.78	28.40	7.1896E-001	3.35E-001	1.0550E-001
	244.69	7.49	1.8674E+000		3.1268E-001
	344.27	26.50	4.2975E-001		-4.3318E-002
	778.89	12.74	8.1328E-001		9.2523E-002
	867.32	4.16	2.2208E+000		-1.8993E+000
	964.01	14.40	9.0002E-001		8.4601E-001
	1085.78	10.00	8.9888E-001		-2.1144E-001
	1112.02	13.30	7.0673E-001		-1.2617E-001
	1407.95	20.70	3.3516E-001		1.5479E-003
Eu-154	123.07	40.50	4.9541E-001	2.61E-001	-8.9264E-002
	247.94	6.60	2.0137E+000		2.2187E-001
	591.81	4.83	2.1402E+000		3.9363E-001
	723.30	19.70	5.6011E-001		5.2650E-002
	756.87	4.33	2.3136E+000		7.2176E-001
	873.19	11.50	8.3535E-001		6.1035E-001
	996.32	10.30	9.3988E-001		-1.4964E-001
	1004.76	17.90	5.1724E-001		2.4973E-003
	1274.45	35.50	2.6094E-001		-7.4835E-002
Eu-155	86.54	30.90	9.9648E-001	9.96E-001	5.9120E-001
	105.31	20.70	1.1873E+000		6.0544E-001
Am-241	59.54	35.90	1.2033E+000	1.20E+000	-1.3591E-001
Cm-243	228.19	10.56	1.2816E+000	9.18E-001	-1.3972E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	9.1784E-001	9.18E-001	3.5071E-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 4/25/2006 9:10:17 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: BRN7722

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
Sample ID: NOL-02-02-138
Sample Title: NOL-02-02-138-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 4/18/2006 6:53:32 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: S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
Log Number: NOL-02-02-138
Title: NOL-02-02-138-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	286-	306	291.87	73.16	0.92	1.61E+002	44.61	6.52E+002
m	2	286-	306	300.32	75.28	0.92	3.46E+002	55.54	6.97E+002
F	3	947-	961	954.92	238.91	0.89	2.70E+002	43.08	3.28E+002
F	4	1402-	1414	1408.32	352.24	1.11	9.97E+001	28.90	1.37E+002
F	5	2036-	2053	2043.68	511.07	1.84	1.22E+002	27.89	9.65E+001
F	6	2325-	2344	2333.38	583.49	1.34	1.32E+002	28.58	1.08E+002
F	7	2428-	2447	2437.63	609.54	1.47	1.41E+002	28.23	8.79E+001
F	8	3638-	3655	3645.98	911.60	1.37	1.57E+002	28.04	4.90E+001
M	9	3854-	3885	3859.85	965.06	1.34	2.71E+001	14.28	3.21E+001
m	10	3854-	3885	3877.09	969.37	1.34	6.82E+001	20.14	4.13E+001
F	11	4476-	4489	4482.84	1120.79	1.53	4.24E+001	17.37	3.32E+001
F	12	5835-	5860	5847.64	1461.95	1.71	8.84E+002	59.40	2.89E+001
F	13	7057-	7070	7063.84	1765.97	1.37	3.73E+001	13.56	6.97E+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

N U C L I 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\Brn1m180dSoil\NOL

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	2.09107E-001	5.54079E-002
K-40	0.959	1460.81*	10.67	1.87483E+001	1.97293E+000
TL-208	0.750	277.35	6.80		
		510.84*	21.60	9.68089E-001	2.68425E-001
		583.14*	84.20	2.79074E-001	7.05297E-002
		860.37	12.46		
Pb-212	0.579	74.81* @	10.70	1.11543E+001	2.82672E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	8.41716E-001	1.88370E-001
Bi-214	0.983	609.31*	46.30	5.50212E-001	1.29302E-001
		1120.29*	15.10	5.83857E-001	2.46867E-001
		1764.49*	15.80	5.82409E-001	2.19403E-001
Ac-228	0.630	338.32	11.40		
		911.07*	27.70	1.12953E+000	2.39638E-001
		969.11*	16.60	8.28447E-001	2.59423E-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\Brn1m180dSoil\NOL

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	1.488273E-001	5.743051E-002
K-40	0.959	1.874831E+001	1.972934E+000
TL-208	0.750	2.790738E-001	6.994082E-002
Pb-212 @	0.579	8.417160E-001	1.883703E-001
Bi-214	0.983	5.627996E-001	1.015374E-001
Ac-228	0.630	9.909048E-001	1.760290E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.6913E-001	27.63
F 4	352.24	1.6619E-001	28.99
M 9	965.06	4.5142E-002	52.71

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:S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
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	1.2113E-001	8.98E-002	3.6850E-003
	1332.49	100.00	8.9807E-002		-9.0477E-002
Nb-94	702.63	100.00	1.2140E-001	1.09E-001	9.7822E-002
	871.10	100.00	1.0905E-001		-6.2071E-002
Ag-108m	79.20	7.10	8.5057E+000	1.44E-001	-3.3561E+000
	433.93	89.90	1.4695E-001		1.0186E-001
	614.37	90.40	1.7903E-001		-9.9236E-003
	722.95	90.50	1.4382E-001		1.4585E-001
Sb-125	176.33	6.89	2.8797E+000	4.42E-001	1.4295E+000
	427.89	29.33	4.4156E-001		-7.5971E-002
	463.38	10.35	1.2880E+000		2.0008E-001
	600.56	17.80	6.7845E-001		1.2730E-002
	606.64	5.02	3.1476E+000		4.9333E+000
	635.90	11.32	1.0307E+000		-4.5437E-001
Cs-134	563.23	8.38	1.5399E+000	1.43E-001	-8.3373E-001
	569.32	15.43	8.3035E-001		-5.7586E-001
	604.70	97.60	1.5646E-001		6.5532E-003
	795.84	85.40	1.4291E-001		1.6389E-001
	801.93	8.73	1.3101E+000		-2.7727E+000
Cs-137	661.65	85.12	1.6357E-001	1.64E-001	1.3235E-001
Eu-152	121.78	28.40	9.5449E-001	3.90E-001	9.2608E-001
	244.69	7.49	2.3638E+000		-4.7956E-001
	344.27	26.50	5.5327E-001		-1.2213E+000
	778.89	12.74	8.6550E-001		-5.7580E-001
	867.32	4.16	2.7699E+000		1.9718E-003
	964.01	14.40	9.9599E-001		-5.0013E-003
	1085.78	10.00	1.1207E+000		-9.2862E-002
	1112.02	13.30	8.2359E-001		-1.5946E-001
	1407.95	20.70	3.8991E-001		9.5441E-002
Eu-154	123.07	40.50	6.5822E-001	2.61E-001	-1.9903E-001
	247.94	6.60	2.6098E+000		-4.1655E-001
	591.81	4.83	2.5681E+000		1.2174E+000
	723.30	19.70	6.6233E-001		4.0506E-001
	756.87	4.33	2.7876E+000		-1.5957E+000
	873.19	11.50	9.3810E-001		5.0596E-001
	996.32	10.30	1.0004E+000		-3.0208E-002
	1004.76	17.90	6.0403E-001		4.7076E-001
	1274.45	35.50	2.6147E-001		-1.6690E-001
Eu-155	86.54	30.90	1.5601E+000	1.56E+000	1.9878E+000
	105.31	20.70	1.6293E+000		9.2790E-001
Am-241	59.54	35.90	3.2085E+000	3.21E+000	-1.5547E+000
Cm-243	228.19	10.56	1.6856E+000	1.15E+000	1.3389E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	1.1514E+000	1.15E+000	2.0410E-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 4/25/2006 9:10:35 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: BRN7722

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
Sample ID: NOL-02-02-139
Sample Title: NOL-02-02-139-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 4/18/2006 10:54:36 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: S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
Log Number: NOL-02-02-139
Title: NOL-02-02-139-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	284-	306	291.78	73.14	0.84	1.95E+002	47.06	6.19E+002
m	2	284-	306	300.56	75.33	0.85	2.90E+002	54.81	7.67E+002
F	3	330-	346	339.82	85.15	0.74	1.08E+002	46.88	1.03E+003
M	4	949-	976	955.07	238.94	1.04	2.79E+002	41.66	2.36E+002
m	5	949-	976	968.05	242.19	1.04	6.35E+001	26.61	2.23E+002
F	6	1174-	1187	1181.34	295.51	1.09	5.34E+001	26.52	1.68E+002
F	7	1349-	1359	1353.97	338.66	0.82	4.87E+001	23.82	1.24E+002
F	8	1401-	1415	1408.19	352.21	1.31	1.49E+002	31.21	1.34E+002
F	9	1634-	1644	1637.78	409.60	0.42	2.37E+001	13.99	7.18E+001
F	10	2033-	2055	2043.62	511.05	1.58	1.09E+002	27.04	1.35E+002
F	11	2325-	2342	2333.68	583.56	1.11	1.57E+002	28.05	6.99E+001
F	12	2429-	2447	2438.34	609.72	1.51	1.49E+002	27.56	6.18E+001
F	13	2902-	2916	2909.34	727.46	0.94	3.01E+001	15.13	4.31E+001
F	14	3438-	3451	3444.05	861.12	1.23	2.62E+001	15.53	3.85E+001
F	15	3637-	3655	3646.35	911.69	1.47	1.34E+002	25.61	4.05E+001
F	16	3871-	3887	3878.85	969.81	1.51	7.56E+001	22.02	4.91E+001
F	17	4478-	4491	4484.49	1121.20	0.88	3.03E+001	15.82	5.09E+001
F	18	5836-	5861	5848.93	1462.28	1.80	1.02E+003	63.41	3.22E+000
F	19	7059-	7072	7065.84	1766.47	1.38	3.56E+001	13.84	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\Brn1m180dSoil\NOL

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	1.86442E-001	5.26330E-002
K-40	0.933	1460.81*		10.67	2.17383E+001	2.21546E+000
TL-208	0.898	277.35		6.80		
		510.84*		21.60	8.63157E-001	2.53663E-001
		583.14*		84.20	3.31179E-001	7.33329E-002
		860.37*		12.46	4.12595E-001	2.50032E-001
Bi-212	0.997	727.17*		11.80	4.83097E-001	2.49376E-001
Pb-212	0.578	74.81*	@	10.70	9.33976E+000	2.54234E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	8.70070E-001	1.88419E-001
Bi-214	0.966	609.31*		46.30	5.81280E-001	1.29173E-001
		1120.29*		15.10	4.17413E-001	2.22139E-001
		1764.49*		15.80	5.55279E-001	2.23013E-001
PB-214	0.774	74.82*	@	6.21	1.60927E+001	4.53362E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98*		7.49	1.18347E+000	5.33506E-001
		295.21*		19.20	4.07606E-001	2.13686E-001
		351.92*		37.20	6.11440E-001	1.63976E-001
Ac-228	0.988	338.32*		11.40	6.46445E-001	3.32154E-001
		911.07*		27.70	9.61689E-001	2.14591E-001
		969.11*		16.60	9.17364E-001	2.84102E-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\Brn1m180dSoil\NOL

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	1.135384E-001	5.474114E-002
K-40		0.933	2.173830E+001	2.215458E+000
TL-208		0.898	3.375163E-001	6.965418E-002
Bi-212		0.997	4.830965E-001	2.493761E-001
Pb-212	@	0.578	8.700704E-001	1.884186E-001
Bi-214		0.966	5.429606E-001	9.984870E-002
PB-214	@	0.774	5.722375E-001	1.263853E-001
Ac-228		0.988	8.827781E-001	1.521993E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	3.2571E-001	24.08
F 3	85.15	1.8030E-001	43.33
F 9	409.60	3.9515E-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
N U C L I D E M D A R E P O R T

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
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	1.1389E-001	9.85E-002	4.1658E-002
	1332.49	100.00	9.8482E-002		3.7487E-004
Nb-94	702.63	100.00	1.1941E-001	1.16E-001	-5.1639E-002
	871.10	100.00	1.1610E-001		9.0416E-003
Ag-108m	79.20	7.10	8.7655E+000	1.40E-001	-1.4304E+000
	433.93	89.90	1.5086E-001		2.6700E-002
	614.37	90.40	1.7162E-001		-2.5031E-002
	722.95	90.50	1.4035E-001		-3.9903E-003
Sb-125	176.33	6.89	2.8280E+000	4.82E-001	3.3433E+000
	427.89	29.33	4.8186E-001		1.3573E-001
	463.38	10.35	1.3013E+000		6.6510E-002
	600.56	17.80	6.9849E-001		-1.4455E-001
	606.64	5.02	3.1153E+000		6.1362E+000
	635.90	11.32	1.0756E+000		3.0683E-001
Cs-134	563.23	8.38	1.5812E+000	1.45E-001	8.3934E-001
	569.32	15.43	8.4792E-001		-3.5229E-001
	604.70	97.60	1.5401E-001		4.9476E-002
	795.84	85.40	1.4452E-001		1.2804E-001
	801.93	8.73	1.3101E+000		-2.2476E+000
Cs-137	661.65	85.12	1.5725E-001	1.57E-001	7.5645E-002
Eu-152	121.78	28.40	9.5219E-001	4.32E-001	9.5382E-002
	244.69	7.49	2.3109E+000		7.0272E-001
	344.27	26.50	5.4593E-001		7.6998E-002
	778.89	12.74	8.4738E-001		-2.2135E-001
	867.32	4.16	2.9215E+000		1.1292E+000
	964.01	14.40	1.0004E+000		2.9746E-002
	1085.78	10.00	1.1673E+000		2.4959E-001
	1112.02	13.30	8.3030E-001		-1.0525E+000
	1407.95	20.70	4.3250E-001		3.2055E-001
Eu-154	123.07	40.50	6.6448E-001	2.88E-001	2.0510E-001
	247.94	6.60	2.5358E+000		5.7006E-001
	591.81	4.83	2.5133E+000		-1.2673E+000
	723.30	19.70	6.3999E-001		-1.5637E-001
	756.87	4.33	2.5994E+000		-1.4036E+000
	873.19	11.50	9.9345E-001		4.5906E-001
	996.32	10.30	1.0563E+000		-6.0972E-001
	1004.76	17.90	5.8926E-001		5.2181E-001
	1274.45	35.50	2.8750E-001		-7.2224E-002
Eu-155	86.54	30.90	1.5375E+000	1.54E+000	5.0398E-001
	105.31	20.70	1.6141E+000		3.8344E-001
Am-241	59.54	35.90	3.2045E+000	3.20E+000	-3.8684E+000
Cm-243	228.19	10.56	1.7100E+000	1.16E+000	1.1948E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	1.1606E+000	1.16E+000	4.5593E-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 4/25/2006 9:11:08 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: BRN7722

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
Sample ID: NOL-02-02-140
Sample Title: NOL-02-02-140-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 4/19/2006 12:01:58 AM
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: S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
Log Number: NOL-02-02-140
Title: NOL-02-02-140-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	282-	318	291.81	73.15	0.97	2.52E+002	50.07	7.30E+002
m	2	282-	318	300.79	75.39	0.98	4.33E+002	57.47	7.88E+002
m	3	282-	318	309.16	77.48	0.98	1.21E+002	43.88	7.90E+002
F	4	332-	345	340.21	85.25	1.15	1.40E+002	53.33	9.38E+002
F	5	949-	965	954.69	238.85	1.02	2.83E+002	43.93	3.82E+002
F	6	1174-	1189	1181.22	295.48	1.22	8.07E+001	28.91	2.01E+002
F	7	1349-	1360	1353.44	338.53	0.69	4.09E+001	23.03	1.55E+002
F	8	1401-	1415	1407.82	352.12	1.23	1.75E+002	32.87	1.37E+002
F	9	2326-	2341	2333.26	583.46	1.29	1.95E+002	31.24	6.11E+001
F	10	2430-	2445	2437.80	609.59	1.16	1.22E+002	27.66	8.98E+001
F	11	3339-	3352	3345.08	836.38	0.89	1.87E+001	12.22	2.60E+001
F	12	3637-	3655	3646.56	911.74	1.41	1.37E+002	26.30	4.99E+001
F	13	3869-	3885	3877.83	969.56	1.21	7.64E+001	21.39	5.10E+001
F	14	5835-	5861	5848.86	1462.26	1.83	1.13E+003	66.58	6.89E+000
F	15	7059-	7073	7066.14	1766.55	1.52	4.24E+001	14.00	7.50E+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\Brn1m180dSoil\NOL

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	0.935	1460.81*	10.67	2.39669E+001	2.40031E+000
TL-208	0.470	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	4.12387E-001	8.51274E-002
		860.37	12.46		
Pb-212	0.850	74.81* @	10.70	1.39013E+001	3.29089E+000
		77.11* @	18.00	2.12834E+000	8.76129E-001
		87.30 @	8.00		
		238.63*	44.60	8.82379E-001	1.94739E-001
Bi-214	0.666	609.31*	46.30	4.76370E-001	1.22834E-001
		1120.29	15.10		
		1764.49*	15.80	6.62208E-001	2.28167E-001
PB-214	0.763	74.82* @	6.21	2.39523E+001	5.93089E+000
		77.11* @	10.50	3.64859E+000	1.52644E+000
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	6.15507E-001	2.43711E-001
		351.92*	37.20	7.20183E-001	1.80932E-001
Ac-228	0.991	338.32*	11.40	5.43687E-001	3.17504E-001
		911.07*	27.70	9.86028E-001	2.20324E-001
		969.11*	16.60	9.27719E-001	2.77263E-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\Brn1m180dSoil\NOL

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		0.935	2.396688E+001	2.400315E+000
TL-208		0.470	4.123866E-001	8.512740E-002
Pb-212	@	0.850	8.823792E-001	1.947390E-001
Bi-214		0.666	5.181275E-001	1.081569E-001
PB-214	@	0.763	6.829889E-001	1.452734E-001
Ac-228		0.991	8.677972E-001	1.515700E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	73.15	4.1961E-001	19.89
F 4	85.25	2.3303E-001	38.14
F 11	836.38	3.1195E-002	65.28

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

Errors quoted at 1.960 sigma

Y A N K E E 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\Brn1m180dSoil\NOL
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	1.2195E-001	8.80E-002	-1.9790E-003
	1332.49	100.00	8.7962E-002		-2.5665E-002
Nb-94	702.63	100.00	1.2367E-001	1.13E-001	-4.1966E-002
	871.10	100.00	1.1302E-001		8.4657E-002
Ag-108m	79.20	7.10	9.1641E+000	1.43E-001	-2.4102E-002
	433.93	89.90	1.4344E-001		-6.3699E-002
	614.37	90.40	1.8028E-001		-1.8401E-002
	722.95	90.50	1.4886E-001		9.2198E-002
Sb-125	176.33	6.89	2.9158E+000	4.50E-001	-1.0175E+000
	427.89	29.33	4.4992E-001		3.4456E-002
	463.38	10.35	1.3656E+000		1.6592E+000
	600.56	17.80	7.3998E-001		1.3514E-002
	606.64	5.02	3.3212E+000		5.5111E+000
	635.90	11.32	1.1027E+000		-3.3795E-001
Cs-134	563.23	8.38	1.6336E+000	1.40E-001	2.2715E+000
	569.32	15.43	8.3213E-001		-3.2797E-001
	604.70	97.60	1.6429E-001		8.9430E-002
	795.84	85.40	1.3964E-001		1.1620E-001
	801.93	8.73	1.2800E+000		-1.8811E+000
Cs-137	661.65	85.12	1.4412E-001	1.44E-001	-1.7884E-002
Eu-152	121.78	28.40	9.8700E-001	4.00E-001	1.4760E-002
	244.69	7.49	2.3719E+000		-6.8912E-001
	344.27	26.50	5.7976E-001		-2.1184E-001
	778.89	12.74	9.4258E-001		-9.7160E-001
	867.32	4.16	2.8953E+000		-1.6181E+000
	964.01	14.40	1.0434E+000		7.4407E-002
	1085.78	10.00	1.0720E+000		3.9950E-001
	1112.02	13.30	8.8828E-001		1.0150E-001
	1407.95	20.70	4.0017E-001		-2.4783E-002
Eu-154	123.07	40.50	6.8854E-001	2.82E-001	3.3914E-001
	247.94	6.60	2.6213E+000		-1.7545E+000
	591.81	4.83	2.5561E+000		-1.0225E+000
	723.30	19.70	6.8086E-001		1.8090E-001
	756.87	4.33	2.6581E+000		-3.5723E-001
	873.19	11.50	9.4165E-001		-1.6016E-001
	996.32	10.30	1.0810E+000		5.2005E-001
	1004.76	17.90	5.7919E-001		-2.2052E-001
	1274.45	35.50	2.8161E-001		-8.9305E-002
Eu-155	86.54	30.90	1.6070E+000	1.61E+000	3.1416E+000
	105.31	20.70	1.6931E+000		9.2193E-001
Am-241	59.54	35.90	3.4465E+000	3.45E+000	1.3490E+000
Cm-243	228.19	10.56	1.7703E+000	1.21E+000	-1.0130E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	1.2103E+000	1.21E+000	-4.2692E-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 5/5/2006 12:20:44 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: RED6264

Spectrum File: RED6264
Sample ID: NOL-02-02-140
Sample Title: NOL-02-02-140-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/5/2006 12:10:41 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-02-02-140
Title: NOL-02-02-140-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	283-	306	291.58	72.80	1.23	3.54E+002	65.47	1.55E+003
m	2	283-	306	299.71	74.83	1.23	5.87E+002	74.31	1.83E+003
	3	946-	963	953.12	238.23	0.97	2.60E+002	75.79	3.73E+002
	4	1191-	1205	1198.22	299.52	0.82	4.92E+001	47.66	1.88E+002
	5	1399-	1416	1405.49	351.35	1.18	1.74E+002	52.20	1.63E+002
	6	2033-	2053	2041.14	510.30	0.69	1.36E+002	51.01	1.46E+002
	7	2322-	2338	2328.95	582.27	1.58	1.57E+002	40.82	8.80E+001
	8	2421-	2443	2432.84	608.25	0.86	1.63E+002	43.75	8.63E+001
	9	2899-	2911	2904.70	726.25	0.43	2.27E+001	26.59	6.13E+001
	10	3631-	3650	3639.31	909.95	0.40	1.35E+002	35.81	5.68E+001
M	11	3845-	3879	3850.13	962.67	1.60	2.37E+001	14.16	3.38E+001
m	12	3845-	3879	3870.94	967.87	1.60	8.37E+001	21.13	4.50E+001
	13	5824-	5852	5838.02	1459.77	2.20	1.06E+003	68.09	3.17E+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

N U C L I 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	0.985	511.00*	100.00	1.91139E-001	7.62725E-002
K-40	0.967	1460.81*	10.67	1.83944E+001	1.89879E+000
TL-208	0.735	277.35	6.80		
		510.84*	21.60	8.84904E-001	3.60433E-001
		583.14*	84.20	2.73833E-001	7.96550E-002
		860.37	12.46		
Bi-212	0.974	727.17*	11.80	2.99858E-001	3.53728E-001
Pb-212	0.518	74.81* @	10.70	8.73307E+000	2.03760E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	6.51216E-001	2.15808E-001
Bi-214	0.377	609.31*	46.30	5.23553E-001	1.54894E-001
		1120.29	15.10		
		1764.49	15.80		
Ac-228	0.600	338.32	11.40		
		911.07*	27.70	7.99398E-001	2.30863E-001
		969.11*	16.60	8.40256E-001	2.29656E-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	0.985	1.319914E-001	7.816530E-002
K-40	0.967	1.839442E+001	1.898792E+000
TL-208	0.735	2.738331E-001	7.915353E-002
Bi-212	0.974	2.998583E-001	3.537282E-001
Pb-212 @	0.518	6.512162E-001	2.158078E-001
Bi-214	0.377	5.235532E-001	1.548941E-001
Ac-228	0.600	8.199340E-001	1.628163E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	5.8919E-001	18.52
4	299.52	8.2066E-002	96.79
5	351.35	2.8979E-001	30.02
M 11	962.67	3.9537E-002	59.68

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: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	1.0864E-001	8.27E-002	-3.1231E-002
	1332.49	100.00	8.2657E-002		-1.7966E-002
Nb-94	702.63	100.00	1.0576E-001	9.95E-002	1.5513E-002
	871.10	100.00	9.9494E-002		-4.6491E-003
Ag-108m	79.20	7.10	5.3351E+000	1.21E-001	-8.5632E+000
	433.93	89.90	1.2567E-001		3.4545E-002
	614.37	90.40	1.2119E-001		4.4660E-002
	722.95	90.50	1.2580E-001		1.0196E-001
Sb-125	176.33	6.89	2.3472E+000	4.01E-001	1.2002E-001
	427.89	29.33	4.0092E-001		2.1154E-001
	463.38	10.35	1.0945E+000		-2.5619E-001
	600.56	17.80	5.5587E-001		-5.6065E-001
	606.64	5.02	2.6548E+000		4.5236E+000
	635.90	11.32	8.7936E-001		-9.2282E-001
Cs-134	563.23	8.38	1.3552E+000	1.21E-001	9.8702E-001
	569.32	15.43	6.7772E-001		-2.8679E-001
	604.70	97.60	1.3716E-001		9.7775E-005
	795.84	85.40	1.2104E-001		-1.0436E-002
	801.93	8.73	1.1406E+000		2.4537E-001
Cs-137	661.65	85.12	1.3993E-001	1.40E-001	6.9233E-002
Eu-152	121.78	28.40	7.5690E-001	3.32E-001	-1.5568E-001
	244.69	7.49	1.9055E+000		-1.3927E+000
	344.27	26.50	4.6126E-001		-2.8702E-001
	778.89	12.74	7.3281E-001		-1.1621E+000
	867.32	4.16	2.3751E+000		-2.1023E+000
	964.01	14.40	8.6435E-001		7.7595E-001
	1085.78	10.00	1.0176E+000		1.2860E-001
	1112.02	13.30	7.8270E-001		-1.2484E+000
	1407.95	20.70	3.3220E-001		2.9685E-001
Eu-154	123.07	40.50	5.2558E-001	2.55E-001	-6.4233E-002
	247.94	6.60	2.0725E+000		-1.7952E+000
	591.81	4.83	2.0694E+000		-4.7160E-002
	723.30	19.70	5.7183E-001		2.9148E-001
	756.87	4.33	2.4680E+000		8.8677E-001
	873.19	11.50	8.8105E-001		-3.7021E-001
	996.32	10.30	9.2257E-001		-6.2987E-002
	1004.76	17.90	5.6509E-001		-9.9643E-003
	1274.45	35.50	2.5458E-001		-1.2690E-001
Eu-155	86.54	30.90	1.0972E+000	1.10E+000	2.2848E+000
	105.31	20.70	1.2243E+000		8.1318E-001
Am-241	59.54	35.90	1.3315E+000	1.33E+000	1.3676E-001
Cm-243	228.19	10.56	1.4005E+000	9.18E-001	3.9037E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Cm-243	277.60	14.00	9.1834E-001	9.18E-001	2.7458E-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 4/25/2006 9:11:46 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: BRN7722

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
Sample ID: NOL-02-02-141
Sample Title: NOL-02-02-141-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 4/19/2006 12:38:05 AM
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: S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
Log Number: NOL-02-02-141
Title: NOL-02-02-141-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	283-	313	291.59	73.09	0.95	1.87E+002	47.84	7.62E+002
m	2	283-	313	300.44	75.30	0.95	4.17E+002	57.59	8.19E+002
m	3	283-	313	308.71	77.37	0.96	8.11E+001	42.80	7.00E+002
F	4	332-	356	339.75	85.13	1.28	2.20E+002	53.24	1.52E+003
F	5	950-	960	954.94	238.91	0.85	2.32E+002	41.31	2.59E+002
F	6	1345-	1364	1353.33	338.50	1.24	6.80E+001	26.86	2.05E+002
F	7	1403-	1415	1408.19	352.21	1.11	1.14E+002	29.83	1.34E+002
F	8	1542-	1551	1546.73	386.84	0.68	2.67E+001	17.44	7.56E+001
F	9	1633-	1643	1638.70	409.83	0.55	2.89E+001	16.53	7.93E+001
F	10	2034-	2056	2044.60	511.30	2.24	1.27E+002	26.95	1.09E+002
F	11	2327-	2344	2333.55	583.53	1.30	1.45E+002	29.44	9.89E+001
F	12	2429-	2446	2437.47	609.51	1.32	1.42E+002	28.05	7.68E+001
F	13	3175-	3187	3181.13	795.40	1.09	2.30E+001	14.65	3.56E+001
F	14	3435-	3449	3443.69	861.03	1.18	2.76E+001	14.40	3.19E+001
F	15	3639-	3655	3646.54	911.74	1.41	1.15E+002	24.55	4.11E+001
F	16	3869-	3886	3877.79	969.55	1.64	7.89E+001	22.96	5.64E+001
F	17	5837-	5862	5848.57	1462.19	1.74	9.23E+002	61.15	3.88E+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: S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL

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	2.17337E-001	5.46355E-002
K-40	0.941	1460.81*	10.67	1.95939E+001	2.04945E+000
TL-208	0.898	277.35	6.80		
		510.84*	21.60	1.00619E+000	2.65955E-001
		583.14*	84.20	3.07459E-001	7.40184E-002
		860.37*	12.46	4.34620E-001	2.33263E-001
Pb-212	0.851	74.81* @	10.70	1.34392E+001	3.22223E+000
		77.11* @	18.00	1.42995E+000	8.05121E-001
		87.30 @	8.00		
		238.63*	44.60	7.24135E-001	1.71760E-001
Bi-214	0.402	609.31*	46.30	5.53468E-001	1.28905E-001
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.370	74.82* @	6.21	2.31561E+001	5.80089E+000
		77.11* @	10.50	2.45135E+000	1.39229E+000
		87.30 @	4.67		
		241.98	7.49		
		295.21	19.20		
		351.92*	37.20	4.69805E-001	1.45579E-001
Ac-228	0.991	338.32*	11.40	9.02924E-001	3.83706E-001
		911.07*	27.70	8.29048E-001	2.00464E-001
		969.11*	16.60	9.57352E-001	2.96205E-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\Brn1m180dSoil\NOL

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	1.484471E-001	5.668613E-002
K-40		0.941	1.959386E+001	2.049451E+000
TL-208		0.898	3.189370E-001	6.994893E-002
Pb-212	@	0.851	7.241351E-001	1.717596E-001
Bi-214		0.402	5.534683E-001	1.289050E-001
PB-214	@	0.370	4.698053E-001	1.431234E-001
Ac-228		0.991	8.746470E-001	1.523671E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	73.09	3.1184E-001	25.57
F 4	85.13	3.6617E-001	24.23
F 8	386.84	4.4464E-002	65.38
F 9	409.83	4.8156E-002	57.22
F 13	795.40	3.8324E-002	63.72

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:S:\Analyzed Results\BlueLogging\Reanalysis\Brn1m180dSoil\NOL
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	1.2794E-001	9.90E-002	1.1138E-001
	1332.49	100.00	9.9031E-002		9.3865E-002
Nb-94	702.63	100.00	1.1636E-001	1.16E-001	7.3228E-002
	871.10	100.00	1.1723E-001		5.3498E-002
Ag-108m	79.20	7.10	8.9373E+000	1.43E-001	1.8639E+000
	433.93	89.90	1.4420E-001		-3.8890E-002
	614.37	90.40	1.7473E-001		8.8796E-002
	722.95	90.50	1.4279E-001		1.2423E-001
Sb-125	176.33	6.89	2.9078E+000	4.42E-001	-1.3493E+000
	427.89	29.33	4.4156E-001		3.4810E-002
	463.38	10.35	1.2969E+000		3.2151E-001
	600.56	17.80	7.1474E-001		3.6221E-001
	606.64	5.02	3.1658E+000		5.1810E+000
	635.90	11.32	1.0973E+000		5.3388E-001
Cs-134	563.23	8.38	1.5559E+000	1.45E-001	3.2111E-001
	569.32	15.43	7.9400E-001		-7.6594E-001
	604.70	97.60	1.5959E-001		3.4406E-002
	795.84	85.40	1.4452E-001		8.3694E-002
	801.93	8.73	1.3519E+000		-8.8642E-001
Cs-137	661.65	85.12	1.4995E-001	1.50E-001	-3.3072E-002
Eu-152	121.78	28.40	1.0114E+000	3.93E-001	1.9932E-001
	244.69	7.49	2.3800E+000		-2.9047E+000
	344.27	26.50	5.5919E-001		-3.7635E-002
	778.89	12.74	8.8907E-001		-2.7448E-001
	867.32	4.16	2.8333E+000		-1.4978E+000
	964.01	14.40	9.8489E-001		1.9664E-001
	1085.78	10.00	1.2080E+000		6.8056E-001
	1112.02	13.30	8.2696E-001		5.5625E-001
	1407.95	20.70	3.9336E-001		3.2921E-002
Eu-154	123.07	40.50	7.0234E-001	2.92E-001	4.3087E-001
	247.94	6.60	2.6309E+000		-9.2085E-001
	591.81	4.83	2.6158E+000		1.0827E+000
	723.30	19.70	6.5444E-001		3.3597E-001
	756.87	4.33	2.7074E+000		-1.0112E+000
	873.19	11.50	9.9008E-001		3.4666E-001
	996.32	10.30	1.0972E+000		9.1205E-002
	1004.76	17.90	6.0645E-001		3.5084E-001
	1274.45	35.50	2.9184E-001		1.2092E-001
Eu-155	86.54	30.90	1.5832E+000	1.58E+000	2.3535E+000
	105.31	20.70	1.6646E+000		-6.2951E-001
Am-241	59.54	35.90	3.3526E+000	3.35E+000	4.4602E-001
Cm-243	228.19	10.56	1.7872E+000	1.14E+000	1.4202E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	1.1412E+000	1.14E+000	-6.9113E-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 5/4/2006 9:38:44 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-02-02-141
Sample Title: NOL-02-02-141-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/4/2006 9:28:43 PM
Live Time: 600.0 seconds
Real Time: 600.9 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-02-02-141
Title: NOL-02-02-141-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	283-	308	291.69	72.82	1.45	3.58E+002	68.34	1.51E+003
m	2	283-	308	299.68	74.82	1.45	6.02E+002	75.21	2.04E+003
	3	947-	964	953.56	238.34	1.04	1.61E+002	71.84	3.62E+002
	4	1401-	1413	1405.44	351.34	0.46	8.39E+001	40.75	1.31E+002
	5	2322-	2339	2328.84	582.25	1.53	1.21E+002	41.01	9.71E+001
	6	2425-	2443	2434.16	608.58	1.60	1.17E+002	37.56	7.38E+001
	7	3171-	3182	3176.57	794.23	0.57	2.29E+001	20.41	3.41E+001
	8	3632-	3650	3640.79	910.32	0.86	1.19E+002	32.26	4.50E+001
	9	3863-	3881	3871.50	968.01	0.35	7.05E+001	33.18	6.25E+001
	10	4469-	4484	4476.47	1119.30	1.45	5.89E+001	25.38	3.61E+001
	11	5825-	5852	5838.35	1459.85	2.14	9.63E+002	64.10	2.40E+001
	12	7047-	7060	7053.73	1763.78	0.67	3.11E+001	14.75	8.88E+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: 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	0.972	1460.81*	10.67	1.66590E+001	1.74605E+000
TL-208	0.454	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	2.10875E-001	7.66412E-002
		860.37	12.46		
Pb-212	0.520	74.81* @	10.70	8.95562E+000	2.08165E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	4.04126E-001	1.91068E-001
Bi-214	0.981	609.31*	46.30	3.77404E-001	1.29565E-001
		1120.29*	15.10	6.77170E-001	3.00562E-001
		1764.49*	15.80	3.77487E-001	1.82820E-001
Ac-228	0.613	338.32	11.40		
		911.07*	27.70	7.03663E-001	2.07230E-001
		969.11*	16.60	7.07897E-001	3.41272E-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	0.972	1.665899E+001	1.746050E+000
TL-208	0.454	2.108748E-001	7.664121E-002
Pb-212 @	0.520	4.041260E-001	1.910684E-001
Bi-214	0.981	4.104272E-001	9.972197E-002
Ac-228	0.613	7.048038E-001	1.771308E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	5.9590E-001	19.11
4	351.34	1.3985E-001	48.56
7	794.23	3.8202E-002	89.04

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: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	1.0864E-001	9.09E-002	5.1735E-002
	1332.49	100.00	9.0909E-002		5.9361E-002
Nb-94	702.63	100.00	1.0023E-001	9.83E-002	1.1152E-001
	871.10	100.00	9.8290E-002		6.1235E-002
Ag-108m	79.20	7.10	5.2562E+000	1.12E-001	-8.8615E+000
	433.93	89.90	1.1986E-001		4.7915E-002
	614.37	90.40	1.1732E-001		-4.3313E-002
	722.95	90.50	1.1200E-001		4.3871E-002
Sb-125	176.33	6.89	2.2361E+000	3.58E-001	-1.0547E+000
	427.89	29.33	3.5809E-001		-1.4612E-001
	463.38	10.35	9.9998E-001		1.0976E+000
	600.56	17.80	5.8203E-001		-4.4574E-002
	606.64	5.02	2.5297E+000		3.9211E+000
	635.90	11.32	8.4903E-001		2.5220E-001
Cs-134	563.23	8.38	1.2187E+000	1.16E-001	5.3748E-001
	569.32	15.43	6.6575E-001		-2.2461E-001
	604.70	97.60	1.3117E-001		2.6167E-002
	795.84	85.40	1.1641E-001		5.6369E-002
	801.93	8.73	1.0793E+000		-2.2449E-002
Cs-137	661.65	85.12	1.2421E-001	1.24E-001	1.3378E-001
Eu-152	121.78	28.40	7.4306E-001	3.12E-001	2.0809E-001
	244.69	7.49	1.7902E+000		-9.1546E-002
	344.27	26.50	4.3052E-001		-4.7346E-001
	778.89	12.74	7.6557E-001		1.7403E-001
	867.32	4.16	2.4110E+000		-3.9901E-001
	964.01	14.40	8.6435E-001		1.5440E-001
	1085.78	10.00	9.5268E-001		-7.7459E-002
	1112.02	13.30	7.3443E-001		2.7576E-002
	1407.95	20.70	3.1229E-001		1.2362E-001
Eu-154	123.07	40.50	5.1384E-001	2.30E-001	3.3386E-002
	247.94	6.60	1.9743E+000		9.0365E-001
	591.81	4.83	2.1640E+000		-1.6200E-001
	723.30	19.70	5.1179E-001		2.3529E-001
	756.87	4.33	2.1988E+000		-1.9765E-001
	873.19	11.50	8.0621E-001		-1.0739E+000
	996.32	10.30	9.2910E-001		5.5453E-001
	1004.76	17.90	5.1089E-001		7.2029E-001
	1274.45	35.50	2.3043E-001		-1.5948E-001
Eu-155	86.54	30.90	1.0559E+000	1.06E+000	6.7818E-001
	105.31	20.70	1.1590E+000		-2.6793E-001
Am-241	59.54	35.90	1.3159E+000	1.32E+000	5.5306E-001
Cm-243	228.19	10.56	1.2409E+000	8.86E-001	-1.0143E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Cm-243	277.60	14.00	8.8575E-001	8.86E-001	1.0855E-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 4/19/2006 12:18:19 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: BLUE6279
Sample ID: NOL-02-02-142
Sample Title: NOL-02-02-142-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 4/19/2006 12:08:18 AM
Live Time: 600.0 seconds
Real Time: 601.1 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
(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-02-02-142
Title: NOL-02-02-142-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	283-	308	291.50	72.70	1.09	3.73E+002	63.56	1.51E+003
m	2	283-	308	300.33	74.91	1.09	8.25E+002	77.79	1.57E+003
F	3	333-	344	339.56	84.72	1.31	2.48E+002	63.07	1.14E+003
F	4	947-	962	954.42	238.48	1.05	3.40E+002	46.33	4.07E+002
F	5	1175-	1184	1179.41	294.75	0.70	3.46E+001	24.82	1.75E+002
F	6	1343-	1363	1354.10	338.43	1.75	1.30E+002	29.61	2.32E+002
F	7	1401-	1416	1406.80	351.61	1.13	1.27E+002	30.02	1.84E+002
F	8	2031-	2054	2042.54	510.59	2.27	1.84E+002	28.97	1.46E+002
F	9	2323-	2339	2332.36	583.07	1.39	2.25E+002	32.28	8.94E+001
F	10	2430-	2447	2436.94	609.23	1.52	1.76E+002	28.68	7.41E+001
F	11	3635-	3654	3644.53	911.21	1.55	1.71E+002	27.98	6.00E+001
M	12	3853-	3886	3858.46	964.71	1.68	3.21E+001	17.17	5.37E+001
m	13	3853-	3886	3875.89	969.07	1.68	1.28E+002	24.96	7.01E+001
F	14	4473-	4486	4479.83	1120.10	1.29	5.36E+001	17.96	3.17E+001
F	15	5830-	5858	5844.10	1461.27	2.06	1.31E+003	69.19	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
(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/GRAM)	Activity Uncertainty
ANN	0.994	511.00*		100.00	2.50768E-001	5.21189E-002
K-40	0.993	1460.81*		10.67	2.19903E+001	2.12520E+000
TL-208	0.751	277.35		6.80		
		510.84*		21.60	1.16096E+000	2.59250E-001
		583.14*		84.20	3.81565E-001	7.38371E-002
		860.37		12.46		
Pb-212	0.520	74.81*	@	10.70	1.18016E+001	2.56698E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	8.26550E-001	1.71692E-001
Bi-214	0.699	609.31*		46.30	5.48374E-001	1.12175E-001
		1120.29*		15.10	5.97090E-001	2.10033E-001
		1764.49		15.80		
PB-214	0.579	74.82*	@	6.21	2.03345E+001	4.66280E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	2.07680E-001	1.52953E-001
		351.92*		37.20	4.14846E-001	1.19852E-001
Ac-228	1.000	338.32*		11.40	1.36233E+000	3.77447E-001
		911.07*		27.70	9.80495E-001	1.95872E-001
		969.11*		16.60	1.24477E+000	2.75476E-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/GRAM)	Wt mean Activity Uncertainty
ANN		0.994	1.683496E-001	5.443832E-002
K-40		0.993	2.199028E+001	2.125202E+000
TL-208		0.751	3.815646E-001	7.278254E-002
Pb-212	@	0.520	8.265503E-001	1.716920E-001
Bi-214		0.699	5.591863E-001	9.894714E-002
PB-214	@	0.579	3.360353E-001	9.433902E-002
Ac-228		1.000	1.113706E+000	1.470245E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	72.70	6.2241E-001	17.02
F 3	84.72	4.1271E-001	25.47
M 12	964.71	5.3515E-002	53.47

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/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Co-60	1173.22	100.00	1.0344E-001	8.06E-002	3.4778E-002
	1332.49	100.00	8.0613E-002		-4.2193E-002
Nb-94	702.63	100.00	1.1313E-001	9.54E-002	1.1969E-001
	871.10	100.00	9.5437E-002		-5.2749E-002
Ag-108m	79.20	7.10	4.6364E+000	1.24E-001	-3.6124E+000
	433.93	89.90	1.2648E-001		-3.9341E-002
	614.37	90.40	1.3031E-001		2.0849E-002
	722.95	90.50	1.2446E-001		3.7628E-002
Sb-125	176.33	6.89	2.1965E+000	4.00E-001	-1.5341E+000
	427.89	29.33	3.9955E-001		1.3009E-001
	463.38	10.35	1.1340E+000		3.2067E-002
	600.56	17.80	6.0336E-001		1.0875E-001
	606.64	5.02	2.7103E+000		-1.0511E+000
	635.90	11.32	8.6805E-001		1.4972E-001
Cs-134	563.23	8.38	1.2622E+000	1.31E-001	-7.2264E-001
	569.32	15.43	6.7411E-001		1.9855E-002
	604.70	97.60	1.3244E-001		-8.1382E-002
	795.84	85.40	1.3084E-001		1.4133E-001
	801.93	8.73	1.1516E+000		-6.4259E-001
Cs-137	661.65	85.12	1.2298E-001	1.23E-001	-8.9067E-002
Eu-152	121.78	28.40	7.2740E-001	3.48E-001	-8.7498E-002
	244.69	7.49	1.8824E+000		-4.9906E-001
	344.27	26.50	4.3823E-001		-4.1747E-002
	778.89	12.74	8.1328E-001		-8.4574E-001
	867.32	4.16	2.3749E+000		-3.7076E+000
	964.01	14.40	9.3366E-001		-3.1079E-001
	1085.78	10.00	9.1634E-001		-5.5762E-001
	1112.02	13.30	7.1439E-001		-2.0098E-002
	1407.95	20.70	3.4770E-001		2.2605E-001
Eu-154	123.07	40.50	5.0761E-001	2.40E-001	4.6792E-002
	247.94	6.60	2.1243E+000		9.6266E-001
	591.81	4.83	2.2830E+000		-1.1821E+000
	723.30	19.70	5.7986E-001		3.6209E-001
	756.87	4.33	2.3015E+000		1.6218E+000
	873.19	11.50	8.4789E-001		8.4580E-001
	996.32	10.30	9.5481E-001		3.0408E-001
	1004.76	17.90	5.2087E-001		1.3240E-001
	1274.45	35.50	2.4012E-001		-3.1964E-002
Eu-155	86.54	30.90	9.8591E-001	9.86E-001	-2.8246E-001
	105.31	20.70	1.1829E+000		-3.4998E-001
Am-241	59.54	35.90	1.1876E+000	1.19E+000	-6.8406E-001
Cm-243	228.19	10.56	1.3405E+000	9.50E-001	3.0782E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	9.4967E-001	9.50E-001	-1.5908E-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 5/4/2006 9:55:54 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: RED6264

Spectrum File: RED6264
Sample ID: NOL-02-02-142
Sample Title: NOL-02-02-142-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/4/2006 9:45:52 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-02-02-142
Title: NOL-02-02-142-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	291.24	72.71	1.51	4.02E+002	70.26	1.67E+003
m	2	282-	309	300.07	74.92	1.51	7.96E+002	79.32	2.15E+003
	3	330-	345	336.94	84.14	1.34	2.38E+002	130.55	1.39E+003
	4	947-	961	952.95	238.18	1.38	1.93E+002	69.46	3.63E+002
	5	1397-	1413	1404.45	351.09	1.09	1.10E+002	49.99	1.71E+002
	6	1843-	1855	1850.26	462.57	0.52	4.43E+001	30.40	7.48E+001
	7	2031-	2051	2040.71	510.19	1.00	1.51E+002	49.22	1.32E+002
	8	2320-	2341	2329.25	582.35	1.30	1.61E+002	46.65	1.08E+002
	9	2422-	2444	2433.08	608.31	1.52	1.47E+002	46.43	1.07E+002
	10	2899-	2911	2904.24	726.13	0.39	2.93E+001	23.59	4.37E+001
	11	3631-	3649	3640.15	910.16	1.52	1.18E+002	32.31	4.48E+001
	12	3862-	3878	3870.07	967.66	1.98	7.63E+001	28.17	4.17E+001
	13	4470-	4483	4475.69	1119.10	0.62	3.69E+001	22.90	3.61E+001
	14	5825-	5852	5838.00	1459.77	2.08	1.00E+003	65.34	2.42E+001
	15	7045-	7058	7051.94	1763.33	0.71	4.08E+001	15.44	7.17E+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	0.980	511.00*	100.00	2.11711E-001	7.49346E-002
K-40	0.966	1460.81*	10.67	1.73468E+001	1.80279E+000
TL-208	0.736	277.35	6.80		
		510.84*	21.60	9.80142E-001	3.56034E-001
		583.14*	84.20	2.80264E-001	8.92017E-002
		860.37	12.46		
Bi-212	0.967	727.17*	11.80	3.88364E-001	3.15615E-001
Pb-212	0.518	74.81* @	10.70	1.18243E+001	2.59976E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	4.82892E-001	1.89977E-001
Bi-214	0.964	609.31*	46.30	4.74668E-001	1.60508E-001
		1120.29*	15.10	4.24577E-001	2.67176E-001
		1764.49*	15.80	4.95305E-001	1.93726E-001
Ac-228	0.601	338.32	11.40		
		911.07*	27.70	6.98543E-001	2.07279E-001
		969.11*	16.60	7.65416E-001	2.93956E-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	1.511735E-001	7.734688E-002
K-40		0.966	1.734681E+001	1.802788E+000
TL-208		0.736	2.802645E-001	8.873282E-002
Bi-212		0.967	3.883640E-001	3.156150E-001
Pb-212	@	0.518	4.828916E-001	1.899766E-001
Bi-214		0.964	4.727577E-001	1.121756E-001
Ac-228		0.601	7.207511E-001	1.693997E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	6.6964E-001	17.49
3	84.14	3.9676E-001	54.84
5	351.09	1.8298E-001	45.54
6	462.57	7.3750E-002	68.71

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: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	1.1181E-001	9.01E-002	9.6069E-002
	1332.49	100.00	9.0078E-002		8.1565E-002
Nb-94	702.63	100.00	1.0023E-001	9.68E-002	6.5333E-002
	871.10	100.00	9.6763E-002		5.7516E-002
Ag-108m	79.20	7.10	5.2597E+000	1.19E-001	-5.4555E+000
	433.93	89.90	1.2068E-001		-6.1875E-002
	614.37	90.40	1.2833E-001		1.2031E-002
	722.95	90.50	1.1868E-001		-2.2636E-002
Sb-125	176.33	6.89	2.3305E+000	3.84E-001	4.1717E-001
	427.89	29.33	3.8402E-001		-2.1894E-003
	463.38	10.35	1.0856E+000		7.3422E-001
	600.56	17.80	5.7117E-001		-3.4336E-001
	606.64	5.02	2.6362E+000		2.6830E+000
	635.90	11.32	8.9974E-001		6.3866E-001
Cs-134	563.23	8.38	1.2570E+000	1.19E-001	7.7823E-001
	569.32	15.43	6.6876E-001		-1.9648E-001
	604.70	97.60	1.3602E-001		2.3575E-002
	795.84	85.40	1.1941E-001		1.0024E-001
	801.93	8.73	1.0437E+000		-3.9660E-001
Cs-137	661.65	85.12	1.2769E-001	1.28E-001	1.0214E-001
Eu-152	121.78	28.40	7.3664E-001	3.21E-001	-9.9402E-001
	244.69	7.49	1.8884E+000		-1.4682E+000
	344.27	26.50	4.4890E-001		-1.1766E-002
	778.89	12.74	8.3542E-001		-4.7990E-001
	867.32	4.16	2.1548E+000		-2.3591E+000
	964.01	14.40	8.3610E-001		1.1610E+000
	1085.78	10.00	8.9793E-001		-9.2197E-001
	1112.02	13.30	7.3179E-001		-9.3790E-001
	1407.95	20.70	3.2098E-001		2.8614E-001
Eu-154	123.07	40.50	5.1426E-001	2.51E-001	-1.0755E-002
	247.94	6.60	2.0408E+000		-7.0201E-001
	591.81	4.83	2.2544E+000		1.9626E+000
	723.30	19.70	5.4398E-001		-1.1415E-001
	756.87	4.33	2.2791E+000		6.2925E-001
	873.19	11.50	8.2285E-001		-5.4968E-001
	996.32	10.30	8.6496E-001		1.3801E-001
	1004.76	17.90	5.0891E-001		-4.2784E-001
	1274.45	35.50	2.5112E-001		2.2169E-002
Eu-155	86.54	30.90	1.0828E+000	1.08E+000	1.6950E-001
	105.31	20.70	1.1882E+000		4.9368E-002
Am-241	59.54	35.90	1.3425E+000	1.34E+000	-3.3105E-001
Cm-243	228.19	10.56	1.3158E+000	9.23E-001	-7.3538E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Cm-243	277.60	14.00	9.2337E-001	9.23E-001	-8.0721E-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 4/18/2006 9:51:22 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(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-02-02-143
Sample Title: NOL-02-02-143-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 4/18/2006 9:41:15 PM
Live Time: 600.0 seconds
Real Time: 601.1 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
(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-02-02-143
Title: NOL-02-02-143-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	284-	316	291.85	72.79	1.01	3.74E+002	62.02	1.28E+003
m	2	284-	316	300.33	74.91	1.01	8.48E+002	75.47	1.32E+003
m	3	284-	316	309.58	77.23	1.02	1.76E+002	54.14	1.18E+003
M	4	331-	357	339.51	84.71	1.27	3.46E+002	61.73	1.39E+003
m	5	331-	357	349.32	87.16	1.28	1.79E+002	56.30	1.52E+003
F	6	684-	694	690.78	172.55	0.60	5.61E+001	30.84	3.37E+002
F	7	947-	960	954.66	238.54	1.10	3.54E+002	44.93	2.82E+002
F	8	1176-	1189	1181.51	295.27	0.68	6.48E+001	25.00	1.89E+002
F	9	1346-	1362	1353.00	338.16	1.03	8.70E+001	27.07	1.94E+002
F	10	1399-	1412	1407.38	351.76	1.29	1.62E+002	31.03	1.41E+002
F	11	2030-	2053	2042.97	510.70	2.12	1.69E+002	28.61	1.47E+002
F	12	2325-	2341	2332.24	583.04	1.33	2.03E+002	31.20	8.97E+001
F	13	2428-	2446	2436.95	609.23	1.44	1.87E+002	29.47	8.57E+001
F	14	2902-	2915	2907.44	726.89	1.31	4.74E+001	18.09	4.65E+001
F	15	3637-	3655	3644.49	911.20	1.63	1.87E+002	28.89	5.15E+001
M	16	3849-	3885	3858.95	964.83	1.80	5.88E+001	16.82	2.83E+001
m	17	3849-	3885	3876.02	969.11	1.80	1.22E+002	23.58	4.97E+001
F	18	4476-	4490	4482.40	1120.75	1.33	4.98E+001	18.18	3.85E+001
F	19	5830-	5859	5844.97	1461.49	2.03	1.36E+003	70.66	1.88E+001
F	20	6349-	6362	6355.11	1589.06	1.21	1.91E+001	10.78	1.05E+001
F	21	7053-	7070	7061.56	1765.73	1.39	4.82E+001	15.37	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/GRAM)	Activity Uncertainty
ANN	0.997	511.00*	100.00	2.30278E-001	4.99644E-002
K-40	0.984	1460.81*	10.67	2.27554E+001	2.19067E+000
Eu-155	0.325	86.54*	30.90	7.18836E-001	2.66744E-001
		105.31	20.70		
TL-208	0.751	277.35	6.80		
		510.84*	21.60	1.06610E+000	2.47159E-001
		583.14*	84.20	3.43151E-001	6.91692E-002
		860.37	12.46		
Bi-212	0.997	727.17*	11.80	6.07463E-001	2.42819E-001
Pb-212	1.000	74.81* @	10.70	1.21409E+001	2.61320E+000
		77.11* @	18.00	1.43333E+000	5.23415E-001
		87.30* @	8.00	2.77650E+000	1.03030E+000
		238.63*	44.60	8.60562E-001	1.73606E-001
Bi-214	0.988	609.31*	46.30	5.82682E-001	1.16704E-001
		1120.29*	15.10	5.55021E-001	2.11125E-001
		1764.49*	15.80	5.65931E-001	1.89207E-001
PB-214	0.850	74.82* @	6.21	2.09192E+001	4.75179E+000
		77.11* @	10.50	2.45713E+000	9.15847E-001
		87.30* @	4.67	4.75632E+000	1.80117E+000
		241.98	7.49		
		295.21*	19.20	3.88692E-001	1.63695E-001
		351.92*	37.20	5.26565E-001	1.34009E-001
Ac-228	1.000	338.32*	11.40	9.14321E-001	3.18544E-001
		911.07*	27.70	1.06944E+000	2.06090E-001
		969.11*	16.60	1.18757E+000	2.60853E-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/GRAM)	Wt mean Activity Uncertainty
ANN		0.997	1.561574E-001	5.209437E-002
K-40		0.984	2.275536E+001	2.190672E+000
Eu-155		0.325	4.246576E-001	2.709396E-001
TL-208		0.751	3.431507E-001	6.825917E-002
Bi-212		0.997	6.074633E-001	2.428192E-001
Pb-212	@	1.000	8.605620E-001	1.736060E-001
Bi-214		0.988	5.738891E-001	8.987848E-002
PB-214	@	0.850	4.722939E-001	1.016102E-001
Ac-228		1.000	1.073750E+000	1.441938E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	6.2356E-001	16.58
M 4	84.71	5.7598E-001	17.86
F 6	172.55	9.3528E-002	54.96
M 16	964.83	9.8053E-002	28.58
F 20	1589.06	3.1867E-002	56.38

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
(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/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
	Co-60	1173.22	100.00	1.0312E-001	7.70E-002	-2.7307E-003
		1332.49	100.00	7.6999E-002		4.1629E-002
	Nb-94	702.63	100.00	9.8452E-002	9.75E-002	-7.3087E-002
		871.10	100.00	9.7461E-002		7.2467E-003
	Ag-108m	79.20	7.10	4.4449E+000	1.21E-001	-1.1692E+000
		433.93	89.90	1.2164E-001		-1.0247E-003
		614.37	90.40	1.3207E-001		3.8385E-003
		722.95	90.50	1.2062E-001		-3.9685E-002
	Sb-125	176.33	6.89	2.2225E+000	3.78E-001	-3.9872E-002
		427.89	29.33	3.7801E-001		8.9227E-002
		463.38	10.35	1.0932E+000		5.1564E-001
		600.56	17.80	5.7210E-001		2.3602E-001
		606.64	5.02	2.7103E+000		-4.9342E-001
		635.90	11.32	8.7889E-001		3.9346E-001
	Cs-134	563.23	8.38	1.1654E+000	1.16E-001	3.4072E-002
		569.32	15.43	6.2313E-001		-5.4953E-001
		604.70	97.60	1.3244E-001		2.9282E-002
		795.84	85.40	1.1565E-001		5.0083E-002
		801.93	8.73	1.0688E+000		6.4580E-001
	Cs-137	661.65	85.12	1.2709E-001	1.27E-001	-6.2198E-002
	Eu-152	121.78	28.40	6.9400E-001	3.14E-001	3.6723E-001
		244.69	7.49	1.8458E+000		1.3419E+000
		344.27	26.50	4.2975E-001		1.2643E-001
		778.89	12.74	7.6982E-001		-5.4808E-001
		867.32	4.16	2.3408E+000		-1.3438E+000
		964.01	14.40	8.8588E-001		-9.9813E-003
		1085.78	10.00	9.5025E-001		-3.2062E-001
		1112.02	13.30	7.5385E-001		-4.8316E-001
		1407.95	20.70	3.1399E-001		-3.1376E-001
	Eu-154	123.07	40.50	4.8121E-001	2.61E-001	-8.4821E-002
		247.94	6.60	1.9520E+000		-1.1869E+000
		591.81	4.83	2.0359E+000		-1.4108E-001
		723.30	19.70	5.5417E-001		-2.4360E-002
		756.87	4.33	2.3497E+000		-1.2517E+000
		873.19	11.50	8.4290E-001		5.3288E-001
		996.32	10.30	8.7100E-001		-3.1592E-001
		1004.76	17.90	5.1724E-001		1.1847E-001
		1274.45	35.50	2.6094E-001		8.9558E-002
+	Eu-155	86.54*	30.90	7.4140E-001	7.41E-001	7.1884E-001
		105.31	20.70	1.1189E+000		-8.4096E-001
	Am-241	59.54	35.90	1.1405E+000	1.14E+000	-4.1562E-001
	Cm-243	228.19	10.56	1.3157E+000	9.23E-001	1.3775E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	9.2335E-001	9.23E-001	7.5718E-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 5/4/2006 10:12:48 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: RED6264

Spectrum File: RED6264
Sample ID: NOL-02-02-143
Sample Title: NOL-02-02-143-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/4/2006 10:02:46 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-02-02-143
Title: NOL-02-02-143-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	285-	308	291.39	72.75	1.14	2.97E+002	63.86	1.42E+003
m	2	285-	308	299.86	74.87	1.14	6.87E+002	76.80	1.68E+003
	3	947-	960	952.76	238.13	1.29	2.39E+002	69.47	3.65E+002
	4	1394-	1414	1405.73	351.41	1.00	1.93E+002	61.47	2.18E+002
	5	1649-	1660	1653.11	413.27	0.44	4.10E+001	28.86	7.00E+001
	6	2027-	2051	2039.69	509.94	0.81	1.77E+002	56.33	1.56E+002
	7	2320-	2339	2328.86	582.25	0.72	1.50E+002	47.54	1.25E+002
	8	2423-	2444	2432.46	608.16	1.44	1.78E+002	46.78	1.04E+002
	9	2895-	2912	2904.94	726.31	0.73	6.10E+001	31.61	6.10E+001
	10	3631-	3650	3639.80	910.07	1.71	1.09E+002	38.25	7.46E+001
	11	3862-	3879	3871.30	967.96	1.29	1.08E+002	34.31	6.07E+001
	12	5824-	5852	5837.94	1459.75	2.12	1.13E+003	69.43	2.82E+001
	13	7047-	7060	7053.37	1763.69	1.45	3.75E+001	17.57	1.55E+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	0.965	511.00*	100.00	2.48453E-001	8.60790E-002
K-40	0.965	1460.81*	10.67	1.94926E+001	1.98318E+000
TL-208	0.731	277.35	6.80		
		510.84*	21.60	1.15024E+000	4.09435E-001
		583.14*	84.20	2.61694E-001	8.96787E-002
		860.37	12.46		
Bi-212	0.977	727.17*	11.80	8.08033E-001	4.29103E-001
Pb-212	0.517	74.81* @	10.70	1.02172E+001	2.30518E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	5.99077E-001	1.97963E-001
Bi-214	0.669	609.31*	46.30	5.73225E-001	1.66320E-001
		1120.29	15.10		
		1764.49*	15.80	4.54891E-001	2.17898E-001
Ac-228	0.606	338.32	11.40		
		911.07*	27.70	6.46550E-001	2.38046E-001
		969.11*	16.60	1.08693E+000	3.62751E-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	0.965	1.919271E-001	8.821237E-002
K-40	0.965	1.949259E+001	1.983180E+000
TL-208	0.731	2.616935E-001	8.927223E-002
Bi-212	0.977	8.080332E-001	4.291030E-001
Pb-212 @	0.517	5.990766E-001	1.979628E-001
Bi-214	0.669	5.296618E-001	1.322079E-001
Ac-228	0.606	7.791065E-001	1.990204E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	4.9537E-001	21.49
4	351.41	3.2200E-001	31.81
5	413.27	6.8356E-002	70.37

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	1.0668E-001	9.01E-002	-4.2835E-002
	1332.49	100.00	9.0078E-002		8.3546E-002
Nb-94	702.63	100.00	1.1101E-001	9.55E-002	-8.9022E-002
	871.10	100.00	9.5523E-002		-1.0103E-001
Ag-108m	79.20	7.10	5.4258E+000	1.24E-001	-9.2421E+000
	433.93	89.90	1.2838E-001		3.7342E-003
	614.37	90.40	1.2395E-001		-7.7369E-002
	722.95	90.50	1.2500E-001		1.6932E-002
Sb-125	176.33	6.89	2.3587E+000	3.77E-001	-6.2024E-001
	427.89	29.33	3.7741E-001		8.7886E-002
	463.38	10.35	1.1480E+000		7.9611E-001
	600.56	17.80	5.9401E-001		-6.5795E-001
	606.64	5.02	2.7987E+000		6.0926E+000
	635.90	11.32	9.3482E-001		-2.8769E-001
Cs-134	563.23	8.38	1.3477E+000	1.23E-001	6.0283E-001
	569.32	15.43	6.9092E-001		4.6083E-002
	604.70	97.60	1.4344E-001		-3.9607E-002
	795.84	85.40	1.2297E-001		8.1238E-002
	801.93	8.73	1.1070E+000		-5.8132E-001
Cs-137	661.65	85.12	1.3107E-001	1.31E-001	-2.1630E-002
Eu-152	121.78	28.40	7.7223E-001	3.76E-001	2.0372E-001
	244.69	7.49	1.9929E+000		-9.3382E-002
	344.27	26.50	4.6967E-001		2.9017E-002
	778.89	12.74	7.9252E-001		6.2181E-003
	867.32	4.16	2.4393E+000		-5.2982E-001
	964.01	14.40	9.3430E-001		1.4513E+000
	1085.78	10.00	1.0501E+000		1.8526E-001
	1112.02	13.30	7.6277E-001		-9.6836E-001
	1407.95	20.70	3.7589E-001		2.0622E-001
Eu-154	123.07	40.50	5.3448E-001	2.70E-001	4.4666E-002
	247.94	6.60	2.1359E+000		-4.1029E-001
	591.81	4.83	2.2073E+000		-6.5406E-002
	723.30	19.70	5.7797E-001		3.4787E-001
	756.87	4.33	2.4129E+000		-2.4841E-001
	873.19	11.50	8.2832E-001		-2.9264E-001
	996.32	10.30	9.0602E-001		1.2137E-002
	1004.76	17.90	5.0293E-001		-1.9991E-001
	1274.45	35.50	2.7014E-001		1.8443E-001
Eu-155	86.54	30.90	1.0993E+000	1.10E+000	1.5539E+000
	105.31	20.70	1.2227E+000		-7.9063E-001
Am-241	59.54	35.90	1.3668E+000	1.37E+000	5.9978E-001
Cm-243	228.19	10.56	1.4364E+000	9.89E-001	-1.4331E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Cm-243	277.60	14.00	9.8881E-001	9.89E-001	-2.1458E-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 4/25/2006 8:56:56 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: BLUE6279

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-02-02-144-F-G
Sample ID: NOL-02-02-144
Sample Title: NOL-02-02-144-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 4/18/2006 3:19:31 PM
Live Time: 600.0 seconds
Real Time: 601.1 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-02-02-144-F-G
Log Number: NOL-02-02-144
Title: NOL-02-02-144-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	283-	314	291.64	72.74	0.96	4.85E+002	95.16	1.22E+003
m	2	283-	314	300.55	74.97	0.96	8.39E+002	141.99	1.50E+003
m	3	283-	314	308.13	76.86	0.96	1.58E+002	53.06	1.45E+003
F	4	332-	344	340.03	84.84	0.98	3.29E+002	158.52	1.11E+003
F	5	945-	960	954.40	238.48	1.18	3.14E+002	103.61	3.45E+002
	6	1176-	1186	1180.71	295.07	0.60	3.71E+001	42.64	1.83E+002
F	7	1347-	1360	1353.20	338.21	1.27	9.61E+001	888.62	1.54E+002
F	8	1399-	1417	1407.55	351.80	1.28	1.68E+002	82.77	1.69E+002
F	9	2031-	2048	2042.49	510.58	2.10	1.01E+002	26.93	1.65E+002
F	10	2323-	2340	2331.69	582.90	1.45	2.08E+002	30.29	7.87E+001
F	11	2429-	2444	2436.14	609.03	1.47	1.67E+002	28.75	8.16E+001
F	12	2903-	2916	2909.34	727.36	1.54	4.44E+001	19.10	6.08E+001
F	13	3634-	3654	3644.73	911.26	1.64	1.77E+002	57.37	5.26E+001
F	14	3868-	3885	3875.95	969.09	1.67	1.12E+002	22.00	2.66E+001
F	15	4473-	4488	4481.22	1120.45	1.75	5.39E+001	49.07	3.25E+001
F	16	5831-	5857	5844.97	1461.49	1.90	1.18E+003	107.50	3.39E+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-02-02-144-F-G

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

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/g)	Activity Uncertainty
ANN	0.994	511.00*	100.00	1.43973E-001	4.32206E-002
K-40	0.984	1460.81*	10.67	2.07156E+001	2.52938E+000
TL-208	0.750	277.35	6.80		
		510.84*	21.60	6.66542E-001	2.07367E-001
		583.14*	84.20	3.69048E-001	7.21477E-002
		860.37	12.46		
Bi-212	0.999	727.17*	11.80	5.98827E-001	2.66749E-001
Pb-212	0.843	74.81* @	10.70	1.25863E+001	3.25996E+000
		77.11* @	18.00	1.36518E+000	5.29954E-001
		87.30 @	8.00		
		238.63*	44.60	8.01371E-001	2.92764E-001
Bi-214	0.698	609.31*	46.30	5.48534E-001	1.15962E-001
		1120.29*	15.10	6.30906E-001	5.78331E-001
		1764.49	15.80		
PB-214	0.762	74.82* @	6.21	2.16865E+001	5.83345E+000
		77.11* @	10.50	2.34031E+000	9.25146E-001
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	2.33690E-001	2.71513E-001
		351.92*	37.20	5.74074E-001	2.98839E-001
Ac-228	0.999	338.32*	11.40	1.06069E+000	9.80554E+000
		911.07*	27.70	1.06490E+000	3.65867E-001
		969.11*	16.60	1.13940E+000	2.54312E-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-02-02-144-F-G

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

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/g)	Wt mean Activity Uncertainty
ANN		0.994	6.425871E-002	4.587077E-002
K-40		0.984	2.071559E+001	2.529379E+000
TL-208		0.750	3.690484E-001	7.113821E-002
Bi-212		0.999	5.988269E-001	2.667490E-001
Pb-212	@	0.843	8.013711E-001	2.927642E-001
Bi-214		0.698	5.517180E-001	1.136985E-001
PB-214	@	0.762	3.876114E-001	2.009567E-001
Ac-228		0.999	1.115103E+000	2.087735E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	8.0910E-001	19.60
F 4	84.84	5.4876E-001	48.14

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:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-02-02-144-F-G
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/g)	Nuclide MDA (pCi/g)	Activity (pCi/g)
Co-60	1173.22	100.00	1.1093E-001	8.46E-002	4.0166E-002
	1332.49	100.00	8.4643E-002		-8.9989E-003
Nb-94	702.63	100.00	1.0712E-001	9.25E-002	2.1069E-002
	871.10	100.00	9.2536E-002		5.6077E-002
Ag-108m	79.20	7.10	4.7062E+000	1.25E-001	8.3714E-001
	433.93	89.90	1.2490E-001		6.8353E-002
	614.37	90.40	1.3425E-001		6.0754E-003
	722.95	90.50	1.3382E-001		2.5068E-002
Sb-125	176.33	6.89	2.2765E+000	3.70E-001	5.8911E-001
	427.89	29.33	3.7032E-001		-8.3227E-002
	463.38	10.35	1.1285E+000		1.0237E+000
	600.56	17.80	5.7163E-001		9.1105E-002
	606.64	5.02	2.7178E+000		3.9647E+000
	635.90	11.32	9.0916E-001		-7.2528E-001
Cs-134	563.23	8.38	1.2905E+000	1.25E-001	7.0613E-001
	569.32	15.43	6.6063E-001		-5.0765E-001
	604.70	97.60	1.3414E-001		-1.4282E-002
	795.84	85.40	1.2473E-001		-9.0759E-002
	801.93	8.73	1.1257E+000		-1.8416E-001
Cs-137	661.65	85.12	1.3000E-001	1.30E-001	5.3372E-002
Eu-152	121.78	28.40	7.4634E-001	3.47E-001	-2.0608E-001
	244.69	7.49	1.8770E+000		8.4948E-001
	344.27	26.50	4.1733E-001		-3.6570E-001
	778.89	12.74	7.7399E-001		-5.2317E-002
	867.32	4.16	2.1408E+000		-2.4355E+000
	964.01	14.40	8.8407E-001		-5.3810E-002
	1085.78	10.00	9.9777E-001		1.1335E+000
	1112.02	13.30	7.3936E-001		-4.0160E-001
	1407.95	20.70	3.4651E-001		7.9515E-002
Eu-154	123.07	40.50	5.1671E-001	2.59E-001	-5.7824E-002
	247.94	6.60	1.9878E+000		-1.0249E+000
	591.81	4.83	2.0596E+000		-3.9423E-001
	723.30	19.70	6.1362E-001		6.4705E-003
	756.87	4.33	2.3450E+000		-6.4705E-001
	873.19	11.50	8.3074E-001		1.0410E-001
	996.32	10.30	9.2476E-001		-1.7329E-001
	1004.76	17.90	5.2357E-001		-3.0514E-001
	1274.45	35.50	2.5924E-001		-7.5540E-002
Eu-155	86.54	30.90	9.9236E-001	9.92E-001	-6.4590E-001
	105.31	20.70	1.2059E+000		6.2546E-001
Am-241	59.54	35.90	1.2123E+000	1.21E+000	-7.9628E-001
Cm-243	228.19	10.56	1.3363E+000	9.44E-001	-1.8208E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/g)	Nuclide MDA (pCi/g)	Activity (pCi/g)
Cm-243	277.60	14.00	9.4445E-001	9.44E-001	5.3283E-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 5/4/2006 10:45:53 PM

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

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-02-02-144
Sample Title: NOL-02-02-144-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/4/2006 10:35:50 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-02-02-144
Title: NOL-02-02-144-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-	309	291.29	72.72	1.49	4.15E+002	71.72	1.79E+003
m	2	282-	309	300.06	74.92	1.50	7.46E+002	79.92	2.33E+003
	3	942-	960	953.27	238.26	1.58	3.75E+002	80.57	3.90E+002
	4	1396-	1412	1404.80	351.18	0.77	1.51E+002	50.72	1.66E+002
	5	2032-	2048	2039.87	509.98	0.59	7.61E+001	44.97	1.44E+002
	6	2320-	2339	2328.80	582.24	1.63	2.13E+002	43.70	8.15E+001
	7	2424-	2444	2433.31	608.37	0.40	1.48E+002	46.35	1.13E+002
	8	2900-	2913	2906.09	726.60	0.55	3.30E+001	27.39	5.80E+001
	9	3632-	3649	3639.67	910.04	1.13	1.14E+002	37.96	7.94E+001
	10	3864-	3880	3870.70	967.81	0.66	7.11E+001	32.54	6.49E+001
	11	5824-	5852	5838.18	1459.81	2.18	1.24E+003	72.61	2.83E+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: 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	0.969	1460.81*	10.67	2.15146E+001	2.14756E+000
TL-208	0.731	277.35	6.80		
		510.84*	21.60	4.95426E-001	3.03071E-001
		583.14*	84.20	3.70810E-001	9.02607E-002
		860.37	12.46		
Bi-212	0.990	727.17*	11.80	4.36649E-001	3.66229E-001
Pb-212	0.519	74.81* @	10.70	1.10833E+001	2.47544E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	9.41176E-001	2.50280E-001
Bi-214	0.381	609.31*	46.30	4.76320E-001	1.60335E-001
		1120.29	15.10		
		1764.49	15.80		
Ac-228	0.601	338.32	11.40		
		911.07*	27.70	6.71476E-001	2.37354E-001
		969.11*	16.60	7.13644E-001	3.35046E-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
X	ANN		0.968		
	K-40		0.969	2.151461E+001	2.147564E+000
	TL-208		0.731	3.809623E-001	8.650576E-002
	Bi-212		0.990	4.366488E-001	3.662287E-001
	Pb-212	@	0.519	9.411764E-001	2.502797E-001
	Bi-214		0.381	4.763204E-001	1.603353E-001
	Ac-228		0.601	6.855669E-001	1.936784E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	6.9157E-001	17.28
	4	351.18	2.5204E-001	33.54

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: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	1.2025E-001	8.67E-002	1.0821E-001
	1332.49	100.00	8.6670E-002		-1.0422E-002
Nb-94	702.63	100.00	1.0237E-001	9.89E-002	-4.9762E-002
	871.10	100.00	9.8893E-002		2.9437E-002
Ag-108m	79.20	7.10	5.4938E+000	1.29E-001	-5.5836E+000
	433.93	89.90	1.2895E-001		6.5685E-002
	614.37	90.40	1.2999E-001		9.6574E-003
	722.95	90.50	1.2895E-001		1.2142E-001
Sb-125	176.33	6.89	2.4252E+000	3.92E-001	-2.4327E-002
	427.89	29.33	3.9169E-001		-1.0659E-001
	463.38	10.35	1.0730E+000		5.3280E-001
	600.56	17.80	6.0960E-001		1.5008E-001
	606.64	5.02	2.7812E+000		5.0801E+000
	635.90	11.32	9.1526E-001		4.3421E-001
Cs-134	563.23	8.38	1.2543E+000	1.30E-001	1.5953E-001
	569.32	15.43	6.8509E-001		7.2764E-003
	604.70	97.60	1.4162E-001		-5.4596E-002
	795.84	85.40	1.3008E-001		4.3710E-002
	801.93	8.73	1.1795E+000		-1.9676E-002
Cs-137	661.65	85.12	1.3757E-001	1.38E-001	1.8036E-001
Eu-152	121.78	28.40	7.7395E-001	3.38E-001	-6.1453E-001
	244.69	7.49	1.8937E+000		-1.4387E+000
	344.27	26.50	4.6758E-001		-4.7719E-001
	778.89	12.74	8.2491E-001		-7.4168E-001
	867.32	4.16	2.3751E+000		-5.2201E+000
	964.01	14.40	9.0501E-001		-5.2777E-002
	1085.78	10.00	1.0143E+000		2.2283E-001
	1112.02	13.30	8.3036E-001		-2.1196E+000
	1407.95	20.70	3.3765E-001		-1.8332E-001
Eu-154	123.07	40.50	5.4203E-001	2.67E-001	4.1704E-001
	247.94	6.60	2.0725E+000		-4.5837E-001
	591.81	4.83	2.4031E+000		1.3580E+000
	723.30	19.70	5.9004E-001		3.5466E-001
	756.87	4.33	2.5217E+000		1.7090E+000
	873.19	11.50	8.4717E-001		-8.3497E-004
	996.32	10.30	9.5791E-001		-5.3029E-001
	1004.76	17.90	5.4335E-001		1.1739E-001
	1274.45	35.50	2.6689E-001		2.0205E-001
Eu-155	86.54	30.90	1.1079E+000	1.11E+000	1.6076E+000
	105.31	20.70	1.2151E+000		-5.9686E-001
Am-241	59.54	35.90	1.3787E+000	1.38E+000	8.8107E-001
Cm-243	228.19	10.56	1.3875E+000	1.01E+000	-1.1977E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Cm-243	277.60	14.00	1.0104E+000	1.01E+000	4.9244E-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 4/25/2006 8:57:12 PM

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

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-02-02-145-F-G
Sample ID: NOL-02-02-145
Sample Title: NOL-02-02-145-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 4/18/2006 3:46:59 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: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-02-02-145-F-G
Log Number: NOL-02-02-145
Title: NOL-02-02-145-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	283-	313	291.67	72.75	0.96	3.69E+002	85.33	1.29E+003
m	2	283-	313	300.55	74.97	0.96	7.19E+002	136.23	1.64E+003
m	3	283-	313	308.55	76.97	0.96	1.58E+002	53.46	1.56E+003
M	4	333-	355	339.10	84.61	0.98	1.66E+002	52.40	1.02E+003
m	5	333-	355	349.75	87.27	0.98	1.22E+002	50.88	1.15E+003
F	6	948-	961	954.35	238.47	1.18	2.44E+002	38.26	2.49E+002
F	7	1309-	1323	1313.78	328.35	1.26	5.45E+001	21.44	1.14E+002
F	8	1398-	1414	1408.15	351.95	1.28	1.48E+002	58.17	1.19E+002
F	9	2035-	2052	2042.53	510.59	2.10	9.73E+001	25.84	1.35E+002
F	10	2324-	2343	2332.06	583.00	1.45	1.44E+002	26.50	9.43E+001
F	11	2427-	2444	2436.41	609.09	1.47	1.61E+002	61.13	6.07E+001
F	12	3067-	3079	3073.23	768.35	1.56	3.39E+001	14.46	2.38E+001
F	13	3638-	3653	3645.27	911.40	1.64	9.55E+001	22.14	4.77E+001
F	14	3867-	3882	3874.33	968.68	1.67	5.60E+001	20.12	6.32E+001
F	15	4473-	4487	4480.73	1120.33	1.75	4.59E+001	16.22	2.81E+001
F	16	5830-	5857	5844.29	1461.32	1.90	9.67E+002	97.94	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

N U C L I 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-02-02-145-F-G

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

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/g)	Activity Uncertainty
ANN	0.994	511.00*	100.00	1.39386E-001	4.15421E-002
K-40	0.991	1460.81*	10.67	1.70296E+001	2.20828E+000
Eu-155	0.322	86.54*	30.90	5.15896E-001	2.37203E-001
		105.31	20.70		
TL-208	0.751	277.35	6.80		
		510.84*	21.60	6.45306E-001	1.99414E-001
		583.14*	84.20	2.56406E-001	5.77168E-002
		860.37	12.46		
Pb-212	0.999	74.81* @	10.70	1.07857E+001	2.94106E+000
		77.11* @	18.00	1.36268E+000	5.31947E-001
		87.30* @	8.00	1.99265E+000	9.16195E-001
		238.63*	44.60	6.22343E-001	1.38042E-001
Bi-214	0.698	609.31*	46.30	5.29108E-001	2.10732E-001
		1120.29*	15.10	5.36752E-001	1.98226E-001
		1764.49	15.80		
PB-214	0.477	74.82* @	6.21	1.85841E+001	5.24403E+000
		77.11* @	10.50	2.33602E+000	9.28440E-001
		87.30* @	4.67	3.41353E+000	1.59054E+000
		241.98	7.49		
		295.21	19.20		
		351.92*	37.20	5.04419E-001	2.16071E-001
Ac-228	0.630	338.32	11.40		
		911.07*	27.70	5.73698E-001	1.48491E-001
		969.11*	16.60	5.71784E-001	2.13938E-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-02-02-145-F-G

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

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/g)	Wt mean Activity Uncertainty
ANN		0.994	8.400236E-002	4.333487E-002
K-40		0.991	1.702964E+001	2.208277E+000
Eu-155		0.322	2.785377E-001	2.420522E-001
TL-208		0.751	2.564058E-001	5.710877E-002
Pb-212	@	0.999	6.223433E-001	1.380419E-001
Bi-214		0.698	5.331634E-001	1.443857E-001
PB-214	@	0.477	5.044186E-001	2.140843E-001
Ac-228		0.630	5.730758E-001	1.219869E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	6.1469E-001	23.14
M 4	84.61	2.7733E-001	31.49
F 7	328.35	9.0914E-002	39.30
F 12	768.35	5.6523E-002	42.64

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:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-02-02-145-F-G
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/g)	Nuclide MDA (pCi/g)	Activity (pCi/g)
	Co-60	1173.22	100.00	1.0240E-001	9.87E-002	-5.1150E-002
		1332.49	100.00	9.8687E-002		1.5438E-001
	Nb-94	702.63	100.00	9.7771E-002	9.32E-002	4.2424E-002
		871.10	100.00	9.3201E-002		8.4209E-002
	Ag-108m	79.20	7.10	4.7368E+000	1.13E-001	-8.8451E-001
		433.93	89.90	1.1904E-001		-7.4215E-002
		614.37	90.40	1.2844E-001		-3.0270E-002
		722.95	90.50	1.1335E-001		2.8109E-002
	Sb-125	176.33	6.89	2.1066E+000	3.62E-001	4.5905E-001
		427.89	29.33	3.6189E-001		-1.4545E-001
		463.38	10.35	1.0100E+000		-1.3606E-001
		600.56	17.80	5.3334E-001		2.1439E-001
		606.64	5.02	2.5635E+000		6.0613E+000
		635.90	11.32	8.4232E-001		-3.0269E-001
	Cs-134	563.23	8.38	1.2121E+000	1.12E-001	-7.7431E-002
		569.32	15.43	6.6378E-001		-2.0475E-001
		604.70	97.60	1.2370E-001		-8.0913E-002
		795.84	85.40	1.1239E-001		5.6759E-002
		801.93	8.73	1.0576E+000		7.3037E-003
	Cs-137	661.65	85.12	1.3373E-001	1.34E-001	2.6821E-002
	Eu-152	121.78	28.40	6.8805E-001	3.27E-001	-1.7360E-001
		244.69	7.49	1.7226E+000		-4.2821E-001
		344.27	26.50	4.0622E-001		1.5540E-001
		778.89	12.74	6.6535E-001		-1.0007E+000
		867.32	4.16	2.1574E+000		-2.2940E+000
		964.01	14.40	8.2597E-001		-2.8916E-001
		1085.78	10.00	8.9037E-001		-2.5004E-001
		1112.02	13.30	7.1738E-001		-1.5910E-001
		1407.95	20.70	3.2680E-001		1.2289E-001
	Eu-154	123.07	40.50	4.7592E-001	2.36E-001	-3.1786E-001
		247.94	6.60	1.8652E+000		3.1087E-001
		591.81	4.83	1.8344E+000		-1.0558E+000
		723.30	19.70	5.2499E-001		9.0683E-002
		756.87	4.33	2.1591E+000		-8.2492E-001
		873.19	11.50	7.9039E-001		-2.9213E-001
		996.32	10.30	8.4686E-001		3.8332E-001
		1004.76	17.90	4.7766E-001		-4.6487E-001
		1274.45	35.50	2.3594E-001		6.8865E-002
+	Eu-155	86.54*	30.90	6.7694E-001	6.77E-001	5.1590E-001
		105.31	20.70	1.1549E+000		1.4930E-001
	Am-241	59.54	35.90	1.2333E+000	1.23E+000	4.9398E-002
	Cm-243	228.19	10.56	1.2470E+000	8.69E-001	3.4691E-002

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/g)	Nuclide MDA (pCi/g)	Activity (pCi/g)
Cm-243	277.60	14.00	8.6941E-001	8.69E-001	2.9508E-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 5/5/2006 12:05:20 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: RED6264

Spectrum File: RED6264
Sample ID: NOL-02-02-145
Sample Title: NOL-02-02-145-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/4/2006 11:55:17 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-02-02-145
Title: NOL-02-02-145-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	285-	308	291.05	72.66	1.39	3.87E+002	69.62	1.51E+003
m	2	285-	308	299.99	74.90	1.39	7.72E+002	79.83	2.26E+003
	3	330-	345	339.34	84.74	0.40	1.66E+002	137.57	1.58E+003
	4	945-	963	952.80	238.15	0.95	2.49E+002	84.69	4.78E+002
	5	1395-	1412	1405.51	351.35	0.77	1.43E+002	53.63	1.86E+002
	6	2032-	2051	2039.52	509.90	1.30	1.07E+002	47.57	1.37E+002
	7	2321-	2337	2328.66	582.20	1.50	1.56E+002	44.30	1.13E+002
	8	2420-	2442	2433.45	608.41	1.35	2.05E+002	44.92	8.27E+001
	9	2899-	2912	2905.29	726.40	0.48	3.85E+001	27.88	5.95E+001
	10	3630-	3650	3639.89	910.10	1.75	1.20E+002	37.46	6.65E+001
	11	3863-	3879	3871.16	967.93	0.40	9.71E+001	26.80	2.89E+001
	12	5316-	5329	5322.21	1330.79	0.91	3.50E+001	18.89	2.10E+001
	13	5824-	5850	5837.93	1459.75	2.05	1.16E+003	70.78	3.38E+001
	14	7047-	7060	7053.83	1763.81	0.70	3.67E+001	14.06	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: 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	0.962	511.00*	100.00	1.50030E-001	6.99161E-002
K-40	0.965	1460.81*	10.67	2.00017E+001	2.03011E+000
TL-208	0.729	277.35	6.80		
		510.84*	21.60	6.94583E-001	3.28618E-001
		583.14*	84.20	2.72498E-001	8.50453E-002
		860.37	12.46		
Bi-212	0.981	727.17*	11.80	5.09607E-001	3.73871E-001
Pb-212	0.517	74.81* @	10.70	1.14709E+001	2.54196E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	6.23479E-001	2.33851E-001
Bi-214	0.680	609.31*	46.30	6.60810E-001	1.65950E-001
		1120.29	15.10		
		1764.49*	15.80	4.45076E-001	1.76323E-001
Ac-228	0.606	338.32	11.40		
		911.07*	27.70	7.06603E-001	2.35903E-001
		969.11*	16.60	9.74541E-001	2.87837E-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		0.962	9.117041E-002	7.226362E-002
K-40		0.965	2.000167E+001	2.030115E+000
TL-208		0.729	2.724976E-001	8.458042E-002
Bi-212		0.981	5.096068E-001	3.738706E-001
Pb-212	@	0.517	6.234791E-001	2.338513E-001
Bi-214		0.680	5.594751E-001	1.208450E-001
Ac-228		0.606	8.142617E-001	1.824542E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	6.4573E-001	17.97
3	84.74	2.7711E-001	82.74
5	351.35	2.3754E-001	37.63
12	1330.79	5.8393E-002	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: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	1.1520E-001	9.65E-002	9.0485E-002
	1332.49	100.00	9.6515E-002		8.2732E-002
Nb-94	702.63	100.00	1.0653E-001	9.10E-002	4.8008E-002
	871.10	100.00	9.1043E-002		1.6564E-002
Ag-108m	79.20	7.10	5.5456E+000	1.25E-001	-3.6230E+000
	433.93	89.90	1.2469E-001		-9.3412E-002
	614.37	90.40	1.2567E-001		4.0582E-002
	722.95	90.50	1.2633E-001		9.8672E-002
Sb-125	176.33	6.89	2.4692E+000	3.77E-001	5.6882E-001
	427.89	29.33	3.7680E-001		-3.8452E-002
	463.38	10.35	1.0694E+000		-9.6702E-002
	600.56	17.80	5.8872E-001		-1.7749E-001
	606.64	5.02	2.7421E+000		3.9363E+000
	635.90	11.32	9.6235E-001		4.8202E-001
Cs-134	563.23	8.38	1.3019E+000	1.20E-001	-2.9507E-001
	569.32	15.43	6.9527E-001		-5.6398E-001
	604.70	97.60	1.4272E-001		-4.2124E-002
	795.84	85.40	1.2039E-001		1.2438E-001
	801.93	8.73	1.1763E+000		3.5083E-001
Cs-137	661.65	85.12	1.3463E-001	1.35E-001	1.1106E-001
Eu-152	121.78	28.40	7.8913E-001	3.12E-001	7.3552E-002
	244.69	7.49	1.9879E+000		-1.2058E+000
	344.27	26.50	4.5216E-001		-3.4999E-001
	778.89	12.74	7.2074E-001		-1.2859E+000
	867.32	4.16	2.2716E+000		8.4946E-002
	964.01	14.40	8.9167E-001		1.6957E+000
	1085.78	10.00	1.0009E+000		-4.6542E-001
	1112.02	13.30	7.8270E-001		-9.9508E-001
	1407.95	20.70	3.1229E-001		-7.9360E-002
Eu-154	123.07	40.50	5.5369E-001	2.60E-001	2.8499E-001
	247.94	6.60	2.1298E+000		-1.3577E+000
	591.81	4.83	2.1493E+000		-1.1308E+000
	723.30	19.70	5.7674E-001		6.6339E-002
	756.87	4.33	2.4437E+000		1.0139E+000
	873.19	11.50	7.9207E-001		-3.9596E-001
	996.32	10.30	9.2910E-001		5.4793E-001
	1004.76	17.90	5.3402E-001		4.2877E-001
	1274.45	35.50	2.6025E-001		9.4250E-002
Eu-155	86.54	30.90	1.1212E+000	1.12E+000	3.0355E-001
	105.31	20.70	1.2636E+000		-2.9494E-001
Am-241	59.54	35.90	1.4133E+000	1.41E+000	1.7893E-001
Cm-243	228.19	10.56	1.4117E+000	9.75E-001	6.5680E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Cm-243	277.60	14.00	9.7466E-001	9.75E-001	-4.3612E-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 4/18/2006 7:28:01 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: NOL-02-02-146
Sample Title: NOL-02-02-146-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 4/18/2006 7:17:58 PM
Live Time: 600.0 seconds
Real Time: 601.1 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
(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-02-02-146
Title: NOL-02-02-146-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	284-	316	291.83	72.79	1.02	4.77E+002	64.79	1.22E+003
m	2	284-	316	300.39	74.93	1.03	8.31E+002	74.83	1.30E+003
m	3	284-	316	309.06	77.10	1.03	1.59E+002	54.40	1.29E+003
M	4	332-	355	339.99	84.83	1.28	3.35E+002	62.12	1.36E+003
m	5	332-	355	349.52	87.21	1.29	1.67E+002	57.42	1.55E+003
M	6	947-	972	954.73	238.56	1.09	3.22E+002	43.76	3.18E+002
m	7	947-	972	966.05	241.39	1.10	5.54E+001	29.30	3.27E+002
F	8	1175-	1187	1180.99	295.14	0.95	5.93E+001	26.42	1.78E+002
F	9	1349-	1359	1353.84	338.37	0.84	7.59E+001	26.31	1.35E+002
F	10	1401-	1413	1407.71	351.84	1.13	1.25E+002	29.29	1.38E+002
F	11	2033-	2049	2042.10	510.49	1.44	8.56E+001	25.55	1.38E+002
F	12	2324-	2339	2332.74	583.17	1.40	1.58E+002	28.03	8.04E+001
F	13	2427-	2444	2436.65	609.15	1.58	1.47E+002	26.10	6.48E+001
F	14	2637-	2653	2646.64	661.67	1.34	7.91E+001	22.23	7.65E+001
F	15	3173-	3185	3178.92	794.78	1.06	2.12E+001	15.54	4.95E+001
F	16	3636-	3655	3645.69	911.50	1.47	1.64E+002	27.23	5.60E+001
F	17	3870-	3884	3876.38	969.19	1.53	8.67E+001	22.60	4.99E+001
F	18	5325-	5339	5332.30	1333.28	1.35	3.42E+001	14.46	2.08E+001
F	19	5831-	5859	5845.53	1461.63	1.97	1.05E+003	62.04	7.23E+000
F	20	6350-	6363	6357.02	1589.54	0.79	1.19E+001	8.37	7.22E+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: BLUE6279

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	0.991	511.00*	100.00	1.16747E-001	3.82699E-002
K-40	0.977	1460.81*	10.67	1.76553E+001	1.76810E+000
Cs-137	1.000	661.65*	85.12	1.38046E-001	4.20676E-002
Eu-155	0.324	86.54*	30.90	6.72002E-001	2.65769E-001
		105.31	20.70		
TL-208	0.751	277.35	6.80		
		510.84*	21.60	5.40494E-001	1.82591E-001
		583.14*	84.20	2.67566E-001	5.88550E-002
		860.37	12.46		
Pb-212	1.000	74.81* @	10.70	1.18812E+001	2.56297E+000
		77.11* @	18.00	1.30129E+000	5.12754E-001
		87.30* @	8.00	2.59561E+000	1.02653E+000
		238.63*	44.60	7.83901E-001	1.62561E-001
Bi-214	0.397	609.31*	46.30	4.59280E-001	9.92042E-002
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.999	74.82* @	6.21	2.04717E+001	4.65942E+000
		77.11* @	10.50	2.23079E+000	8.94649E-001
		87.30* @	4.67	4.44644E+000	1.79031E+000
		241.98*	7.49	8.04387E-001	4.46021E-001
		295.21*	19.20	3.55792E-001	1.69460E-001
		351.92*	37.20	4.06985E-001	1.17164E-001
Ac-228	0.997	338.32*	11.40	7.97729E-001	3.03473E-001
		911.07*	27.70	9.38160E-001	1.89561E-001
		969.11*	16.60	8.42747E-001	2.36767E-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/GRAM)	Wt mean Activity Uncertainty
ANN		0.991	5.895260E-002	4.028210E-002
K-40		0.977	1.765532E+001	1.768104E+000
Cs-137		1.000	1.380463E-001	4.206762E-002
Eu-155		0.324	4.072757E-001	2.694449E-001
TL-208		0.751	2.675658E-001	5.820545E-002
Pb-212	@	1.000	7.839015E-001	1.625606E-001
Bi-214		0.397	4.592798E-001	9.920418E-002
PB-214	@	0.999	4.087441E-001	9.268421E-002
Ac-228		0.997	8.810737E-001	1.330074E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	7.9454E-001	13.59
M 4	84.83	5.5771E-001	18.56
F 15	794.78	3.5284E-002	73.42
F 18	1333.28	5.6950E-002	42.33
F 20	1589.54	1.9851E-002	70.29

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

Errors quoted at 1.960 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/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
	Co-60	1173.22	100.00	1.0344E-001	9.05E-002	3.1272E-002
		1332.49	100.00	9.0547E-002		3.5316E-002
	Nb-94	702.63	100.00	1.0473E-001	8.94E-002	-3.0929E-002
		871.10	100.00	8.9391E-002		1.1469E-002
	Ag-108m	79.20	7.10	4.5623E+000	1.18E-001	3.7784E-001
		433.93	89.90	1.2334E-001		4.0102E-002
		614.37	90.40	1.2443E-001		-8.2157E-002
		722.95	90.50	1.1799E-001		1.8967E-001
	Sb-125	176.33	6.89	2.1003E+000	3.72E-001	-8.6890E-001
		427.89	29.33	3.7228E-001		1.2770E-001
		463.38	10.35	1.0832E+000		8.2358E-001
		600.56	17.80	5.4441E-001		2.0351E-001
		606.64	5.02	2.4490E+000		3.9004E+000
		635.90	11.32	8.4819E-001		3.0439E-001
	Cs-134	563.23	8.38	1.1681E+000	1.13E-001	-4.0147E-001
		569.32	15.43	6.4987E-001		3.6985E-001
		604.70	97.60	1.1863E-001		-3.3076E-003
		795.84	85.40	1.1308E-001		7.5666E-002
		801.93	8.73	1.0554E+000		8.8410E-002
+	Cs-137	661.65*	85.12	9.3552E-002	9.36E-002	1.3805E-001
	Eu-152	121.78	28.40	6.9819E-001	3.25E-001	-3.2940E-001
		244.69	7.49	1.8611E+000		4.9772E-001
		344.27	26.50	4.3189E-001		-2.3226E-001
		778.89	12.74	6.8865E-001		-2.2620E-001
		867.32	4.16	2.2568E+000		-1.4184E+000
		964.01	14.40	8.6177E-001		-4.2012E-001
		1085.78	10.00	9.1634E-001		-3.4520E-001
		1112.02	13.30	6.7249E-001		-5.9336E-001
		1407.95	20.70	3.2476E-001		8.9643E-002
	Eu-154	123.07	40.50	4.8753E-001	2.33E-001	-2.2738E-002
		247.94	6.60	1.9379E+000		-1.2379E+000
		591.81	4.83	1.9615E+000		4.8580E-001
		723.30	19.70	5.3839E-001		6.1325E-001
		756.87	4.33	2.0563E+000		1.1368E+000
		873.19	11.50	7.6671E-001		2.8583E-001
		996.32	10.30	8.8073E-001		-3.7012E-001
		1004.76	17.90	5.1173E-001		-3.1960E-002
		1274.45	35.50	2.3314E-001		-5.8687E-002
+	Eu-155	86.54*	30.90	7.4635E-001	7.46E-001	6.7200E-001
		105.31	20.70	1.1376E+000		4.0311E-001
	Am-241	59.54	35.90	1.1936E+000	1.19E+000	1.3310E-001
	Cm-243	228.19	10.56	1.2948E+000	8.55E-001	2.6162E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	8.5478E-001	8.55E-001	-2.2501E-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 5/4/2006 9:20:19 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-02-02-146
Sample Title: NOL-02-02-146-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/4/2006 9:10:17 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-02-02-146
Title: NOL-02-02-146-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	296-	307	299.86	74.87	1.11	3.63E+002	128.22	1.55E+003
2	332-	346	338.37	84.50	1.43	2.34E+002	128.79	1.41E+003
3	945-	961	953.12	238.23	1.09	2.56E+002	75.61	3.93E+002
4	1395-	1416	1405.13	351.26	0.81	1.51E+002	62.08	2.27E+002
5	2030-	2049	2039.70	509.94	2.25	1.30E+002	47.18	1.28E+002
6	2321-	2339	2329.42	582.39	1.37	1.29E+002	41.77	9.64E+001
7	2421-	2442	2434.36	608.63	0.88	1.63E+002	43.90	9.01E+001
8	3629-	3652	3640.30	910.20	2.21	1.32E+002	38.26	6.24E+001
9	4469-	4482	4476.05	1119.19	1.40	3.77E+001	22.06	3.13E+001
10	5318-	5331	5324.88	1331.46	0.92	4.12E+001	20.00	2.18E+001
11	5822-	5852	5838.53	1459.90	1.91	1.05E+003	64.59	7.75E+000
12	7047-	7060	7053.24	1763.66	0.60	3.51E+001	16.80	1.39E+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	0.965	511.00*	100.00	1.82996E-001	7.08278E-002
K-40	0.974	1460.81*	10.67	1.81338E+001	1.84502E+000
TL-208	0.736	277.35	6.80		
		510.84*	21.60	8.47206E-001	3.35126E-001
		583.14*	84.20	2.24452E-001	7.85199E-002
		860.37	12.46		
Pb-212	0.518	74.81* @	10.70	5.39351E+000	2.17965E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	6.41065E-001	2.14669E-001
Bi-214	0.980	609.31*	46.30	5.24459E-001	1.55411E-001
		1120.29*	15.10	4.33162E-001	2.57804E-001
		1764.49*	15.80	4.25925E-001	2.08145E-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	0.965	1.345148E-001	7.281302E-002
K-40	0.974	1.813377E+001	1.845020E+000
TL-208	0.736	2.244522E-001	7.817848E-002
Pb-212 @	0.518	6.410654E-001	2.146691E-001
Bi-214	0.980	4.785898E-001	1.121325E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	84.50	3.9011E-001	55.02
4	351.26	2.5125E-001	41.18
8	910.20	2.1936E-001	29.07
10	1331.46	6.8677E-002	48.53

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: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	1.1520E-001	9.21E-002	2.9911E-002
	1332.49	100.00	9.2141E-002		1.2365E-001
Nb-94	702.63	100.00	1.0395E-001	9.83E-002	4.3153E-002
	871.10	100.00	9.8290E-002		6.4832E-002
Ag-108m	79.20	7.10	5.3937E+000	1.18E-001	-5.4830E+000
	433.93	89.90	1.2665E-001		3.5485E-002
	614.37	90.40	1.3233E-001		2.8602E-002
	722.95	90.50	1.1755E-001		7.4073E-002
Sb-125	176.33	6.89	2.3284E+000	3.75E-001	-5.0217E-001
	427.89	29.33	3.7497E-001		-1.2416E-001
	463.38	10.35	1.1086E+000		7.5052E-001
	600.56	17.80	5.9005E-001		-1.0751E-001
	606.64	5.02	2.6842E+000		3.5090E+000
	635.90	11.32	8.8621E-001		5.4443E-001
Cs-134	563.23	8.38	1.2941E+000	1.10E-001	5.3001E-001
	569.32	15.43	6.9671E-001		-2.1778E-001
	604.70	97.60	1.3904E-001		-2.5001E-002
	795.84	85.40	1.1016E-001		4.7524E-002
	801.93	8.73	1.0473E+000		-1.0291E+000
Cs-137	661.65	85.12	1.2995E-001	1.30E-001	1.5748E-001
Eu-152	121.78	28.40	7.7663E-001	3.06E-001	-6.0475E-001
	244.69	7.49	1.9342E+000		-4.2348E-001
	344.27	26.50	4.5270E-001		-1.5982E-001
	778.89	12.74	7.8364E-001		4.0873E-001
	867.32	4.16	2.2256E+000		-3.9590E+000
	964.01	14.40	8.4681E-001		1.3303E+000
	1085.78	10.00	8.6332E-001		-9.5102E-001
	1112.02	13.30	6.8540E-001		2.4246E-001
	1407.95	20.70	3.0634E-001		3.2445E-002
Eu-154	123.07	40.50	5.4444E-001	2.55E-001	5.6291E-001
	247.94	6.60	2.0725E+000		-2.8023E+000
	591.81	4.83	2.1197E+000		9.3668E-001
	723.30	19.70	5.4006E-001		2.9886E-001
	756.87	4.33	2.3052E+000		3.9864E-001
	873.19	11.50	8.0621E-001		1.3630E-001
	996.32	10.30	8.8574E-001		2.4425E-001
	1004.76	17.90	5.0293E-001		-3.8560E-001
	1274.45	35.50	2.5458E-001		-2.7683E-002
Eu-155	86.54	30.90	1.1028E+000	1.10E+000	1.4077E+000
	105.31	20.70	1.2197E+000		3.9759E-001
Am-241	59.54	35.90	1.3653E+000	1.37E+000	-3.7674E-001
Cm-243	228.19	10.56	1.3708E+000	9.75E-001	1.1973E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Cm-243	277.60	14.00	9.7545E-001	9.75E-001	7.9482E-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 4/25/2006 8:57:28 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: BLUE6279

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-02-02-147-F-G
Sample ID: NOL-02-02-147
Sample Title: NOL-02-02-147-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 4/18/2006 3:33:04 PM
Live Time: 600.0 seconds
Real Time: 601.0 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-02-02-147-F-G
Log Number: NOL-02-02-147
Title: NOL-02-02-147-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	284-	314	291.98	72.82	0.96	3.72E+002	97.46	1.15E+003
m	2	284-	314	300.55	74.97	0.96	7.02E+002	156.60	1.27E+003
m	3	284-	314	309.32	77.16	0.97	1.68E+002	58.47	1.15E+003
M	4	333-	357	340.13	84.87	0.98	2.28E+002	52.44	1.06E+003
m	5	333-	357	350.00	87.33	0.98	1.39E+002	49.59	1.05E+003
F	6	945-	961	954.45	238.49	1.18	2.48E+002	111.43	3.12E+002
F	7	1077-	1087	1082.34	270.47	1.21	4.27E+001	23.75	1.39E+002
F	8	1175-	1187	1180.74	295.08	1.23	7.53E+001	24.52	1.35E+002
F	9	1348-	1357	1352.43	338.02	1.27	3.58E+001	21.78	1.00E+002
F	10	1400-	1416	1407.77	351.85	1.28	1.38E+002	63.51	1.26E+002
F	11	2031-	2054	2042.81	510.66	2.10	1.50E+002	68.10	1.17E+002
F	12	2325-	2338	2332.15	583.02	1.45	1.35E+002	26.19	6.47E+001
F	13	2428-	2446	2436.50	609.12	1.47	1.51E+002	73.29	8.08E+001
F	14	2635-	2653	2645.59	661.40	1.50	9.17E+001	21.07	5.50E+001
F	15	3636-	3652	3644.52	911.21	1.64	1.14E+002	23.94	4.88E+001
F	16	3867-	3882	3875.02	968.85	1.67	6.84E+001	18.33	3.00E+001
F	17	4687-	4704	4694.89	1173.88	1.77	5.35E+001	17.09	3.26E+001
F	18	5830-	5857	5844.71	1461.43	1.90	1.06E+003	89.86	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: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-02-02-147-F-G

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

IDENTIFIED NUCLIDES

Nuclide Name	Id Conf	Energy (keV)	Yield (%)	Activity (pCi/g)	Activity Uncertainty
ANN	0.996	511.00*	100.00	2.14487E-001	1.01755E-001
K-40	0.987	1460.81*	10.67	1.85994E+001	2.18457E+000
Cs-137	0.998	661.65*	85.12	1.68025E-001	4.33842E-002
Eu-155	0.320	86.54*	30.90	5.85540E-001	2.38381E-001
		105.31	20.70		
TL-208	0.751	277.35	6.80		
		510.84*	21.60	9.92994E-001	4.78018E-001
		583.14*	84.20	2.39785E-001	5.60386E-002
		860.37	12.46		
Pb-212	1.000	74.81* @	10.70	1.05376E+001	3.12896E+000
		77.11* @	18.00	1.44239E+000	5.75617E-001
		87.30* @	8.00	2.26165E+000	9.20745E-001
		238.63*	44.60	6.32123E-001	3.01183E-001
Bi-214	0.397	609.31*	46.30	4.95698E-001	2.47935E-001
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.850	74.82* @	6.21	1.81565E+001	5.55006E+000
		77.11* @	10.50	2.47267E+000	1.00390E+000
		87.30* @	4.67	3.87434E+000	1.60422E+000
		241.98	7.49		
		295.21*	19.20	4.74336E-001	1.73922E-001
		351.92*	37.20	4.71821E-001	2.31044E-001
Ac-228	0.998	338.32*	11.40	3.94720E-001	2.48132E-001
		911.07*	27.70	6.84316E-001	1.63994E-001
		969.11*	16.60	6.98536E-001	2.00907E-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-02-02-147-F-G

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

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/g)	Wt mean Activity Uncertainty
ANN		0.996	1.626931E-001	1.024588E-001
K-40		0.987	1.859937E+001	2.184568E+000
Cs-137		0.998	1.680254E-001	4.338425E-002
Eu-155		0.320	3.503323E-001	2.516674E-001
TL-208		0.751	2.397849E-001	5.549112E-002
Pb-212	@	1.000	6.321228E-001	3.011827E-001
Bi-214		0.397	4.956984E-001	2.479354E-001
PB-214	@	0.850	4.734346E-001	1.373510E-001
Ac-228		0.998	6.286729E-001	1.130831E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	6.1945E-001	26.22
M 4	84.87	3.7974E-001	23.02
F 7	270.47	7.1139E-002	55.64
F 17	1173.88	8.9128E-002	31.96

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:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-02-02-147-F-G
Nuclide Library: C:\GENIE2K\CAMFILES\YAEC-FSS-OpenLand-rev1.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/g)	Nuclide MDA (pCi/g)	Activity (pCi/g)
	Co-60	1173.22	100.00	1.1255E-001	9.79E-002	6.1140E-002
		1332.49	100.00	9.7896E-002		1.3983E-001
	Nb-94	702.63	100.00	9.4541E-002	8.03E-002	4.3023E-002
		871.10	100.00	8.0350E-002		-2.9507E-003
	Ag-108m	79.20	7.10	4.5031E+000	1.14E-001	-1.7707E+000
		433.93	89.90	1.1422E-001		4.1838E-002
		614.37	90.40	1.2568E-001		7.6758E-002
		722.95	90.50	1.1396E-001		-3.0395E-002
	Sb-125	176.33	6.89	2.1799E+000	3.45E-001	1.5977E+000
		427.89	29.33	3.4506E-001		-1.4749E-001
		463.38	10.35	1.0395E+000		4.0004E-001
		600.56	17.80	5.3334E-001		-3.6850E-001
		606.64	5.02	2.6186E+000		-3.4245E-002
		635.90	11.32	8.3983E-001		5.8804E-001
	Cs-134	563.23	8.38	1.1708E+000	1.04E-001	7.6487E-001
		569.32	15.43	6.6063E-001		-2.4299E-001
		604.70	97.60	1.2735E-001		3.2017E-004
		795.84	85.40	1.0449E-001		-1.5160E-002
		801.93	8.73	9.7257E-001		-4.0341E-001
+	Cs-137	661.65*	85.12	8.7485E-002	8.75E-002	1.6803E-001
	Eu-152	121.78	28.40	6.9093E-001	3.09E-001	-2.0384E-001
		244.69	7.49	1.7028E+000		-2.7120E-001
		344.27	26.50	4.0496E-001		6.1924E-002
		778.89	12.74	7.4777E-001		-1.1708E+000
		867.32	4.16	2.0557E+000		-1.4893E+000
		964.01	14.40	7.9722E-001		-7.3689E-002
		1085.78	10.00	9.2511E-001		-1.8950E-001
		1112.02	13.30	7.0611E-001		-6.9945E-001
		1407.95	20.70	3.0882E-001		1.6674E-001
	Eu-154	123.07	40.50	4.8172E-001	2.23E-001	-8.5201E-002
		247.94	6.60	1.8616E+000		-2.9055E-001
		591.81	4.83	2.0382E+000		4.0230E-001
		723.30	19.70	5.2638E-001		-1.0611E-001
		756.87	4.33	2.1374E+000		-4.3250E-001
		873.19	11.50	6.9903E-001		-3.6136E-001
		996.32	10.30	8.7961E-001		-1.9499E-001
		1004.76	17.90	5.0325E-001		3.9704E-001
		1274.45	35.50	2.2263E-001		-8.8319E-002
+	Eu-155	86.54*	30.90	6.4642E-001	6.46E-001	5.8554E-001
		105.31	20.70	1.1181E+000		-1.1966E-001
	Am-241	59.54	35.90	1.1784E+000	1.18E+000	5.9908E-001
	Cm-243	228.19	10.56	1.2215E+000	8.87E-001	-2.7274E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/g)	Nuclide MDA (pCi/g)	Activity (pCi/g)
Cm-243	277.60	14.00	8.8675E-001	8.87E-001	6.7154E-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 5/4/2006 9:04:55 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-02-02-147
Sample Title: NOL-02-02-147-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/4/2006 8:54:53 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-02-02-147
Title: NOL-02-02-147-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	285-	308	291.33	72.73	1.25	3.61E+002	67.14	1.43E+003
m	2	285-	308	299.78	74.85	1.25	6.46E+002	76.75	2.03E+003
M	3	334-	353	339.74	84.84	1.20	2.35E+002	63.03	1.27E+003
m	4	334-	353	349.22	87.21	1.20	1.25E+002	57.65	1.43E+003
	5	945-	963	952.93	238.18	1.15	2.61E+002	84.51	4.69E+002
	6	1398-	1411	1404.63	351.13	1.66	9.22E+001	46.20	1.65E+002
	7	2319-	2340	2329.32	582.37	1.66	1.82E+002	43.88	8.52E+001
	8	2425-	2445	2433.42	608.40	1.38	1.42E+002	45.61	1.10E+002
	9	3170-	3182	3176.31	794.17	0.68	3.92E+001	23.30	3.88E+001
	10	3627-	3647	3640.14	910.16	1.30	1.66E+002	38.71	6.25E+001
M	11	3848-	3882	3853.88	963.61	1.60	3.24E+001	15.93	3.92E+001
m	12	3848-	3882	3871.84	968.10	1.60	8.00E+001	20.89	4.90E+001
	13	5824-	5853	5838.62	1459.92	1.95	1.13E+003	69.43	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: 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	0.975	1460.81*	10.67	1.95622E+001	1.98775E+000
Eu-155	0.324	86.54*	30.90	5.22364E-001	2.60964E-001
		105.31	20.70		
TL-208	0.458	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.17216E-001	8.70026E-002
		860.37	12.46		
Pb-212	0.674	74.81* @	10.70	9.61303E+000	2.20289E+000
		77.11 @	18.00		
		87.30* @	8.00	2.01763E+000	1.00797E+000
		238.63*	44.60	6.55688E-001	2.35610E-001
Bi-214	0.382	609.31*	46.30	4.57939E-001	1.57307E-001
		1120.29	15.10		
		1764.49	15.80		
Ac-228	0.611	338.32	11.40		
		911.07*	27.70	9.84074E-001	2.55363E-001
		969.11*	16.60	8.03157E-001	2.26002E-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	0.975	1.956225E+001	1.987752E+000
Eu-155	0.324	3.526062E-001	2.679987E-001
TL-208	0.458	3.172156E-001	8.700263E-002
Pb-212 @	0.674	6.556880E-001	2.356099E-001
Bi-214	0.382	4.579388E-001	1.573067E-001
Ac-228	0.611	8.826213E-001	1.692404E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	6.0180E-001	18.59
M 3	84.84	3.9084E-001	26.88
6	351.13	1.5363E-001	50.12
9	794.17	6.5406E-002	59.38
M 11	963.61	5.4033E-002	49.13

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	1.1367E-001	7.94E-002	1.0579E-001
		1332.49	100.00	7.9387E-002		5.2105E-002
	Nb-94	702.63	100.00	1.0499E-001	1.01E-001	-5.2874E-002
		871.10	100.00	1.0127E-001		6.8458E-002
	Ag-108m	79.20	7.10	5.6037E+000	1.16E-001	-3.5161E+000
		433.93	89.90	1.1842E-001		-2.6065E-002
		614.37	90.40	1.3733E-001		7.4935E-002
		722.95	90.50	1.1640E-001		-3.2795E-003
	Sb-125	176.33	6.89	2.4181E+000	3.54E-001	1.7308E-001
		427.89	29.33	3.5423E-001		1.0800E-001
		463.38	10.35	1.0874E+000		-8.9097E-001
		600.56	17.80	6.2852E-001		2.3637E-002
		606.64	5.02	2.7987E+000		3.5933E+000
		635.90	11.32	8.6550E-001		7.3350E-001
	Cs-134	563.23	8.38	1.2677E+000	1.21E-001	-5.1634E-001
		569.32	15.43	6.9527E-001		-6.5603E-001
		604.70	97.60	1.4416E-001		-1.7910E-002
		795.84	85.40	1.2072E-001		3.8818E-002
		801.93	8.73	1.0617E+000		-1.3551E-001
	Cs-137	661.65	85.12	1.3051E-001	1.31E-001	8.1392E-002
	Eu-152	121.78	28.40	7.9007E-001	3.59E-001	-3.3426E-001
		244.69	7.49	1.9433E+000		-1.6265E+000
		344.27	26.50	4.5432E-001		-2.1366E-001
		778.89	12.74	7.7013E-001		-6.1041E-001
		867.32	4.16	2.3606E+000		-4.7034E-001
		964.01	14.40	8.8830E-001		3.3517E-002
		1085.78	10.00	9.7367E-001		-7.9803E-002
		1112.02	13.30	7.3705E-001		-6.6900E-001
		1407.95	20.70	3.5859E-001		-1.0090E-001
	Eu-154	123.07	40.50	5.5185E-001	2.42E-001	3.2982E-001
		247.94	6.60	2.0709E+000		-1.0644E+000
		591.81	4.83	2.1542E+000		-4.4366E-001
		723.30	19.70	5.4137E-001		2.2026E-001
		756.87	4.33	2.4191E+000		8.8852E-001
		873.19	11.50	9.1608E-001		1.6567E-001
		996.32	10.30	9.8278E-001		4.1590E-001
		1004.76	17.90	5.0293E-001		-1.5502E-001
		1274.45	35.50	2.4161E-001		-4.6485E-002
+	Eu-155	86.54*	30.90	7.4405E-001	7.44E-001	5.2236E-001
		105.31	20.70	1.2609E+000		-4.0658E-001
	Am-241	59.54	35.90	1.3992E+000	1.40E+000	-1.9786E-001
	Cm-243	228.19	10.56	1.3858E+000	9.66E-001	-1.1168E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Cm-243	277.60	14.00	9.6590E-001	9.66E-001	-1.4267E-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 4/18/2006 10:11:19 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(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-02-02-148
Sample Title: NOL-02-02-148-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 4/18/2006 10:01:14 PM
Live Time: 600.0 seconds
Real Time: 601.1 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
(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-02-02-148
Title: NOL-02-02-148-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	285-	307	291.75	72.77	0.91	3.64E+002	61.46	1.21E+003
m	2	285-	307	300.23	74.89	0.92	6.54E+002	73.83	1.32E+003
M	3	331-	354	339.46	84.70	1.26	3.66E+002	61.52	1.26E+003
m	4	331-	354	348.93	87.07	1.26	1.68E+002	56.32	1.38E+003
F	5	949-	960	954.49	238.50	0.92	2.66E+002	44.24	3.22E+002
F	6	1177-	1189	1180.74	295.08	0.69	3.98E+001	24.15	1.91E+002
F	7	1398-	1416	1407.37	351.76	1.49	1.60E+002	30.27	1.76E+002
F	8	2036-	2051	2041.32	510.29	1.33	1.01E+002	26.82	1.27E+002
F	9	2323-	2343	2332.28	583.05	1.48	1.87E+002	29.27	8.89E+001
F	10	2428-	2444	2437.05	609.25	1.40	1.64E+002	27.24	5.74E+001
F	11	2642-	2654	2647.36	661.85	0.95	2.94E+001	17.44	6.44E+001
F	12	2902-	2918	2909.71	727.45	1.65	5.80E+001	18.88	5.37E+001
F	13	3637-	3657	3645.70	911.51	1.56	1.52E+002	25.96	4.33E+001
F	14	3869-	3883	3875.85	969.06	1.31	6.28E+001	20.18	4.99E+001
F	15	5830-	5858	5844.78	1461.44	2.05	1.18E+003	65.12	7.13E+000
F	16	7054-	7070	7062.53	1765.97	1.91	5.04E+001	15.75	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/GRAM)	Activity Uncertainty
ANN	0.983	511.00*	100.00	1.37192E-001	4.10249E-002
K-40	0.986	1460.81*	10.67	1.97112E+001	1.93385E+000
Cs-137	0.999	661.65*	85.12	5.13014E-002	3.10405E-002
Eu-155	0.327	86.54*	30.90	6.76092E-001	2.62786E-001
		105.31	20.70		
TL-208	0.750	277.35	6.80		
		510.84*	21.60	6.35148E-001	1.96886E-001
		583.14*	84.20	3.16819E-001	6.44660E-002
		860.37	12.46		
Bi-212	0.997	727.17*	11.80	7.44206E-001	2.57529E-001
Pb-212	0.676	74.81* @	10.70	9.36772E+000	2.11854E+000
		77.11 @	18.00		
		87.30* @	8.00	2.61140E+000	1.01501E+000
		238.63*	44.60	6.45977E-001	1.47730E-001
Bi-214	0.683	609.31*	46.30	5.11599E-001	1.05862E-001
		1120.29	15.10		
		1764.49*	15.80	5.92333E-001	1.94350E-001
PB-214	0.669	74.82* @	6.21	1.61408E+001	3.83375E+000
		77.11 @	10.50		
		87.30* @	4.67	4.47350E+000	1.77131E+000
		241.98	7.49		
		295.21*	19.20	2.39013E-001	1.50407E-001
		351.92*	37.20	5.21495E-001	1.31589E-001
Ac-228	0.630	338.32	11.40		
		911.07*	27.70	8.69145E-001	1.79069E-001
		969.11*	16.60	6.10162E-001	2.06372E-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/GRAM)	Wt mean Activity Uncertainty
ANN		0.983	6.875914E-002	4.326618E-002
K-40		0.986	1.971119E+001	1.933849E+000
Cs-137		0.999	5.130143E-002	3.104054E-002
Eu-155		0.327	4.480764E-001	2.659615E-001
TL-208		0.750	3.168188E-001	6.363379E-002
Bi-212		0.997	7.442061E-001	2.575290E-001
Pb-212	@	0.676	6.459769E-001	1.477303E-001
Bi-214		0.683	5.300716E-001	9.296520E-002
PB-214	@	0.669	4.021115E-001	9.731462E-002
Ac-228		0.630	7.579067E-001	1.352511E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	6.0627E-001	16.89
M 3	84.70	6.0967E-001	16.82

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:BLUE6279
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	1.0689E-001	8.49E-002	1.2977E-001
		1332.49	100.00	8.4902E-002		-2.4173E-003
	Nb-94	702.63	100.00	1.0076E-001	9.25E-002	1.6239E-002
		871.10	100.00	9.2466E-002		4.5888E-002
	Ag-108m	79.20	7.10	4.4163E+000	1.18E-001	1.3118E+000
		433.93	89.90	1.1758E-001		-6.8109E-002
		614.37	90.40	1.2280E-001		-9.3616E-002
		722.95	90.50	1.2345E-001		-3.7568E-002
	Sb-125	176.33	6.89	2.1777E+000	3.56E-001	8.5229E-001
		427.89	29.33	3.5573E-001		9.0998E-002
		463.38	10.35	1.0279E+000		1.0846E+000
		600.56	17.80	5.7210E-001		-4.4260E-001
		606.64	5.02	2.5741E+000		4.4819E+000
		635.90	11.32	8.3694E-001		1.6187E-001
	Cs-134	563.23	8.38	1.1488E+000	1.21E-001	-4.5033E-001
		569.32	15.43	6.3367E-001		-4.6826E-001
		604.70	97.60	1.2622E-001		2.1123E-002
		795.84	85.40	1.2063E-001		1.2021E-001
		801.93	8.73	1.1362E+000		-1.8662E+000
+	Cs-137	661.65*	85.12	8.0083E-002	8.01E-002	5.1301E-002
	Eu-152	121.78	28.40	6.8837E-001	3.74E-001	1.6487E-001
		244.69	7.49	1.8509E+000		1.0037E+000
		344.27	26.50	4.2491E-001		-1.3824E-001
		778.89	12.74	7.6555E-001		-8.5811E-001
		867.32	4.16	2.2281E+000		-3.4763E+000
		964.01	14.40	8.2850E-001		3.4564E-001
		1085.78	10.00	9.8934E-001		4.6369E-001
		1112.02	13.30	7.1692E-001		-1.9732E-001
		1407.95	20.70	3.7369E-001		1.8885E-001
	Eu-154	123.07	40.50	4.8459E-001	2.38E-001	4.4761E-001
		247.94	6.60	1.9938E+000		6.2520E-001
		591.81	4.83	2.0745E+000		1.2183E+000
		723.30	19.70	5.7065E-001		-1.4980E-001
		756.87	4.33	2.2334E+000		8.2583E-001
		873.19	11.50	7.9118E-001		-5.4793E-001
		996.32	10.30	8.5453E-001		-1.2705E+000
		1004.76	17.90	5.0430E-001		-4.7730E-002
		1274.45	35.50	2.3782E-001		-2.0855E-001
+	Eu-155	86.54*	30.90	7.0845E-001	7.08E-001	6.7609E-001
		105.31	20.70	1.1308E+000		1.0260E+000
	Am-241	59.54	35.90	1.1379E+000	1.14E+000	-1.4634E+000
	Cm-243	228.19	10.56	1.2709E+000	8.79E-001	4.2227E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	8.7908E-001	8.79E-001	3.0919E-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 5/4/2006 8:43:59 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: RED6264

Spectrum File: RED6264
Sample ID: NOL-02-02-148
Sample Title: NOL-02-02-148-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/4/2006 8:33:56 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-02-02-148
Title: NOL-02-02-148-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	285-	308	291.71	72.83	1.36	3.09E+002	69.62	1.55E+003
m	2	285-	308	299.96	74.89	1.36	7.90E+002	81.92	2.23E+003
	3	943-	961	953.52	238.33	0.43	2.92E+002	81.64	4.27E+002
	4	1173-	1188	1178.41	294.56	1.43	9.58E+001	52.92	2.09E+002
	5	1345-	1358	1351.83	337.93	0.38	5.25E+001	45.44	1.75E+002
	6	1396-	1410	1404.53	351.11	1.58	1.51E+002	45.72	1.37E+002
	7	2029-	2050	2039.73	509.95	1.75	1.58E+002	52.54	1.49E+002
	8	2324-	2340	2329.30	582.36	0.77	1.31E+002	44.31	1.18E+002
	9	2424-	2444	2433.29	608.37	1.45	1.64E+002	44.13	9.45E+001
	10	3633-	3651	3640.73	910.31	1.59	1.43E+002	32.64	4.03E+001
	11	3865-	3883	3873.21	968.44	0.58	7.73E+001	34.30	6.67E+001
	12	4471-	4486	4476.14	1119.21	0.86	6.20E+001	26.55	4.00E+001
	13	5320-	5333	5326.32	1331.82	0.38	2.09E+001	20.12	3.01E+001
	14	5823-	5853	5839.31	1460.10	2.32	1.13E+003	67.46	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
ANN	0.966	511.00*		100.00	2.22316E-001	7.97976E-002
K-40	0.984	1460.81*		10.67	1.94825E+001	1.96214E+000
TL-208	0.735	277.35		6.80		
		510.84*		21.60	1.02924E+000	3.78875E-001
		583.14*		84.20	2.28476E-001	8.28357E-002
		860.37		12.46		
Pb-212	0.520	74.81*	@	10.70	1.17378E+001	2.60281E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	7.32922E-001	2.34864E-001
Bi-214	0.676	609.31*		46.30	5.26317E-001	1.56177E-001
		1120.29*		15.10	7.12859E-001	3.14545E-001
		1764.49		15.80		
PB-214	0.571	74.82*	@	6.21	2.02245E+001	4.71891E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	5.92809E-001	3.42434E-001
		351.92*		37.20	5.08477E-001	1.75488E-001
Ac-228	0.986	338.32*		11.40	5.69449E-001	5.00580E-001
		911.07*		27.70	8.43595E-001	2.16042E-001
		969.11*		16.60	7.76287E-001	3.53795E-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	1.729651E-001	8.176314E-002
K-40		0.984	1.948246E+001	1.962141E+000
TL-208		0.735	2.284759E-001	8.250040E-002
Pb-212	@	0.520	7.329219E-001	2.348644E-001
Bi-214		0.676	5.632099E-001	1.398832E-001
PB-214	@	0.571	5.260179E-001	1.561745E-001
Ac-228		0.986	7.947464E-001	1.730195E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	5.1428E-001	22.56
13	1331.82	3.4755E-002	96.50

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
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	1.1337E-001	9.09E-002	1.0648E-001
	1332.49	100.00	9.0909E-002		8.8780E-002
Nb-94	702.63	100.00	1.0627E-001	9.43E-002	1.4709E-001
	871.10	100.00	9.4265E-002		-3.0883E-002
Ag-108m	79.20	7.10	5.5836E+000	1.20E-001	-1.0404E+001
	433.93	89.90	1.2838E-001		3.1878E-003
	614.37	90.40	1.2999E-001		1.7007E-002
	722.95	90.50	1.2009E-001		7.8526E-002
Sb-125	176.33	6.89	2.4292E+000	3.83E-001	-2.9756E+000
	427.89	29.33	3.8342E-001		1.5165E-001
	463.38	10.35	1.0658E+000		-1.2189E-001
	600.56	17.80	5.9005E-001		-2.4754E-001
	606.64	5.02	2.7025E+000		5.8455E+000
	635.90	11.32	8.7707E-001		-6.9446E-001
Cs-134	563.23	8.38	1.2862E+000	1.29E-001	-2.4997E-001
	569.32	15.43	6.7920E-001		2.3184E-001
	604.70	97.60	1.3941E-001		-5.4865E-002
	795.84	85.40	1.2948E-001		1.7518E-001
	801.93	8.73	1.1205E+000		-6.5795E-002
Cs-137	661.65	85.12	1.2740E-001	1.27E-001	-4.5670E-002
Eu-152	121.78	28.40	7.8781E-001	3.40E-001	2.3175E-001
	244.69	7.49	1.9929E+000		-1.0848E+000
	344.27	26.50	4.6654E-001		-1.2860E-001
	778.89	12.74	7.9692E-001		-5.5302E-001
	867.32	4.16	2.3240E+000		-2.8201E+000
	964.01	14.40	9.1815E-001		-1.0954E-001
	1085.78	10.00	1.0242E+000		-2.4841E-001
	1112.02	13.30	7.2650E-001		-1.3165E+000
	1407.95	20.70	3.4035E-001		2.4120E-002
Eu-154	123.07	40.50	5.4590E-001	2.53E-001	-1.9446E-001
	247.94	6.60	2.1480E+000		-1.5317E+000
	591.81	4.83	2.2263E+000		-9.6619E-001
	723.30	19.70	5.4267E-001		-6.3412E-002
	756.87	4.33	2.2922E+000		-1.3597E+000
	873.19	11.50	8.3914E-001		2.8796E-001
	996.32	10.30	9.3235E-001		2.6316E-001
	1004.76	17.90	5.4335E-001		3.0137E-001
	1274.45	35.50	2.5343E-001		1.0844E-001
Eu-155	86.54	30.90	1.1363E+000	1.14E+000	2.2551E+000
	105.31	20.70	1.2498E+000		-1.0722E+000
Am-241	59.54	35.90	1.4353E+000	1.44E+000	1.1177E+000
Cm-243	228.19	10.56	1.3953E+000	9.97E-001	4.1392E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Cm-243	277.60	14.00	9.9735E-001	9.97E-001	4.5699E-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 4/18/2006 10:44:26 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(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-02-02-149
Sample Title: NOL-02-02-149-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 4/18/2006 10:34:27 PM
Live Time: 600.0 seconds
Real Time: 601.0 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
(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-02-02-149
Title: NOL-02-02-149-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	285-	306	291.86	72.79	0.86	4.09E+002	63.05	1.14E+003
m	2	285-	306	300.25	74.89	0.87	6.73E+002	74.37	1.23E+003
M	3	334-	355	339.75	84.77	0.99	2.70E+002	59.96	1.04E+003
m	4	334-	355	349.49	87.20	0.99	1.39E+002	52.73	1.17E+003
F	5	845-	853	848.76	212.06	0.60	4.59E+001	26.87	2.03E+002
F	6	949-	959	954.30	238.45	1.05	3.28E+002	44.68	2.47E+002
F	7	1174-	1187	1180.45	295.01	1.06	1.05E+002	29.97	1.97E+002
F	8	1213-	1221	1217.03	304.16	0.42	2.58E+001	16.87	1.05E+002
F	9	1347-	1357	1352.90	338.13	0.65	5.73E+001	23.82	1.38E+002
F	10	1399-	1416	1408.04	351.92	1.39	1.97E+002	32.16	1.60E+002
F	11	2326-	2340	2332.43	583.09	1.15	1.62E+002	29.54	9.45E+001
F	12	2430-	2442	2436.50	609.11	1.22	1.62E+002	30.09	8.95E+001
F	13	3633-	3652	3644.11	911.11	1.44	1.46E+002	26.75	6.31E+001
F	14	3867-	3884	3875.90	969.07	1.56	1.15E+002	23.89	4.95E+001
F	15	5832-	5860	5844.85	1461.46	1.86	1.19E+003	66.80	3.05E+001
F	16	7055-	7071	7062.79	1766.04	1.69	4.57E+001	15.38	1.25E+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/GRAM)	Activity Uncertainty
K-40	0.985	1460.81*	10.67	1.99507E+001	1.96587E+000
Eu-155	0.324	86.54*	30.90	5.60450E-001	2.38765E-001
		105.31	20.70		
TL-208	0.471	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	2.73577E-001	6.13820E-002
		860.37	12.46		
Pb-212	0.676	74.81* @	10.70	9.63159E+000	2.16730E+000
		77.11 @	18.00		
		87.30* @	8.00	2.16474E+000	9.22228E-001
		238.63*	44.60	7.96533E-001	1.65503E-001
Bi-214	0.681	609.31*	46.30	5.07249E-001	1.12825E-001
		1120.29	15.10		
		1764.49*	15.80	5.36517E-001	1.88500E-001
PB-214	0.669	74.82* @	6.21	1.65955E+001	3.92383E+000
		77.11 @	10.50		
		87.30* @	4.67	3.70833E+000	1.60448E+000
		241.98	7.49		
		295.21*	19.20	6.32751E-001	2.08979E-001
		351.92*	37.20	6.43098E-001	1.50083E-001
Ac-228	1.000	338.32*	11.40	6.01574E-001	2.67430E-001
		911.07*	27.70	8.35750E-001	1.80777E-001
		969.11*	16.60	1.11774E+000	2.60116E-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/GRAM)	Wt mean Activity Uncertainty
K-40		0.985	1.995071E+001	1.965866E+000
Eu-155		0.324	2.575572E-001	2.432409E-001
TL-208		0.471	2.735768E-001	6.138204E-002
Pb-212	@	0.676	7.965335E-001	1.655034E-001
Bi-214		0.681	5.149685E-001	9.680873E-002
PB-214	@	0.669	6.396435E-001	1.186558E-001
Ac-228		1.000	8.507999E-001	1.297919E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	6.8165E-001	15.42
M 3	84.77	4.5029E-001	22.19
F 5	212.06	7.6489E-002	58.55
F 8	304.16	4.3081E-002	65.27

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
(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/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
	Co-60	1173.22	100.00	9.8200E-002	7.37E-002	2.6311E-002
		1332.49	100.00	7.3681E-002		-3.0995E-002
	Nb-94	702.63	100.00	9.7671E-002	9.34E-002	3.9385E-002
		871.10	100.00	9.3368E-002		-5.2608E-002
	Ag-108m	79.20	7.10	4.3944E+000	1.15E-001	-3.4682E+000
		433.93	89.90	1.1480E-001		3.0029E-003
		614.37	90.40	1.3075E-001		-2.3124E-001
		722.95	90.50	1.2191E-001		9.2033E-002
	Sb-125	176.33	6.89	2.1850E+000	3.40E-001	1.0431E+000
		427.89	29.33	3.3961E-001		-1.5077E-001
		463.38	10.35	1.0455E+000		-1.4443E-001
		600.56	17.80	5.5513E-001		1.1965E-002
		606.64	5.02	2.7608E+000		6.7344E+000
		635.90	11.32	8.5708E-001		-3.0082E-001
	Cs-134	563.23	8.38	1.1789E+000	1.06E-001	5.4544E-001
		569.32	15.43	6.2917E-001		2.0101E-001
		604.70	97.60	1.3281E-001		-1.0885E-001
		795.84	85.40	1.0635E-001		-8.2752E-002
		801.93	8.73	1.0002E+000		-5.4732E-001
	Cs-137	661.65	85.12	1.2923E-001	1.29E-001	9.6166E-002
	Eu-152	121.78	28.40	6.8412E-001	3.55E-001	-2.4647E-001
		244.69	7.49	1.7889E+000		4.2366E-002
		344.27	26.50	4.3770E-001		3.3839E-001
		778.89	12.74	7.4819E-001		-1.8195E-001
		867.32	4.16	2.3476E+000		-2.2927E+000
		964.01	14.40	8.8111E-001		1.2831E-001
		1085.78	10.00	9.3006E-001		2.6991E-001
		1112.02	13.30	6.9638E-001		-6.6993E-001
		1407.95	20.70	3.5499E-001		1.8424E-001
	Eu-154	123.07	40.50	4.7610E-001	2.34E-001	1.7645E-001
		247.94	6.60	1.9426E+000		7.1494E-001
		591.81	4.83	2.0697E+000		-1.2999E+000
		723.30	19.70	5.6482E-001		5.8362E-001
		756.87	4.33	2.0494E+000		-1.8408E+000
		873.19	11.50	8.1228E-001		-1.3446E-001
		996.32	10.30	8.5453E-001		-3.1068E-001
		1004.76	17.90	5.1724E-001		6.0939E-001
		1274.45	35.50	2.3432E-001		-2.5360E-001
+	Eu-155	86.54*	30.90	6.5055E-001	6.51E-001	5.6045E-001
		105.31	20.70	1.1264E+000		-5.0614E-001
	Am-241	59.54	35.90	1.1704E+000	1.17E+000	5.0890E-001
	Cm-243	228.19	10.56	1.2601E+000	9.06E-001	-5.9104E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	9.0591E-001	9.06E-001	3.4730E-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 5/4/2006 6:56:25 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: RED6264

Spectrum File: RED6264
Sample ID: NOL-02-02-149
Sample Title: NOL-02-02-149-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/4/2006 6:46:24 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-02-02-149
Title: NOL-02-02-149-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
	1	204-	216	210.84	52.61	1.07	4.15E+002	109.72	1.03E+003
M	2	262-	296	266.48	66.52	1.27	1.46E+002	62.76	1.39E+003
m	3	262-	296	279.24	69.71	1.27	3.52E+002	68.40	2.06E+003
m	4	262-	296	287.75	71.84	1.28	7.30E+002	79.63	2.09E+003
	5	354-	366	359.99	89.90	0.85	1.87E+002	135.27	1.73E+003
M	6	377-	473	404.86	101.12	4.61	3.91E+003	55.77	6.04E+003
m	7	377-	473	433.68	108.33	4.56	6.34E+003	70.80	8.16E+003
m	8	377-	473	469.21	117.22	4.57	4.48E+002	48.31	8.95E+003
M	9	483-	513	487.99	121.91	0.90	1.04E+002	46.19	7.45E+002
m	10	483-	513	506.46	126.53	0.91	2.35E+002	56.11	8.48E+002
M	11	547-	580	552.73	138.10	1.33	1.86E+002	49.10	7.00E+002
m	12	547-	580	571.18	142.72	1.34	1.81E+002	47.00	9.14E+002
	13	908-	923	914.51	228.57	1.34	2.14E+002	79.07	4.66E+002
	14	1123-	1139	1130.66	282.62	1.08	1.01E+002	58.08	2.46E+002
	15	1342-	1357	1348.05	336.98	0.44	1.01E+002	53.03	2.08E+002
	16	2224-	2243	2234.03	558.54	1.38	1.50E+002	45.00	1.08E+002
	17	2322-	2344	2333.92	583.52	0.47	1.88E+002	45.32	8.93E+001
	18	3479-	3501	3491.79	873.06	0.94	1.65E+002	41.29	7.19E+001
	19	3704-	3722	3712.31	928.20	0.62	1.03E+002	33.32	5.52E+001
	20	5584-	5614	5599.55	1400.14	2.32	1.21E+003	71.32	2.33E+001
	21	6759-	6772	6765.21	1691.63	0.58	2.63E+001	15.68	1.37E+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
TL-208	0.468	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.27721E-001	8.98811E-002
		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: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
TL-208	0.468	3.277206E-001	8.988109E-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
1	52.61	6.9115E-001	26.46
M 2	66.52	2.4372E-001	42.92
m 3	69.71	5.8620E-001	19.45
m 4	71.84	1.2161E+000	10.91
5	89.90	3.1086E-001	72.52
M 6	101.12	6.5147E+000	1.43
m 7	108.33	1.0561E+001	1.12
m 8	117.22	7.4688E-001	10.78
M 9	121.91	1.7281E-001	44.55
m 10	126.53	3.9245E-001	23.83
M 11	138.10	3.1026E-001	26.38
m 12	142.72	3.0169E-001	25.97
13	228.57	3.5650E-001	36.97
14	282.62	1.6826E-001	57.53
15	336.98	1.6861E-001	52.42
16	558.54	2.5074E-001	29.91
18	873.06	2.7519E-001	25.01
19	928.20	1.7133E-001	32.42
20	1400.14	2.0161E+000	5.90
21	1691.63	4.3875E-002	59.56

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: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	1.1641E-001	6.69E-002	-1.1437E-002
	1332.49	100.00	6.6877E-002		-2.0945E-002
Nb-94	702.63	100.00	1.0855E-001	1.09E-001	-7.9392E-002
	871.10	100.00	1.4015E-001		2.2426E-001
Ag-108m	79.20	7.10	5.7083E+000	1.18E-001	-3.3873E+000
	433.93	89.90	1.2290E-001		-8.9184E-002
	614.37	90.40	1.2017E-001		5.6937E-002
	722.95	90.50	1.1812E-001		9.8404E-002
Sb-125	176.33	6.89	2.5928E+000	3.91E-001	1.8465E+000
	427.89	29.33	3.9052E-001		-1.3036E-001
	463.38	10.35	1.0381E+000		2.1068E-001
	600.56	17.80	6.1597E-001		7.5144E-002
	606.64	5.02	2.1687E+000		4.8686E-001
	635.90	11.32	9.1964E-001		-2.6423E-001
Cs-134	563.23	8.38	1.6664E+000	1.10E-001	-2.0344E-001
	569.32	15.43	7.1378E-001		-3.3362E-001
	604.70	97.60	1.1025E-001		8.6679E-003
	795.84	85.40	1.2265E-001		4.1753E-002
	801.93	8.73	1.2172E+000		1.0980E+000
Cs-137	661.65	85.12	1.2826E-001	1.28E-001	1.4629E-001
Eu-152	121.78	28.40	8.3386E-001	4.44E-001	-4.4583E-001
	244.69	7.49	1.9252E+000		9.3801E-001
	344.27	26.50	4.4396E-001		4.6877E-003
	778.89	12.74	8.0780E-001		1.8911E-001
	867.32	4.16	3.2377E+000		1.0797E+000
	964.01	14.40	6.7657E-001		-4.0628E-001
	1085.78	10.00	1.0939E+000		-1.3139E-001
	1112.02	13.30	8.0451E-001		-7.2845E-001
	1407.95	20.70	8.4260E-001		-1.4829E-001
Eu-154	123.07	40.50	6.1037E-001	2.62E-001	-9.8342E-002
	247.94	6.60	2.1144E+000		1.1108E-001
	591.81	4.83	2.3322E+000		1.8106E+000
	723.30	19.70	5.4137E-001		3.2034E-001
	756.87	4.33	2.6372E+000		9.6438E-002
	873.19	11.50	1.2157E+000		2.1324E+000
	996.32	10.30	9.0602E-001		-9.2668E-001
	1004.76	17.90	5.6153E-001		3.3161E-002
	1274.45	35.50	2.6248E-001		1.3098E-001
Eu-155	86.54	30.90	1.2312E+000	1.23E+000	-3.3123E-001
	105.31	20.70	2.3586E+000		-7.5879E+000
Am-241	59.54	35.90	1.4700E+000	1.47E+000	-1.5204E+000
Cm-243	228.19	10.56	1.6969E+000	9.93E-001	4.3200E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Cm-243	277.60	14.00	9.9348E-001	9.93E-001	-6.2571E-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 5/4/2006 8:25:09 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: RED6264

Spectrum File: RED6264
Sample ID: NOL-02-02-149
Sample Title: NOL-02-02-149-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/4/2006 8:15:06 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-02-02-149
Title: NOL-02-02-149-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	287-	309	291.29	72.72	1.45	3.35E+002	73.74	1.34E+003
m	2	287-	309	300.02	74.91	1.45	8.46E+002	82.38	2.23E+003
	3	332-	344	339.06	84.67	0.72	2.35E+002	116.49	1.25E+003
	4	943-	964	953.80	238.40	1.88	3.63E+002	91.59	4.84E+002
	5	1340-	1362	1351.58	337.87	1.26	1.04E+002	65.19	2.58E+002
	6	1398-	1413	1405.41	351.33	1.33	1.48E+002	51.30	1.79E+002
	7	2029-	2053	2041.71	510.44	2.07	2.08E+002	47.72	9.33E+001
	8	2317-	2340	2330.13	582.57	1.52	2.25E+002	48.78	9.86E+001
	9	2423-	2445	2434.70	608.72	0.91	1.47E+002	47.81	1.15E+002
	10	3633-	3653	3641.34	910.46	1.18	1.08E+002	35.58	6.14E+001
	11	3863-	3881	3871.85	968.10	1.17	7.63E+001	32.77	5.97E+001
	12	5825-	5855	5840.35	1460.36	2.25	1.18E+003	68.97	1.12E+001
	13	7050-	7064	7056.73	1764.53	0.77	4.12E+001	16.65	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

N U C L I 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	2.92066E-001	7.79314E-002
K-40	0.993	1460.81*	10.67	2.04964E+001	2.04389E+000
TL-208	0.744	277.35	6.80		
		510.84*	21.60	1.35216E+000	3.77314E-001
		583.14*	84.20	3.93325E-001	9.93510E-002
		860.37	12.46		
Pb-212	0.520	74.81* @	10.70	1.25689E+001	2.75071E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	9.09574E-001	2.70473E-001
Bi-214	0.692	609.31*	46.30	4.73145E-001	1.64612E-001
		1120.29	15.10		
		1764.49*	15.80	4.99611E-001	2.08027E-001
Ac-228	0.983	338.32*	11.40	1.12200E+000	7.28107E-001
		911.07*	27.70	6.36358E-001	2.22722E-001
		969.11*	16.60	7.65499E-001	3.38623E-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	2.071080E-001	8.078461E-002
K-40	0.993	2.049642E+001	2.043887E+000
TL-208	0.744	3.933246E-001	9.852064E-002
Pb-212 @	0.520	9.095735E-001	2.704729E-001
Bi-214	0.692	4.833358E-001	1.290861E-001
Ac-228	0.983	7.027383E-001	1.802853E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	5.5833E-001	22.01
3	84.67	3.9172E-001	49.56
6	351.33	2.4706E-001	34.60

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: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	9.9879E-002	8.13E-002	-8.7948E-002
	1332.49	100.00	8.1272E-002		-2.9841E-003
Nb-94	702.63	100.00	1.0627E-001	9.74E-002	-2.9039E-002
	871.10	100.00	9.7376E-002		2.9625E-002
Ag-108m	79.20	7.10	5.5363E+000	1.22E-001	-3.1655E+000
	433.93	89.90	1.2410E-001		-6.1230E-003
	614.37	90.40	1.3688E-001		2.0905E-002
	722.95	90.50	1.2175E-001		3.5880E-002
Sb-125	176.33	6.89	2.4692E+000	4.02E-001	2.1814E-001
	427.89	29.33	4.0205E-001		6.6756E-001
	463.38	10.35	1.1581E+000		2.3246E-001
	600.56	17.80	6.0186E-001		-1.2375E-001
	606.64	5.02	2.6474E+000		2.3754E+000
	635.90	11.32	9.3267E-001		-4.0132E-001
Cs-134	563.23	8.38	1.2888E+000	1.27E-001	-1.6535E+000
	569.32	15.43	7.2354E-001		4.1568E-002
	604.70	97.60	1.3564E-001		-3.6012E-002
	795.84	85.40	1.2735E-001		8.8771E-003
	801.93	8.73	1.1763E+000		-1.5283E+000
Cs-137	661.65	85.12	1.2654E-001	1.27E-001	4.2133E-002
Eu-152	121.78	28.40	7.9325E-001	3.18E-001	1.5482E-001
	244.69	7.49	2.0154E+000		9.4855E-001
	344.27	26.50	4.5378E-001		-7.8708E-002
	778.89	12.74	7.9031E-001		-4.4616E-001
	867.32	4.16	2.3460E+000		-3.7391E+000
	964.01	14.40	9.0003E-001		2.6748E-001
	1085.78	10.00	9.7367E-001		-6.7844E-001
	1112.02	13.30	7.4486E-001		-1.0193E+000
	1407.95	20.70	3.1811E-001		1.4455E-001
Eu-154	123.07	40.50	5.4350E-001	2.46E-001	-6.6559E-001
	247.94	6.60	2.1691E+000		-2.3532E+000
	591.81	4.83	2.3546E+000		-3.8597E-001
	723.30	19.70	5.5682E-001		9.7011E-002
	756.87	4.33	2.4005E+000		1.5432E+000
	873.19	11.50	8.6298E-001		-4.7098E-001
	996.32	10.30	8.9256E-001		-6.7411E-001
	1004.76	17.90	5.4150E-001		2.1468E-001
	1274.45	35.50	2.4641E-001		-2.7217E-001
Eu-155	86.54	30.90	1.1187E+000	1.12E+000	2.0765E+000
	105.31	20.70	1.2501E+000		-4.9026E-001
Am-241	59.54	35.90	1.4064E+000	1.41E+000	4.6532E-001
Cm-243	228.19	10.56	1.3726E+000	9.60E-001	1.1738E+000

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	5.2149E-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 4/18/2006 10:28:48 PM

Y A N K E E R O W E P O R T A B L E I S O C S
(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-02-02-150
Sample Title: NOL-02-02-150-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 4/18/2006 10:18:44 PM
Live Time: 600.0 seconds
Real Time: 601.1 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
(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-02-02-150
Title: NOL-02-02-150-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
F	1	251-	259	254.20	63.38	0.70	9.16E+001	48.64	6.70E+002
M	2	286-	305	292.05	72.84	0.89	3.35E+002	61.57	1.19E+003
m	3	286-	305	300.48	74.95	0.89	6.40E+002	74.19	1.26E+003
M	4	333-	355	339.76	84.77	1.17	3.15E+002	61.73	1.19E+003
m	5	333-	355	349.46	87.20	1.17	1.10E+002	55.42	1.43E+003
F	6	947-	960	954.48	238.50	0.77	3.07E+002	44.48	3.32E+002
F	7	1348-	1363	1353.01	338.16	0.79	8.56E+001	27.58	2.09E+002
F	8	1402-	1415	1406.91	351.64	1.05	1.83E+002	32.42	1.41E+002
F	9	2031-	2053	2043.07	510.73	2.27	1.82E+002	28.08	1.15E+002
F	10	2246-	2255	2250.69	562.65	0.44	1.89E+001	12.75	5.15E+001
F	11	2324-	2340	2332.48	583.10	1.26	1.93E+002	30.60	8.71E+001
F	12	2426-	2445	2436.55	609.13	1.25	1.55E+002	28.18	1.05E+002
F	13	3172-	3185	3178.66	794.71	1.23	4.15E+001	18.19	5.42E+001
F	14	3637-	3654	3645.39	911.43	1.60	1.49E+002	26.49	5.53E+001
M	15	3852-	3887	3858.93	964.83	1.75	4.54E+001	16.83	3.95E+001
m	16	3852-	3887	3875.72	969.03	1.75	9.97E+001	21.65	5.24E+001
F	17	4474-	4491	4482.24	1120.70	1.79	5.37E+001	18.61	4.74E+001
F	18	5833-	5857	5845.04	1461.51	2.01	1.14E+003	65.26	3.56E+001
F	19	7055-	7069	7061.01	1765.59	1.82	3.85E+001	13.23	2.97E+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: BLUE6279

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	2.47981E-001	5.09550E-002
K-40	0.983	1460.81*	10.67	1.91237E+001	1.89618E+000
Eu-155	0.324	86.54*	30.90	4.40678E-001	2.38997E-001
		105.31	20.70		
TL-208	0.752	277.35	6.80		
		510.84*	21.60	1.14806E+000	2.53852E-001
		583.14*	84.20	3.26063E-001	6.69639E-002
		860.37	12.46		
Pb-212	0.677	74.81* @	10.70	9.15065E+000	2.08379E+000
		77.11 @	18.00		
		87.30* @	8.00	1.70212E+000	9.23125E-001
		238.63*	44.60	7.46481E-001	1.59341E-001
Bi-214	0.990	609.31*	46.30	4.83118E-001	1.06227E-001
		1120.29*	15.10	5.98890E-001	2.17007E-001
		1764.49*	15.80	4.52742E-001	1.61937E-001
Ac-228	0.998	338.32*	11.40	8.99120E-001	3.22223E-001
		911.07*	27.70	8.51584E-001	1.80512E-001
		969.11*	16.60	9.69804E-001	2.33741E-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/GRAM)	Wt mean Activity Uncertainty
ANN		0.997	1.775519E-001	5.291836E-002
K-40		0.983	1.912371E+001	1.896176E+000
Eu-155		0.324	2.474137E-001	2.425309E-001
TL-208		0.752	3.260628E-001	6.611545E-002
Pb-212	@	0.677	7.464814E-001	1.593408E-001
Bi-214		0.990	4.919030E-001	8.220291E-002
Ac-228		0.998	8.963040E-001	1.306056E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	63.38	1.5275E-001	53.07
M 2	72.84	5.5833E-001	18.38
M 4	84.77	5.2536E-001	19.58
F 8	351.64	3.0486E-001	17.73
F 10	562.65	3.1501E-002	67.43
F 13	794.71	6.9130E-002	43.85
M 15	964.83	7.5593E-002	37.11

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
(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/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
	Co-60	1173.22	100.00	1.0086E-001	8.06E-002	1.0957E-001
		1332.49	100.00	8.0613E-002		-4.9061E-003
	Nb-94	702.63	100.00	9.5823E-002	8.55E-002	-4.1683E-002
		871.10	100.00	8.5548E-002		2.1137E-002
	Ag-108m	79.20	7.10	4.5219E+000	1.16E-001	-7.0711E+000
		433.93	89.90	1.2240E-001		6.6446E-002
		614.37	90.40	1.2920E-001		-4.3071E-002
		722.95	90.50	1.1638E-001		7.1547E-002
	Sb-125	176.33	6.89	2.1703E+000	3.62E-001	-9.7467E-001
		427.89	29.33	3.6173E-001		-2.2970E-001
		463.38	10.35	1.0507E+000		1.8638E-001
		600.56	17.80	5.6303E-001		9.5348E-002
		606.64	5.02	2.6657E+000		4.3176E+000
		635.90	11.32	8.3921E-001		-1.4961E-001
	Cs-134	563.23	8.38	1.2343E+000	1.21E-001	3.3604E-001
		569.32	15.43	6.7271E-001		4.2239E-001
		604.70	97.60	1.3115E-001		3.0616E-002
		795.84	85.40	1.2124E-001		2.1658E-002
		801.93	8.73	1.0688E+000		-9.4917E-001
	Cs-137	661.65	85.12	1.2709E-001	1.27E-001	8.3539E-002
	Eu-152	121.78	28.40	7.1838E-001	3.22E-001	7.7618E-001
		244.69	7.49	1.8636E+000		4.0731E-001
		344.27	26.50	4.2922E-001		-9.3177E-002
		778.89	12.74	7.6769E-001		-1.0019E-001
		867.32	4.16	2.0937E+000		-3.7562E+000
		964.01	14.40	8.7471E-001		-4.8938E-002
		1085.78	10.00	9.7972E-001		8.3463E-002
		1112.02	13.30	6.9898E-001		-3.9383E-001
		1407.95	20.70	3.2211E-001		3.0147E-001
	Eu-154	123.07	40.50	4.9293E-001	2.28E-001	-2.0492E-001
		247.94	6.60	1.9723E+000		-2.0312E-001
		591.81	4.83	1.9666E+000		-1.9488E+000
		723.30	19.70	5.3839E-001		6.4805E-001
		756.87	4.33	2.1953E+000		-1.3569E+000
		873.19	11.50	7.2693E-001		-1.5358E-001
		996.32	10.30	8.5453E-001		-3.7626E-001
		1004.76	17.90	5.3162E-001		1.8215E-001
		1274.45	35.50	2.2836E-001		-2.1727E-001
+	Eu-155	86.54*	30.90	7.1822E-001	7.18E-001	4.4068E-001
		105.31	20.70	1.1261E+000		7.2860E-001
	Am-241	59.54	35.90	1.1418E+000	1.14E+000	-8.9326E-001
	Cm-243	228.19	10.56	1.2842E+000	9.11E-001	-6.8421E-002

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	9.1150E-001	9.11E-001	4.2234E-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 5/5/2006 9:49:15 AM

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

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-02-02-150
Sample Title: NOL-02-02-150-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/5/2006 9:39:10 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-02-02-150
Title: NOL-02-02-150-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	286-	309	291.98	72.90	1.31	4.37E+002	67.92	1.29E+003
m	2	286-	309	300.56	75.04	1.32	7.80E+002	77.11	1.86E+003
	3	331-	345	338.85	84.62	1.04	1.55E+002	130.12	1.47E+003
	4	945-	960	954.43	238.55	1.50	2.68E+002	71.88	3.59E+002
	5	1345-	1360	1352.34	338.06	0.84	6.04E+001	49.97	1.96E+002
	6	1400-	1417	1406.63	351.63	0.97	1.65E+002	52.54	1.70E+002
	7	2034-	2052	2041.65	510.43	0.94	1.25E+002	48.65	1.42E+002
	8	2323-	2341	2331.89	583.01	1.35	1.39E+002	45.05	1.15E+002
	9	2426-	2445	2435.95	609.03	1.21	1.62E+002	40.74	7.73E+001
	10	3633-	3652	3642.82	910.83	1.98	1.55E+002	38.15	6.31E+001
	11	3869-	3884	3875.73	969.07	1.00	7.04E+001	32.10	6.56E+001
	12	4685-	4699	4691.79	1173.14	0.49	3.11E+001	21.72	3.19E+001
	13	5505-	5518	5511.99	1378.24	0.87	2.37E+001	14.92	1.23E+001
	14	5830-	5858	5843.33	1461.10	1.93	1.40E+003	78.59	4.73E+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	0.990	511.00*		100.00	1.75306E-001	7.24356E-002
K-40	0.997	1460.81*		10.67	2.42003E+001	2.38490E+000
TL-208	0.751	277.35		6.80		
		510.84*		21.60	8.11603E-001	3.41837E-001
		583.14*		84.20	2.41874E-001	8.47051E-002
		860.37		12.46		
Pb-212	0.521	74.81*	@	10.70	1.15596E+001	2.53747E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	6.73061E-001	2.08996E-001
Bi-214	0.396	609.31*		46.30	5.20783E-001	1.46040E-001
		1120.29		15.10		
		1764.49		15.80		
Ac-228	0.999	338.32*		11.40	6.54372E-001	5.51283E-001
		911.07*		27.70	9.16068E-001	2.48990E-001
		969.11*		16.60	7.06689E-001	3.30712E-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	1.230616E-001	7.469118E-002
K-40	0.997	2.420035E+001	2.384898E+000
TL-208	0.751	2.418736E-001	8.433753E-002
Pb-212 @	0.521	6.730613E-001	2.089960E-001
Bi-214	0.396	5.207832E-001	1.460398E-001
Ac-228	0.999	8.189000E-001	1.871080E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	7.2897E-001	15.53
3	84.62	2.5783E-001	84.11
6	351.63	2.7581E-001	31.75
12	1173.14	5.1905E-002	69.73
13	1378.24	3.9421E-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
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	1.1337E-001	9.49E-002	-2.7722E-002
	1332.49	100.00	9.4949E-002		3.7869E-002
Nb-94	702.63	100.00	1.0830E-001	1.00E-001	8.8358E-002
	871.10	100.00	1.0009E-001		7.6598E-003
Ag-108m	79.20	7.10	5.4059E+000	1.26E-001	-4.0077E+000
	433.93	89.90	1.2626E-001		8.4900E-002
	614.37	90.40	1.3800E-001		-3.5061E-002
	722.95	90.50	1.2946E-001		-6.6367E-003
Sb-125	176.33	6.89	2.4282E+000	3.77E-001	-4.3950E-001
	427.89	29.33	3.7680E-001		-1.7303E-001
	463.38	10.35	1.0945E+000		2.1547E-001
	600.56	17.80	5.8739E-001		3.1862E-001
	606.64	5.02	2.6213E+000		3.9754E+000
	635.90	11.32	9.5186E-001		3.4403E-001
Cs-134	563.23	8.38	1.3774E+000	1.33E-001	5.9625E-001
	569.32	15.43	7.4266E-001		-1.9749E-001
	604.70	97.60	1.3430E-001		-1.2403E-002
	795.84	85.40	1.3335E-001		1.6935E-001
	801.93	8.73	1.2017E+000		-1.4753E+000
Cs-137	661.65	85.12	1.3382E-001	1.34E-001	6.4472E-002
Eu-152	121.78	28.40	7.9344E-001	3.24E-001	9.8492E-001
	244.69	7.49	1.9740E+000		-2.3040E+000
	344.27	26.50	4.5270E-001		8.4727E-002
	778.89	12.74	8.2280E-001		-7.3665E-001
	867.32	4.16	2.4533E+000		-2.3332E+000
	964.01	14.40	9.5018E-001		-3.7514E-001
	1085.78	10.00	1.0753E+000		-1.0179E+000
	1112.02	13.30	7.9247E-001		-1.9234E+000
	1407.95	20.70	3.2383E-001		-7.9342E-003
Eu-154	123.07	40.50	5.5066E-001	2.82E-001	6.1437E-001
	247.94	6.60	2.1098E+000		-3.7246E+000
	591.81	4.83	2.2868E+000		1.3163E+000
	723.30	19.70	5.9834E-001		1.7229E-001
	756.87	4.33	2.3692E+000		-1.1301E+000
	873.19	11.50	8.8615E-001		9.1671E-001
	996.32	10.30	9.6106E-001		-3.1541E-001
	1004.76	17.90	5.3024E-001		-3.0454E-001
	1274.45	35.50	2.8173E-001		1.3481E-001
Eu-155	86.54	30.90	1.1044E+000	1.10E+000	2.2185E-001
	105.31	20.70	1.2137E+000		2.7524E-001
Am-241	59.54	35.90	1.3407E+000	1.34E+000	4.5795E-001
Cm-243	228.19	10.56	1.4531E+000	9.97E-001	-5.0855E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Cm-243	277.60	14.00	9.9658E-001	9.97E-001	5.1362E-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 4/18/2006 11:00:16 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-02-02-151
Sample Title: NOL-02-02-151-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 4/18/2006 10:50:16 PM
Live Time: 600.0 seconds
Real Time: 601.1 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
(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-02-02-151
Title: NOL-02-02-151-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	284-	314	291.74	72.76	0.96	3.70E+002	60.52	1.20E+003
m	2	284-	314	300.46	74.95	0.96	7.28E+002	72.14	1.20E+003
m	3	284-	314	309.15	77.12	0.97	1.36E+002	52.83	1.11E+003
F	4	949-	960	954.05	238.39	1.11	3.61E+002	46.18	2.64E+002
F	5	1175-	1191	1181.28	295.22	0.90	8.09E+001	27.57	2.34E+002
F	6	1347-	1360	1352.41	338.01	1.33	7.28E+001	26.06	1.47E+002
F	7	1398-	1414	1407.50	351.79	1.19	1.76E+002	31.74	1.66E+002
F	8	2035-	2053	2042.37	510.55	1.94	1.39E+002	27.88	1.33E+002
F	9	2322-	2342	2332.34	583.07	1.59	1.90E+002	29.31	9.45E+001
F	10	2427-	2448	2436.68	609.16	1.39	1.78E+002	29.31	1.13E+002
F	11	3634-	3654	3645.13	911.36	1.64	1.79E+002	27.68	5.00E+001
M	12	3854-	3884	3859.24	964.91	1.60	3.09E+001	17.15	5.19E+001
m	13	3854-	3884	3875.91	969.08	1.60	1.11E+002	23.38	5.95E+001
F	14	4472-	4489	4481.17	1120.44	1.62	6.10E+001	19.82	5.40E+001
F	15	5832-	5859	5844.76	1461.44	1.97	1.10E+003	63.51	1.58E+001
F	16	7054-	7067	7060.34	1765.42	2.46	4.06E+001	13.81	6.56E+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/GRAM)	Activity Uncertainty
ANN	0.993	511.00*	100.00	1.89130E-001	4.58614E-002
K-40	0.986	1460.81*	10.67	1.84464E+001	1.83444E+000
TL-208	0.751	277.35	6.80		
		510.84*	21.60	8.75601E-001	2.24039E-001
		583.14*	84.20	3.21669E-001	6.49228E-002
		860.37	12.46		
Pb-212	0.842	74.81* @	10.70	1.04117E+001	2.28662E+000
		77.11* @	18.00	1.11284E+000	4.83744E-001
		87.30 @	8.00		
		238.63*	44.60	8.77678E-001	1.77580E-001
Bi-214	0.993	609.31*	46.30	5.55498E-001	1.14279E-001
		1120.29*	15.10	6.80459E-001	2.32505E-001
		1764.49*	15.80	4.76682E-001	1.69089E-001
PB-214	0.763	74.82* @	6.21	1.79397E+001	4.14957E+000
		77.11* @	10.50	1.90773E+000	8.41420E-001
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	4.85512E-001	1.84544E-001
		351.92*	37.20	5.73733E-001	1.40995E-001
Ac-228	0.998	338.32*	11.40	7.64594E-001	2.98896E-001
		911.07*	27.70	1.02653E+000	1.97592E-001
		969.11*	16.60	1.07613E+000	2.53733E-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/GRAM)	Wt mean Activity Uncertainty
ANN		0.993	1.196494E-001	4.790398E-002
K-40		0.986	1.844635E+001	1.834441E+000
TL-208		0.751	3.216689E-001	6.407088E-002
Pb-212	@	0.842	8.776781E-001	1.775798E-001
Bi-214		0.993	5.520755E-001	8.769033E-002
PB-214	@	0.763	5.412168E-001	1.120376E-001
Ac-228		0.998	9.852292E-001	1.382250E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	6.1635E-001	16.37
M 12	964.91	5.1549E-002	55.45

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
(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/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Co-60	1173.22	100.00	1.0248E-001	7.84E-002	6.2965E-002
	1332.49	100.00	7.8375E-002		3.4130E-002
Nb-94	702.63	100.00	1.0226E-001	8.75E-002	7.8704E-002
	871.10	100.00	8.7492E-002		-8.1976E-002
Ag-108m	79.20	7.10	4.4596E+000	1.16E-001	-8.0400E-001
	433.93	89.90	1.1620E-001		-1.2162E-001
	614.37	90.40	1.3615E-001		2.0443E-002
	722.95	90.50	1.2596E-001		2.3617E-002
Sb-125	176.33	6.89	2.2111E+000	3.64E-001	-1.7217E-001
	427.89	29.33	3.6351E-001		1.4323E-001
	463.38	10.35	9.9914E-001		5.1292E-001
	600.56	17.80	5.8481E-001		-9.0981E-002
	606.64	5.02	2.7675E+000		-5.5363E-001
	635.90	11.32	8.2093E-001		9.2776E-003
Cs-134	563.23	8.38	1.1377E+000	1.12E-001	-2.7808E-001
	569.32	15.43	6.3068E-001		-6.8726E-001
	604.70	97.60	1.3625E-001		1.4230E-003
	795.84	85.40	1.1242E-001		3.4831E-002
	801.93	8.73	1.0655E+000		-1.8913E-001
Cs-137	661.65	85.12	1.2763E-001	1.28E-001	3.6916E-002
Eu-152	121.78	28.40	7.1217E-001	3.57E-001	-4.1995E-001
	244.69	7.49	1.8098E+000		5.7914E-001
	344.27	26.50	4.2814E-001		3.4082E-001
	778.89	12.74	7.2590E-001		7.4976E-002
	867.32	4.16	2.1916E+000		-1.7814E+000
	964.01	14.40	8.9062E-001		-2.8481E-001
	1085.78	10.00	1.0176E+000		1.4107E-001
	1112.02	13.30	7.0929E-001		-2.4389E-001
	1407.95	20.70	3.5738E-001		2.6218E-001
Eu-154	123.07	40.50	4.9459E-001	2.62E-001	1.6641E-001
	247.94	6.60	1.9379E+000		-3.0816E-001
	591.81	4.83	2.2569E+000		1.5947E+000
	723.30	19.70	5.7872E-001		1.7344E-001
	756.87	4.33	2.2271E+000		4.1916E-002
	873.19	11.50	7.8040E-001		-1.9132E-002
	996.32	10.30	8.9352E-001		-1.1134E-001
	1004.76	17.90	5.1541E-001		1.6840E-001
	1274.45	35.50	2.6199E-001		1.2976E-001
Eu-155	86.54	30.90	9.6104E-001	9.61E-001	1.6716E+000
	105.31	20.70	1.1482E+000		2.9604E-001
Am-241	59.54	35.90	1.1552E+000	1.16E+000	-1.2515E-001
Cm-243	228.19	10.56	1.2592E+000	8.91E-001	-1.3738E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	8.9056E-001	8.91E-001	-2.8911E-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 4/26/2006 8:58:04 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-02-02-152
Sample Title: NOL-02-02-152-F-G-I
Description:

Sample Type:
Geometry:

Acquisition Started: 4/26/2006 8:48:02 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-02-02-152
Title: NOL-02-02-152-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-	309	291.23	72.71	1.46	3.94E+002	70.54	1.68E+003
m	2	283-	309	300.31	74.98	1.46	8.26E+002	81.94	2.37E+003
F	3	329-	347	338.92	84.63	1.04	1.96E+002	64.32	1.95E+003
F	4	946-	962	954.38	238.54	1.42	3.21E+002	45.09	4.01E+002
F	5	1346-	1361	1353.00	338.22	0.95	4.47E+001	24.75	1.98E+002
F	6	1400-	1416	1407.39	351.82	1.25	1.37E+002	30.99	1.95E+002
F	7	2319-	2340	2331.34	582.87	1.71	1.58E+002	28.82	1.17E+002
F	8	2427-	2446	2436.30	609.12	1.57	1.70E+002	28.66	8.22E+001
F	9	3634-	3654	3644.39	911.22	2.11	1.36E+002	24.88	4.73E+001
F	10	3869-	3883	3875.92	969.12	1.38	6.23E+001	21.67	6.33E+001
F	11	4101-	4112	4105.74	1026.59	1.08	1.53E+001	11.34	1.84E+001
F	12	4686-	4701	4693.60	1173.59	1.41	4.85E+001	19.77	5.64E+001
F	13	5324-	5339	5331.46	1333.10	1.61	5.33E+001	19.05	4.00E+001
F	14	5830-	5858	5845.44	1461.63	2.06	1.08E+003	64.01	2.59E+001
F	15	7051-	7070	7061.39	1765.70	2.25	5.53E+001	15.35	5.00E+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
K-40	0.979	1460.81*	10.67	1.86271E+001	1.87115E+000
Co-60	0.992	1173.22*	100.00	8.53610E-002	3.54313E-002
		1332.49*	100.00	9.65814E-002	3.53615E-002
TL-208	0.470	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	2.75953E-001	6.18097E-002
		860.37	12.46		
Pb-212	0.521	74.81* @	10.70	1.22474E+001	2.69071E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	8.04563E-001	1.69463E-001
Bi-214	0.688	609.31*	46.30	5.48851E-001	1.14400E-001
		1120.29	15.10		
		1764.49*	15.80	6.71523E-001	1.97943E-001
Ac-228	1.000	338.32*	11.40	4.84642E-001	2.78844E-001
		911.07*	27.70	8.05769E-001	1.73871E-001
		969.11*	16.60	6.25628E-001	2.27244E-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		0.979	1.862714E+001	1.871151E+000
Co-60		0.992	9.098225E-002	2.502900E-002
TL-208		0.470	2.759529E-001	6.180975E-002
Pb-212	@	0.521	8.045635E-001	1.694633E-001
Bi-214		0.688	5.795663E-001	9.904798E-002
Ac-228		1.000	6.891089E-001	1.237452E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	6.5699E-001	17.89
F 3	84.63	3.2688E-001	32.80
F 6	351.82	2.2820E-001	22.63
F 11	1026.59	2.5458E-002	74.24

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	8.0403E-002	7.03E-002	8.5361E-002
		1332.49*	100.00	7.0292E-002		9.6581E-002
	Nb-94	702.63	100.00	1.0880E-001	1.06E-001	7.2930E-003
		871.10	100.00	1.0558E-001		-2.8889E-002
	Ag-108m	79.20	7.10	5.6695E+000	1.21E-001	-3.2035E+000
		433.93	89.90	1.3381E-001		1.5975E-002
		614.37	90.40	1.4866E-001		-6.2335E-002
		722.95	90.50	1.2147E-001		9.2551E-002
	Sb-125	176.33	6.89	2.4830E+000	4.04E-001	7.3555E-001
		427.89	29.33	4.0432E-001		3.6589E-001
		463.38	10.35	1.1514E+000		8.6321E-001
		600.56	17.80	6.0831E-001		1.1698E-001
		606.64	5.02	2.8266E+000		6.2575E+000
		635.90	11.32	9.1085E-001		-4.8060E-002
	Cs-134	563.23	8.38	1.2862E+000	1.22E-001	-7.1215E-001
		569.32	15.43	6.9238E-001		5.0022E-003
		604.70	97.60	1.4181E-001		4.5510E-002
		795.84	85.40	1.2233E-001		1.1634E-003
		801.93	8.73	1.1439E+000		-1.8120E+000
	Cs-137	661.65	85.12	1.3678E-001	1.37E-001	9.6826E-002
	Eu-152	121.78	28.40	7.9194E-001	3.15E-001	-4.1976E-001
		244.69	7.49	1.9587E+000		5.1491E-001
		344.27	26.50	4.6020E-001		-1.3341E-001
		778.89	12.74	8.0347E-001		-9.2487E-001
		867.32	4.16	2.6349E+000		1.0117E+000
		964.01	14.40	9.2140E-001		1.6986E-001
		1085.78	10.00	1.0176E+000		2.4663E-001
		1112.02	13.30	7.6277E-001		-2.3160E-001
		1407.95	20.70	3.1522E-001		1.3625E-001
	Eu-154	123.07	40.50	5.5643E-001	2.55E-001	1.2742E-002
		247.94	6.60	2.1328E+000		-1.4345E+000
		591.81	4.83	2.0998E+000		-1.9757E+000
		723.30	19.70	5.5935E-001		5.2144E-001
		756.87	4.33	2.3818E+000		-8.3736E-001
		873.19	11.50	9.3549E-001		5.7350E-001
		996.32	10.30	9.7663E-001		7.8011E-002
		1004.76	17.90	5.3213E-001		2.7218E-001
		1274.45	35.50	2.5458E-001		1.3222E-002
	Eu-155	86.54	30.90	1.1467E+000	1.15E+000	1.9636E-001
		105.31	20.70	1.2868E+000		-5.0451E-001
	Am-241	59.54	35.90	1.4302E+000	1.43E+000	-1.0999E+000
	Cm-243	228.19	10.56	1.4074E+000	9.90E-001	-5.0095E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Cm-243	277.60	14.00	9.9037E-001	9.90E-001	4.5114E-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 4/26/2006 9:31:47 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-02-02-153
Sample Title: NOL-02-02-153-F-G-I
Description:

Sample Type:
Geometry:

Acquisition Started: 4/26/2006 9:21:45 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-02-02-153
Title: NOL-02-02-153-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-	308	291.59	72.80	1.49	3.58E+002	72.42	1.59E+003
m	2	284-	308	300.10	74.93	1.50	8.06E+002	81.95	2.20E+003
F	3	333-	343	339.09	84.68	1.13	1.62E+002	63.01	1.11E+003
F	4	948-	960	954.06	238.46	1.34	2.62E+002	42.38	2.92E+002
F	5	1173-	1188	1180.50	295.09	0.93	7.31E+001	27.50	2.17E+002
F	6	1399-	1414	1406.90	351.70	1.29	1.25E+002	29.92	1.72E+002
F	7	1846-	1856	1851.38	462.85	0.94	2.86E+001	19.56	7.98E+001
F	8	2323-	2343	2331.85	583.00	1.68	1.87E+002	29.66	9.38E+001
F	9	2428-	2446	2436.59	609.19	1.52	1.54E+002	28.80	1.03E+002
F	10	2640-	2652	2645.85	661.52	1.65	5.35E+001	18.99	4.07E+001
F	11	3082-	3093	3087.39	771.93	0.74	1.74E+001	12.89	3.86E+001
F	12	3637-	3652	3644.09	911.15	1.48	1.18E+002	25.74	5.86E+001
F	13	3868-	3885	3875.95	969.13	1.66	8.57E+001	21.98	4.95E+001
F	14	4686-	4700	4691.75	1173.13	1.53	2.89E+001	15.59	3.43E+001
F	15	5324-	5337	5330.06	1332.75	1.29	3.23E+001	13.93	1.76E+001
F	16	5831-	5859	5845.08	1461.54	2.13	1.10E+003	64.89	2.87E+001
F	17	7053-	7068	7061.25	1765.66	1.82	3.78E+001	13.86	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

N U C L I 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	0.983	1460.81*	10.67	1.91134E+001	1.91185E+000
Co-60	0.999	1173.22*	100.00	5.09257E-002	2.77229E-002
		1332.49*	100.00	5.86036E-002	2.56589E-002
Cs-137	0.999	661.65*	85.12	9.62981E-002	3.60172E-002
TL-208	0.471	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.27004E-001	6.70281E-002
		860.37	12.46		
Pb-212	0.521	74.81* @	10.70	1.19737E+001	2.64358E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	6.58022E-001	1.48176E-001
Bi-214	0.689	609.31*	46.30	4.96326E-001	1.11077E-001
		1120.29	15.10		
		1764.49*	15.80	4.58561E-001	1.74309E-001
PB-214	0.582	74.82* @	6.21	2.06310E+001	4.79485E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	4.52933E-001	1.86593E-001
		351.92*	37.20	4.20696E-001	1.22683E-001
Ac-228	0.633	338.32	11.40		
		911.07*	27.70	6.97725E-001	1.72047E-001
		969.11*	16.60	8.60081E-001	2.38385E-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		0.983	1.911338E+001	1.911854E+000
Co-60		0.999	5.506104E-002	1.883105E-002
Cs-137		0.999	9.629812E-002	3.601721E-002
TL-208		0.471	3.270036E-001	6.702815E-002
Pb-212	@	0.521	6.580224E-001	1.481757E-001
Bi-214		0.689	4.854193E-001	9.367418E-002
PB-214	@	0.582	4.304259E-001	1.025108E-001
Ac-228		0.633	7.533297E-001	1.395084E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	5.9719E-001	20.21
F 3	84.68	2.6992E-001	38.91
F 7	462.85	4.7749E-002	68.28
F 11	771.93	2.8925E-002	74.25

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
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	6.3097E-002	4.66E-002	5.0926E-002
		1332.49*	100.00	4.6565E-002		5.8604E-002
	Nb-94	702.63	100.00	1.0184E-001	1.00E-001	-6.2811E-002
		871.10	100.00	1.0009E-001		6.5460E-002
	Ag-108m	79.20	7.10	5.4980E+000	1.24E-001	-7.0096E+000
		433.93	89.90	1.2370E-001		-2.2970E-002
		614.37	90.40	1.4470E-001		-2.3774E-002
		722.95	90.50	1.2393E-001		1.0576E-001
	Sb-125	176.33	6.89	2.3639E+000	3.82E-001	-1.3122E-001
		427.89	29.33	3.8223E-001		-1.2806E-002
		463.38	10.35	1.0910E+000		-3.3658E-001
		600.56	17.80	6.1597E-001		-1.2464E-001
		606.64	5.02	2.7847E+000		4.1871E+000
		635.90	11.32	9.0420E-001		-6.2290E-001
	Cs-134	563.23	8.38	1.3301E+000	1.17E-001	-7.5688E-001
		569.32	15.43	7.0102E-001		-6.8401E-002
		604.70	97.60	1.4181E-001		2.2999E-004
		795.84	85.40	1.1709E-001		3.7506E-002
		801.93	8.73	1.1635E+000		-7.0386E-001
+	Cs-137	661.65*	85.12	6.6296E-002	6.63E-002	9.6298E-002
	Eu-152	121.78	28.40	7.8101E-001	3.35E-001	-1.8234E-001
		244.69	7.49	1.9108E+000		-2.1774E+000
		344.27	26.50	4.4726E-001		-7.2642E-001
		778.89	12.74	7.8364E-001		1.1042E-001
		867.32	4.16	2.3017E+000		-1.1161E+000
		964.01	14.40	8.4503E-001		-3.8087E-002
		1085.78	10.00	9.6673E-001		-2.4261E-001
		1112.02	13.30	7.9004E-001		-1.5235E-001
		1407.95	20.70	3.3494E-001		8.0491E-002
	Eu-154	123.07	40.50	5.4203E-001	2.53E-001	1.0223E-001
		247.94	6.60	2.0472E+000		-4.5517E-001
		591.81	4.83	2.3005E+000		4.4545E-002
		723.30	19.70	5.6687E-001		2.0619E-001
		756.87	4.33	2.2191E+000		-7.1218E-001
		873.19	11.50	8.5774E-001		4.8954E-002
		996.32	10.30	9.4522E-001		-5.6529E-001
		1004.76	17.90	5.3777E-001		8.7670E-002
		1274.45	35.50	2.5343E-001		-9.9796E-002
	Eu-155	86.54	30.90	1.1093E+000	1.11E+000	1.5270E+000
		105.31	20.70	1.2408E+000		1.1325E+000
	Am-241	59.54	35.90	1.3807E+000	1.38E+000	4.1804E-001
	Cm-243	228.19	10.56	1.4014E+000	9.82E-001	-8.1751E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Cm-243	277.60	14.00	9.8176E-001	9.82E-001	4.6935E-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 4/26/2006 9:59:43 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: RED6264

Spectrum File: RED6264
Sample ID: NOL-02-02-154
Sample Title: NOL-02-02-154-F-G-I
Description:

Sample Type:
Geometry:

Acquisition Started: 4/26/2006 9:49:40 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-02-02-154
Title: NOL-02-02-154-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	282-	309	291.76	72.84	1.35	3.95E+002	68.81	1.80E+003
m	2	282-	309	300.33	74.98	1.35	8.25E+002	80.24	2.10E+003
F	3	330-	344	339.10	84.68	0.96	1.87E+002	63.95	1.51E+003
F	4	949-	961	954.27	238.51	1.33	3.05E+002	46.07	3.42E+002
F	5	1175-	1189	1180.54	295.09	1.48	1.42E+002	33.46	2.13E+002
F	6	1347-	1358	1352.02	337.98	0.41	3.58E+001	18.67	1.62E+002
F	7	1399-	1416	1407.10	351.75	1.85	1.60E+002	31.31	1.86E+002
F	8	2035-	2052	2042.67	510.68	1.56	1.08E+002	28.08	1.57E+002
F	9	2325-	2343	2331.89	583.01	1.65	1.90E+002	29.86	7.15E+001
F	10	2424-	2446	2435.75	608.98	1.83	1.76E+002	30.79	1.53E+002
F	11	2636-	2655	2645.32	661.39	1.77	2.11E+002	30.92	8.09E+001
F	12	2898-	2917	2906.89	726.80	2.03	6.79E+001	20.09	6.37E+001
F	13	3635-	3655	3644.19	911.17	1.86	1.50E+002	27.36	7.23E+001
F	14	3868-	3883	3875.65	969.05	1.59	7.17E+001	21.59	5.41E+001
F	15	4686-	4706	4694.15	1173.73	2.29	1.15E+002	25.41	6.44E+001
F	16	5321-	5340	5331.04	1333.00	1.84	1.04E+002	22.05	2.74E+001
F	17	5831-	5857	5844.69	1461.44	2.08	1.03E+003	63.69	3.71E+001
F	18	7053-	7068	7061.31	1765.68	1.73	3.93E+001	15.24	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	0.997	511.00*	100.00	1.52046E-001	4.45597E-002
K-40	0.987	1460.81*	10.67	1.78400E+001	1.81675E+000
Co-60	0.992	1173.22*	100.00	2.02680E-001	4.74568E-002
		1332.49*	100.00	1.88058E-001	4.26055E-002
Cs-137	0.998	661.65*	85.12	3.79735E-001	7.13944E-002
TL-208	0.751	277.35	6.80		
		510.84*	21.60	7.03919E-001	2.14155E-001
		583.14*	84.20	3.31272E-001	6.76474E-002
		860.37	12.46		
Bi-212	0.996	727.17*	11.80	8.99377E-001	2.86232E-001
Pb-212	0.521	74.81* @	10.70	1.22312E+001	2.67657E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	7.65484E-001	1.66644E-001
Bi-214	0.687	609.31*	46.30	5.66332E-001	1.21231E-001
		1120.29	15.10		
		1764.49*	15.80	4.76912E-001	1.90972E-001
PB-214	0.582	74.82* @	6.21	2.10747E+001	4.85893E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	8.80249E-001	2.54732E-001
		351.92*	37.20	5.37806E-001	1.38369E-001
Ac-228	0.999	338.32*	11.40	3.88507E-001	2.11347E-001
		911.07*	27.70	8.86824E-001	1.91278E-001
		969.11*	16.60	7.19469E-001	2.29481E-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	8.049172E-002	4.683622E-002
K-40		0.987	1.784001E+001	1.816753E+000
Co-60		0.992	1.945836E-001	3.170347E-002
Cs-137		0.998	3.797351E-001	7.139435E-002
TL-208		0.751	3.312721E-001	6.678037E-002
Bi-212		0.996	8.993772E-001	2.862317E-001
Pb-212	@	0.521	7.654843E-001	1.666445E-001
Bi-214		0.687	5.406476E-001	1.023496E-001
PB-214	@	0.582	6.158273E-001	1.215891E-001
Ac-228		0.999	6.782035E-001	1.206406E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	6.5879E-001	17.41
F 3	84.68	3.1228E-001	34.13

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	9.3485E-002	6.33E-002	2.0268E-001
		1332.49*	100.00	6.3279E-002		1.8806E-001
	Nb-94	702.63	100.00	1.1485E-001	1.08E-001	5.5596E-002
		871.10	100.00	1.0780E-001		4.6877E-002
	Ag-108m	79.20	7.10	5.6071E+000	1.30E-001	-3.4281E+000
		433.93	89.90	1.3344E-001		-1.0242E-001
		614.37	90.40	1.5489E-001		-4.4989E-002
		722.95	90.50	1.2972E-001		-8.7550E-003
	Sb-125	176.33	6.89	2.5182E+000	4.15E-001	1.0224E+000
		427.89	29.33	4.1491E-001		-1.3078E-001
		463.38	10.35	1.2465E+000		1.2918E+000
		600.56	17.80	6.3347E-001		-3.5477E-001
		606.64	5.02	3.0144E+000		7.5188E+000
		635.90	11.32	9.3911E-001		1.8985E-001
	Cs-134	563.23	8.38	1.4278E+000	1.27E-001	4.8066E-001
		569.32	15.43	7.5337E-001		-2.2176E-001
		604.70	97.60	1.5014E-001		-8.9801E-002
		795.84	85.40	1.2704E-001		-2.8580E-002
		801.93	8.73	1.2234E+000		-1.5834E+000
+	Cs-137	661.65*	85.12	1.0524E-001	1.05E-001	3.7974E-001
	Eu-152	121.78	28.40	8.0032E-001	3.32E-001	-4.4487E-001
		244.69	7.49	2.0584E+000		-2.7211E+000
		344.27	26.50	4.9598E-001		-7.3007E-002
		778.89	12.74	8.9190E-001		-9.8899E-001
		867.32	4.16	2.7304E+000		1.9773E-001
		964.01	14.40	9.1324E-001		2.1459E-001
		1085.78	10.00	1.0009E+000		7.6789E-001
		1112.02	13.30	7.3966E-001		-3.9992E-001
		1407.95	20.70	3.3220E-001		-3.1902E-001
	Eu-154	123.07	40.50	5.5460E-001	2.68E-001	2.3690E-001
		247.94	6.60	2.1989E+000		-1.2792E+000
		591.81	4.83	2.3900E+000		3.0232E-001
		723.30	19.70	5.9716E-001		5.0773E-002
		756.87	4.33	2.3818E+000		-9.1546E-001
		873.19	11.50	9.2341E-001		1.4353E-001
		996.32	10.30	9.7353E-001		-1.4896E-001
		1004.76	17.90	5.7564E-001		-1.5003E-001
		1274.45	35.50	2.6798E-001		-5.3488E-002
	Eu-155	86.54	30.90	1.1391E+000	1.14E+000	1.9980E-001
		105.31	20.70	1.2847E+000		-8.5813E-001
	Am-241	59.54	35.90	1.3704E+000	1.37E+000	-1.0949E+000
	Cm-243	228.19	10.56	1.4974E+000	1.04E+000	1.0030E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Cm-243	277.60	14.00	1.0353E+000	1.04E+000	4.8534E-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 4/26/2006 10:23:32 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-02-02-155
Sample Title: NOL-02-02-155-F-G-I
Description:

Sample Type:
Geometry:

Acquisition Started: 4/26/2006 10:13:29 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-02-02-155
Title: NOL-02-02-155-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	282-	309	291.39	72.75	1.35	4.28E+002	67.42	1.59E+003
m	2	282-	309	300.16	74.94	1.36	9.03E+002	80.89	1.98E+003
F	3	333-	345	339.41	84.76	0.90	1.54E+002	62.73	1.37E+003
F	4	394-	402	398.01	99.41	0.47	8.04E+001	41.98	7.04E+002
F	5	945-	961	954.39	238.54	1.26	3.24E+002	46.72	4.43E+002
F	6	1396-	1416	1407.58	351.87	1.74	1.92E+002	33.49	2.31E+002
F	7	2034-	2053	2042.14	510.55	1.99	1.65E+002	29.09	1.15E+002
F	8	2211-	2222	2217.50	554.40	1.09	3.68E+001	17.09	4.35E+001
F	9	2323-	2343	2332.37	583.13	1.80	1.96E+002	30.93	1.13E+002
F	10	2428-	2446	2436.67	609.21	1.66	1.64E+002	29.82	1.15E+002
F	11	2637-	2654	2646.02	661.56	1.47	6.59E+001	21.70	8.17E+001
F	12	2899-	2916	2907.46	726.94	1.49	5.07E+001	21.23	9.04E+001
F	13	3632-	3653	3643.67	911.04	2.05	1.48E+002	26.89	7.14E+001
F	14	3868-	3885	3875.77	969.08	1.49	8.15E+001	23.47	7.70E+001
F	15	4472-	4488	4480.21	1120.23	1.81	4.78E+001	19.42	5.31E+001
F	16	4685-	4699	4692.47	1173.31	1.01	4.29E+001	16.36	3.57E+001
F	17	5831-	5860	5844.96	1461.51	2.17	1.17E+003	66.79	2.83E+001
F	18	7056-	7070	7063.34	1766.18	1.66	4.05E+001	15.26	1.74E+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: 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	2.31798E-001	5.15932E-002
K-40	0.985	1460.81*	10.67	2.01857E+001	2.00160E+000
Cs-137	1.000	661.65*	85.12	1.18661E-001	4.14887E-002
TL-208	0.751	277.35	6.80		
		510.84*	21.60	1.07314E+000	2.54428E-001
		583.14*	84.20	3.42083E-001	6.99813E-002
		860.37	12.46		
Bi-212	0.998	727.17*	11.80	6.71532E-001	2.91912E-001
Pb-212	0.521	74.81* @	10.70	1.34052E+001	2.88882E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	8.14244E-001	1.73344E-001
Bi-214	0.981	609.31*	46.30	5.27325E-001	1.15931E-001
		1120.29*	15.10	5.49755E-001	2.30845E-001
		1764.49*	15.80	4.91605E-001	1.91611E-001
Ac-228	0.633	338.32	11.40		
		911.07*	27.70	8.74193E-001	1.88146E-001
		969.11*	16.60	8.18607E-001	2.50783E-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	1.579081E-001	5.370806E-002
K-40		0.985	2.018574E+001	2.001596E+000
Cs-137		1.000	1.186610E-001	4.148868E-002
TL-208		0.751	3.420831E-001	6.908766E-002
Bi-212		0.998	6.715320E-001	2.919120E-001
Pb-212	@	0.521	8.142441E-001	1.733440E-001
Bi-214		0.981	5.227406E-001	9.113250E-002
Ac-228		0.633	8.541742E-001	1.504997E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	7.1352E-001	15.75
F	3	84.76	2.5706E-001	40.67
F	4	99.41	1.3401E-001	52.21
F	6	351.87	3.1973E-001	17.46
F	8	554.40	6.1269E-002	46.49
F	16	1173.31	7.1582E-002	38.08

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	1.2025E-001	9.42E-002	7.3023E-002
		1332.49	100.00	9.4156E-002		5.6800E-002
	Nb-94	702.63	100.00	1.1295E-001	1.06E-001	8.1753E-002
		871.10	100.00	1.0586E-001		-1.1128E-003
	Ag-108m	79.20	7.10	5.5287E+000	1.31E-001	-6.6533E+000
		433.93	89.90	1.3197E-001		4.6512E-002
		614.37	90.40	1.5271E-001		3.5372E-002
		722.95	90.50	1.3075E-001		-3.5777E-002
	Sb-125	176.33	6.89	2.5347E+000	4.00E-001	1.4164E+000
		427.89	29.33	3.9977E-001		1.8798E-001
		463.38	10.35	1.1862E+000		4.0486E-001
		600.56	17.80	6.2478E-001		-1.6185E-001
		606.64	5.02	2.8713E+000		6.3672E+000
		635.90	11.32	9.5397E-001		-5.4109E-001
	Cs-134	563.23	8.38	1.3250E+000	1.32E-001	-1.1096E+000
		569.32	15.43	7.4670E-001		-6.2996E-002
		604.70	97.60	1.4326E-001		-1.4610E-001
		795.84	85.40	1.3217E-001		1.2578E-002
		801.93	8.73	1.2172E+000		-1.2919E+000
+	Cs-137	661.65*	85.12	1.0206E-001	1.02E-001	1.1866E-001
	Eu-152	121.78	28.40	7.8649E-001	3.92E-001	-4.0044E-001
		244.69	7.49	2.0179E+000		-1.3475E+000
		344.27	26.50	4.7536E-001		-6.5480E-001
		778.89	12.74	7.7013E-001		-9.3821E-001
		867.32	4.16	2.6543E+000		-4.2433E-001
		964.01	14.40	9.8719E-001		5.7622E-001
		1085.78	10.00	9.0169E-001		-1.2421E+000
		1112.02	13.30	7.9972E-001		1.1632E-001
		1407.95	20.70	3.9237E-001		2.4229E-001
	Eu-154	123.07	40.50	5.5027E-001	2.52E-001	-1.0062E-001
		247.94	6.60	2.2370E+000		1.3811E+000
		591.81	4.83	2.3051E+000		-1.1245E+000
		723.30	19.70	6.0303E-001		-1.2564E-001
		756.87	4.33	2.2725E+000		-1.5361E+000
		873.19	11.50	8.8105E-001		-6.4593E-001
		996.32	10.30	9.8278E-001		1.6550E-002
		1004.76	17.90	5.5433E-001		-1.8580E-001
		1274.45	35.50	2.5228E-001		-2.0073E-001
	Eu-155	86.54	30.90	1.1247E+000	1.12E+000	1.3625E+000
		105.31	20.70	1.2834E+000		1.0620E+000
	Am-241	59.54	35.90	1.3534E+000	1.35E+000	-1.1322E+000
	Cm-243	228.19	10.56	1.4406E+000	1.03E+000	-2.5010E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Cm-243	277.60	14.00	1.0278E+000	1.03E+000	4.5530E-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 5/1/2006 6:20:09 PM

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

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-02-02-157
Sample Title: NOL-02-02-157-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/1/2006 6:10:08 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-02-02-157
Title: NOL-02-02-157-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	281-	309	291.28	72.72	1.55	4.84E+002	74.19	1.81E+003
m	2	281-	309	300.01	74.90	1.56	8.37E+002	82.32	2.35E+003
F	3	330-	344	339.06	84.67	1.37	2.30E+002	65.84	1.49E+003
F	4	946-	961	954.03	238.45	1.23	2.56E+002	44.73	4.50E+002
F	5	1173-	1187	1180.76	295.15	1.25	7.55E+001	29.56	2.29E+002
F	6	1394-	1416	1406.26	351.54	1.79	1.75E+002	32.82	2.58E+002
F	7	2036-	2055	2044.64	511.18	2.18	1.24E+002	26.95	1.26E+002
F	8	2322-	2343	2331.48	582.91	1.62	1.93E+002	31.00	1.22E+002
F	9	2429-	2446	2435.91	609.02	1.56	1.77E+002	29.36	7.91E+001
F	10	2632-	2657	2645.60	661.46	2.22	1.52E+002	26.13	9.06E+001
F	11	3633-	3654	3643.47	910.99	1.94	1.44E+002	26.47	7.11E+001
F	12	3868-	3881	3875.08	968.91	1.61	7.09E+001	22.62	5.79E+001
F	13	4474-	4489	4479.35	1120.02	1.01	3.90E+001	16.98	4.79E+001
F	14	4684-	4704	4693.10	1173.47	1.94	1.61E+002	27.42	4.67E+001
F	15	4942-	4955	4948.35	1237.30	0.61	1.76E+001	11.26	3.17E+001
F	16	5319-	5340	5330.03	1332.74	1.91	1.46E+002	25.54	3.31E+001
F	17	5831-	5858	5844.13	1461.30	2.20	1.07E+003	63.92	3.68E+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	0.999	511.00*	100.00	1.74632E-001	4.47034E-002
K-40	0.992	1460.81*	10.67	1.85820E+001	1.86721E+000
Co-60	0.998	1173.22*	100.00	2.84090E-001	5.31390E-002
		1332.49*	100.00	2.64171E-001	5.07156E-002
Cs-137	0.999	661.65*	85.12	2.72928E-001	5.69733E-002
TL-208	0.750	277.35	6.80		
		510.84*	21.60	8.08480E-001	2.17237E-001
		583.14*	84.20	3.37207E-001	6.96805E-002
		860.37	12.46		
Pb-212	0.521	74.81* @	10.70	1.24375E+001	2.72733E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	6.42248E-001	1.50799E-001
Bi-214	0.698	609.31*	46.30	5.70718E-001	1.17804E-001
		1120.29*	15.10	4.48983E-001	2.00985E-001
		1764.49	15.80		
PB-214	0.581	74.82* @	6.21	2.14301E+001	4.95007E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	4.67319E-001	1.99279E-001
		351.92*	37.20	5.87973E-001	1.47700E-001
Ac-228	0.633	338.32	11.40		
		911.07*	27.70	8.49627E-001	1.84558E-001
		969.11*	16.60	7.11721E-001	2.39004E-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	1.017950E-001	4.710933E-002
K-40		0.992	1.858205E+001	1.867210E+000
Co-60		0.998	2.736659E-001	3.668819E-002
Cs-137		0.999	2.729283E-001	5.697326E-002
TL-208		0.750	3.372066E-001	6.880846E-002
Pb-212	@	0.521	6.422481E-001	1.507995E-001
Bi-214		0.698	5.395895E-001	1.016326E-001
PB-214	@	0.581	5.451934E-001	1.186609E-001
Ac-228		0.633	7.981125E-001	1.460754E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	8.0587E-001	15.34
F 3	84.67	3.8282E-001	28.67
F 15	1237.30	2.9261E-002	64.11

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: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	7.9536E-002	7.16E-002	2.8409E-001
		1332.49*	100.00	7.1571E-002		2.6417E-001
	Nb-94	702.63	100.00	1.0779E-001	1.04E-001	3.7117E-002
		871.10	100.00	1.0359E-001		-5.5004E-002
	Ag-108m	79.20	7.10	5.4835E+000	1.26E-001	-4.9375E+000
		433.93	89.90	1.3617E-001		5.9544E-002
		614.37	90.40	1.4554E-001		-8.9352E-002
		722.95	90.50	1.2633E-001		2.8693E-002
	Sb-125	176.33	6.89	2.4582E+000	4.13E-001	1.1893E+000
		427.89	29.33	4.1270E-001		1.2124E-001
		463.38	10.35	1.1548E+000		5.1344E-001
		600.56	17.80	6.7630E-001		3.6436E-001
		606.64	5.02	2.9354E+000		6.1675E+000
		635.90	11.32	9.3911E-001		1.8345E-001
	Cs-134	563.23	8.38	1.3651E+000	1.34E-001	6.2388E-002
		569.32	15.43	7.3725E-001		1.3881E-001
		604.70	97.60	1.4805E-001		-4.0862E-002
		795.84	85.40	1.3422E-001		1.2364E-001
		801.93	8.73	1.2356E+000		-5.2209E-001
+	Cs-137	661.65*	85.12	1.2137E-001	1.21E-001	2.7293E-001
	Eu-152	121.78	28.40	7.9642E-001	3.48E-001	-2.1373E-001
		244.69	7.49	2.0608E+000		-1.6501E+000
		344.27	26.50	4.8098E-001		-1.5414E-001
		778.89	12.74	8.6212E-001		-8.8074E-001
		867.32	4.16	2.5759E+000		-2.7902E+000
		964.01	14.40	9.4702E-001		1.6305E-001
		1085.78	10.00	1.0110E+000		-6.9713E-001
		1112.02	13.30	8.1636E-001		-7.5507E-001
		1407.95	20.70	3.4829E-001		-1.9562E-002
	Eu-154	123.07	40.50	5.5565E-001	2.53E-001	1.1660E-001
		247.94	6.60	2.2297E+000		-3.9312E-001
		591.81	4.83	2.3591E+000		-7.1215E-001
		723.30	19.70	5.8040E-001		-5.4039E-002
		756.87	4.33	2.4191E+000		1.5833E+000
		873.19	11.50	9.2826E-001		-5.9670E-002
		996.32	10.30	1.0100E+000		-8.8344E-002
		1004.76	17.90	5.8940E-001		5.9901E-002
		1274.45	35.50	2.5343E-001		3.1120E-002
	Eu-155	86.54	30.90	1.1433E+000	1.14E+000	-1.2811E-001
		105.31	20.70	1.2675E+000		7.6920E-001
	Am-241	59.54	35.90	1.3461E+000	1.35E+000	-1.5831E-001
	Cm-243	228.19	10.56	1.4473E+000	9.96E-001	-9.6022E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)
Cm-243	277.60	14.00	9.9581E-001	9.96E-001	-7.7954E-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 5/1/2006 6:37:37 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: RED6264

Spectrum File: RED6264
Sample ID: NOL-02-02-158
Sample Title: NOL-02-02-158-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 5/1/2006 6:27:35 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-02-02-158
Title: NOL-02-02-158-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-	305	291.88	72.87	1.38	4.14E+002	70.67	1.78E+003
m	2	283-	305	299.91	74.88	1.38	6.47E+002	78.14	1.96E+003
F	3	331-	346	339.87	84.87	1.08	1.93E+002	63.50	1.58E+003
F	4	943-	962	953.87	238.41	1.40	3.27E+002	45.90	4.89E+002
F	5	1346-	1358	1352.46	338.09	1.01	5.97E+001	25.20	1.43E+002
F	6	1399-	1417	1406.85	351.69	1.55	1.47E+002	32.03	2.25E+002
F	7	2031-	2055	2043.26	510.83	2.28	1.39E+002	27.54	1.58E+002
F	8	2284-	2294	2288.71	572.21	0.64	1.92E+001	13.93	5.10E+001
F	9	2322-	2343	2331.17	582.83	1.62	1.92E+002	30.32	1.07E+002
F	10	2426-	2448	2436.37	609.14	1.73	1.71E+002	29.41	1.20E+002
F	11	2638-	2653	2645.04	661.32	1.57	5.07E+001	20.54	7.41E+001
F	12	3634-	3653	3643.14	910.91	1.76	1.44E+002	27.24	7.24E+001
F	13	3869-	3884	3875.94	969.12	1.62	5.21E+001	21.49	7.21E+001
F	14	5324-	5337	5331.37	1333.08	0.65	2.04E+001	11.27	2.59E+001
F	15	5827-	5858	5843.59	1461.17	2.34	1.22E+003	66.79	1.16E+001
F	16	6517-	6530	6523.84	1631.27	0.90	1.23E+001	7.55	1.87E+000
F	17	7056-	7069	7062.26	1765.91	1.87	3.58E+001	13.65	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

N U C L I 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	1.95166E-001	4.69098E-002
K-40	0.996	1460.81*	10.67	2.10790E+001	2.06109E+000
Cs-137	0.997	661.65*	85.12	9.12253E-002	3.85065E-002
TL-208	0.750	277.35	6.80		
		510.84*	21.60	9.03547E-001	2.29369E-001
		583.14*	84.20	3.34206E-001	6.85137E-002
		860.37	12.46		
Pb-212	0.520	74.81* @	10.70	9.61349E+000	2.21338E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	8.21113E-001	1.72744E-001
Bi-214	0.685	609.31*	46.30	5.52079E-001	1.16581E-001
		1120.29	15.10		
		1764.49*	15.80	4.34149E-001	1.71159E-001
Ac-228	0.999	338.32*	11.40	6.47018E-001	2.91407E-001
		911.07*	27.70	8.49193E-001	1.88369E-001
		969.11*	16.60	5.23555E-001	2.22668E-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	1.229778E-001	4.913256E-002
K-40		0.996	2.107902E+001	2.061091E+000
Cs-137		0.997	9.122528E-002	3.850651E-002
TL-208		0.750	3.342059E-001	6.764247E-002
Pb-212	@	0.520	8.211131E-001	1.727436E-001
Bi-214		0.685	5.147058E-001	9.635362E-002
Ac-228		0.999	7.003661E-001	1.289623E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	6.8937E-001	17.09
F	3	84.87	3.2199E-001	32.87
F	6	351.69	2.4424E-001	21.86
F	8	572.21	3.1982E-002	72.58
F	14	1333.08	3.3928E-002	55.36
F	16	1631.27	2.0571E-002	61.18

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: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	1.2339E-001	9.49E-002	1.3822E-001
		1332.49	100.00	9.4949E-002		1.0318E-001
	Nb-94	702.63	100.00	1.0576E-001	9.95E-002	-5.0823E-002
		871.10	100.00	9.9494E-002		-4.1388E-002
	Ag-108m	79.20	7.10	5.5117E+000	1.30E-001	-7.4170E+000
		433.93	89.90	1.2971E-001		5.1525E-002
		614.37	90.40	1.4804E-001		-1.6450E-002
		722.95	90.50	1.3151E-001		1.0496E-001
	Sb-125	176.33	6.89	2.5153E+000	3.95E-001	-1.8556E+000
		427.89	29.33	3.9517E-001		8.3238E-002
		463.38	10.35	1.1480E+000		5.7069E-001
		600.56	17.80	6.0960E-001		-1.4977E-001
		606.64	5.02	2.8336E+000		-4.7459E-001
		635.90	11.32	9.0864E-001		-8.2484E-002
	Cs-134	563.23	8.38	1.3096E+000	1.27E-001	-1.2265E+000
		569.32	15.43	7.2076E-001		7.9842E-002
		604.70	97.60	1.4362E-001		-3.9122E-002
		795.84	85.40	1.2735E-001		-1.4968E-002
		801.93	8.73	1.1699E+000		-9.3576E-001
+	Cs-137	661.65*	85.12	9.3250E-002	9.33E-002	9.1225E-002
	Eu-152	121.78	28.40	7.9082E-001	3.35E-001	-7.7468E-002
		244.69	7.49	2.0104E+000		-8.7323E-003
		344.27	26.50	4.7587E-001		-1.7467E-001
		778.89	12.74	8.1854E-001		-1.2139E-001
		867.32	4.16	2.5559E+000		-2.8945E-001
		964.01	14.40	9.1978E-001		-4.0719E-001
		1085.78	10.00	1.0009E+000		-1.7365E-001
		1112.02	13.30	8.0690E-001		-1.0510E+000
		1407.95	20.70	3.3494E-001		5.1642E-003
	Eu-154	123.07	40.50	5.5106E-001	2.73E-001	9.4649E-002
		247.94	6.60	2.1465E+000		3.9098E-002
		591.81	4.83	2.2451E+000		-2.0574E+000
		723.30	19.70	6.0536E-001		4.4840E-001
		756.87	4.33	2.4253E+000		-1.7649E-001
		873.19	11.50	8.6037E-001		-7.3986E-001
		996.32	10.30	9.8890E-001		2.3302E-001
		1004.76	17.90	5.6509E-001		-4.9649E-001
		1274.45	35.50	2.7335E-001		1.6580E-001
	Eu-155	86.54	30.90	1.1080E+000	1.11E+000	1.8699E-001
		105.31	20.70	1.2604E+000		4.9127E-001
	Am-241	59.54	35.90	1.3455E+000	1.35E+000	3.2275E-001
	Cm-243	228.19	10.56	1.4228E+000	9.94E-001	8.4031E-001

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	2.1413E-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 6/28/2006 2:58:16 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: BLUE6279
Sample ID: NOL-02-03-106
Sample Title: NOL-02-03-106-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 6/28/2006 2:48:13 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-02-03-106
Title: NOL-02-03-106-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	283-	307	291.38	72.67	1.15	4.49E+002	70.85	1.88E+003
m	2	283-	307	300.10	74.85	1.16	8.13E+002	82.86	2.24E+003
	3	332-	345	339.81	84.78	0.97	1.73E+002	132.45	1.59E+003
	4	944-	961	954.39	238.48	1.30	3.94E+002	81.93	4.13E+002
	5	1175-	1185	1180.44	295.01	0.48	3.77E+001	43.88	1.94E+002
	6	1347-	1360	1352.20	337.96	0.47	6.27E+001	44.48	1.61E+002
	7	1399-	1414	1406.98	351.66	1.51	1.44E+002	52.82	1.94E+002
	8	2031-	2052	2042.73	510.64	0.93	1.56E+002	48.81	1.24E+002
	9	2325-	2338	2331.85	582.94	1.44	1.70E+002	40.63	9.45E+001
	10	2427-	2445	2435.97	608.98	1.01	1.66E+002	44.60	1.04E+002
	11	2898-	2914	2908.21	727.08	0.67	6.72E+001	30.70	5.68E+001
	12	3634-	3652	3643.86	911.05	1.64	1.28E+002	33.74	4.98E+001
	13	3868-	3881	3874.62	968.75	0.74	6.55E+001	28.40	5.25E+001
	14	4472-	4488	4480.60	1120.29	1.19	6.32E+001	25.07	3.18E+001
	15	5830-	5856	5843.36	1461.09	2.08	1.17E+003	70.31	2.66E+001
	16	7051-	7065	7058.83	1765.05	0.90	4.80E+001	18.14	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
ANN	0.996	511.00*		100.00	2.13237E-001	7.25769E-002
K-40	0.997	1460.81*		10.67	1.96473E+001	1.98018E+000
TL-208	0.751	277.35		6.80		
		510.84*		21.60	9.87211E-001	3.45541E-001
		583.14*		84.20	2.86830E-001	7.82477E-002
		860.37		12.46		
Bi-212	1.000	727.17*		11.80	8.62565E-001	4.06764E-001
Pb-212	0.520	74.81*	@	10.70	1.16404E+001	2.57177E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	9.56503E-001	2.49304E-001
Bi-214	0.996	609.31*		46.30	5.17240E-001	1.53137E-001
		1120.29*		15.10	7.04951E-001	2.89302E-001
		1764.49*		15.80	5.64014E-001	2.20517E-001
PB-214	0.581	74.82*	@	6.21	2.00567E+001	4.66430E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	2.26036E-001	2.66027E-001
		351.92*		37.20	4.68804E-001	1.88996E-001
Ac-228	0.998	338.32*		11.40	6.59074E-001	4.78594E-001
		911.07*		27.70	7.33492E-001	2.10741E-001
		969.11*		16.60	6.36778E-001	2.84075E-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	1.512821E-001	7.449153E-002
K-40		0.997	1.964730E+001	1.980183E+000
TL-208		0.751	2.868305E-001	7.768736E-002
Bi-212		1.000	8.625649E-001	4.067640E-001
Pb-212	@	0.520	9.565031E-001	2.493044E-001
Bi-214		0.996	5.598810E-001	1.153513E-001
PB-214	@	0.581	3.873736E-001	1.540720E-001
Ac-228		0.998	6.947041E-001	1.595682E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	7.4826E-001	15.78
3	84.78	2.8877E-001	76.45

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
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	-2.1325E-002
	1332.49	100.00	8.4902E-002		5.8908E-002
Nb-94	702.63	100.00	1.0177E-001	9.49E-002	-6.3252E-002
	871.10	100.00	9.4851E-002		4.0448E-002
Ag-108m	79.20	7.10	4.9596E+000	1.21E-001	-1.8000E+000
	433.93	89.90	1.2107E-001		-1.1452E-001
	614.37	90.40	1.3380E-001		2.3462E-002
	722.95	90.50	1.2319E-001		-8.8025E-003
Sb-125	176.33	6.89	2.2887E+000	3.78E-001	-3.1605E+000
	427.89	29.33	3.7801E-001		2.1745E-001
	463.38	10.35	1.0798E+000		4.7882E-001
	600.56	17.80	5.8229E-001		-1.8708E-001
	606.64	5.02	2.6829E+000		4.4147E+000
	635.90	11.32	8.6805E-001		-5.7613E-001
Cs-134	563.23	8.38	1.2969E+000	1.21E-001	-1.7057E-001
	569.32	15.43	6.8796E-001		-2.9607E-002
	604.70	97.60	1.3427E-001		-1.0456E-002
	795.84	85.40	1.2094E-001		1.1909E-001
	801.93	8.73	1.0178E+000		-1.0223E+000
Cs-137	661.65	85.12	1.3743E-001	1.37E-001	-3.4661E-002
Eu-152	121.78	28.40	7.7594E-001	3.27E-001	-2.6597E-002
	244.69	7.49	1.9023E+000		1.0602E+000
	344.27	26.50	4.4551E-001		8.5369E-002
	778.89	12.74	7.5909E-001		-1.4183E-001
	867.32	4.16	2.3339E+000		-3.3410E+000
	964.01	14.40	8.5686E-001		8.7498E-002
	1085.78	10.00	9.5688E-001		3.8687E-001
	1112.02	13.30	7.0416E-001		6.6190E-001
	1407.95	20.70	3.2740E-001		2.0010E-001
Eu-154	123.07	40.50	5.3649E-001	2.21E-001	4.5841E-001
	247.94	6.60	2.0273E+000		-1.6775E+000
	591.81	4.83	2.1858E+000		-9.7618E-001
	723.30	19.70	5.6247E-001		1.8283E-001
	756.87	4.33	2.1104E+000		-3.3078E-001
	873.19	11.50	8.0967E-001		1.7049E-001
	996.32	10.30	8.9352E-001		8.0513E-002
	1004.76	17.90	5.2087E-001		3.0960E-001
	1274.45	35.50	2.2098E-001		-1.7854E-001
Eu-155	86.54	30.90	1.0558E+000	1.06E+000	3.6467E-001
	105.31	20.70	1.2655E+000		2.9448E-001
Am-241	59.54	35.90	1.3559E+000	1.36E+000	8.9824E-001
Cm-243	228.19	10.56	1.3632E+000	9.42E-001	7.6020E-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	3.7313E-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 6/28/2006 2:44:05 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: BLUE6279
Sample ID: NOL-02-03-107
Sample Title: NOL-02-03-107-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 6/28/2006 2:34:05 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-02-03-107
Title: NOL-02-03-107-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	283-	306	291.59	72.73	0.94	3.90E+002	66.26	1.56E+003
m	2	283-	306	300.22	74.88	0.95	7.20E+002	79.54	1.58E+003
	3	331-	345	339.62	84.74	1.13	1.41E+002	135.71	1.62E+003
	4	946-	960	954.15	238.42	1.20	3.03E+002	70.46	3.44E+002
	5	1173-	1187	1179.33	294.73	1.01	7.19E+001	50.24	2.03E+002
	6	1399-	1412	1407.40	351.76	0.74	7.68E+001	49.00	1.99E+002
	7	2325-	2342	2331.90	582.96	1.15	1.44E+002	45.62	1.21E+002
	8	2430-	2446	2435.76	608.93	1.06	1.75E+002	38.22	6.46E+001
	9	2638-	2653	2645.91	661.48	0.62	4.22E+001	28.92	5.68E+001
	10	3635-	3654	3643.22	910.89	1.72	1.51E+002	39.33	7.06E+001
	11	3867-	3884	3875.26	968.91	1.77	8.51E+001	31.75	5.29E+001
	12	5828-	5856	5843.27	1461.07	2.05	1.20E+003	71.16	2.52E+001
	13	7051-	7066	7059.15	1765.13	0.92	5.30E+001	17.20	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

N U C L I 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	0.998	1460.81*	10.67	2.01571E+001	2.02185E+000
Cs-137	0.999	661.65*	85.12	7.36429E-002	5.12169E-002
TL-208	0.470	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	2.44279E-001	8.34950E-002
		860.37	12.46		
Pb-212	0.520	74.81* @	10.70	1.03140E+001	2.32018E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	7.36552E-001	2.06553E-001
Bi-214	0.693	609.31*	46.30	5.47558E-001	1.37085E-001
		1120.29	15.10		
		1764.49*	15.80	6.22718E-001	2.11497E-001
PB-214	0.580	74.82* @	6.21	1.77712E+001	4.20072E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	4.31075E-001	3.09960E-001
		351.92*	37.20	2.49943E-001	1.64931E-001
Ac-228	0.633	338.32	11.40		
		911.07*	27.70	8.66451E-001	2.46183E-001
		969.11*	16.60	8.26921E-001	3.20594E-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		0.998	2.015707E+001	2.021851E+000
Cs-137		0.999	7.364289E-002	5.121689E-002
TL-208		0.470	2.442794E-001	8.349498E-002
Pb-212	@	0.520	7.365517E-001	2.065530E-001
Bi-214		0.693	5.697929E-001	1.150344E-001
PB-214	@	0.580	2.899110E-001	1.456013E-001
Ac-228		0.633	8.517875E-001	1.952563E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	6.4961E-001	17.00
3	84.74	2.3514E-001	96.19

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	9.9204E-002	9.02E-002	-2.9735E-002
		1332.49	100.00	9.0156E-002		9.5857E-002
	Nb-94	702.63	100.00	1.0326E-001	8.65E-002	5.6666E-002
		871.10	100.00	8.6526E-002		-7.7984E-002
	Ag-108m	79.20	7.10	4.8708E+000	1.21E-001	-2.3380E+000
		433.93	89.90	1.2069E-001		-1.2407E-001
		614.37	90.40	1.2138E-001		1.6949E-003
		722.95	90.50	1.2114E-001		3.5539E-002
	Sb-125	176.33	6.89	2.2297E+000	3.93E-001	-7.3443E-001
		427.89	29.33	3.9305E-001		2.0593E-001
		463.38	10.35	1.1031E+000		2.7752E-001
		600.56	17.80	5.9847E-001		3.3743E-001
		606.64	5.02	2.6518E+000		-6.9467E-001
		635.90	11.32	8.6149E-001		4.2963E-002
	Cs-134	563.23	8.38	1.2747E+000	1.15E-001	1.4815E+000
		569.32	15.43	6.9069E-001		3.7503E-002
		604.70	97.60	1.3189E-001		-9.2013E-002
		795.84	85.40	1.1533E-001		6.9639E-002
		801.93	8.73	1.0852E+000		-7.5899E-001
+	Cs-137	661.65*	85.12	8.0801E-002	8.08E-002	7.3643E-002
	Eu-152	121.78	28.40	7.1857E-001	3.69E-001	-8.4991E-001
		244.69	7.49	1.8111E+000		-3.3143E-001
		344.27	26.50	4.2545E-001		-2.9866E-001
		778.89	12.74	7.3490E-001		7.5579E-001
		867.32	4.16	2.1167E+000		-2.9703E+000
		964.01	14.40	8.4862E-001		1.9016E-001
		1085.78	10.00	9.4357E-001		6.3463E-001
		1112.02	13.30	6.9898E-001		-4.0281E-001
		1407.95	20.70	3.6911E-001		-5.6225E-002
	Eu-154	123.07	40.50	5.0168E-001	2.55E-001	1.4759E-001
		247.94	6.60	1.9220E+000		-2.7745E+000
		591.81	4.83	2.2657E+000		3.0764E-001
		723.30	19.70	5.5893E-001		2.6470E-001
		756.87	4.33	2.2584E+000		-2.0038E+000
		873.19	11.50	7.7496E-001		2.4846E-001
		996.32	10.30	8.4449E-001		3.3175E-001
		1004.76	17.90	5.0617E-001		2.8372E-001
		1274.45	35.50	2.5456E-001		-2.9179E-001
	Eu-155	86.54	30.90	1.0221E+000	1.02E+000	2.3417E-001
		105.31	20.70	1.1962E+000		-1.7590E-001
	Am-241	59.54	35.90	1.2668E+000	1.27E+000	2.2701E-001
	Cm-243	228.19	10.56	1.3498E+000	9.34E-001	1.4078E+000

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	3.2346E-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 6/28/2006 8:57:45 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: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-02-03-108-F-
Sample Title: NOL-02-03-108-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 6/28/2006 8:47:41 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-02-03-108-F-
Title: NOL-02-03-108-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	287-	308	292.06	72.84	1.10	3.29E+002	67.88	1.45E+003
m	2	287-	308	300.33	74.91	1.10	7.18E+002	80.63	2.01E+003
	3	332-	345	340.16	84.87	1.01	1.76E+002	130.32	1.54E+003
	4	945-	960	955.20	238.68	1.19	3.36E+002	74.21	3.66E+002
	5	1172-	1189	1182.40	295.50	1.57	1.01E+002	61.71	2.74E+002
	6	1347-	1358	1353.79	338.36	0.59	5.20E+001	41.99	1.61E+002
	7	1400-	1415	1408.04	351.92	1.17	1.35E+002	50.80	1.78E+002
	8	2324-	2340	2333.23	583.29	1.48	2.00E+002	42.21	8.44E+001
	9	2426-	2446	2438.09	609.51	1.51	2.01E+002	46.70	1.01E+002
	10	2902-	2917	2909.81	727.48	0.58	4.30E+001	28.87	5.80E+001
	11	3638-	3660	3646.99	911.83	1.25	1.81E+002	38.59	5.32E+001
	12	3870-	3886	3877.78	969.54	0.33	6.43E+001	31.81	6.38E+001
	13	4477-	4492	4483.96	1121.14	1.20	6.39E+001	27.25	4.31E+001
	14	5833-	5863	5848.64	1462.41	2.10	1.32E+003	73.68	1.94E+001
	15	7059-	7072	7065.92	1766.82	0.95	3.55E+001	17.93	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: 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	0.915	1460.81*		10.67	2.21215E+001	2.17607E+000
TL-208	0.470	277.35		6.80		
		510.84		21.60		
		583.14*		84.20	3.37905E-001	8.38932E-002
		860.37		12.46		
Bi-212	0.997	727.17*		11.80	5.51769E-001	3.76137E-001
Pb-212	0.520	74.81*	@	10.70	1.02720E+001	2.32050E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	8.17223E-001	2.21309E-001
Bi-214	0.957	609.31*		46.30	6.26407E-001	1.64974E-001
		1120.29*		15.10	7.12780E-001	3.13128E-001
		1764.49*		15.80	4.17181E-001	2.14840E-001
PB-214	0.582	74.82*	@	6.21	1.76990E+001	4.19966E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	6.07517E-001	3.84323E-001
		351.92*		37.20	4.38598E-001	1.80954E-001
Ac-228	0.988	338.32*		11.40	5.46478E-001	4.49545E-001
		911.07*		27.70	1.03496E+000	2.50878E-001
		969.11*		16.60	6.24774E-001	3.16204E-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		0.915	2.212146E+001	2.176072E+000
TL-208		0.470	3.379046E-001	8.389322E-002
Bi-212		0.997	5.517695E-001	3.761366E-001
Pb-212	@	0.520	8.172229E-001	2.213095E-001
Bi-214		0.957	5.731754E-001	1.207303E-001
PB-214	@	0.582	4.692501E-001	1.637145E-001
Ac-228		0.988	8.235450E-001	1.800767E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	5.4754E-001	20.66
3	84.87	2.9347E-001	74.01

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	1.0962E-001	7.75E-002	1.5376E-002
	1332.49	100.00	7.7460E-002		-4.0885E-002
Nb-94	702.63	100.00	9.9484E-002	9.51E-002	-1.7923E-002
	871.10	100.00	9.5145E-002		1.4113E-002
Ag-108m	79.20	7.10	5.0374E+000	1.24E-001	-4.1159E+000
	433.93	89.90	1.2954E-001		1.2158E-001
	614.37	90.40	1.4213E-001		-5.7528E-002
	722.95	90.50	1.2370E-001		2.1255E-002
Sb-125	176.33	6.89	2.3451E+000	3.69E-001	1.2539E+000
	427.89	29.33	3.6938E-001		-2.9632E-001
	463.38	10.35	1.0932E+000		1.2958E-001
	600.56	17.80	5.6823E-001		4.3792E-002
	606.64	5.02	2.7137E+000		-6.0037E-001
	635.90	11.32	8.7673E-001		7.4323E-001
Cs-134	563.23	8.38	1.2394E+000	1.16E-001	-3.1415E-001
	569.32	15.43	6.6424E-001		5.5383E-001
	604.70	97.60	1.2660E-001		-9.2550E-003
	795.84	85.40	1.1629E-001		2.2945E-002
	801.93	8.73	1.1078E+000		-2.1815E-001
Cs-137	661.65	85.12	1.3081E-001	1.31E-001	7.6179E-002
Eu-152	121.78	28.40	7.5418E-001	3.30E-001	-1.4139E-001
	244.69	7.49	1.8998E+000		1.7176E-001
	344.27	26.50	4.3401E-001		-3.5310E-001
	778.89	12.74	7.5257E-001		-1.7232E-001
	867.32	4.16	2.3681E+000		-2.3578E-001
	964.01	14.40	8.3862E-001		3.9836E-001
	1085.78	10.00	9.1979E-001		-7.1354E-001
	1112.02	13.30	6.9898E-001		-3.0888E-001
	1407.95	20.70	3.3001E-001		4.7103E-002
Eu-154	123.07	40.50	5.2303E-001	2.31E-001	-3.4096E-001
	247.94	6.60	2.0468E+000		-1.0245E+000
	591.81	4.83	2.1677E+000		-1.7196E+000
	723.30	19.70	5.6716E-001		1.4068E-001
	756.87	4.33	2.3015E+000		6.2980E-001
	873.19	11.50	8.2774E-001		-2.0022E-001
	996.32	10.30	9.3384E-001		-5.0234E-001
	1004.76	17.90	4.9864E-001		2.0560E-001
	1274.45	35.50	2.3076E-001		-4.4010E-002
Eu-155	86.54	30.90	1.0340E+000	1.03E+000	7.7700E-002
	105.31	20.70	1.2542E+000		2.6018E-001
Am-241	59.54	35.90	1.3266E+000	1.33E+000	-3.8558E-001
Cm-243	228.19	10.56	1.3354E+000	9.34E-001	-3.3784E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	9.3428E-001	9.34E-001	1.5674E-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 6/28/2006 9:10:52 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: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-02-03-109-F-
Sample Title: NOL-02-03-109-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 6/28/2006 9:00:48 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-02-03-109-F-
Title: NOL-02-03-109-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	286-	306	291.79	72.78	1.06	3.92E+002	68.31	1.53E+003
m	2	286-	306	300.63	74.99	1.06	7.67E+002	81.88	1.88E+003
	3	331-	346	339.37	84.68	1.28	3.13E+002	147.56	1.78E+003
	4	605-	616	608.35	151.94	0.35	6.96E+001	75.38	5.62E+002
	5	946-	962	955.25	238.69	1.01	2.75E+002	81.24	4.61E+002
	6	1177-	1187	1182.19	295.44	0.82	5.22E+001	42.99	1.80E+002
	7	1347-	1362	1353.38	338.25	1.55	9.24E+001	52.09	2.04E+002
	8	1403-	1415	1408.13	351.95	0.90	1.32E+002	45.09	1.50E+002
	9	2032-	2048	2043.60	510.86	1.48	1.21E+002	47.20	1.46E+002
	10	2326-	2342	2333.57	583.37	1.60	2.18E+002	42.91	8.20E+001
	11	2430-	2446	2438.39	609.59	1.58	1.57E+002	40.28	8.48E+001
	12	2903-	2915	2909.58	727.42	1.01	5.05E+001	27.31	5.35E+001
	13	3638-	3657	3646.65	911.74	1.40	1.68E+002	34.96	4.34E+001
	14	3869-	3886	3877.78	969.55	1.24	1.10E+002	33.61	5.64E+001
	15	4475-	4492	4483.76	1121.09	0.86	5.40E+001	27.74	4.50E+001
	16	5835-	5861	5847.95	1462.24	2.00	1.22E+003	70.06	1.37E+001
	17	6918-	6931	6924.45	1731.44	0.64	9.56E+000	11.09	7.44E+000
	18	7059-	7074	7065.75	1766.78	0.73	4.13E+001	16.44	9.72E+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	1.64402E-001	6.81247E-002
K-40	0.931	1460.81*		10.67	2.04213E+001	2.02855E+000
TL-208	0.750	277.35		6.80		
		510.84*		21.60	7.61119E-001	3.21459E-001
		583.14*		84.20	3.68968E-001	8.70775E-002
		860.37		12.46		
Bi-212	0.998	727.17*		11.80	6.48393E-001	3.58587E-001
Pb-212	0.520	74.81*	@	10.70	1.09531E+001	2.44495E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	6.67966E-001	2.23575E-001
Bi-214	0.958	609.31*		46.30	4.90974E-001	1.39563E-001
		1120.29*		15.10	6.02104E-001	3.15824E-001
		1764.49*		15.80	4.85153E-001	1.99224E-001
PB-214	0.582	74.82*	@	6.21	1.88724E+001	4.42988E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	3.13363E-001	2.63376E-001
		351.92*		37.20	4.28867E-001	1.63424E-001
Ac-228	0.990	338.32*		11.40	9.70804E-001	5.68147E-001
		911.07*		27.70	9.59578E-001	2.28491E-001
		969.11*		16.60	1.06555E+000	3.45373E-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	8.470460E-002	7.062579E-002
K-40		0.931	2.042127E+001	2.028550E+000
TL-208		0.750	3.689676E-001	8.624328E-002
Bi-212		0.998	6.483926E-001	3.585868E-001
Pb-212	@	0.520	6.679658E-001	2.235751E-001
Bi-214		0.958	5.021507E-001	1.074827E-001
PB-214	@	0.582	3.967581E-001	1.388638E-001
Ac-228		0.990	9.897126E-001	1.806702E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	6.5354E-001	17.42
3	84.68	5.2224E-001	47.09
4	151.94	1.1595E-001	108.34
17	1731.44	1.5931E-002	116.02

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: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	1.0151E-001	8.11E-002	-2.5307E-002
	1332.49	100.00	8.1053E-002		3.1852E-002
Nb-94	702.63	100.00	9.3664E-002	9.37E-002	-1.9655E-001
	871.10	100.00	9.8598E-002		-1.7686E-002
Ag-108m	79.20	7.10	4.9684E+000	1.23E-001	-7.0338E+000
	433.93	89.90	1.2371E-001		-8.7443E-002
	614.37	90.40	1.4071E-001		2.9055E-002
	722.95	90.50	1.2319E-001		-3.8849E-002
Sb-125	176.33	6.89	2.3225E+000	3.75E-001	-6.0271E-001
	427.89	29.33	3.7516E-001		-1.4098E-001
	463.38	10.35	1.0798E+000		5.9627E-001
	600.56	17.80	5.8229E-001		4.0520E-001
	606.64	5.02	2.5991E+000		-4.9179E-001
	635.90	11.32	8.0928E-001		-4.5503E-001
Cs-134	563.23	8.38	1.2896E+000	1.17E-001	1.1515E+000
	569.32	15.43	6.5277E-001		-3.6239E-001
	604.70	97.60	1.2068E-001		-6.0585E-002
	795.84	85.40	1.1723E-001		4.5927E-002
	801.93	8.73	1.1046E+000		-1.0669E+000
Cs-137	661.65	85.12	1.3081E-001	1.31E-001	3.3812E-002
Eu-152	121.78	28.40	7.4809E-001	3.03E-001	-5.8798E-001
	244.69	7.49	1.8737E+000		-1.3186E+000
	344.27	26.50	4.2975E-001		1.6762E-001
	778.89	12.74	6.9815E-001		-7.1940E-001
	867.32	4.16	2.4217E+000		-1.2559E+000
	964.01	14.40	8.6177E-001		-2.9707E-001
	1085.78	10.00	9.0591E-001		-1.9387E-001
	1112.02	13.30	7.2446E-001		8.5493E-001
	1407.95	20.70	3.0280E-001		-5.9606E-002
Eu-154	123.07	40.50	5.2858E-001	2.65E-001	8.9377E-002
	247.94	6.60	2.0061E+000		-2.7211E-001
	591.81	4.83	2.1540E+000		-2.8467E-001
	723.30	19.70	5.6949E-001		-5.5890E-002
	756.87	4.33	2.3197E+000		1.3544E+000
	873.19	11.50	8.5532E-001		9.3856E-002
	996.32	10.30	8.8394E-001		-3.5041E-001
	1004.76	17.90	5.1541E-001		-6.1776E-002
	1274.45	35.50	2.6510E-001		-2.2855E-002
Eu-155	86.54	30.90	1.0692E+000	1.07E+000	-2.1659E-001
	105.31	20.70	1.2589E+000		-1.9360E-001
Am-241	59.54	35.90	1.3172E+000	1.32E+000	-7.0138E-001
Cm-243	228.19	10.56	1.3337E+000	9.45E-001	3.7607E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	9.4508E-001	9.45E-001	-3.6997E-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 6/28/2006 8:43:31 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: BLUE6279
Sample ID: NOL-02-03-110-F-
Sample Title: NOL-02-03-110-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 6/28/2006 8:33:27 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-02-03-110-F-
Title: NOL-02-03-110-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	287-	308	292.10	72.85	1.02	3.88E+002	66.59	1.34E+003
m	2	287-	308	300.66	74.99	1.02	8.08E+002	81.18	1.67E+003
	3	331-	347	339.67	84.75	1.09	2.35E+002	156.40	1.96E+003
	4	945-	960	955.13	238.66	1.19	3.54E+002	72.82	3.42E+002
	5	1177-	1188	1181.64	295.31	0.81	8.42E+001	44.55	1.70E+002
	6	1349-	1360	1353.94	338.39	1.02	6.60E+001	41.64	1.53E+002
	7	1397-	1414	1408.06	351.93	1.10	1.27E+002	59.15	2.41E+002
	8	2034-	2055	2044.28	511.03	1.71	1.69E+002	56.43	1.76E+002
	9	2324-	2342	2333.46	583.35	0.86	1.73E+002	43.33	9.30E+001
	10	2432-	2448	2438.32	609.57	1.10	1.78E+002	41.70	8.76E+001
	11	3638-	3657	3646.96	911.82	1.60	1.43E+002	38.88	7.06E+001
	12	3869-	3888	3878.16	969.64	1.12	1.25E+002	36.62	6.38E+001
	13	4476-	4490	4483.23	1120.95	0.40	2.89E+001	29.24	6.71E+001
	14	5835-	5861	5847.95	1462.23	2.08	1.15E+003	71.63	4.35E+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	1.000	511.00*		100.00	2.30631E-001	8.30729E-002
K-40	0.932	1460.81*		10.67	1.92337E+001	1.96694E+000
TL-208	0.751	277.35		6.80		
		510.84*		21.60	1.06774E+000	3.94358E-001
		583.14*		84.20	2.92898E-001	8.26641E-002
		860.37		12.46		
Pb-212	0.520	74.81*	@	10.70	1.15500E+001	2.54366E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	8.59966E-001	2.22556E-001
Bi-214	0.695	609.31*		46.30	5.57252E-001	1.47204E-001
		1120.29*		15.10	3.22296E-001	3.27837E-001
		1764.49		15.80		
PB-214	0.582	74.82*	@	6.21	1.99010E+001	4.61476E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	5.05592E-001	2.80609E-001
		351.92*		37.20	4.13396E-001	2.04666E-001
Ac-228	0.987	338.32*		11.40	6.93612E-001	4.50876E-001
		911.07*		27.70	8.20730E-001	2.41711E-001
		969.11*		16.60	1.21713E+000	3.78233E-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	1.673653E-001	8.494510E-002
K-40		0.932	1.923372E+001	1.966942E+000
TL-208		0.751	2.928982E-001	8.211117E-002
Pb-212	@	0.520	8.599656E-001	2.225557E-001
Bi-214		0.695	5.178296E-001	1.342881E-001
PB-214	@	0.582	4.454107E-001	1.653562E-001
Ac-228		0.987	8.946501E-001	1.856143E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	6.4690E-001	17.16
3	84.75	3.9205E-001	66.49

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	9.8200E-002	8.28E-002	-5.4362E-002
	1332.49	100.00	8.2787E-002		3.9242E-002
Nb-94	702.63	100.00	1.0473E-001	9.37E-002	-1.0880E-002
	871.10	100.00	9.3666E-002		3.2561E-002
Ag-108m	79.20	7.10	4.8815E+000	1.16E-001	-2.7520E+000
	433.93	89.90	1.1992E-001		-1.8352E-002
	614.37	90.40	1.4254E-001		-9.9242E-003
	722.95	90.50	1.1556E-001		9.9556E-002
Sb-125	176.33	6.89	2.2645E+000	3.83E-001	-1.0001E+000
	427.89	29.33	3.8309E-001		8.1306E-002
	463.38	10.35	1.1211E+000		8.6742E-001
	600.56	17.80	6.1061E-001		-2.9998E-001
	606.64	5.02	2.8202E+000		-1.4868E+000
	635.90	11.32	8.5042E-001		1.2585E-001
Cs-134	563.23	8.38	1.2161E+000	1.26E-001	-1.0023E+000
	569.32	15.43	6.6424E-001		-1.4625E-001
	604.70	97.60	1.3152E-001		-6.5283E-002
	795.84	85.40	1.2599E-001		9.8820E-002
	801.93	8.73	1.1547E+000		-1.2387E-001
Cs-137	661.65	85.12	1.2709E-001	1.27E-001	1.6468E-002
Eu-152	121.78	28.40	7.4976E-001	3.83E-001	-2.8546E-001
	244.69	7.49	1.8749E+000		-5.0919E-001
	344.27	26.50	4.3980E-001		1.0268E-002
	778.89	12.74	8.0112E-001		-4.1239E-001
	867.32	4.16	2.3062E+000		-2.1038E+000
	964.01	14.40	8.9062E-001		1.6251E-001
	1085.78	10.00	1.0114E+000		4.4958E-002
	1112.02	13.30	6.9377E-001		6.3823E-002
	1407.95	20.70	3.8268E-001		-2.2149E-002
Eu-154	123.07	40.50	5.1584E-001	2.53E-001	-2.7144E-001
	247.94	6.60	2.0438E+000		-1.6802E-002
	591.81	4.83	2.2438E+000		7.3866E-001
	723.30	19.70	5.3591E-001		3.4575E-001
	756.87	4.33	2.3015E+000		-7.2341E-001
	873.19	11.50	8.1747E-001		-2.3891E-002
	996.32	10.30	9.4886E-001		3.1753E-001
	1004.76	17.90	5.3866E-001		1.3285E-001
	1274.45	35.50	2.5348E-001		-1.0963E-001
Eu-155	86.54	30.90	1.0635E+000	1.06E+000	1.7362E-001
	105.31	20.70	1.2104E+000		-6.1792E-001
Am-241	59.54	35.90	1.3255E+000	1.33E+000	-6.5818E-001
Cm-243	228.19	10.56	1.3174E+000	9.75E-001	-3.8933E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	9.7451E-001	9.75E-001	3.0108E-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 6/28/2006 2:05:51 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: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-02-03-111
Sample Title: NOL-02-03-111-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 6/28/2006 1:55:49 PM
Live Time: 600.0 seconds
Real Time: 602.0 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-02-03-111
Title: NOL-02-03-111-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-	314	291.95	72.82	1.13	4.29E+002	66.37	1.49E+003
m	2	284-	314	300.56	74.97	1.14	6.88E+002	73.72	1.67E+003
m	3	284-	314	309.11	77.11	1.14	1.22E+002	57.63	1.46E+003
	4	947-	960	954.09	238.40	1.05	1.99E+002	58.93	2.56E+002
	5	1349-	1359	1353.39	338.26	1.00	2.90E+001	32.93	1.06E+002
	6	1397-	1412	1406.97	351.66	0.96	1.09E+002	45.52	1.43E+002
	7	2322-	2337	2331.86	582.95	0.77	1.04E+002	35.77	7.60E+001
	8	2427-	2444	2436.20	609.04	1.18	1.47E+002	39.01	7.65E+001
	9	3635-	3652	3642.93	910.81	1.82	9.45E+001	31.35	4.95E+001
	10	3868-	3882	3874.45	968.71	0.71	4.20E+001	25.66	4.50E+001
	11	5324-	5337	5329.31	1332.54	0.39	4.43E+001	16.51	9.70E+000
	12	5829-	5858	5843.04	1461.01	1.91	1.01E+003	64.01	1.15E+001
	13	7050-	7064	7057.91	1764.82	0.85	3.16E+001	16.77	1.44E+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: 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	1.69486E+001	1.74226E+000
TL-208	0.470	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	1.75991E-001	6.47195E-002
		860.37	12.46		
Pb-212	0.843	74.81* @	10.70	9.83391E+000	2.19669E+000
		77.11* @	18.00	9.95434E-001	5.09931E-001
		87.30 @	8.00		
		238.63*	44.60	4.84183E-001	1.62108E-001
Bi-214	0.696	609.31*	46.30	4.57424E-001	1.34195E-001
		1120.29	15.10		
		1764.49*	15.80	3.71370E-001	2.00501E-001
PB-214	0.389	74.82* @	6.21	1.69441E+001	3.97980E+000
		77.11* @	10.50	1.70646E+000	8.83405E-001
		87.30 @	4.67		
		241.98	7.49		
		295.21	19.20		
		351.92*	37.20	3.53640E-001	1.59587E-001
Ac-228	0.997	338.32*	11.40	3.04695E-001	3.49284E-001
		911.07*	27.70	5.40800E-001	1.89918E-001
		969.11*	16.60	4.08311E-001	2.53137E-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	1.694862E+001	1.742259E+000
TL-208		0.470	1.759907E-001	6.471945E-002
Pb-212	@	0.843	4.841827E-001	1.621084E-001
Bi-214		0.696	4.308011E-001	1.115213E-001
PB-214	@	0.389	3.536403E-001	1.583233E-001
Ac-228		0.997	4.631152E-001	1.393094E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	7.1581E-001	15.45
11	1332.54	7.3827E-002	37.26

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	1.0658E-001	8.78E-002	2.2726E-001
	1332.49	100.00	8.7772E-002		7.1879E-002
Nb-94	702.63	100.00	8.8604E-002	8.19E-002	-9.8201E-002
	871.10	100.00	8.1858E-002		-4.0657E-002
Ag-108m	79.20	7.10	4.7417E+000	1.06E-001	2.1503E-001
	433.93	89.90	1.1214E-001		-1.6311E-002
	614.37	90.40	1.1196E-001		4.5346E-002
	722.95	90.50	1.0589E-001		-6.3144E-002
Sb-125	176.33	6.89	2.0872E+000	3.37E-001	8.8132E-001
	427.89	29.33	3.3706E-001		-1.9704E-002
	463.38	10.35	9.6378E-001		7.0559E-001
	600.56	17.80	5.1660E-001		-2.0736E-001
	606.64	5.02	2.4716E+000		4.3029E+000
	635.90	11.32	7.4567E-001		-2.0939E-001
Cs-134	563.23	8.38	1.0978E+000	1.01E-001	4.7710E-001
	569.32	15.43	5.7734E-001		6.8840E-002
	604.70	97.60	1.2108E-001		-3.7205E-002
	795.84	85.40	1.0100E-001		5.5708E-002
	801.93	8.73	9.4531E-001		-8.2429E-002
Cs-137	661.65	85.12	1.1667E-001	1.17E-001	1.1643E-001
Eu-152	121.78	28.40	6.9279E-001	3.03E-001	4.6982E-001
	244.69	7.49	1.6420E+000		2.9214E-001
	344.27	26.50	3.8568E-001		1.2265E-001
	778.89	12.74	7.1447E-001		-7.9015E-001
	867.32	4.16	1.8903E+000		-2.9312E+000
	964.01	14.40	7.1910E-001		2.3021E-001
	1085.78	10.00	9.0240E-001		-6.0021E-001
	1112.02	13.30	6.3630E-001		-6.2226E-001
	1407.95	20.70	3.0280E-001		5.8687E-003
Eu-154	123.07	40.50	4.7880E-001	2.21E-001	-4.0550E-002
	247.94	6.60	1.7833E+000		-1.4148E-001
	591.81	4.83	1.8893E+000		3.9994E-001
	723.30	19.70	4.9329E-001		-3.9996E-002
	756.87	4.33	2.1170E+000		1.0236E+000
	873.19	11.50	7.1810E-001		-8.8143E-002
	996.32	10.30	8.7100E-001		7.1083E-002
	1004.76	17.90	5.0242E-001		-2.3703E-001
	1274.45	35.50	2.2098E-001		-1.1271E-001
Eu-155	86.54	30.90	9.7058E-001	9.71E-001	1.0617E+000
	105.31	20.70	1.1341E+000		3.1625E-001
Am-241	59.54	35.90	1.2963E+000	1.30E+000	-6.4011E-001
Cm-243	228.19	10.56	1.1828E+000	7.73E-001	8.2979E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	7.7348E-001	7.73E-001	9.4754E-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 6/28/2006 1:47:16 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: BLUE6279
Sample ID: NOL-02-03-112
Sample Title: NOL-02-03-112-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 6/28/2006 1:37:14 PM
Live Time: 600.0 seconds
Real Time: 602.1 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-02-03-112
Title: NOL-02-03-112-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	291.71	72.76	0.96	3.76E+002	67.52	1.43E+003
m	2	286-	305	300.01	74.83	0.96	8.00E+002	82.34	1.63E+003
	3	331-	347	339.50	84.71	0.94	2.66E+002	153.77	1.88E+003
	4	946-	962	954.16	238.42	1.10	1.85E+002	79.16	4.59E+002
	5	1175-	1184	1179.57	294.79	0.32	4.53E+001	40.90	1.73E+002
	6	1401-	1417	1406.89	351.63	1.07	1.38E+002	55.07	2.06E+002
	7	2324-	2337	2331.36	582.82	1.08	1.39E+002	40.05	1.01E+002
	8	2427-	2446	2435.47	608.86	0.85	1.88E+002	43.46	8.57E+001
	9	3632-	3653	3643.27	910.90	1.34	1.68E+002	36.93	4.96E+001
	10	3867-	3882	3876.20	969.15	0.66	7.80E+001	29.22	4.80E+001
	11	4472-	4487	4479.46	1120.01	0.46	4.94E+001	27.18	4.66E+001
	12	5828-	5856	5842.96	1460.99	1.97	1.25E+003	72.50	2.53E+001
	13	7052-	7066	7059.62	1765.24	0.61	3.75E+001	15.06	7.50E+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	2.09949E+001	2.09000E+000
TL-208	0.469	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	2.34405E-001	7.43300E-002
		860.37	12.46		
Pb-212	0.520	74.81* @	10.70	1.14673E+001	2.53847E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	4.49096E-001	2.04891E-001
Bi-214	0.991	609.31*	46.30	5.87854E-001	1.53789E-001
		1120.29*	15.10	5.50236E-001	3.08517E-001
		1764.49*	15.80	4.40608E-001	1.82383E-001
PB-214	0.580	74.82* @	6.21	1.97585E+001	4.60302E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	2.71789E-001	2.49575E-001
		351.92*	37.20	4.47980E-001	1.94322E-001
Ac-228	0.633	338.32	11.40		
		911.07*	27.70	9.63943E-001	2.38715E-001
		969.11*	16.60	7.58120E-001	2.94999E-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	2.099488E+001	2.090003E+000
TL-208		0.469	2.344049E-001	7.433005E-002
Pb-212	@	0.520	4.490961E-001	2.048907E-001
Bi-214		0.991	5.296542E-001	1.098632E-001
PB-214	@	0.580	3.814806E-001	1.533264E-001
Ac-228		0.633	8.824981E-001	1.855688E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	6.2731E-001	17.94
3	84.71	4.4392E-001	57.73

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: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	1.1082E-001	8.70E-002	5.3391E-002
	1332.49	100.00	8.6962E-002		-1.4969E-003
Nb-94	702.63	100.00	1.0326E-001	9.51E-002	5.9331E-002
	871.10	100.00	9.5145E-002		2.2052E-002
Ag-108m	79.20	7.10	5.0008E+000	1.23E-001	-5.9314E+000
	433.93	89.90	1.2972E-001		-6.6805E-003
	614.37	90.40	1.2326E-001		-5.3326E-002
	722.95	90.50	1.2345E-001		1.0049E-001
Sb-125	176.33	6.89	2.3156E+000	3.84E-001	1.1894E+000
	427.89	29.33	3.8421E-001		4.7016E-003
	463.38	10.35	1.0781E+000		-6.6570E-001
	600.56	17.80	5.4441E-001		2.3254E-001
	606.64	5.02	2.7137E+000		1.2278E+000
	635.90	11.32	8.5487E-001		-2.5350E-001
Cs-134	563.23	8.38	1.2394E+000	1.11E-001	-2.3545E-001
	569.32	15.43	6.4403E-001		-5.2547E-001
	604.70	97.60	1.3170E-001		3.6352E-002
	795.84	85.40	1.1077E-001		-2.5531E-002
	801.93	8.73	1.0820E+000		-5.2819E-001
Cs-137	661.65	85.12	1.2464E-001	1.25E-001	-6.1555E-002
Eu-152	121.78	28.40	7.6041E-001	3.45E-001	4.9436E-001
	244.69	7.49	1.8899E+000		1.5551E+000
	344.27	26.50	4.3454E-001		-2.7401E-001
	778.89	12.74	7.0286E-001		-1.2626E+000
	867.32	4.16	2.2136E+000		-1.8091E+000
	964.01	14.40	8.5358E-001		-1.9108E-001
	1085.78	10.00	9.1634E-001		-8.6808E-001
	1112.02	13.30	7.1692E-001		-3.7727E-001
	1407.95	20.70	3.4523E-001		-8.2209E-003
Eu-154	123.07	40.50	5.2858E-001	2.61E-001	3.7967E-002
	247.94	6.60	2.0468E+000		7.6177E-002
	591.81	4.83	1.9916E+000		1.3851E-001
	723.30	19.70	5.5893E-001		2.2076E-001
	756.87	4.33	2.3969E+000		3.3973E-001
	873.19	11.50	8.3535E-001		-3.3051E-001
	996.32	10.30	9.1236E-001		5.2071E-001
	1004.76	17.90	5.0988E-001		-2.0580E-001
	1274.45	35.50	2.6094E-001		-1.3599E-001
Eu-155	86.54	30.90	1.0517E+000	1.05E+000	-1.1467E-001
	105.31	20.70	1.2731E+000		3.8155E-001
Am-241	59.54	35.90	1.3311E+000	1.33E+000	4.6228E-001
Cm-243	228.19	10.56	1.3532E+000	9.64E-001	3.0547E-002

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	9.6405E-001	9.64E-001	1.8060E-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 6/28/2006 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: BLUE6279
Sample ID: NOL-02-03-117
Sample Title: NOL-02-03-117-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 6/28/2006 4:02:01 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-02-03-117
Title: NOL-02-03-117-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	283-	305	291.73	72.76	1.09	3.80E+002	66.74	1.77E+003
m	2	283-	305	300.35	74.92	1.09	7.39E+002	79.78	1.64E+003
	3	947-	959	954.50	238.50	1.03	2.45E+002	64.05	3.13E+002
	4	1175-	1187	1180.25	294.96	0.94	7.68E+001	44.49	1.65E+002
	5	1343-	1358	1353.08	338.18	0.56	5.30E+001	50.32	2.02E+002
	6	1400-	1417	1406.78	351.61	1.32	1.59E+002	53.45	1.79E+002
	7	2031-	2053	2042.33	510.54	1.72	1.57E+002	55.71	1.65E+002
	8	2324-	2340	2331.57	582.87	1.24	1.56E+002	41.58	9.35E+001
	9	2428-	2446	2436.22	609.05	1.69	1.99E+002	42.21	7.81E+001
	10	3173-	3184	3178.43	794.65	0.55	1.70E+001	20.98	3.90E+001
	11	3633-	3651	3644.33	911.16	1.00	1.44E+002	35.75	5.52E+001
	12	3867-	3885	3875.67	969.02	0.42	8.93E+001	31.45	4.97E+001
	13	4473-	4488	4481.13	1120.43	1.01	5.39E+001	26.78	4.41E+001
	14	5828-	5857	5843.83	1461.21	2.01	1.34E+003	74.67	2.25E+001
	15	7052-	7067	7059.84	1765.30	0.51	4.68E+001	17.96	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	2.13803E-001	8.13148E-002
K-40	0.995	1460.81*		10.67	2.25516E+001	2.21414E+000
TL-208	0.750	277.35		6.80		
		510.84*		21.60	9.89830E-001	3.85039E-001
		583.14*		84.20	2.63129E-001	7.82530E-002
		860.37		12.46		
Pb-212	0.520	74.81*	@	10.70	1.05689E+001	2.36518E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	5.94768E-001	1.81486E-001
Bi-214	0.994	609.31*		46.30	6.20903E-001	1.52385E-001
		1120.29*		15.10	6.00807E-001	3.05291E-001
		1764.49*		15.80	5.50240E-001	2.18119E-001
PB-214	0.580	74.82*	@	6.21	1.82105E+001	4.28432E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	4.60544E-001	2.77948E-001
		351.92*		37.20	5.18894E-001	1.94448E-001
Ac-228	1.000	338.32*		11.40	5.56715E-001	5.35882E-001
		911.07*		27.70	8.22982E-001	2.25429E-001
		969.11*		16.60	8.68579E-001	3.19014E-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	1.569673E-001	8.303234E-002
K-40		0.995	2.255165E+001	2.214140E+000
TL-208		0.750	2.631291E-001	7.778178E-002
Pb-212	@	0.520	5.947685E-001	1.814858E-001
Bi-214		0.994	5.981680E-001	1.156146E-001
PB-214	@	0.580	4.997204E-001	1.593292E-001
Ac-228		1.000	8.084555E-001	1.741137E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	6.3411E-001	17.54
10	794.65	2.8333E-002	123.40

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

Errors quoted at 1.960 sigma

Y A N K E E 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	1.0750E-001	8.98E-002	4.8205E-002
	1332.49	100.00	8.9763E-002		2.2228E-002
Nb-94	702.63	100.00	1.0760E-001	9.72E-002	-1.7509E-004
	871.10	100.00	9.7174E-002		-1.5043E-002
Ag-108m	79.20	7.10	4.7711E+000	1.18E-001	-1.0655E+001
	433.93	89.90	1.2703E-001		-4.6938E-002
	614.37	90.40	1.2920E-001		-1.0989E-002
	722.95	90.50	1.1772E-001		-3.7919E-002
Sb-125	176.33	6.89	2.2153E+000	3.71E-001	-1.1043E+000
	427.89	29.33	3.7054E-001		-5.2778E-001
	463.38	10.35	1.0297E+000		-9.2290E-003
	600.56	17.80	5.7082E-001		-2.3102E-001
	606.64	5.02	2.7474E+000		4.4994E-001
	635.90	11.32	8.6805E-001		9.6056E-002
Cs-134	563.23	8.38	1.2368E+000	1.11E-001	-2.8866E-001
	569.32	15.43	6.3961E-001		-3.1072E-001
	604.70	97.60	1.3372E-001		2.8028E-002
	795.84	85.40	1.1110E-001		-6.1527E-002
	801.93	8.73	1.0688E+000		-1.5575E-001
Cs-137	661.65	85.12	1.2242E-001	1.22E-001	-1.6153E-002
Eu-152	121.78	28.40	7.1663E-001	3.25E-001	-1.3605E-001
	244.69	7.49	1.8098E+000		-5.4184E-001
	344.27	26.50	4.2868E-001		-2.6208E-001
	778.89	12.74	7.6340E-001		-3.2072E-001
	867.32	4.16	2.3339E+000		-3.9259E-001
	964.01	14.40	8.4030E-001		5.8489E-002
	1085.78	10.00	9.9253E-001		1.9407E-001
	1112.02	13.30	7.2696E-001		-4.7058E-001
	1407.95	20.70	3.2476E-001		2.5323E-001
Eu-154	123.07	40.50	5.0168E-001	2.62E-001	-5.4587E-003
	247.94	6.60	1.9331E+000		-7.5549E-001
	591.81	4.83	2.0065E+000		-6.2750E-001
	723.30	19.70	5.3962E-001		-1.7313E-001
	756.87	4.33	2.3616E+000		-5.6375E-001
	873.19	11.50	8.4789E-001		6.9850E-001
	996.32	10.30	9.6949E-001		1.2559E+000
	1004.76	17.90	5.3691E-001		4.3702E-002
	1274.45	35.50	2.6199E-001		-3.2891E-001
Eu-155	86.54	30.90	9.9811E-001	9.98E-001	1.7705E+000
	105.31	20.70	1.1897E+000		9.9335E-001
Am-241	59.54	35.90	1.3155E+000	1.32E+000	-1.6033E-001
Cm-243	228.19	10.56	1.2718E+000	9.05E-001	6.4554E-002

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	9.0511E-001	9.05E-001	2.7903E-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 6/28/2006 9:24:46 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: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-02-03-118-F-
Sample Title: NOL-02-03-118-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 6/28/2006 9:14:43 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-02-03-118-F-
Title: NOL-02-03-118-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	284-	307	291.85	72.79	1.00	3.44E+002	68.00	1.75E+003
m	2	284-	307	300.37	74.92	1.00	7.62E+002	83.39	1.90E+003
	3	949-	961	955.18	238.67	1.09	1.90E+002	65.46	3.49E+002
	4	1175-	1187	1180.88	295.12	1.12	5.57E+001	47.94	2.05E+002
	5	1343-	1360	1353.79	338.36	1.22	9.80E+001	55.46	2.16E+002
	6	1398-	1415	1408.61	352.06	1.61	1.61E+002	53.99	1.84E+002
	7	2322-	2342	2333.91	583.46	1.24	1.73E+002	48.02	1.18E+002
	8	2429-	2447	2438.29	609.56	0.63	1.61E+002	40.51	7.85E+001
	9	3637-	3654	3646.13	911.61	1.58	1.15E+002	35.43	6.52E+001
	10	4479-	4493	4485.71	1121.57	0.42	5.37E+001	23.98	3.33E+001
	11	5833-	5862	5848.44	1462.36	1.76	1.14E+003	67.68	1.13E+001
	12	7058-	7071	7064.46	1766.45	0.53	4.26E+001	14.90	5.39E+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	0.920	1460.81*	10.67	1.91030E+001	1.91864E+000
TL-208	0.469	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	2.93166E-001	8.97862E-002
		860.37	12.46		
Pb-212	0.520	74.81* @	10.70	1.09068E+001	2.44808E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	4.62928E-001	1.74915E-001
Bi-214	0.961	609.31*	46.30	5.04275E-001	1.40946E-001
		1120.29*	15.10	5.98719E-001	2.74890E-001
		1764.49*	15.80	5.00707E-001	1.82153E-001
PB-214	0.582	74.82* @	6.21	1.87927E+001	4.43323E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	3.34038E-001	2.93112E-001
		351.92*	37.20	5.24796E-001	1.96523E-001
Ac-228	0.535	338.32*	11.40	1.02988E+000	6.04742E-001
		911.07*	27.70	6.57386E-001	2.16406E-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		0.920	1.910303E+001	1.918639E+000
TL-208		0.469	2.931661E-001	8.978620E-002
Pb-212	@	0.520	4.629285E-001	1.749154E-001
Bi-214		0.961	5.164646E-001	1.033012E-001
PB-214	@	0.582	4.656377E-001	1.632299E-001
Ac-228		0.535	6.996709E-001	2.037527E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	5.7272E-001	19.79

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	1.0151E-001	9.40E-002	1.0193E-001
	1332.49	100.00	9.3987E-002		1.2403E-001
Nb-94	702.63	100.00	1.0276E-001	9.25E-002	3.3247E-003
	871.10	100.00	9.2466E-002		-3.7564E-002
Ag-108m	79.20	7.10	5.0960E+000	1.16E-001	1.4347E-001
	433.93	89.90	1.2202E-001		-1.4862E-002
	614.37	90.40	1.3803E-001		-4.6494E-003
	722.95	90.50	1.1583E-001		4.3234E-002
Sb-125	176.33	6.89	2.3578E+000	3.83E-001	1.1816E+000
	427.89	29.33	3.8253E-001		1.4744E-001
	463.38	10.35	1.1356E+000		1.7716E+000
	600.56	17.80	5.9106E-001		4.0179E-001
	606.64	5.02	2.6062E+000		3.9399E-001
	635.90	11.32	8.7457E-001		1.4724E-001
Cs-134	563.23	8.38	1.1977E+000	1.21E-001	6.6728E-001
	569.32	15.43	6.1856E-001		-1.2029E-001
	604.70	97.60	1.2088E-001		-1.6503E-002
	795.84	85.40	1.2715E-001		1.4053E-001
	801.93	8.73	1.1331E+000		-1.7510E+000
Cs-137	661.65	85.12	1.3081E-001	1.31E-001	1.1702E-001
Eu-152	121.78	28.40	7.7879E-001	3.53E-001	-1.7109E-001
	244.69	7.49	1.9535E+000		1.1080E+000
	344.27	26.50	4.2273E-001		1.1492E-001
	778.89	12.74	7.5692E-001		-2.5246E-001
	867.32	4.16	2.2568E+000		-3.0014E+000
	964.01	14.40	8.0260E-001		-5.1260E-001
	1085.78	10.00	9.2323E-001		-4.6296E-002
	1112.02	13.30	7.1944E-001		-3.0891E-001
	1407.95	20.70	3.5258E-001		-3.6053E-001
Eu-154	123.07	40.50	5.4115E-001	2.44E-001	-6.3231E-002
	247.94	6.60	2.0822E+000		8.2981E-001
	591.81	4.83	2.0408E+000		-8.3281E-001
	723.30	19.70	5.3962E-001		2.8811E-001
	756.87	4.33	2.2769E+000		1.5891E+000
	873.19	11.50	7.9651E-001		5.0853E-001
	996.32	10.30	8.8715E-001		-6.2395E-001
	1004.76	17.90	5.2806E-001		2.7018E-001
	1274.45	35.50	2.4354E-001		1.6986E-001
Eu-155	86.54	30.90	1.0778E+000	1.08E+000	2.3251E+000
	105.31	20.70	1.2601E+000		-4.4480E-001
Am-241	59.54	35.90	1.3468E+000	1.35E+000	-1.3258E+000
Cm-243	228.19	10.56	1.3346E+000	9.38E-001	-1.8010E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	9.3815E-001	9.38E-001	-2.8704E-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 6/28/2006 9:58:48 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: BLUE6279
Sample ID: NOL-02-03-119-F-
Sample Title: NOL-02-03-119-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 6/28/2006 9:48:45 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-02-03-119-F-
Title: NOL-02-03-119-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-	306	292.09	72.85	0.96	3.46E+002	66.05	1.52E+003
m	2	284-	306	300.47	74.95	0.97	7.04E+002	80.67	1.80E+003
	3	331-	345	339.51	84.71	1.32	3.61E+002	135.29	1.52E+003
	4	948-	961	955.13	238.66	1.15	2.46E+002	66.68	3.30E+002
	5	1177-	1184	1180.48	295.02	0.34	3.34E+001	33.81	1.30E+002
	6	1301-	1317	1311.66	327.82	0.28	5.25E+001	50.10	1.92E+002
	7	1344-	1361	1353.21	338.21	0.76	8.72E+001	56.05	2.25E+002
	8	1398-	1414	1408.25	351.97	1.10	1.60E+002	51.97	1.73E+002
	9	2323-	2339	2333.63	583.39	1.66	1.95E+002	43.02	9.02E+001
	10	2429-	2445	2438.33	609.57	1.25	1.65E+002	43.10	1.02E+002
	11	2905-	2916	2910.23	727.58	0.61	4.33E+001	25.02	4.77E+001
	12	3639-	3657	3646.65	911.74	1.18	1.41E+002	37.76	6.82E+001
	13	3868-	3886	3878.81	969.80	1.68	9.83E+001	29.15	3.57E+001
	14	4477-	4492	4483.58	1121.04	1.17	6.71E+001	25.47	3.39E+001
	15	5834-	5860	5848.05	1462.26	1.87	1.18E+003	70.31	2.38E+001
	16	7056-	7073	7063.57	1766.23	0.83	5.62E+001	19.83	1.38E+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: 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	0.929	1460.81*		10.67	1.98326E+001	1.99234E+000
TL-208	0.469	277.35		6.80		
		510.84		21.60		
		583.14*		84.20	3.29651E-001	8.45149E-002
		860.37		12.46		
Bi-212	0.994	727.17*		11.80	5.55279E-001	3.27581E-001
Pb-212	0.520	74.81*	@	10.70	1.00690E+001	2.28595E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	5.98154E-001	1.87299E-001
Bi-214	0.973	609.31*		46.30	5.15692E-001	1.48841E-001
		1120.29*		15.10	7.48591E-001	2.94861E-001
		1764.49*		15.80	6.60144E-001	2.42164E-001
PB-214	0.582	74.82*	@	6.21	1.73491E+001	4.13521E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	2.00599E-001	2.05654E-001
		351.92*		37.20	5.21820E-001	1.90411E-001
Ac-228	0.987	338.32*		11.40	9.16658E-001	6.06257E-001
		911.07*		27.70	8.05970E-001	2.35168E-001
		969.11*		16.60	9.56174E-001	3.00583E-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		0.929	1.983256E+001	1.992344E+000
TL-208		0.469	3.296515E-001	8.451486E-002
Bi-212		0.994	5.552786E-001	3.275811E-001
Pb-212	@	0.520	5.981537E-001	1.872985E-001
Bi-214		0.973	5.854678E-001	1.164894E-001
PB-214	@	0.582	3.735534E-001	1.397195E-001
Ac-228		0.987	8.675818E-001	1.771349E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	5.7584E-001	19.12
3	84.71	6.0240E-001	37.43
6	327.82	8.7452E-002	95.48

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
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	1.1374E-001	8.41E-002	7.2959E-002
	1332.49	100.00	8.4063E-002		4.2557E-002
Nb-94	702.63	100.00	9.9484E-002	9.92E-002	3.7028E-002
	871.10	100.00	9.9161E-002		4.5036E-002
Ag-108m	79.20	7.10	4.8842E+000	1.21E-001	-5.8913E+000
	433.93	89.90	1.2126E-001		-1.3051E-002
	614.37	90.40	1.4092E-001		-2.3696E-002
	722.95	90.50	1.2166E-001		-1.0363E-001
Sb-125	176.33	6.89	2.2624E+000	3.71E-001	4.0250E-001
	427.89	29.33	3.7112E-001		2.8092E-001
	463.38	10.35	1.1228E+000		1.3109E+000
	600.56	17.80	5.2369E-001		-9.1433E-002
	606.64	5.02	2.6966E+000		4.7818E+000
	635.90	11.32	8.6587E-001		-1.2162E-001
Cs-134	563.23	8.38	1.2291E+000	1.20E-001	3.5372E-001
	569.32	15.43	6.6424E-001		-3.3900E-001
	604.70	97.60	1.2427E-001		-4.8506E-002
	795.84	85.40	1.1972E-001		1.3395E-001
	801.93	8.73	1.0950E+000		-2.7669E-002
Cs-137	661.65	85.12	1.2976E-001	1.30E-001	1.0025E-001
Eu-152	121.78	28.40	7.5068E-001	3.17E-001	-1.2018E-001
	244.69	7.49	1.8899E+000		9.8192E-001
	344.27	26.50	4.3348E-001		-9.7199E-002
	778.89	12.74	7.5909E-001		-1.3807E+000
	867.32	4.16	2.4871E+000		-2.9333E+000
	964.01	14.40	8.2509E-001		7.7439E-001
	1085.78	10.00	8.8465E-001		-5.3761E-001
	1112.02	13.30	7.4904E-001		1.3632E-002
	1407.95	20.70	3.1672E-001		1.0945E-001
Eu-154	123.07	40.50	5.2316E-001	2.69E-001	8.2613E-002
	247.94	6.60	2.0152E+000		-7.8011E-001
	591.81	4.83	2.0164E+000		4.9867E-001
	723.30	19.70	5.7065E-001		-3.3030E-001
	756.87	4.33	2.3317E+000		5.2538E-001
	873.19	11.50	8.5532E-001		6.7259E-001
	996.32	10.30	8.3090E-001		-9.8929E-001
	1004.76	17.90	4.9864E-001		-4.0000E-002
	1274.45	35.50	2.6920E-001		2.9519E-002
Eu-155	86.54	30.90	1.0441E+000	1.04E+000	-1.8607E-001
	105.31	20.70	1.1936E+000		-5.1365E-001
Am-241	59.54	35.90	1.2943E+000	1.29E+000	3.2233E-001
Cm-243	228.19	10.56	1.3209E+000	9.34E-001	-3.9045E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	9.3428E-001	9.34E-001	2.2331E-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 6/28/2006 3:14:03 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: BLUE6279
Sample ID: NOL-02-03-120
Sample Title: NOL-02-03-120-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 6/28/2006 3:03:58 PM
Live Time: 600.0 seconds
Real Time: 601.1 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-02-03-120
Title: NOL-02-03-120-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	286-	308	291.94	72.81	0.95	3.62E+002	66.24	1.38E+003
m	2	286-	308	300.56	74.97	0.96	7.01E+002	76.88	1.57E+003
	3	332-	345	339.98	84.83	1.12	3.34E+002	127.12	1.40E+003
	4	945-	959	954.65	238.54	0.64	2.55E+002	61.97	2.59E+002
	5	1348-	1360	1352.94	338.14	0.34	3.30E+001	39.98	1.45E+002
	6	1399-	1416	1406.86	351.63	1.08	1.57E+002	53.46	1.79E+002
	7	2033-	2053	2042.62	510.61	1.07	1.47E+002	44.98	1.05E+002
	8	2323-	2339	2331.13	582.77	0.42	1.27E+002	37.75	7.81E+001
	9	2429-	2442	2436.48	609.11	1.36	1.50E+002	38.00	8.22E+001
	10	3635-	3653	3643.97	911.08	1.31	1.03E+002	31.29	4.50E+001
	11	3852-	3864	3857.63	964.51	0.80	1.92E+001	20.22	3.28E+001
	12	5830-	5857	5843.04	1461.01	1.71	1.03E+003	65.36	1.73E+001
	13	7052-	7066	7058.88	1765.06	0.36	2.81E+001	15.12	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: 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	0.995	511.00*	100.00	2.00966E-001	6.71134E-002
K-40	0.999	1460.81*	10.67	1.73549E+001	1.78217E+000
TL-208	0.748	277.35	6.80		
		510.84*	21.60	9.30399E-001	3.19866E-001
		583.14*	84.20	2.14652E-001	6.97299E-002
		860.37	12.46		
Pb-212	0.520	74.81* @	10.70	1.00184E+001	2.25016E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	6.20705E-001	1.79350E-001
Bi-214	0.695	609.31*	46.30	4.67787E-001	1.31907E-001
		1120.29	15.10		
		1764.49*	15.80	3.30035E-001	1.80634E-001
Ac-228	0.540	338.32*	11.40	3.46379E-001	4.23618E-001
		911.07*	27.70	5.89473E-001	1.91513E-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
ANN	0.995	1.546012E-001	6.876608E-002
K-40	0.999	1.735485E+001	1.782166E+000
TL-208	0.748	2.146522E-001	6.937815E-002
Pb-212 @	0.520	6.207047E-001	1.793496E-001
Bi-214	0.695	4.198777E-001	1.065274E-001
Ac-228	0.540	5.482203E-001	1.745082E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	6.0384E-001	18.28
3	84.83	5.5609E-001	38.10
6	351.63	2.6232E-001	33.97
11	964.51	3.2035E-002	105.17

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: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	9.2649E-002	7.88E-002	-8.4434E-002
	1332.49	100.00	7.8828E-002		-3.9663E-004
Nb-94	702.63	100.00	9.5019E-002	9.16E-002	-7.3648E-003
	871.10	100.00	9.1555E-002		5.8746E-002
Ag-108m	79.20	7.10	4.8185E+000	1.13E-001	-3.7054E+000
	433.93	89.90	1.1399E-001		2.3099E-002
	614.37	90.40	1.2650E-001		-1.4913E-001
	722.95	90.50	1.1253E-001		1.0731E-001
Sb-125	176.33	6.89	2.1692E+000	3.40E-001	-4.1108E-003
	427.89	29.33	3.3961E-001		-4.5677E-002
	463.38	10.35	1.0010E+000		1.0867E-001
	600.56	17.80	5.2930E-001		-7.6032E-002
	606.64	5.02	2.6378E+000		5.3181E+000
	635.90	11.32	8.4371E-001		-1.7992E-001
Cs-134	563.23	8.38	1.1208E+000	1.13E-001	1.7909E-001
	569.32	15.43	5.8388E-001		-1.1882E-001
	604.70	97.60	1.2890E-001		-6.8246E-003
	795.84	85.40	1.1275E-001		-2.2437E-002
	801.93	8.73	1.0385E+000		-5.5247E-001
Cs-137	661.65	85.12	1.1755E-001	1.18E-001	4.2330E-002
Eu-152	121.78	28.40	7.2645E-001	3.00E-001	8.2536E-002
	244.69	7.49	1.7368E+000		8.1528E-001
	344.27	26.50	4.1836E-001		1.4543E-001
	778.89	12.74	6.8865E-001		-4.2295E-001
	867.32	4.16	2.0389E+000		-1.1765E+000
	964.01	14.40	7.8305E-001		8.4547E-001
	1085.78	10.00	7.9762E-001		-5.4817E-001
	1112.02	13.30	6.7249E-001		-1.3136E+000
	1407.95	20.70	2.9994E-001		-2.9615E-001
Eu-154	123.07	40.50	5.0371E-001	2.26E-001	-1.1552E-001
	247.94	6.60	1.8851E+000		-3.6670E-001
	591.81	4.83	1.7753E+000		-2.3561E-001
	723.30	19.70	5.2083E-001		4.7455E-001
	756.87	4.33	2.1889E+000		8.1140E-001
	873.19	11.50	7.8850E-001		3.7676E-001
	996.32	10.30	8.1707E-001		-4.3749E-001
	1004.76	17.90	5.3339E-001		7.5399E-001
	1274.45	35.50	2.2593E-001		1.6618E-001
Eu-155	86.54	30.90	1.0279E+000	1.03E+000	2.8874E-001
	105.31	20.70	1.1844E+000		-1.8876E-001
Am-241	59.54	35.90	1.3101E+000	1.31E+000	-7.3299E-001
Cm-243	228.19	10.56	1.2160E+000	8.45E-001	-7.3757E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	8.4452E-001	8.45E-001	4.4667E-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 6/28/2006 1:32:34 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: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-02-03-121
Sample Title: NOL-02-03-121-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 6/28/2006 1:22:33 PM
Live Time: 600.0 seconds
Real Time: 602.1 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-02-03-121
Title: NOL-02-03-121-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-	308	291.40	72.68	1.13	5.24E+002	70.12	1.68E+003
m	2	283-	308	300.48	74.95	1.13	8.63E+002	80.50	1.84E+003
	3	333-	345	339.48	84.70	0.96	1.74E+002	126.68	1.51E+003
	4	948-	960	954.45	238.49	1.28	2.38E+002	64.30	3.19E+002
	5	1169-	1189	1179.66	294.81	1.00	1.20E+002	67.48	2.93E+002
	6	1349-	1361	1353.29	338.23	1.55	7.46E+001	41.68	1.38E+002
	7	1397-	1415	1406.22	351.47	1.28	1.70E+002	55.29	1.85E+002
	8	2038-	2051	2043.73	510.89	0.52	4.33E+001	42.58	1.54E+002
	9	2326-	2343	2331.53	582.86	1.20	1.28E+002	41.19	9.56E+001
	10	2427-	2445	2435.97	608.98	1.34	1.53E+002	43.78	1.01E+002
	11	3632-	3655	3643.88	911.05	1.82	1.53E+002	36.41	4.80E+001
	12	3866-	3883	3874.27	968.67	1.31	6.43E+001	29.04	4.77E+001
	13	4469-	4489	4479.34	1119.98	1.23	9.37E+001	26.96	2.63E+001
	14	5830-	5855	5843.04	1461.01	2.10	1.18E+003	69.76	1.94E+001
	15	6912-	6925	6918.99	1730.08	0.34	1.39E+001	10.37	5.12E+000
	16	7050-	7065	7058.34	1764.92	0.65	5.62E+001	16.82	5.76E+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

N U C L I 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	1.98687E+001	1.98918E+000
TL-208	0.750	277.35	6.80		
		510.84*	21.60	2.73472E-001	2.72314E-001
		583.14*	84.20	2.17304E-001	7.52240E-002
		860.37	12.46		
Pb-212	0.520	74.81* @	10.70	1.23436E+001	2.67920E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	5.79142E-001	1.80758E-001
Bi-214	0.996	609.31*	46.30	4.78041E-001	1.48838E-001
		1120.29*	15.10	1.04479E+000	3.20417E-001
		1764.49*	15.80	6.60794E-001	2.08384E-001
PB-214	0.578	74.82* @	6.21	2.12684E+001	4.86767E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	7.17709E-001	4.22451E-001
		351.92*	37.20	5.52646E-001	2.02326E-001
Ac-228	0.998	338.32*	11.40	7.84018E-001	4.54924E-001
		911.07*	27.70	8.75648E-001	2.31445E-001
		969.11*	16.60	6.25174E-001	2.89829E-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		1.000		
	K-40		0.999	1.986873E+001	1.989181E+000
	TL-208		0.750	2.212860E-001	7.250832E-002
	Pb-212	@	0.520	5.791422E-001	1.807583E-001
	Bi-214		0.996	6.029134E-001	1.132927E-001
	PB-214	@	0.578	5.834432E-001	1.824771E-001
	Ac-228		0.998	7.789222E-001	1.680616E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	8.7271E-001	13.39
3	84.70	2.8933E-001	72.98
15	1730.08	2.3136E-002	74.70

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
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	9.3362E-002	8.57E-002	1.7811E-002
	1332.49	100.00	8.5732E-002		7.5595E-002
Nb-94	702.63	100.00	1.0350E-001	9.28E-002	-9.8632E-004
	871.10	100.00	9.2768E-002		7.9527E-003
Ag-108m	79.20	7.10	4.8366E+000	1.14E-001	-2.5170E+000
	433.93	89.90	1.2296E-001		3.7231E-002
	614.37	90.40	1.2558E-001		5.7832E-003
	722.95	90.50	1.1392E-001		-1.7136E-002
Sb-125	176.33	6.89	2.3185E+000	3.91E-001	1.0354E+000
	427.89	29.33	3.9141E-001		2.3169E-001
	463.38	10.35	1.0696E+000		-7.1164E-002
	600.56	17.80	5.8607E-001		3.3075E-001
	606.64	5.02	2.6657E+000		4.5324E+000
	635.90	11.32	8.7240E-001		1.0666E-001
Cs-134	563.23	8.38	1.2871E+000	1.10E-001	7.9583E-001
	569.32	15.43	6.3367E-001		-5.4093E-001
	604.70	97.60	1.3317E-001		4.9260E-002
	795.84	85.40	1.0977E-001		1.4953E-003
	801.93	8.73	1.0688E+000		-1.0653E+000
Cs-137	661.65	85.12	1.2976E-001	1.30E-001	1.1337E-001
Eu-152	121.78	28.40	7.4363E-001	3.38E-001	8.7340E-003
	244.69	7.49	1.8585E+000		-1.4138E-001
	344.27	26.50	4.1393E-001		-1.2257E-001
	778.89	12.74	6.8142E-001		-8.2452E-001
	867.32	4.16	2.2497E+000		-7.2149E-001
	964.01	14.40	8.1479E-001		-1.3709E-001
	1085.78	10.00	9.4022E-001		3.0443E-001
	1112.02	13.30	7.1439E-001		3.3939E-001
	1407.95	20.70	3.3771E-001		4.4995E-004
Eu-154	123.07	40.50	5.1886E-001	2.46E-001	-7.8963E-002
	247.94	6.60	2.0408E+000		1.8317E-001
	591.81	4.83	1.9258E+000		-4.4140E-001
	723.30	19.70	5.2338E-001		9.1686E-002
	756.87	4.33	2.1953E+000		7.9560E-001
	873.19	11.50	8.1747E-001		-2.0188E-001
	996.32	10.30	8.8073E-001		2.1705E-001
	1004.76	17.90	4.9674E-001		1.9680E-001
	1274.45	35.50	2.4578E-001		-2.0742E-001
Eu-155	86.54	30.90	1.0587E+000	1.06E+000	-1.1558E-001
	105.31	20.70	1.2350E+000		7.5105E-002
Am-241	59.54	35.90	1.3093E+000	1.31E+000	-6.2259E-001
Cm-243	228.19	10.56	1.2992E+000	9.49E-001	4.3685E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	9.4890E-001	9.49E-001	-1.6208E-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 6/28/2006 9:40:05 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: BLUE6279
Sample ID: NOL-02-03-127-F-
Sample Title: NOL-02-03-127-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 6/28/2006 9:30:03 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-02-03-127-F-
Title: NOL-02-03-127-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	284-	306	291.77	72.77	1.07	4.56E+002	68.98	1.66E+003
m	2	284-	306	300.49	74.95	1.08	8.39E+002	82.96	1.83E+003
	3	333-	344	339.36	84.67	0.83	1.96E+002	112.82	1.24E+003
	4	947-	962	955.04	238.64	1.23	3.05E+002	75.77	3.96E+002
	5	1178-	1187	1181.00	295.15	0.98	6.53E+001	40.96	1.64E+002
	6	1350-	1361	1354.45	338.52	0.47	3.65E+001	41.82	1.64E+002
	7	1402-	1416	1408.11	351.94	0.55	1.13E+002	49.45	1.81E+002
	8	2325-	2341	2333.07	583.25	0.69	2.09E+002	43.02	8.70E+001
	9	2428-	2446	2438.54	609.63	1.12	1.49E+002	43.55	1.02E+002
	10	2901-	2919	2910.08	727.55	0.37	5.55E+001	37.09	8.85E+001
	11	3639-	3657	3646.06	911.60	1.76	1.26E+002	34.04	5.16E+001
	12	3870-	3888	3878.40	969.70	0.76	8.93E+001	33.96	6.18E+001
	13	4475-	4490	4482.82	1120.85	0.79	5.70E+001	25.73	3.80E+001
	14	5836-	5861	5847.96	1462.24	2.02	1.10E+003	70.10	4.40E+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

N U C L I 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	0.931	1460.81*	10.67	1.83863E+001	1.89710E+000
TL-208	0.471	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.53818E-001	8.61497E-002
		860.37	12.46		
Bi-212	0.995	727.17*	11.80	7.11739E-001	4.83189E-001
Pb-212	0.520	74.81* @	10.70	1.20017E+001	2.63449E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	7.42044E-001	2.17884E-001
Bi-214	0.695	609.31*	46.30	4.64935E-001	1.47569E-001
		1120.29*	15.10	6.35075E-001	2.94707E-001
		1764.49	15.80		
PB-214	0.582	74.82* @	6.21	2.06793E+001	4.78108E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	3.92081E-001	2.54480E-001
		351.92*	37.20	3.67082E-001	1.72362E-001
Ac-228	0.991	338.32*	11.40	3.84126E-001	4.43609E-001
		911.07*	27.70	7.23627E-001	2.11842E-001
		969.11*	16.60	8.67917E-001	3.42545E-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		0.931	1.838634E+001	1.897097E+000
TL-208		0.471	3.538175E-001	8.614970E-002
Bi-212		0.995	7.117386E-001	4.831888E-001
Pb-212	@	0.520	7.420439E-001	2.178841E-001
Bi-214		0.695	4.990428E-001	1.319508E-001
PB-214	@	0.582	3.749437E-001	1.427088E-001
Ac-228		0.991	7.098197E-001	1.669285E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	7.5996E-001	15.13
3	84.67	3.2725E-001	57.46

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	1.0932E-001	8.45E-002	3.6008E-002
	1332.49	100.00	8.4483E-002		8.1110E-002
Nb-94	702.63	100.00	1.0126E-001	9.89E-002	-1.0793E-001
	871.10	100.00	9.8880E-002		-5.0270E-002
Ag-108m	79.20	7.10	5.0252E+000	1.26E-001	-2.7814E+000
	433.93	89.90	1.2575E-001		-3.5591E-002
	614.37	90.40	1.3593E-001		3.4992E-003
	722.95	90.50	1.2794E-001		1.8257E-002
Sb-125	176.33	6.89	2.2604E+000	3.68E-001	9.5770E-001
	427.89	29.33	3.6821E-001		-3.1679E-002
	463.38	10.35	1.0982E+000		9.1833E-001
	600.56	17.80	5.6303E-001		-2.2436E-002
	606.64	5.02	2.6343E+000		5.8088E-001
	635.90	11.32	8.4595E-001		2.2522E-001
Cs-134	563.23	8.38	1.2647E+000	1.11E-001	8.1110E-001
	569.32	15.43	6.7690E-001		3.9292E-002
	604.70	97.60	1.2189E-001		3.1978E-002
	795.84	85.40	1.1143E-001		4.6925E-002
	801.93	8.73	1.0820E+000		-3.0230E-001
Cs-137	661.65	85.12	1.2157E-001	1.22E-001	-6.2396E-002
Eu-152	121.78	28.40	7.3480E-001	3.53E-001	-6.7985E-001
	244.69	7.49	1.8111E+000		-4.4905E-001
	344.27	26.50	4.2273E-001		-1.1301E-001
	778.89	12.74	7.3713E-001		-7.6124E-001
	867.32	4.16	2.3545E+000		-2.2157E+000
	964.01	14.40	8.4696E-001		7.0247E-002
	1085.78	10.00	1.0299E+000		-5.0416E-001
	1112.02	13.30	7.2196E-001		1.1359E-001
	1407.95	20.70	3.5258E-001		1.7581E-001
Eu-154	123.07	40.50	5.1333E-001	2.65E-001	-1.1499E-001
	247.94	6.60	1.9938E+000		6.1738E-001
	591.81	4.83	2.1631E+000		6.9750E-001
	723.30	19.70	6.0003E-001		2.0410E-001
	756.87	4.33	2.2334E+000		-1.3460E-001
	873.19	11.50	8.5778E-001		-2.3617E-001
	996.32	10.30	9.3686E-001		6.7942E-001
	1004.76	17.90	5.3516E-001		-1.1256E-001
	1274.45	35.50	2.6510E-001		3.9876E-001
Eu-155	86.54	30.90	1.0166E+000	1.02E+000	-4.0178E-001
	105.31	20.70	1.2432E+000		5.1379E-001
Am-241	59.54	35.90	1.3229E+000	1.32E+000	-3.7467E-001
Cm-243	228.19	10.56	1.2763E+000	9.52E-001	-1.1056E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	9.5195E-001	9.52E-001	7.1474E-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 6/28/2006 10:17:35 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: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-02-03-128-F-
Sample Title: NOL-02-03-128-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 6/28/2006 10:07:32 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-02-03-128-F-
Title: NOL-02-03-128-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	287-	307	291.46	72.69	0.92	3.73E+002	66.26	1.12E+003
m	2	287-	307	300.61	74.98	0.93	6.33E+002	76.78	1.57E+003
	3	333-	346	339.57	84.72	1.15	2.04E+002	129.50	1.50E+003
	4	949-	962	955.51	238.76	1.12	2.46E+002	63.61	2.93E+002
	5	1175-	1187	1181.04	295.16	0.43	5.46E+001	47.64	2.03E+002
	6	1348-	1360	1352.78	338.10	0.95	5.69E+001	41.00	1.44E+002
	7	1401-	1416	1408.47	352.03	1.13	1.63E+002	46.18	1.30E+002
	8	2033-	2050	2043.54	510.85	1.11	1.35E+002	46.81	1.34E+002
	9	2325-	2341	2333.51	583.36	1.05	1.42E+002	40.72	9.24E+001
	10	2431-	2445	2437.92	609.47	1.20	1.63E+002	37.57	7.10E+001
	11	3638-	3657	3646.03	911.59	1.62	1.24E+002	38.00	7.15E+001
	12	5832-	5862	5847.62	1462.15	1.76	1.27E+003	73.90	3.09E+001
	13	7059-	7075	7066.05	1766.85	1.80	4.83E+001	15.09	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

N U C L I 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	1.84562E-001	6.85664E-002
K-40	0.939	1460.81*		10.67	2.13237E+001	2.12540E+000
TL-208	0.751	277.35		6.80		
		510.84*		21.60	8.54454E-001	3.25016E-001
		583.14*		84.20	2.39744E-001	7.56574E-002
		860.37		12.46		
Pb-212	0.520	74.81*	@	10.70	9.04191E+000	2.08439E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	5.98312E-001	1.80895E-001
Bi-214	0.659	609.31*		46.30	5.09127E-001	1.33020E-001
		1120.29		15.10		
		1764.49*		15.80	5.67806E-001	1.86194E-001
PB-214	0.582	74.82*	@	6.21	1.55795E+001	3.76532E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	3.27597E-001	2.91159E-001
		351.92*		37.20	5.31597E-001	1.74694E-001
Ac-228	0.535	338.32*		11.40	5.98216E-001	4.40820E-001
		911.07*		27.70	7.12586E-001	2.32423E-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
ANN		0.999	1.327775E-001	7.046675E-002
K-40		0.939	2.132366E+001	2.125397E+000
TL-208		0.751	2.397437E-001	7.525292E-002
Pb-212	@	0.520	5.983121E-001	1.808947E-001
Bi-214		0.659	5.289560E-001	1.082360E-001
PB-214	@	0.582	4.775973E-001	1.497994E-001
Ac-228		0.535	6.877075E-001	2.055961E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	6.2085E-001	17.79
3	84.72	3.3925E-001	63.62

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	1.0312E-001	8.36E-002	-4.2905E-002
	1332.49	100.00	8.3640E-002		-4.0468E-002
Nb-94	702.63	100.00	1.0326E-001	9.16E-002	1.0769E-001
	871.10	100.00	9.1555E-002		-5.2917E-002
Ag-108m	79.20	7.10	4.8582E+000	1.17E-001	-1.0009E+000
	433.93	89.90	1.2164E-001		1.6565E-002
	614.37	90.40	1.4051E-001		-7.2888E-002
	722.95	90.50	1.1745E-001		-2.1449E-002
Sb-125	176.33	6.89	2.2142E+000	3.79E-001	-7.2681E-001
	427.89	29.33	3.7915E-001		-3.4515E-002
	463.38	10.35	1.0297E+000		1.6659E-001
	600.56	17.80	5.7339E-001		-1.6774E-001
	606.64	5.02	2.6413E+000		5.6576E+000
	635.90	11.32	8.5487E-001		-3.6675E-002
Cs-134	563.23	8.38	1.2419E+000	1.07E-001	2.2985E-001
	569.32	15.43	6.7690E-001		1.1564E-001
	604.70	97.60	1.2427E-001		-1.0835E-001
	795.84	85.40	1.0670E-001		2.0504E-003
	801.93	8.73	1.0351E+000		-1.3442E+000
Cs-137	661.65	85.12	1.2655E-001	1.27E-001	1.6427E-001
Eu-152	121.78	28.40	7.1973E-001	3.48E-001	-1.1910E-003
	244.69	7.49	1.7717E+000		7.0609E-001
	344.27	26.50	4.1670E-001		1.3490E-002
	778.89	12.74	7.5692E-001		-2.2324E-001
	867.32	4.16	2.3062E+000		-1.4357E+000
	964.01	14.40	7.9200E-001		-1.9690E-001
	1085.78	10.00	8.8106E-001		-1.5545E-001
	1112.02	13.30	7.1692E-001		1.6439E-001
	1407.95	20.70	3.4770E-001		2.7498E-001
Eu-154	123.07	40.50	4.9937E-001	2.44E-001	2.8168E-001
	247.94	6.60	1.8964E+000		-5.9174E-001
	591.81	4.83	1.9412E+000		-1.1072E+000
	723.30	19.70	5.3467E-001		-3.3152E-001
	756.87	4.33	2.3556E+000		-6.2334E-001
	873.19	11.50	7.9916E-001		5.0611E-001
	996.32	10.30	8.6774E-001		-6.6570E-002
	1004.76	17.90	5.3691E-001		9.8544E-002
	1274.45	35.50	2.4354E-001		2.3899E-001
Eu-155	86.54	30.90	1.0307E+000	1.03E+000	4.3024E-001
	105.31	20.70	1.2014E+000		6.7774E-001
Am-241	59.54	35.90	1.2870E+000	1.29E+000	-7.1882E-001
Cm-243	228.19	10.56	1.2327E+000	8.88E-001	-1.1444E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	8.8811E-001	8.88E-001	-9.8409E-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 6/28/2006 3:32:42 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: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-02-03-129
Sample Title: NOL-02-03-129-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 6/28/2006 3:22:41 PM
Live Time: 600.0 seconds
Real Time: 601.1 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-02-03-129
Title: NOL-02-03-129-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	285-	307	291.74	72.76	1.04	3.26E+002	66.52	1.54E+003
m	2	285-	307	300.46	74.94	1.04	7.18E+002	79.47	1.79E+003
M	3	332-	358	339.60	84.73	1.19	3.10E+002	64.32	1.45E+003
m	4	332-	358	350.08	87.35	1.20	1.73E+002	58.98	1.72E+003
	5	944-	962	953.98	238.37	1.13	2.45E+002	76.66	3.80E+002
	6	1176-	1187	1179.78	294.84	0.66	7.36E+001	42.47	1.55E+002
	7	1344-	1362	1352.44	338.02	0.99	7.78E+001	48.23	1.56E+002
	8	1397-	1414	1407.55	351.80	1.17	1.58E+002	51.31	1.62E+002
	9	2033-	2054	2043.38	510.81	1.29	1.57E+002	47.93	1.18E+002
	10	2324-	2339	2331.17	582.78	1.66	1.20E+002	37.09	7.95E+001
	11	2429-	2445	2436.59	609.14	1.28	1.52E+002	37.87	7.03E+001
	12	3634-	3653	3643.67	911.00	1.23	1.12E+002	32.00	4.44E+001
	13	3867-	3882	3874.09	968.62	0.65	6.01E+001	26.72	4.19E+001
	14	4474-	4487	4479.63	1120.05	0.82	4.85E+001	22.79	3.15E+001
	15	5828-	5857	5843.29	1461.07	1.98	1.05E+003	63.92	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

N U C L I 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	2.14733E-001	7.15596E-002
K-40	0.998	1460.81*	10.67	1.75499E+001	1.77998E+000
Eu-155	0.319	86.54*	30.90	6.92468E-001	2.72744E-001
		105.31	20.70		
TL-208	0.749	277.35	6.80		
		510.84*	21.60	9.94136E-001	3.41098E-001
		583.14*	84.20	2.02205E-001	6.80531E-002
		860.37	12.46		
Pb-212	0.676	74.81* @	10.70	1.02707E+001	2.31172E+000
		77.11 @	18.00		
		87.30* @	8.00	2.67466E+000	1.05348E+000
		238.63*	44.60	5.94813E-001	2.08361E-001
Bi-214	0.698	609.31*	46.30	4.73598E-001	1.31845E-001
		1120.29*	15.10	5.40634E-001	2.60486E-001
		1764.49	15.80		
PB-214	0.668	74.82* @	6.21	1.76968E+001	4.18520E+000
		77.11 @	10.50		
		87.30* @	4.67	4.58185E+000	1.83756E+000
		241.98	7.49		
		295.21*	19.20	4.41313E-001	2.65419E-001
		351.92*	37.20	5.14210E-001	1.87892E-001
Ac-228	0.997	338.32*	11.40	8.17062E-001	5.22601E-001
		911.07*	27.70	6.38932E-001	1.97344E-001
		969.11*	16.60	5.84691E-001	2.66934E-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	1.710573E-001	7.303992E-002
K-40		0.998	1.754990E+001	1.779981E+000
Eu-155		0.319	4.643984E-001	2.789729E-001
TL-208		0.749	2.022046E-001	6.773330E-002
Pb-212	@	0.676	5.948127E-001	2.083610E-001
Bi-214		0.698	4.872695E-001	1.176352E-001
PB-214	@	0.668	4.901178E-001	1.517931E-001
Ac-228		0.997	6.364185E-001	1.518408E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	5.4252E-001	20.43
M 3	84.73	5.1727E-001	20.72

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	8.9367E-002	8.41E-002	-1.1523E-003
		1332.49	100.00	8.4063E-002		6.8563E-002
	Nb-94	702.63	100.00	8.9754E-002	8.36E-002	5.8242E-003
		871.10	100.00	8.3557E-002		-1.9316E-002
	Ag-108m	79.20	7.10	4.8058E+000	1.04E-001	8.4494E-002
		433.93	89.90	1.1500E-001		-1.7749E-002
		614.37	90.40	1.2280E-001		1.0335E-002
		722.95	90.50	1.0439E-001		1.1922E-001
	Sb-125	176.33	6.89	2.2039E+000	3.45E-001	-5.2379E-002
		427.89	29.33	3.4465E-001		1.3740E-001
		463.38	10.35	9.1709E-001		1.4698E-001
		600.56	17.80	4.7946E-001		-8.0675E-001
		606.64	5.02	2.4339E+000		4.4173E+000
		635.90	11.32	8.3012E-001		2.4971E-001
	Cs-134	563.23	8.38	1.1179E+000	1.06E-001	1.4948E-001
		569.32	15.43	5.9990E-001		1.6286E-001
		604.70	97.60	1.2027E-001		-3.0806E-003
		795.84	85.40	1.0565E-001		8.1592E-002
		801.93	8.73	9.2239E-001		1.1748E-001
	Cs-137	661.65	85.12	1.1872E-001	1.19E-001	1.0270E-002
	Eu-152	121.78	28.40	7.1992E-001	3.19E-001	-8.2925E-001
		244.69	7.49	1.6449E+000		-1.5229E+000
		344.27	26.50	3.7659E-001		-1.5599E-001
		778.89	12.74	6.8142E-001		-4.8777E-001
		867.32	4.16	2.0149E+000		-7.6541E-001
		964.01	14.40	7.6666E-001		3.5137E-001
		1085.78	10.00	9.5358E-001		4.7535E-001
		1112.02	13.30	6.3916E-001		4.4867E-001
		1407.95	20.70	3.1943E-001		1.9431E-001
	Eu-154	123.07	40.50	5.0694E-001	2.31E-001	2.6446E-001
		247.94	6.60	1.8156E+000		-1.3129E+000
		591.81	4.83	1.9463E+000		1.8979E-001
		723.30	19.70	4.7399E-001		3.0023E-001
		756.87	4.33	2.0563E+000		8.9599E-001
		873.19	11.50	7.2984E-001		-2.1605E-001
		996.32	10.30	7.8865E-001		6.4634E-001
		1004.76	17.90	4.8713E-001		-6.9295E-002
		1274.45	35.50	2.3076E-001		-7.3507E-002
+	Eu-155	86.54*	30.90	7.8457E-001	7.85E-001	6.9247E-001
		105.31	20.70	1.1928E+000		-3.4847E-001
	Am-241	59.54	35.90	1.3130E+000	1.31E+000	-2.1833E-001
	Cm-243	228.19	10.56	1.2601E+000	8.96E-001	7.8152E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	8.9625E-001	8.96E-001	6.7442E-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 6/28/2006 1:17:32 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: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-02-03-130
Sample Title: NOL-02-03-130-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 6/28/2006 1:07:29 PM
Live Time: 600.0 seconds
Real Time: 601.9 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-02-03-130
Title: NOL-02-03-130-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	284-	306	291.71	72.76	0.96	4.01E+002	70.97	1.84E+003
m	2	284-	306	300.35	74.92	0.96	5.71E+002	79.28	1.98E+003
	3	332-	344	340.28	84.90	0.73	2.57E+002	129.15	1.55E+003
	4	944-	962	954.22	238.43	0.98	2.15E+002	86.16	5.08E+002
	5	1174-	1188	1179.50	294.77	1.21	6.52E+001	56.22	2.62E+002
	6	1344-	1359	1352.68	338.08	1.06	7.71E+001	49.89	1.90E+002
	7	1400-	1417	1407.29	351.74	0.99	1.85E+002	55.48	1.89E+002
	8	2031-	2048	2042.36	510.55	0.99	1.03E+002	47.52	1.49E+002
	9	2320-	2342	2331.18	582.78	1.07	1.84E+002	46.43	9.75E+001
	10	2426-	2444	2436.05	609.00	1.28	2.17E+002	41.57	6.89E+001
	11	2901-	2916	2908.46	727.14	0.76	3.74E+001	27.64	5.36E+001
	12	3435-	3447	3440.77	860.26	0.57	3.03E+001	21.99	3.58E+001
	13	3634-	3650	3643.61	910.98	1.33	1.17E+002	32.96	5.31E+001
	14	3867-	3882	3875.76	969.04	1.30	6.45E+001	26.97	4.15E+001
	15	5828-	5856	5842.85	1460.96	1.97	1.13E+003	68.21	1.79E+001
	16	7054-	7067	7060.01	1765.34	0.38	2.36E+001	15.96	1.54E+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	1.40852E-001	6.75516E-002
K-40	0.999	1460.81*		10.67	1.89381E+001	1.91309E+000
TL-208	0.899	277.35		6.80		
		510.84*		21.60	6.52093E-001	3.17241E-001
		583.14*		84.20	3.10498E-001	8.83635E-002
		860.37*		12.46	3.80020E-001	2.80120E-001
Bi-212	1.000	727.17*		11.80	4.79818E-001	3.59117E-001
Pb-212	0.520	74.81*	@	10.70	8.16403E+000	1.96144E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	5.22463E-001	2.24880E-001
Bi-214	0.691	609.31*		46.30	6.77840E-001	1.54321E-001
		1120.29		15.10		
		1764.49*		15.80	2.77699E-001	1.89541E-001
PB-214	0.580	74.82*	@	6.21	1.40668E+001	3.53052E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	3.91382E-001	3.43615E-001
		351.92*		37.20	6.03581E-001	2.06930E-001
Ac-228	0.999	338.32*		11.40	8.10327E-001	5.39328E-001
		911.07*		27.70	6.69093E-001	2.03743E-001
		969.11*		16.60	6.27293E-001	2.70315E-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	7.243916E-002	6.993229E-002
K-40		0.999	1.893805E+001	1.913085E+000
TL-208		0.899	3.167264E-001	8.375800E-002
Bi-212		1.000	4.798180E-001	3.591168E-001
Pb-212	@	0.520	5.224634E-001	2.248803E-001
Bi-214		0.691	5.183293E-001	1.196719E-001
PB-214	@	0.580	5.471060E-001	1.772676E-001
Ac-228		0.999	6.669943E-001	1.557690E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	6.6912E-001	17.68
3	84.90	4.2765E-001	50.33

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: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	1.0962E-001	8.49E-002	1.4861E-001
	1332.49	100.00	8.4902E-002		-1.2860E-002
Nb-94	702.63	100.00	9.8970E-002	9.83E-002	-5.0503E-003
	871.10	100.00	9.8315E-002		1.1377E-002
Ag-108m	79.20	7.10	5.2279E+000	1.18E-001	-3.7284E-001
	433.93	89.90	1.2088E-001		3.3213E-002
	614.37	90.40	1.2512E-001		4.3812E-003
	722.95	90.50	1.1825E-001		5.7953E-002
Sb-125	176.33	6.89	2.3762E+000	3.62E-001	9.0325E-001
	427.89	29.33	3.6173E-001		-4.2771E-001
	463.38	10.35	1.0679E+000		7.0552E-001
	600.56	17.80	5.5645E-001		5.0725E-002
	606.64	5.02	2.6553E+000		4.5190E+000
	635.90	11.32	8.8318E-001		1.6713E-001
Cs-134	563.23	8.38	1.2213E+000	1.18E-001	4.2770E-002
	569.32	15.43	6.3813E-001		-4.6057E-001
	604.70	97.60	1.3372E-001		-4.4559E-002
	795.84	85.40	1.1755E-001		1.4739E-002
	801.93	8.73	1.1014E+000		-2.2057E-001
Cs-137	661.65	85.12	1.3288E-001	1.33E-001	1.3907E-001
Eu-152	121.78	28.40	7.7469E-001	3.50E-001	1.1092E-002
	244.69	7.49	1.9268E+000		1.8645E-001
	344.27	26.50	4.4551E-001		-3.5957E-001
	778.89	12.74	7.4158E-001		-5.1529E-001
	867.32	4.16	2.2710E+000		1.2601E-001
	964.01	14.40	8.0084E-001		-2.8123E-001
	1085.78	10.00	8.7018E-001		6.0886E-001
	1112.02	13.30	6.3630E-001		-3.5019E-001
	1407.95	20.70	3.5015E-001		2.6357E-001
Eu-154	123.07	40.50	5.3800E-001	2.17E-001	3.2241E-002
	247.94	6.60	2.0822E+000		7.4926E-001
	591.81	4.83	2.1029E+000		9.4679E-001
	723.30	19.70	5.4207E-001		1.6358E-001
	756.87	4.33	2.2396E+000		-1.1102E+000
	873.19	11.50	8.3535E-001		-3.9832E-001
	996.32	10.30	8.7426E-001		2.5317E-001
	1004.76	17.90	5.1173E-001		5.4049E-002
	1274.45	35.50	2.1720E-001		-1.8573E-001
Eu-155	86.54	30.90	1.0964E+000	1.10E+000	-4.5102E-001
	105.31	20.70	1.2840E+000		1.6968E-001
Am-241	59.54	35.90	1.3787E+000	1.38E+000	-1.6698E-002
Cm-243	228.19	10.56	1.3481E+000	9.34E-001	2.2391E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	9.3428E-001	9.34E-001	4.2784E-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 6/28/2006 10:34:01 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-02-03-136-F-
Sample Title: NOL-02-03-136-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 6/28/2006 10:23:58 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-02-03-136-F-
Title: NOL-02-03-136-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	284-	306	291.54	72.71	1.03	3.31E+002	67.10	1.70E+003
m	2	284-	306	300.22	74.89	1.04	6.94E+002	81.22	1.96E+003
M	3	332-	356	340.25	84.90	1.10	2.81E+002	64.65	1.55E+003
m	4	332-	356	349.62	87.24	1.10	1.43E+002	60.38	1.72E+003
	5	949-	960	955.19	238.68	1.09	3.28E+002	64.12	2.95E+002
	6	1172-	1191	1181.78	295.34	0.64	1.46E+002	62.66	2.50E+002
	7	1348-	1361	1352.99	338.16	0.36	7.61E+001	47.93	1.84E+002
	8	1401-	1417	1407.49	351.79	1.23	1.64E+002	50.76	1.61E+002
	9	2032-	2053	2043.08	510.73	1.35	1.57E+002	52.04	1.46E+002
	10	2326-	2345	2333.69	583.41	0.75	1.84E+002	47.76	1.17E+002
	11	2429-	2446	2437.63	609.40	1.58	1.95E+002	40.79	7.35E+001
	12	2903-	2916	2909.90	727.50	0.52	3.35E+001	29.76	7.15E+001
	13	3637-	3655	3646.88	911.80	1.53	1.76E+002	38.86	6.42E+001
	14	3871-	3887	3878.05	969.61	1.69	8.43E+001	31.90	5.77E+001
	15	4476-	4492	4483.77	1121.09	0.62	5.24E+001	28.87	5.26E+001
	16	5834-	5861	5847.81	1462.20	1.82	1.13E+003	69.27	2.69E+001
	17	7056-	7072	7063.37	1766.18	1.38	4.75E+001	16.88	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
ANN	0.997	511.00*	100.00	2.14280E-001	7.66850E-002
K-40	0.935	1460.81*	10.67	1.89749E+001	1.92627E+000
Eu-155	0.323	86.54*	30.90	5.73003E-001	2.67359E-001
		105.31	20.70		
TL-208	0.750	277.35	6.80		
		510.84*	21.60	9.92039E-001	3.64150E-001
		583.14*	84.20	3.11460E-001	9.04329E-002
		860.37	12.46		
Bi-212	0.996	727.17*	11.80	4.30150E-001	3.85246E-001
Pb-212	0.677	74.81* @	10.70	9.93903E+000	2.26866E+000
		77.11 @	18.00		
		87.30* @	8.00	2.21322E+000	1.03267E+000
		238.63*	44.60	7.97293E-001	1.99826E-001
Bi-214	0.975	609.31*	46.30	6.07478E-001	1.47726E-001
		1120.29*	15.10	5.84662E-001	3.27778E-001
		1764.49*	15.80	5.58161E-001	2.06045E-001
PB-214	0.669	74.82* @	6.21	1.71252E+001	4.10189E+000
		77.11 @	10.50		
		87.30* @	4.67	3.79139E+000	1.79207E+000
		241.98	7.49		
		295.21*	19.20	8.76290E-001	4.04003E-001
		351.92*	37.20	5.34016E-001	1.87862E-001
Ac-228	0.988	338.32*	11.40	7.99909E-001	5.18980E-001
		911.07*	27.70	1.00616E+000	2.50714E-001
		969.11*	16.60	8.19923E-001	3.21883E-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		0.997	1.470049E-001	7.910337E-002
K-40		0.935	1.897491E+001	1.926269E+000
Eu-155		0.323	2.767535E-001	2.735016E-001
TL-208		0.750	3.114605E-001	8.986148E-002
Bi-212		0.996	4.301503E-001	3.852465E-001
Pb-212	@	0.677	7.972934E-001	1.998258E-001
Bi-214		0.975	5.900161E-001	1.127332E-001
PB-214	@	0.669	5.943829E-001	1.681625E-001
Ac-228		0.988	9.185985E-001	1.848261E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	5.5221E-001	20.25
M 3	84.90	4.6885E-001	22.98

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: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	9.5813E-002	8.57E-002	1.1141E-002
		1332.49	100.00	8.5732E-002		3.7026E-002
	Nb-94	702.63	100.00	1.0101E-001	9.22E-002	-6.3906E-003
		871.10	100.00	9.2163E-002		-1.1288E-001
	Ag-108m	79.20	7.10	4.9198E+000	1.24E-001	-7.6986E+000
		433.93	89.90	1.2446E-001		-3.2981E-002
		614.37	90.40	1.3928E-001		1.9654E-002
		722.95	90.50	1.2496E-001		1.6049E-002
	Sb-125	176.33	6.89	2.2907E+000	3.75E-001	2.2885E-001
		427.89	29.33	3.7458E-001		1.0466E-001
		463.38	10.35	1.0730E+000		-2.9072E-001
		600.56	17.80	5.8857E-001		-1.5426E-001
		606.64	5.02	2.7474E+000		-1.4767E-001
		635.90	11.32	8.8104E-001		-3.8058E-002
	Cs-134	563.23	8.38	1.1735E+000	1.25E-001	1.2689E-001
		569.32	15.43	6.5132E-001		-1.4651E-001
		604.70	97.60	1.3059E-001		3.7527E-002
		795.84	85.40	1.2541E-001		5.7320E-002
		801.93	8.73	1.0787E+000		-2.1614E+000
	Cs-137	661.65	85.12	1.2573E-001	1.26E-001	4.2698E-002
	Eu-152	121.78	28.40	7.5031E-001	3.45E-001	2.0247E-001
		244.69	7.49	1.8862E+000		9.2601E-001
		344.27	26.50	4.3348E-001		1.1530E-001
		778.89	12.74	7.9907E-001		-1.1134E+000
		867.32	4.16	2.3062E+000		-9.9338E-001
		964.01	14.40	8.3694E-001		-9.3409E-002
		1085.78	10.00	8.8823E-001		1.6624E-001
		1112.02	13.30	7.6101E-001		2.6222E-001
		1407.95	20.70	3.4523E-001		1.3691E-001
	Eu-154	123.07	40.50	5.1886E-001	2.30E-001	-2.3587E-001
		247.94	6.60	1.9410E+000		-1.0475E+000
		591.81	4.83	2.0601E+000		3.3102E-001
		723.30	19.70	5.7642E-001		-5.3411E-002
		756.87	4.33	2.2584E+000		-1.6380E+000
		873.19	11.50	8.0180E-001		-4.1308E-002
		996.32	10.30	8.9352E-001		-9.7989E-002
		1004.76	17.90	4.8907E-001		-5.2620E-001
		1274.45	35.50	2.2957E-001		-1.7968E-002
+	Eu-155	86.54*	30.90	7.8547E-001	7.85E-001	5.7300E-001
		105.31	20.70	1.2272E+000		-4.1124E-002
	Am-241	59.54	35.90	1.3158E+000	1.32E+000	5.7576E-002
	Cm-243	228.19	10.56	1.2975E+000	9.26E-001	-1.9644E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	9.2571E-001	9.26E-001	3.6362E-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 6/28/2006 11:22:18 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-02-03-137
Sample Title: NOL-02-03-137-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 6/28/2006 11:12:14 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-02-03-137
Title: NOL-02-03-137-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	286-	308	291.46	72.69	1.33	3.74E+002	71.07	1.61E+003
m	2	286-	308	300.19	74.88	1.33	8.91E+002	84.06	2.45E+003
	3	336-	344	339.13	84.61	0.80	1.72E+002	95.16	1.02E+003
	4	945-	962	954.51	238.51	0.89	1.99E+002	79.46	4.40E+002
	5	1401-	1425	1407.23	351.72	1.11	1.77E+002	67.51	2.38E+002
	6	2324-	2341	2332.07	583.00	1.25	1.46E+002	41.38	9.21E+001
	7	2427-	2443	2435.60	608.89	1.33	1.59E+002	42.00	9.57E+001
	8	3633-	3652	3644.17	911.12	1.26	1.39E+002	37.15	6.25E+001
M	9	3852-	3883	3858.31	964.68	1.81	3.80E+001	16.75	4.74E+001
m	10	3852-	3883	3874.11	968.63	1.81	8.80E+001	21.08	5.88E+001
	11	4474-	4491	4480.13	1120.18	0.91	6.53E+001	25.68	3.27E+001
	12	5322-	5335	5329.07	1332.48	0.41	3.15E+001	16.93	1.55E+001
	13	5830-	5858	5843.22	1461.05	1.78	1.20E+003	70.04	1.78E+001
	14	7050-	7068	7059.09	1765.11	0.78	5.62E+001	19.85	1.38E+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: 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	0.998	1460.81*	10.67	2.00467E+001	2.00357E+000
TL-208	0.470	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	2.46879E-001	7.70521E-002
		860.37	12.46		
Pb-212	0.520	74.81* @	10.70	1.27609E+001	2.77564E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	4.82937E-001	2.07472E-001
Bi-214	0.993	609.31*	46.30	4.97275E-001	1.44718E-001
		1120.29*	15.10	7.28338E-001	2.96569E-001
		1764.49*	15.80	6.59979E-001	2.42334E-001
Ac-228	0.631	338.32	11.40		
		911.07*	27.70	7.98297E-001	2.31592E-001
		969.11*	16.60	8.55399E-001	2.23665E-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	0.998	2.004670E+001	2.003568E+000
TL-208	0.470	2.468795E-001	7.705210E-002
Pb-212 @	0.520	4.829371E-001	2.074717E-001
Bi-214	0.993	5.681612E-001	1.145978E-001
Ac-228	0.631	8.278416E-001	1.608844E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	6.2402E-001	18.98
3	84.61	2.8675E-001	55.31
5	351.72	2.9555E-001	38.07
M 9	964.68	6.3291E-002	44.12
12	1332.48	5.2429E-002	53.81

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

Errors quoted at 1.960 sigma

Y A N K E E 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	1.0216E-001	8.70E-002	1.4738E-002
	1332.49	100.00	8.6962E-002		3.0256E-002
Nb-94	702.63	100.00	9.8193E-002	9.51E-002	-1.5413E-002
	871.10	100.00	9.5145E-002		1.3431E-001
Ag-108m	79.20	7.10	4.9491E+000	1.17E-001	-7.7780E+000
	433.93	89.90	1.1739E-001		6.3443E-002
	614.37	90.40	1.3031E-001		-8.4292E-002
	722.95	90.50	1.2036E-001		7.1466E-003
Sb-125	176.33	6.89	2.1997E+000	3.52E-001	7.2306E-001
	427.89	29.33	3.5208E-001		-1.8500E-001
	463.38	10.35	1.0420E+000		1.0349E+000
	600.56	17.80	5.4305E-001		-2.5231E-002
	606.64	5.02	2.6097E+000		3.6753E+000
	635.90	11.32	8.3694E-001		1.0523E-001
Cs-134	563.23	8.38	1.2030E+000	1.06E-001	5.7000E-001
	569.32	15.43	6.2917E-001		3.9007E-001
	604.70	97.60	1.2641E-001		2.9948E-003
	795.84	85.40	1.0635E-001		4.0157E-002
	801.93	8.73	1.0282E+000		-5.7162E-001
Cs-137	661.65	85.12	1.2353E-001	1.24E-001	7.0753E-002
Eu-152	121.78	28.40	7.2854E-001	3.27E-001	-6.1477E-001
	244.69	7.49	1.7994E+000		2.0368E-001
	344.27	26.50	4.1725E-001		-1.5524E-001
	778.89	12.74	7.5475E-001		-1.7105E-001
	867.32	4.16	2.1545E+000		-3.2579E+000
	964.01	14.40	8.6988E-001		-3.3298E-002
	1085.78	10.00	8.7018E-001		-7.6932E-001
	1112.02	13.30	7.2696E-001		-2.6274E-001
	1407.95	20.70	3.2740E-001		4.7582E-002
Eu-154	123.07	40.50	5.1054E-001	2.47E-001	-5.7834E-002
	247.94	6.60	1.9458E+000		1.4324E-002
	591.81	4.83	1.9766E+000		-1.0778E+000
	723.30	19.70	5.4451E-001		-2.4402E-001
	756.87	4.33	2.2892E+000		5.7019E-001
	873.19	11.50	7.9651E-001		-2.0604E-001
	996.32	10.30	8.9034E-001		6.3838E-002
	1004.76	17.90	4.7131E-001		-1.5494E-001
	1274.45	35.50	2.4690E-001		-1.2809E-001
Eu-155	86.54	30.90	1.0324E+000	1.03E+000	1.1955E+000
	105.31	20.70	1.1933E+000		-5.4633E-001
Am-241	59.54	35.90	1.3743E+000	1.37E+000	4.2264E-001
Cm-243	228.19	10.56	1.2646E+000	8.76E-001	7.2156E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	8.7577E-001	8.76E-001	-2.7655E-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 6/28/2006 10:55:26 AM

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

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-02-03-138
Sample Title: NOL-02-03-138-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 6/28/2006 10:45:21 AM
Live Time: 600.0 seconds
Real Time: 601.8 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-02-03-138
Title: NOL-02-03-138-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	284-	306	291.57	72.72	1.06	4.05E+002	70.20	1.73E+003
m	2	284-	306	300.32	74.91	1.06	6.30E+002	79.04	1.94E+003
M	3	333-	354	339.73	84.77	1.29	2.73E+002	65.66	1.59E+003
m	4	333-	354	349.23	87.14	1.29	1.32E+002	60.90	1.78E+003
	5	947-	960	954.29	238.45	1.21	2.11E+002	64.49	3.16E+002
	6	1175-	1189	1180.01	294.90	0.69	1.25E+002	49.34	1.76E+002
	7	1402-	1414	1406.68	351.58	1.39	1.50E+002	42.48	1.20E+002
	8	2032-	2053	2041.97	510.45	1.13	1.59E+002	51.15	1.39E+002
	9	2323-	2340	2331.73	582.92	1.05	1.40E+002	41.53	9.51E+001
	10	2428-	2445	2435.37	608.83	1.43	1.73E+002	41.51	8.38E+001
	11	3434-	3445	3439.77	860.01	0.49	2.63E+001	21.61	3.77E+001
	12	3635-	3649	3642.83	910.79	0.50	5.97E+001	29.26	5.63E+001
	13	3868-	3883	3874.59	968.75	0.91	4.29E+001	28.43	5.51E+001
	14	4472-	4487	4479.03	1119.90	1.38	5.13E+001	27.35	4.67E+001
	15	5323-	5336	5330.59	1332.86	0.37	3.45E+001	15.76	1.05E+001
	16	5829-	5856	5842.79	1460.94	2.10	1.04E+003	67.04	2.80E+001
	17	7050-	7066	7058.58	1764.98	1.22	4.75E+001	16.30	6.54E+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	0.990	511.00*	100.00	2.16438E-001	7.56702E-002
K-40	0.999	1460.81*	10.67	1.75107E+001	1.80952E+000
Eu-155	0.326	86.54*	30.90	5.32517E-001	2.66395E-001
		105.31	20.70		
TL-208	0.900	277.35	6.80		
		510.84*	21.60	1.00203E+000	3.59755E-001
		583.14*	84.20	2.36748E-001	7.67390E-002
		860.37*	12.46	3.29947E-001	2.74383E-001
Pb-212	0.676	74.81* @	10.70	9.00851E+000	2.09686E+000
		77.11 @	18.00		
		87.30* @	8.00	2.05685E+000	1.02895E+000
		238.63*	44.60	5.13000E-001	1.76190E-001
Bi-214	0.992	609.31*	46.30	5.40642E-001	1.45706E-001
		1120.29*	15.10	5.71380E-001	3.10894E-001
		1764.49*	15.80	5.57598E-001	1.99442E-001
PB-214	0.667	74.82* @	6.21	1.55219E+001	3.78457E+000
		77.11 @	10.50		
		87.30* @	4.67	3.52350E+000	1.78264E+000
		241.98	7.49		
		295.21*	19.20	7.49490E-001	3.21806E-001
		351.92*	37.20	4.86825E-001	1.60477E-001
Ac-228	0.631	338.32	11.40		
		911.07*	27.70	3.41636E-001	1.72021E-001
		969.11*	16.60	4.17218E-001	2.79782E-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	1.638520E-001	7.731993E-002
K-40		0.999	1.751068E+001	1.809518E+000
Eu-155		0.326	3.182883E-001	2.711170E-001
TL-208		0.900	2.434555E-001	7.355135E-002
Pb-212	@	0.676	5.130001E-001	1.761903E-001
Bi-214		0.992	5.496541E-001	1.100372E-001
PB-214	@	0.667	5.386831E-001	1.415257E-001
Ac-228		0.631	3.623699E-001	1.465384E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	6.7444E-001	17.35
M 3	84.77	4.5448E-001	24.08
15	1332.86	5.7463E-002	45.72

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	1.0118E-001	8.28E-002	8.8661E-002
		1332.49	100.00	8.2787E-002		2.7766E-002
	Nb-94	702.63	100.00	9.8452E-002	9.22E-002	-2.2165E-002
		871.10	100.00	9.2163E-002		2.4715E-002
	Ag-108m	79.20	7.10	4.9790E+000	1.13E-001	-2.9923E+000
		433.93	89.90	1.1798E-001		-1.5813E-002
		614.37	90.40	1.2066E-001		-9.7843E-002
		722.95	90.50	1.1309E-001		1.6405E-002
	Sb-125	176.33	6.89	2.1361E+000	3.62E-001	-8.1267E-001
		427.89	29.33	3.6232E-001		1.3773E-001
		463.38	10.35	1.0438E+000		7.6258E-001
		600.56	17.80	5.3897E-001		-2.8355E-001
		606.64	5.02	2.6097E+000		4.5808E+000
		635.90	11.32	7.8060E-001		6.5951E-001
	Cs-134	563.23	8.38	1.1599E+000	1.02E-001	4.0283E-001
		569.32	15.43	6.2161E-001		6.5444E-003
		604.70	97.60	1.2795E-001		-4.6817E-002
		795.84	85.40	1.0209E-001		4.7205E-002
		801.93	8.73	9.9306E-001		-9.1890E-001
	Cs-137	661.65	85.12	1.2601E-001	1.26E-001	8.2146E-002
	Eu-152	121.78	28.40	7.3215E-001	3.11E-001	-8.6253E-002
		244.69	7.49	1.7941E+000		5.9518E-001
		344.27	26.50	3.8687E-001		-5.4510E-001
		778.89	12.74	6.8142E-001		-1.0269E+000
		867.32	4.16	2.3131E+000		-6.0023E-001
		964.01	14.40	7.6666E-001		-7.4329E-001
		1085.78	10.00	9.4357E-001		2.2943E-001
		1112.02	13.30	6.6157E-001		-2.9852E-001
		1407.95	20.70	3.1123E-001		-6.6567E-002
	Eu-154	123.07	40.50	5.1067E-001	2.22E-001	3.1755E-001
		247.94	6.60	1.8770E+000		-4.0973E-001
		591.81	4.83	1.9816E+000		-1.3552E+000
		723.30	19.70	5.2083E-001		8.9537E-002
		756.87	4.33	2.0077E+000		-1.4263E+000
		873.19	11.50	7.7222E-001		-9.4355E-001
		996.32	10.30	7.8137E-001		-1.5577E-001
		1004.76	17.90	4.4219E-001		2.1457E-001
		1274.45	35.50	2.2223E-001		2.1877E-001
+	Eu-155	86.54*	30.90	8.0160E-001	8.02E-001	5.3252E-001
		105.31	20.70	1.2165E+000		5.7278E-001
	Am-241	59.54	35.90	1.3784E+000	1.38E+000	2.9024E-001
	Cm-243	228.19	10.56	1.2290E+000	8.45E-001	8.1073E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	8.4538E-001	8.45E-001	-1.2272E-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 6/28/2006 10:36:17 AM

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

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-02-03-139
Sample Title: NOL-02-03-139-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 6/28/2006 10:26:12 AM
Live Time: 600.0 seconds
Real Time: 602.3 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-02-03-139
Title: NOL-02-03-139-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	287-	308	291.68	72.75	1.13	4.44E+002	73.02	1.53E+003
m	2	287-	308	300.19	74.88	1.13	9.96E+002	86.92	2.05E+003
	3	332-	345	340.23	84.89	0.72	3.18E+002	139.99	1.73E+003
M	4	947-	973	954.42	238.48	1.32	2.77E+002	42.49	3.75E+002
m	5	947-	973	967.20	241.68	1.32	6.83E+001	31.84	4.20E+002
	6	1175-	1188	1180.36	294.99	0.74	8.97E+001	51.32	2.12E+002
	7	1396-	1413	1406.88	351.63	1.37	1.83E+002	55.49	1.90E+002
	8	2032-	2049	2043.35	510.80	1.23	9.90E+001	47.03	1.46E+002
	9	2324-	2339	2331.76	582.92	1.13	1.23E+002	39.91	9.72E+001
	10	2428-	2446	2435.47	608.86	1.53	2.39E+002	45.57	8.89E+001
	11	3173-	3184	3178.46	794.66	0.57	3.20E+001	22.34	3.90E+001
	12	3434-	3446	3440.42	860.17	0.82	2.18E+001	20.22	3.12E+001
	13	3634-	3653	3643.99	911.08	1.55	1.29E+002	34.99	5.33E+001
	14	3867-	3885	3874.20	968.65	1.70	8.23E+001	29.92	4.47E+001
	15	4472-	4488	4479.86	1120.11	0.51	4.42E+001	27.49	4.88E+001
	16	5828-	5856	5842.85	1460.96	1.95	1.20E+003	72.08	3.26E+001
	17	7050-	7067	7058.27	1764.91	0.59	5.86E+001	18.68	9.44E+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	1.35006E-001	6.67032E-002
K-40	0.999	1460.81*		10.67	2.01502E+001	2.03051E+000
TL-208	0.902	277.35		6.80		
		510.84*		21.60	6.25027E-001	3.13001E-001
		583.14*		84.20	2.07780E-001	7.27502E-002
		860.37*		12.46	2.73765E-001	2.56214E-001
Pb-212	0.520	74.81*	@	10.70	1.42546E+001	3.05856E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	6.74494E-001	1.47824E-001
Bi-214	0.994	609.31*		46.30	7.46366E-001	1.69401E-001
		1120.29*		15.10	4.92397E-001	3.10911E-001
		1764.49*		15.80	6.88014E-001	2.29990E-001
PB-214	0.730	74.82*	@	6.21	2.45611E+001	5.56341E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98*		7.49	9.92208E-001	4.91166E-001
		295.21*		19.20	5.37987E-001	3.20978E-001
		351.92*		37.20	5.95605E-001	2.06288E-001
Ac-228	0.631	338.32		11.40		
		911.07*		27.70	7.36718E-001	2.17456E-001
		969.11*		16.60	8.00340E-001	3.02697E-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	8.906921E-002	6.838107E-002
K-40		0.999	2.015021E+001	2.030511E+000
TL-208		0.902	2.126697E-001	6.969921E-002
Pb-212	@	0.520	6.744935E-001	1.478240E-001
Bi-214		0.994	6.881663E-001	1.249050E-001
PB-214	@	0.730	6.246476E-001	1.636260E-001
Ac-228		0.631	7.583751E-001	1.766073E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	7.4025E-001	16.44
3	84.89	5.3046E-001	43.98
11	794.66	5.3333E-002	69.81

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

Errors quoted at 1.960 sigma

Y A N K E E 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	1.0344E-001	8.11E-002	3.5675E-002
	1332.49	100.00	8.1053E-002		3.5893E-002
Nb-94	702.63	100.00	9.1731E-002	9.06E-002	1.5669E-002
	871.10	100.00	9.0634E-002		3.5055E-002
Ag-108m	79.20	7.10	5.3279E+000	1.09E-001	-3.5272E+000
	433.93	89.90	1.2630E-001		-3.9694E-002
	614.37	90.40	1.3315E-001		-4.5808E-003
	722.95	90.50	1.0940E-001		-5.7204E-002
Sb-125	176.33	6.89	2.4484E+000	3.90E-001	7.7413E-001
	427.89	29.33	3.9031E-001		-2.0294E-001
	463.38	10.35	1.0576E+000		5.8269E-001
	600.56	17.80	5.6694E-001		-6.0703E-001
	606.64	5.02	2.8815E+000		-4.6444E-001
	635.90	11.32	8.6368E-001		7.2221E-001
Cs-134	563.23	8.38	1.2697E+000	1.16E-001	5.7276E-002
	569.32	15.43	6.6990E-001		-2.7017E-002
	604.70	97.60	1.4116E-001		-4.0736E-002
	795.84	85.40	1.1565E-001		5.5239E-002
	801.93	8.73	1.0108E+000		-5.6989E-001
Cs-137	661.65	85.12	1.2129E-001	1.21E-001	1.5111E-001
Eu-152	121.78	28.40	8.0281E-001	3.50E-001	-4.2488E-001
	244.69	7.49	1.9607E+000		4.5641E-001
	344.27	26.50	4.4396E-001		1.9582E-001
	778.89	12.74	7.3266E-001		-1.5298E-001
	867.32	4.16	2.0937E+000		4.4554E-002
	964.01	14.40	8.0260E-001		-1.6421E-001
	1085.78	10.00	9.6674E-001		-4.6944E-001
	1112.02	13.30	6.7787E-001		1.6187E-001
	1407.95	20.70	3.5015E-001		1.8369E-001
Eu-154	123.07	40.50	5.5892E-001	2.40E-001	-1.7086E-001
	247.94	6.60	2.0675E+000		-8.7711E-001
	591.81	4.83	2.1029E+000		1.3403E-001
	723.30	19.70	5.1052E-001		9.0918E-002
	756.87	4.33	2.1760E+000		-7.4815E-001
	873.19	11.50	7.7496E-001		-4.6555E-001
	996.32	10.30	9.1855E-001		-6.7746E-002
	1004.76	17.90	5.0988E-001		-8.6457E-002
	1274.45	35.50	2.4012E-001		2.6952E-002
Eu-155	86.54	30.90	1.1121E+000	1.11E+000	2.1258E-001
	105.31	20.70	1.2960E+000		3.5989E-001
Am-241	59.54	35.90	1.4246E+000	1.42E+000	4.4882E-001
Cm-243	228.19	10.56	1.4042E+000	1.00E+000	-4.5389E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.0009E+000	1.00E+000	2.7622E-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 6/28/2006 3:53:52 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: BLUE6279

Spectrum File: BLUE6279
Sample ID: NOL-02-03-140
Sample Title: NOL-02-03-140-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 6/28/2006 3:43:50 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-02-03-140
Title: NOL-02-03-140-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	285-	305	291.81	72.78	1.04	4.90E+002	70.92	1.64E+003
m	2	285-	305	300.19	74.88	1.04	8.33E+002	84.24	1.82E+003
M	3	331-	354	339.57	84.72	1.28	4.17E+002	68.94	1.76E+003
m	4	331-	354	349.45	87.20	1.28	1.87E+002	61.98	1.75E+003
	5	945-	962	954.32	238.46	1.47	3.16E+002	85.57	4.89E+002
	6	1399-	1415	1406.30	351.49	1.34	1.80E+002	57.01	2.11E+002
	7	2032-	2054	2043.32	510.79	1.46	1.75E+002	56.09	1.65E+002
	8	2320-	2341	2331.82	582.94	1.41	2.89E+002	50.43	9.92E+001
	9	2427-	2443	2436.13	609.02	1.52	1.49E+002	42.99	1.06E+002
	10	2902-	2914	2908.42	727.13	0.94	4.70E+001	27.57	5.70E+001
	11	3633-	3653	3644.36	911.17	1.48	1.69E+002	42.68	8.41E+001
	12	3868-	3885	3875.22	968.90	1.04	1.24E+002	33.15	4.95E+001
	13	5829-	5858	5843.51	1461.13	1.73	1.65E+003	81.20	1.50E+001
	14	7052-	7067	7059.95	1765.33	0.43	5.19E+001	15.77	4.09E+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: 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	0.998	511.00*	100.00	2.38966E-001	8.30794E-002
K-40	0.997	1460.81*	10.67	2.75917E+001	2.61633E+000
Eu-155	0.324	86.54*	30.90	7.52982E-001	2.89631E-001
		105.31	20.70		
TL-208	0.751	277.35	6.80		
		510.84*	21.60	1.10632E+000	3.95096E-001
		583.14*	84.20	4.88754E-001	1.06455E-001
		860.37	12.46		
Bi-212	1.000	727.17*	11.80	6.02604E-001	3.60712E-001
Pb-212	0.676	74.81* @	10.70	1.19224E+001	2.62972E+000
		77.11 @	18.00		
		87.30* @	8.00	2.90839E+000	1.11870E+000
		238.63*	44.60	7.69061E-001	2.40421E-001
Bi-214	0.692	609.31*	46.30	4.65289E-001	1.45940E-001
		1120.29	15.10		
		1764.49*	15.80	6.09933E-001	1.95011E-001
Ac-228	0.633	338.32	11.40		
		911.07*	27.70	9.66639E-001	2.68417E-001
		969.11*	16.60	1.20070E+000	3.45945E-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		0.998	1.333949E-001	8.613408E-002
K-40		0.997	2.759172E+001	2.616333E+000
Eu-155		0.324	5.538720E-001	2.962438E-001
TL-208		0.751	4.887538E-001	1.052567E-001
Bi-212		1.000	6.026039E-001	3.607118E-001
Pb-212	@	0.676	7.690611E-001	2.404210E-001
Bi-214		0.692	5.172154E-001	1.168436E-001
Ac-228		0.633	1.054594E+000	2.120690E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	8.1732E-001	14.46
M 3	84.72	6.9464E-001	16.54
6	351.49	3.0060E-001	31.61

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	1.1229E-001	9.21E-002	3.1135E-002
		1332.49	100.00	9.2093E-002		6.6963E-002
	Nb-94	702.63	100.00	1.1223E-001	1.01E-001	9.7151E-002
		871.10	100.00	1.0083E-001		-1.1274E-002
	Ag-108m	79.20	7.10	5.0555E+000	1.25E-001	-1.2276E+001
		433.93	89.90	1.2501E-001		-6.7290E-002
		614.37	90.40	1.2718E-001		-1.0051E-001
		722.95	90.50	1.2546E-001		-8.7578E-003
	Sb-125	176.33	6.89	2.4763E+000	3.97E-001	2.7124E-001
		427.89	29.33	3.9686E-001		8.7065E-002
		463.38	10.35	1.1260E+000		7.7097E-001
		600.56	17.80	6.1061E-001		-3.8207E-001
		606.64	5.02	2.7675E+000		5.3472E+000
		635.90	11.32	8.9804E-001		4.8359E-001
	Cs-134	563.23	8.38	1.2969E+000	1.24E-001	-3.5709E-001
		569.32	15.43	7.1875E-001		1.0083E+000
		604.70	97.60	1.3908E-001		1.2100E-002
		795.84	85.40	1.2423E-001		4.6887E-002
		801.93	8.73	1.1967E+000		-2.2801E-001
	Cs-137	661.65	85.12	1.3543E-001	1.35E-001	2.9789E-002
	Eu-152	121.78	28.40	7.9256E-001	3.50E-001	5.4981E-001
		244.69	7.49	1.9963E+000		1.0207E+000
		344.27	26.50	4.8308E-001		2.2924E-001
		778.89	12.74	8.3315E-001		-6.4969E-001
		867.32	4.16	2.4350E+000		-1.4410E+000
		964.01	14.40	9.3516E-001		-5.4382E-001
		1085.78	10.00	1.0330E+000		-2.6020E-001
		1112.02	13.30	8.1373E-001		-1.0060E+000
		1407.95	20.70	3.5015E-001		2.4247E-002
	Eu-154	123.07	40.50	5.5195E-001	2.65E-001	3.5583E-001
		247.94	6.60	2.2184E+000		-3.6034E-001
		591.81	4.83	2.3385E+000		1.2636E+000
		723.30	19.70	5.7872E-001		6.0131E-001
		756.87	4.33	2.4829E+000		2.3097E+000
		873.19	11.50	8.7961E-001		-8.0708E-001
		996.32	10.30	1.0178E+000		-2.9236E-002
		1004.76	17.90	5.8548E-001		8.7629E-002
		1274.45	35.50	2.6510E-001		-8.9041E-002
+	Eu-155	86.54*	30.90	7.9287E-001	7.93E-001	7.5298E-001
		105.31	20.70	1.2876E+000		-2.6664E-001
	Am-241	59.54	35.90	1.3328E+000	1.33E+000	5.8263E-002
	Cm-243	228.19	10.56	1.4115E+000	1.01E+000	4.9431E-002

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.0095E+000	1.01E+000	-4.1732E-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 8/1/2006 12:24:53 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: BRN7722

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-02-04-101-F-G
Sample ID: NOL-02-04-101-F
Sample Title: NOL-02-04-101-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 7/31/2006 8:05:10 AM
Live Time: 600.0 seconds
Real Time: 601.2 seconds

Energy Calibration Date: 6/29/2006
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: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-02-04-101-F-G
Log Number: NOL-02-04-101-F
Title: NOL-02-04-101-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	296-	306	300.42	75.19	0.82	1.22E+002	84.12	7.20E+002
2	945-	959	954.31	238.68	1.08	2.30E+002	63.10	2.80E+002
3	1346-	1361	1352.44	338.21	1.04	9.49E+001	44.81	1.42E+002
4	1400-	1413	1406.49	351.73	1.33	9.45E+001	38.53	1.05E+002
5	2033-	2052	2042.44	510.73	0.99	1.31E+002	44.28	1.07E+002
6	2325-	2341	2332.45	583.23	1.26	1.48E+002	36.08	6.11E+001
7	2431-	2442	2436.61	609.27	0.96	1.06E+002	28.95	4.47E+001
8	3638-	3655	3645.84	911.60	1.57	8.21E+001	31.64	5.49E+001
9	3868-	3885	3877.36	969.48	0.80	6.19E+001	28.75	4.71E+001
10	4477-	4491	4483.65	1121.06	0.84	5.25E+001	23.91	3.35E+001
11	5329-	5342	5334.55	1333.80	0.42	3.36E+001	18.00	1.84E+001
12	5835-	5859	5847.31	1462.00	2.12	8.40E+002	59.73	2.16E+001
13	7058-	7071	7064.58	1766.33	0.70	2.79E+001	12.69	5.13E+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-02-04-101-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	2.23207E-001	8.14091E-002
K-40	0.947	1460.81*	10.67	1.78332E+001	1.92112E+000
TL-208	0.752	277.35	6.80		
		510.84*	21.60	1.03337E+000	3.86227E-001
		583.14*	84.20	3.12889E-001	8.65026E-002
		860.37	12.46		
Pb-212	0.580	74.81* @	10.70	3.96542E+000	2.83180E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	7.16313E-001	2.26611E-001
Bi-214	0.969	609.31*	46.30	4.14504E-001	1.23919E-001
		1120.29*	15.10	7.22191E-001	3.37787E-001
		1764.49*	15.80	4.34800E-001	2.02704E-001
Ac-228	0.993	338.32*	11.40	1.25954E+000	6.26852E-001
		911.07*	27.70	5.89944E-001	2.37158E-001
		969.11*	16.60	7.51867E-001	3.57885E-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-02-04-101-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	1.556230E-001	8.349671E-002
K-40		0.947	1.783320E+001	1.921124E+000
TL-208		0.752	3.128887E-001	8.589954E-002
Pb-212	@	0.580	7.163127E-001	2.266105E-001
Bi-214		0.969	4.469872E-001	1.009006E-001
Ac-228		0.993	6.954554E-001	1.885380E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	351.73	1.5756E-001	40.76
11	1333.80	5.6074E-002	53.50

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
N U C L I D E M D A R E P O R T

Spectrum File:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-02-04-101-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	1.1564E-001	1.01E-001	-1.7314E-002
	1332.49	100.00	1.0120E-001		9.2221E-002
Nb-94	702.63	100.00	1.0515E-001	1.01E-001	-1.3099E-002
	871.10	100.00	1.0060E-001		1.2553E-001
Ag-108m	79.20	7.10	6.7871E+000	1.24E-001	-6.8402E+000
	433.93	89.90	1.2554E-001		-7.0857E-003
	614.37	90.40	1.3886E-001		-1.2787E-001
	722.95	90.50	1.2432E-001		7.2825E-002
Sb-125	176.33	6.89	2.2211E+000	3.80E-001	9.7231E-003
	427.89	29.33	3.8038E-001		-3.5441E-001
	463.38	10.35	1.0659E+000		3.3763E-001
	600.56	17.80	5.8926E-001		1.6556E-001
	606.64	5.02	2.7349E+000		3.8573E+000
	635.90	11.32	9.0507E-001		2.0989E-002
Cs-134	563.23	8.38	1.3652E+000	1.21E-001	6.6720E-001
	569.32	15.43	7.1966E-001		5.1200E-001
	604.70	97.60	1.3152E-001		-1.0186E-001
	795.84	85.40	1.2139E-001		1.0054E-001
	801.93	8.73	1.1609E+000		2.4406E-001
Cs-137	661.65	85.12	1.5657E-001	1.57E-001	1.1255E-001
Eu-152	121.78	28.40	7.6916E-001	3.72E-001	1.5459E-001
	244.69	7.49	1.9631E+000		4.7294E-001
	344.27	26.50	4.4585E-001		1.1506E-002
	778.89	12.74	7.6359E-001		-1.7543E-001
	867.32	4.16	2.4159E+000		-2.5473E+000
	964.01	14.40	8.3445E-001		1.5158E-002
	1085.78	10.00	9.3582E-001		-9.5441E-001
	1112.02	13.30	7.0317E-001		-7.2118E-001
	1407.95	20.70	3.7213E-001		1.4501E-001
Eu-154	123.07	40.50	5.3426E-001	2.66E-001	-1.2558E-001
	247.94	6.60	2.0616E+000		-1.2131E+000
	591.81	4.83	2.1470E+000		1.7741E-001
	723.30	19.70	5.7298E-001		3.6804E-001
	756.87	4.33	2.1408E+000		-1.1790E+000
	873.19	11.50	8.5583E-001		-1.1629E-001
	996.32	10.30	9.8701E-001		8.5576E-002
	1004.76	17.90	5.1154E-001		2.7027E-002
	1274.45	35.50	2.6626E-001		-4.0963E-002
Eu-155	86.54	30.90	1.2431E+000	1.24E+000	2.7856E-001
	105.31	20.70	1.2742E+000		1.7716E-001
Am-241	59.54	35.90	2.4404E+000	2.44E+000	-8.6885E-001
Cm-243	228.19	10.56	1.4138E+000	9.26E-001	-2.4425E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	9.2627E-001	9.26E-001	3.0919E-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 8/1/2006 12:46:49 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: ORG7829

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-02-04-101-F-G
Sample ID: NOL-02-04-101-F-
Sample Title: NOL-02-04-101-F-G
Description: CONCRETE IN SHOT

Sample Type:
Geometry:

Acquisition Started: 8/1/2006 8:06:44 AM
Live Time: 600.0 seconds
Real Time: 600.8 seconds

Energy Calibration Date: 7/20/2006
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: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-02-04-101-F-G
Log Number: NOL-02-04-101-F-
Title: NOL-02-04-101-F-G
Description: CONCRETE IN SHOT

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	944-	961	954.67	238.64	2.39	2.50E+002	64.16	2.52E+002
2	2322-	2343	2331.03	582.78	2.27	1.31E+002	40.13	7.70E+001
3	3632-	3652	3642.20	910.62	1.00	1.21E+002	34.67	5.26E+001
4	5827-	5856	5841.48	1460.51	2.31	7.52E+002	57.07	2.11E+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

N U C L I 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-02-04-101-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	0.997	1460.81*		10.67	1.70882E+001	1.89636E+000
TL-208	0.469	277.35		6.80		
		510.84		21.60		
		583.14*		84.20	2.92422E-001	9.73127E-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	8.15811E-001	2.45401E-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-02-04-101-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	0.997	1.708824E+001	1.896356E+000
TL-208	0.469	2.924218E-001	9.731269E-002
Pb-212 @	0.446	8.158108E-001	2.454014E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	910.62	2.0227E-001	28.57

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-02-04-101-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	1.2388E-001	1.03E-001	1.1963E-001
	1332.49	100.00	1.0327E-001		1.2319E-001
Nb-94	702.63	100.00	1.1129E-001	1.11E-001	-8.3537E-003
	871.10	100.00	1.1108E-001		-1.6158E-001
Ag-108m	79.20	7.10	9.3110E+000	1.37E-001	-1.4791E+001
	433.93	89.90	1.4467E-001		-6.3426E-002
	614.37	90.40	1.5892E-001		-2.4196E-001
	722.95	90.50	1.3655E-001		3.7844E-003
Sb-125	176.33	6.89	2.5813E+000	4.36E-001	-3.1412E+000
	427.89	29.33	4.3622E-001		4.1721E-001
	463.38	10.35	1.1852E+000		-1.2768E-001
	600.56	17.80	6.8719E-001		6.7725E-001
	606.64	5.02	3.1659E+000		3.9690E+000
	635.90	11.32	9.8103E-001		-9.5607E-001
Cs-134	563.23	8.38	1.4280E+000	1.26E-001	4.9088E-001
	569.32	15.43	7.9307E-001		-5.0188E-001
	604.70	97.60	1.6055E-001		1.4435E-001
	795.84	85.40	1.2646E-001		1.5506E-002
	801.93	8.73	1.0990E+000		-1.8825E+000
Cs-137	661.65	85.12	1.5410E-001	1.54E-001	6.1149E-002
Eu-152	121.78	28.40	9.3616E-001	4.20E-001	3.6949E-001
	244.69	7.49	2.2852E+000		7.6472E-002
	344.27	26.50	5.3025E-001		-6.5436E-001
	778.89	12.74	8.4708E-001		9.1467E-002
	867.32	4.16	2.8238E+000		3.8046E-002
	964.01	14.40	9.7828E-001		1.1023E+000
	1085.78	10.00	1.0349E+000		-1.2396E+000
	1112.02	13.30	8.1515E-001		-1.1751E+000
	1407.95	20.70	4.2000E-001		-2.8313E-001
Eu-154	123.07	40.50	6.4840E-001	2.67E-001	2.4241E-001
	247.94	6.60	2.5070E+000		2.3412E+000
	591.81	4.83	2.4432E+000		5.3329E-001
	723.30	19.70	6.2736E-001		3.7058E-001
	756.87	4.33	2.6601E+000		5.0328E-001
	873.19	11.50	9.9328E-001		-8.4798E-002
	996.32	10.30	8.4307E-001		-1.3666E-001
	1004.76	17.90	5.7807E-001		3.7992E-001
	1274.45	35.50	2.6673E-001		-2.8117E-001
Eu-155	86.54	30.90	1.5581E+000	1.55E+000	1.0354E+000
	105.31	20.70	1.5452E+000		-9.4093E-001
Am-241	59.54	35.90	4.1231E+000	4.12E+000	-5.7768E+000
Cm-243	228.19	10.56	1.5938E+000	1.10E+000	1.4251E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.0959E+000	1.10E+000	2.0013E-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 7/31/2006 8:28:16 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: BRN7722

Spectrum File: BRN7722
Sample ID: NOL-02-04-102-F-
Sample Title: NOL-02-04-102-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 7/31/2006 8:18:13 AM
Live Time: 600.0 seconds
Real Time: 601.2 seconds

Energy Calibration Date: 6/29/2006
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-02-04-102-F-
Title: NOL-02-04-102-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	286-	305	292.01	73.09	0.76	1.53E+002	42.93	6.74E+002
m	2	286-	305	300.05	75.10	0.76	2.49E+002	49.49	7.15E+002
	3	331-	345	338.50	84.71	0.96	1.51E+002	101.96	8.84E+002
	4	949-	960	954.06	238.61	1.08	2.74E+002	64.30	3.13E+002
	5	1307-	1319	1313.39	328.45	0.76	3.89E+001	38.95	1.35E+002
	6	1347-	1357	1353.31	338.43	1.00	7.62E+001	34.97	1.02E+002
	7	1400-	1414	1406.90	351.83	0.60	1.38E+002	46.09	1.44E+002
	8	2035-	2052	2042.52	510.75	1.26	1.51E+002	44.66	1.13E+002
M	9	2303-	2341	2307.60	577.02	1.29	2.07E+001	16.69	6.75E+001
m	10	2303-	2341	2332.62	583.27	1.30	1.88E+002	30.00	8.90E+001
	11	2430-	2444	2437.23	609.43	0.95	1.18E+002	35.86	7.54E+001
	12	3584-	3593	3588.97	897.38	0.41	1.85E+001	17.64	2.75E+001
	13	3636-	3656	3645.44	911.50	1.00	1.48E+002	36.44	5.35E+001
	14	3868-	3884	3876.34	969.23	0.72	5.33E+001	29.94	5.57E+001
	15	4475-	4489	4482.01	1120.65	0.69	3.58E+001	24.36	4.12E+001
	16	5834-	5858	5846.98	1461.92	1.97	9.98E+002	65.46	2.83E+001
	17	6352-	6365	6358.17	1589.72	1.16	1.71E+001	12.32	7.94E+000
	18	7056-	7071	7062.62	1765.85	0.88	4.46E+001	15.88	6.43E+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: 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	0.997	511.00*	100.00	2.57116E-001	8.38222E-002
K-40	0.954	1460.81*	10.67	2.11686E+001	2.20606E+000
TL-208	0.752	277.35	6.80		
		510.84*	21.60	1.19035E+000	4.00056E-001
		583.14*	84.20	3.96729E-001	8.18113E-002
		860.37	12.46		
Pb-212	0.580	74.81* @	10.70	8.07840E+000	2.25673E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	8.54594E-001	2.41195E-001
Bi-214	0.984	609.31*	46.30	4.58821E-001	1.50849E-001
		1120.29*	15.10	4.92018E-001	3.39182E-001
		1764.49*	15.80	6.95276E-001	2.57320E-001
Ac-228	0.996	338.32*	11.40	1.01151E+000	4.90688E-001
		911.07*	27.70	1.05984E+000	2.88725E-001
		969.11*	16.60	6.46848E-001	3.69710E-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		0.997	1.714224E-001	8.561912E-002
K-40		0.954	2.116857E+001	2.206057E+000
TL-208		0.752	3.967293E-001	8.078325E-002
Pb-212	@	0.580	8.545937E-001	2.411952E-001
Bi-214		0.984	5.157975E-001	1.214997E-001
Ac-228		0.996	9.225224E-001	2.064374E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	73.09	2.5426E-001	28.14
3	84.71	2.5228E-001	67.36
5	328.45	6.4763E-002	100.23
7	351.83	2.2953E-001	33.47
M 9	577.02	3.4578E-002	80.43
12	897.38	3.0833E-002	95.37
17	1589.72	2.8433E-002	72.20

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	1.1389E-001	9.16E-002	-5.0332E-002
	1332.49	100.00	9.1612E-002		4.6705E-002
Nb-94	702.63	100.00	1.1567E-001	1.03E-001	7.7009E-002
	871.10	100.00	1.0278E-001		4.5565E-002
Ag-108m	79.20	7.10	7.2385E+000	1.32E-001	-1.0379E+000
	433.93	89.90	1.3206E-001		-2.8251E-002
	614.37	90.40	1.4981E-001		-3.5517E-003
	722.95	90.50	1.3644E-001		3.1733E-002
Sb-125	176.33	6.89	2.3982E+000	4.02E-001	-8.5226E-001
	427.89	29.33	4.0213E-001		-2.9698E-001
	463.38	10.35	1.1933E+000		-5.2046E-001
	600.56	17.80	6.5426E-001		1.2786E-001
	606.64	5.02	3.0545E+000		5.3662E+000
	635.90	11.32	9.7459E-001		-1.9794E-001
Cs-134	563.23	8.38	1.4432E+000	1.38E-001	4.4883E-002
	569.32	15.43	7.3998E-001		-4.8886E-001
	604.70	97.60	1.4242E-001		-4.7013E-002
	795.84	85.40	1.3839E-001		1.5698E-001
	801.93	8.73	1.1657E+000		-6.8939E-002
Cs-137	661.65	85.12	1.3530E-001	1.35E-001	4.7674E-002
Eu-152	121.78	28.40	8.1064E-001	4.10E-001	-5.5263E-001
	244.69	7.49	2.1115E+000		-1.8423E+000
	344.27	26.50	5.0762E-001		3.4370E-001
	778.89	12.74	8.5346E-001		-8.5129E-001
	867.32	4.16	2.4786E+000		-3.7899E+000
	964.01	14.40	9.2491E-001		3.8130E-001
	1085.78	10.00	9.8673E-001		1.2008E-001
	1112.02	13.30	7.8915E-001		-3.7137E-001
	1407.95	20.70	4.1016E-001		3.2707E-001
Eu-154	123.07	40.50	5.6919E-001	2.57E-001	3.7305E-002
	247.94	6.60	2.3596E+000		-1.0396E-001
	591.81	4.83	2.4699E+000		-2.6533E+000
	723.30	19.70	6.2851E-001		2.1292E-001
	756.87	4.33	2.5823E+000		-1.4029E+000
	873.19	11.50	8.9796E-001		-1.6713E-001
	996.32	10.30	9.7344E-001		-2.0571E-001
	1004.76	17.90	6.1366E-001		6.5142E-001
	1274.45	35.50	2.5658E-001		-2.0940E-001
Eu-155	86.54	30.90	1.3690E+000	1.37E+000	-4.7995E-002
	105.31	20.70	1.3850E+000		-5.4397E-002
Am-241	59.54	35.90	2.6213E+000	2.62E+000	-1.0234E+000
Cm-243	228.19	10.56	1.4916E+000	9.95E-001	-1.5048E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	9.9529E-001	9.95E-001	2.1325E-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 7/31/2006 8:47:55 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: BRN7722

Spectrum File: BRN7722
Sample ID: NOL-02-04-103-F-
Sample Title: NOL-02-04-103-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 7/31/2006 8:37:53 AM
Live Time: 600.0 seconds
Real Time: 601.1 seconds

Energy Calibration Date: 6/29/2006
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-02-04-103-F-
Title: NOL-02-04-103-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	287-	305	291.27	72.90	0.75	1.01E+002	39.78	5.37E+002
m	2	287-	305	299.93	75.07	0.75	2.02E+002	47.64	7.11E+002
	3	948-	962	954.11	238.63	0.62	2.57E+002	66.03	3.01E+002
	4	1401-	1413	1407.20	351.91	1.07	1.27E+002	40.01	1.10E+002
	5	2034-	2052	2042.06	510.63	0.46	1.17E+002	42.21	1.01E+002
	6	2324-	2340	2332.24	583.18	1.47	1.81E+002	38.70	6.69E+001
	7	2429-	2446	2437.53	609.50	1.64	1.31E+002	36.70	6.75E+001
	8	2902-	2917	2906.80	726.83	1.43	5.97E+001	25.09	3.43E+001
	9	3175-	3185	3180.44	795.24	0.67	2.61E+001	18.17	2.49E+001
	10	3637-	3655	3645.18	911.43	1.80	1.35E+002	33.94	4.80E+001
M	11	3852-	3886	3859.99	965.14	1.58	3.64E+001	15.10	3.15E+001
m	12	3852-	3886	3876.64	969.30	1.58	9.37E+001	21.36	3.85E+001
	13	4477-	4489	4482.61	1120.80	0.62	4.25E+001	19.10	1.95E+001
	14	5833-	5859	5846.76	1461.86	1.88	8.61E+002	59.94	1.69E+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: 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	0.995	511.00*	100.00	1.99079E-001	7.69352E-002
K-40	0.958	1460.81*	10.67	1.82706E+001	1.95079E+000
TL-208	0.752	277.35	6.80		
		510.84*	21.60	9.21664E-001	3.64048E-001
		583.14*	84.20	3.82984E-001	9.58398E-002
		860.37	12.46		
Bi-212	0.995	727.17*	11.80	9.57935E-001	4.18054E-001
Pb-212	0.580	74.81* @	10.70	6.56396E+000	2.01417E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	8.01323E-001	2.41228E-001
Bi-214	0.704	609.31*	46.30	5.09098E-001	1.56297E-001
		1120.29*	15.10	5.84057E-001	2.69926E-001
		1764.49	15.80		
Ac-228	0.632	338.32	11.40		
		911.07*	27.70	9.69535E-001	2.68062E-001
		969.11*	16.60	1.13777E+000	2.85358E-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		0.995	1.163548E-001	7.962608E-002
K-40		0.958	1.827057E+001	1.950786E+000
TL-208		0.752	3.829842E-001	9.502367E-002
Bi-212		0.995	9.579350E-001	4.180545E-001
Pb-212	@	0.580	8.013229E-001	2.412278E-001
Bi-214		0.704	5.279202E-001	1.352584E-001
Ac-228		0.632	1.048399E+000	1.953771E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	1.6819E-001	39.42
4	351.91	2.1116E-001	31.58
9	795.24	4.3431E-002	69.72
M 11	965.14	6.0746E-002	41.44

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: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	1.1389E-001	9.63E-002	-4.9271E-002
	1332.49	100.00	9.6250E-002		7.4847E-002
Nb-94	702.63	100.00	1.1144E-001	1.11E-001	-3.9963E-002
	871.10	100.00	1.1419E-001		4.4331E-002
Ag-108m	79.20	7.10	6.9729E+000	1.27E-001	-5.3105E+000
	433.93	89.90	1.2670E-001		2.6503E-003
	614.37	90.40	1.4707E-001		-3.8781E-002
	722.95	90.50	1.3535E-001		-4.8766E-002
Sb-125	176.33	6.89	2.2970E+000	4.07E-001	-9.7033E-001
	427.89	29.33	4.0717E-001		3.3598E-001
	463.38	10.35	1.1161E+000		3.1901E-001
	600.56	17.80	6.3821E-001		3.3354E-001
	606.64	5.02	2.8742E+000		-1.5073E+000
	635.90	11.32	9.2135E-001		-6.8631E-001
Cs-134	563.23	8.38	1.3542E+000	1.30E-001	9.9308E-001
	569.32	15.43	7.1760E-001		-2.2048E-001
	604.70	97.60	1.3411E-001		-4.5119E-002
	795.84	85.40	1.2973E-001		4.8091E-002
	801.93	8.73	1.1463E+000		-3.6101E-001
Cs-137	661.65	85.12	1.2920E-001	1.29E-001	7.5772E-002
Eu-152	121.78	28.40	7.8370E-001	3.42E-001	-5.2473E-001
	244.69	7.49	2.0311E+000		4.9814E-001
	344.27	26.50	4.7622E-001		4.0623E-002
	778.89	12.74	8.5950E-001		-2.5067E-001
	867.32	4.16	2.7422E+000		-3.2888E+000
	964.01	14.40	9.2252E-001		1.8190E-001
	1085.78	10.00	9.8177E-001		1.0296E-001
	1112.02	13.30	8.2696E-001		-8.9560E-002
	1407.95	20.70	3.4157E-001		1.2133E-002
Eu-154	123.07	40.50	5.4836E-001	2.76E-001	8.4886E-002
	247.94	6.60	2.1336E+000		-1.2827E+000
	591.81	4.83	2.3277E+000		3.8804E-001
	723.30	19.70	6.2851E-001		-1.7661E-001
	756.87	4.33	2.5129E+000		2.1613E+000
	873.19	11.50	9.9345E-001		8.7423E-001
	996.32	10.30	9.4569E-001		-7.2492E-001
	1004.76	17.90	5.3968E-001		-4.1197E-001
	1274.45	35.50	2.7558E-001		3.4908E-002
Eu-155	86.54	30.90	1.3287E+000	1.31E+000	1.4870E+000
	105.31	20.70	1.3072E+000		-5.6651E-001
Am-241	59.54	35.90	2.4787E+000	2.48E+000	-1.2600E-001
Cm-243	228.19	10.56	1.5228E+000	9.72E-001	4.1440E-002

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	9.7244E-001	9.72E-001	3.8516E-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 7/31/2006 11:03:26 AM

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

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-02-04-104-F-
Sample Title: NOL-02-04-104-F-G
Description: 100% Satulated Soil

Sample Type:
Geometry:

Acquisition Started: 7/31/2006 10:53:23 AM
Live Time: 600.0 seconds
Real Time: 600.9 seconds

Energy Calibration Date: 6/29/2006
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-02-04-104-F-
Title: NOL-02-04-104-F-G
Description: 100% Satulated Soil

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	291.05	72.85	0.86	2.20E+002	45.75	7.13E+002
m	2	284-	306	299.95	75.07	0.87	3.13E+002	51.19	7.90E+002
	3	946-	961	954.56	238.74	0.70	2.24E+002	70.70	3.58E+002
	4	1347-	1359	1353.14	338.39	1.10	9.64E+001	39.72	1.20E+002
	5	1401-	1416	1407.42	351.96	1.26	1.27E+002	49.23	1.67E+002
	6	2036-	2052	2043.19	510.91	0.95	1.09E+002	41.08	1.05E+002
	7	2324-	2340	2332.57	583.26	1.11	1.52E+002	37.44	6.80E+001
	8	2429-	2444	2436.58	609.26	0.67	1.29E+002	37.04	7.48E+001
	9	3173-	3184	3177.76	794.57	1.22	3.64E+001	19.92	2.66E+001
	10	3635-	3654	3644.34	911.22	0.72	1.29E+002	36.36	6.13E+001
	11	3867-	3884	3876.56	969.28	0.57	7.03E+001	28.34	4.27E+001
	12	4947-	4960	4954.07	1238.67	1.28	1.83E+001	19.61	2.97E+001
	13	5834-	5858	5845.68	1461.59	1.75	9.01E+002	62.31	2.72E+001
	14	7056-	7070	7062.62	1765.84	0.99	3.79E+001	15.68	9.10E+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: 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	1.000	511.00*	100.00	1.85834E-001	7.45233E-002
K-40	0.977	1460.81*	10.67	1.91119E+001	2.03516E+000
TL-208	0.752	277.35	6.80		
		510.84*	21.60	8.60342E-001	3.52097E-001
		583.14*	84.20	3.21511E-001	8.95801E-002
		860.37	12.46		
Pb-212	0.580	74.81* @	10.70	1.01820E+001	2.59922E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	6.97263E-001	2.46131E-001
Bi-214	0.681	609.31*	46.30	5.03772E-001	1.57240E-001
		1120.29	15.10		
		1764.49*	15.80	5.91163E-001	2.51688E-001
Ac-228	0.999	338.32*	11.40	1.27948E+000	5.64314E-001
		911.07*	27.70	9.24121E-001	2.81946E-001
		969.11*	16.60	8.53827E-001	3.55446E-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		1.000	1.163875E-001	7.696096E-002
K-40		0.977	1.911188E+001	2.035165E+000
TL-208		0.752	3.215112E-001	8.896519E-002
Pb-212	@	0.580	6.972631E-001	2.461306E-001
Bi-214		0.681	5.283052E-001	1.333546E-001
Ac-228		0.999	9.477941E-001	2.056949E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	3.6676E-001	20.79
5	351.96	2.1184E-001	38.73
9	794.57	6.0728E-002	54.66
12	1238.67	3.0451E-002	107.31

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: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	1.1520E-001	8.67E-002	4.6808E-002
	1332.49	100.00	8.6709E-002		6.8864E-002
Nb-94	702.63	100.00	1.0779E-001	1.01E-001	-3.8152E-002
	871.10	100.00	1.0104E-001		-7.1382E-002
Ag-108m	79.20	7.10	7.1163E+000	1.33E-001	-1.4989E+000
	433.93	89.90	1.3932E-001		1.1662E-002
	614.37	90.40	1.4951E-001		-2.3892E-002
	722.95	90.50	1.3315E-001		-1.8625E-002
Sb-125	176.33	6.89	2.4702E+000	4.28E-001	1.2768E+000
	427.89	29.33	4.2751E-001		1.2564E-001
	463.38	10.35	1.2746E+000		1.3057E+000
	600.56	17.80	6.3458E-001		1.1692E-001
	606.64	5.02	2.9973E+000		5.5999E+000
	635.90	11.32	9.8667E-001		5.0790E-001
Cs-134	563.23	8.38	1.3869E+000	1.30E-001	-7.2665E-001
	569.32	15.43	7.8086E-001		5.2004E-002
	604.70	97.60	1.3805E-001		-7.3839E-002
	795.84	85.40	1.3018E-001		3.1633E-002
	801.93	8.73	1.2081E+000		1.7603E-002
Cs-137	661.65	85.12	1.4851E-001	1.49E-001	4.8282E-002
Eu-152	121.78	28.40	8.0347E-001	3.42E-001	-3.6851E-001
	244.69	7.49	2.0138E+000		-8.2103E-001
	344.27	26.50	4.6843E-001		-1.4934E-001
	778.89	12.74	7.9692E-001		-1.5677E-001
	867.32	4.16	2.5597E+000		-3.9050E+000
	964.01	14.40	8.6315E-001		-6.9080E-002
	1085.78	10.00	9.3057E-001		-5.8315E-001
	1112.02	13.30	7.5674E-001		4.1032E-002
	1407.95	20.70	3.4157E-001		2.1797E-001
Eu-154	123.07	40.50	5.5563E-001	2.73E-001	-3.8080E-001
	247.94	6.60	2.1687E+000		3.5525E-001
	591.81	4.83	2.3608E+000		-5.0012E-001
	723.30	19.70	6.1512E-001		-1.0316E-002
	756.87	4.33	2.7955E+000		3.7362E+000
	873.19	11.50	8.9045E-001		2.7645E-001
	996.32	10.30	1.0687E+000		4.5802E-001
	1004.76	17.90	5.8173E-001		3.1143E-001
	1274.45	35.50	2.7251E-001		-1.8475E-002
Eu-155	86.54	30.90	1.3379E+000	1.34E+000	8.3678E-001
	105.31	20.70	1.3472E+000		2.3859E-001
Am-241	59.54	35.90	2.7127E+000	2.71E+000	-1.0868E+000
Cm-243	228.19	10.56	1.4725E+000	1.04E+000	3.3104E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	1.0440E+000	1.04E+000	9.4114E-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 7/31/2006 10:47:30 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: BRN7722

Spectrum File: BRN7722
Sample ID: NOL-02-04-105-F-
Sample Title: NOL-02-04-105-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 7/31/2006 10:37:26 AM
Live Time: 600.0 seconds
Real Time: 600.9 seconds

Energy Calibration Date: 6/29/2006
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-02-04-105-F-
Title: NOL-02-04-105-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	296-	306	300.18	75.13	0.46	1.97E+002	88.82	7.74E+002
	2	948-	961	954.12	238.63	1.06	2.23E+002	66.88	3.38E+002
	3	1176-	1186	1180.28	295.17	0.82	4.13E+001	39.36	1.51E+002
	4	1346-	1357	1352.41	338.21	0.91	6.00E+001	38.25	1.28E+002
	5	1399-	1415	1406.34	351.69	1.16	1.51E+002	49.46	1.55E+002
	6	2034-	2051	2042.13	510.65	0.45	1.07E+002	46.12	1.37E+002
	7	2239-	2248	2243.64	561.03	0.52	1.60E+001	19.09	3.50E+001
	8	2321-	2339	2331.94	583.10	1.63	1.61E+002	40.75	8.04E+001
M	9	2406-	2445	2409.76	602.56	1.33	1.70E+001	14.81	5.13E+001
m	10	2406-	2445	2435.72	609.05	1.33	1.48E+002	26.62	7.93E+001
	11	3634-	3654	3643.75	911.08	1.91	1.68E+002	38.69	6.07E+001
	12	3851-	3886	3875.40	968.99	1.27	9.40E+001	49.37	9.80E+001
	13	4475-	4488	4481.20	1120.45	0.92	3.33E+001	24.33	4.27E+001
	14	5326-	5337	5331.47	1333.03	0.82	2.43E+001	15.14	1.37E+001
	15	5833-	5857	5845.53	1461.55	1.72	9.61E+002	62.78	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: 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	0.995	511.00*		100.00	1.82056E-001	8.25068E-002
K-40	0.979	1460.81*		10.67	2.03959E+001	2.12155E+000
TL-208	0.753	277.35		6.80		
		510.84*		21.60	8.42854E-001	3.88128E-001
		583.14*		84.20	3.39769E-001	9.68812E-002
		860.37		12.46		
Pb-212	0.580	74.81*	@	10.70	6.39322E+000	3.14299E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	6.94345E-001	2.35285E-001
Bi-214	0.705	609.31*		46.30	5.76281E-001	1.25758E-001
		1120.29*		15.10	4.58200E-001	3.38219E-001
		1764.49		15.80		
PB-214	0.619	74.82*	@	6.21	1.10157E+001	5.47418E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	3.15245E-001	3.04903E-001
		351.92*		37.20	6.20307E-001	2.28071E-001
Ac-228	1.000	338.32*		11.40	7.97067E-001	5.23000E-001
		911.07*		27.70	1.20893E+000	3.10750E-001
		969.11*		16.60	1.14160E+000	6.11152E-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		0.995	1.086665E-001	8.508564E-002
K-40		0.979	2.039589E+001	2.121546E+000
TL-208		0.753	3.397686E-001	9.624631E-002
Pb-212	@	0.580	6.943450E-001	2.352855E-001
Bi-214		0.705	5.619388E-001	1.178732E-001
PB-214	@	0.619	5.108574E-001	1.826309E-001
Ac-228		1.000	1.107905E+000	2.447858E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	561.03	2.6667E-002	119.29
M 9	602.56	2.8398E-002	86.91
14	1333.03	4.0439E-002	62.42

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	1.1821E-001	9.51E-002	6.0562E-002
	1332.49	100.00	9.5113E-002		8.6921E-002
Nb-94	702.63	100.00	1.0890E-001	1.09E-001	-7.2471E-002
	871.10	100.00	1.0905E-001		5.2705E-002
Ag-108m	79.20	7.10	7.0706E+000	1.30E-001	-4.3002E+000
	433.93	89.90	1.3426E-001		-1.0648E-001
	614.37	90.40	1.4080E-001		-2.8009E-002
	722.95	90.50	1.2977E-001		-7.9148E-002
Sb-125	176.33	6.89	2.3606E+000	4.04E-001	3.9537E-001
	427.89	29.33	4.0382E-001		8.8304E-002
	463.38	10.35	1.1616E+000		-8.8447E-002
	600.56	17.80	6.1986E-001		-3.1331E-001
	606.64	5.02	3.1384E+000		6.2024E+000
	635.90	11.32	9.6848E-001		-6.2472E-001
Cs-134	563.23	8.38	1.3319E+000	1.36E-001	-2.1743E-001
	569.32	15.43	7.7325E-001		1.5390E-001
	604.70	97.60	1.5251E-001		-5.7687E-003
	795.84	85.40	1.3585E-001		1.1280E-001
	801.93	8.73	1.2219E+000		-3.7110E-001
Cs-137	661.65	85.12	1.4300E-001	1.43E-001	1.1820E-001
Eu-152	121.78	28.40	8.2042E-001	4.29E-001	4.0966E-002
	244.69	7.49	2.1604E+000		1.6793E-001
	344.27	26.50	4.8465E-001		1.5078E-001
	778.89	12.74	8.0663E-001		-5.2627E-001
	867.32	4.16	2.6382E+000		-1.5039E+000
	964.01	14.40	9.2252E-001		1.1983E-001
	1085.78	10.00	1.0944E+000		-1.3537E-001
	1112.02	13.30	8.0657E-001		-5.5068E-001
	1407.95	20.70	4.2938E-001		2.6078E-001
Eu-154	123.07	40.50	5.7411E-001	2.98E-001	1.7468E-001
	247.94	6.60	2.2773E+000		4.2789E-001
	591.81	4.83	2.2253E+000		4.2286E-002
	723.30	19.70	6.0831E-001		2.8530E-001
	756.87	4.33	2.5823E+000		6.8007E-001
	873.19	11.50	9.2008E-001		-2.7056E-001
	996.32	10.30	1.0394E+000		-1.4984E-001
	1004.76	17.90	5.9175E-001		-7.5114E-002
	1274.45	35.50	2.9752E-001		1.1497E-001
Eu-155	86.54	30.90	1.3335E+000	1.33E+000	4.5600E-001
	105.31	20.70	1.3539E+000		-4.6389E-001
Am-241	59.54	35.90	2.5300E+000	2.53E+000	-1.1374E+000
Cm-243	228.19	10.56	1.5067E+000	1.01E+000	-2.5258E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	1.0118E+000	1.01E+000	3.3728E-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 7/31/2006 9:51:09 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: BRN7722

Spectrum File: BRN7722
Sample ID: NOL-02-04-106-F-
Sample Title: NOL-02-04-106-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 7/31/2006 9:41:06 AM
Live Time: 600.0 seconds
Real Time: 601.0 seconds

Energy Calibration Date: 6/29/2006
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-02-04-106-F-
Title: NOL-02-04-106-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	284-	304	291.61	72.99	0.97	1.76E+002	44.52	8.30E+002
m	2	284-	304	299.74	75.02	0.97	3.01E+002	51.42	8.68E+002
	3	947-	959	954.20	238.65	1.03	2.33E+002	61.65	2.88E+002
	4	1343-	1357	1352.65	338.27	0.60	4.25E+001	43.37	1.56E+002
	5	1399-	1416	1406.81	351.81	1.04	1.50E+002	46.79	1.28E+002
	6	2095-	2105	2099.79	525.06	0.71	2.33E+001	21.27	3.97E+001
	7	2324-	2338	2331.29	582.94	0.81	1.29E+002	34.87	6.44E+001
	8	2428-	2445	2435.81	609.07	0.67	1.40E+002	36.22	6.19E+001
	9	2901-	2912	2907.99	727.13	0.47	3.58E+001	20.26	2.82E+001
	10	3635-	3654	3643.64	911.05	1.58	1.10E+002	32.13	4.50E+001
	11	3867-	3885	3874.66	968.81	1.48	8.18E+001	27.34	3.33E+001
	12	4473-	4489	4480.54	1120.28	0.61	5.25E+001	22.54	2.55E+001
	13	5324-	5336	5329.96	1332.65	0.38	2.60E+001	16.16	1.60E+001
	14	5830-	5856	5843.99	1461.17	2.05	9.87E+002	63.85	1.69E+001
	15	7052-	7065	7058.17	1764.73	0.44	3.33E+001	13.05	3.72E+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	0.995	1460.81*	10.67	2.09396E+001	2.16995E+000
TL-208	0.471	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	2.71872E-001	8.17920E-002
		860.37	12.46		
Bi-212	1.000	727.17*	11.80	5.74595E-001	3.31991E-001
Pb-212	0.581	74.81* @	10.70	9.80360E+000	2.54989E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	7.28001E-001	2.23602E-001
Bi-214	0.998	609.31*	46.30	5.46538E-001	1.56480E-001
		1120.29*	15.10	7.22166E-001	3.19453E-001
		1764.49*	15.80	5.19027E-001	2.10006E-001
Ac-228	0.999	338.32*	11.40	5.63962E-001	5.82598E-001
		911.07*	27.70	7.90058E-001	2.48029E-001
		969.11*	16.60	9.92403E-001	3.47780E-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		0.995	2.093961E+001	2.169948E+000
TL-208		0.471	2.718716E-001	8.179199E-002
Bi-212		1.000	5.745953E-001	3.319910E-001
Pb-212	@	0.581	7.280010E-001	2.236021E-001
Bi-214		0.998	5.615037E-001	1.167909E-001
Ac-228		0.999	8.267104E-001	1.907989E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.9371E-001	25.26
5	351.81	2.4957E-001	31.24
6	525.06	3.8909E-002	91.10
13	1332.65	4.3413E-002	62.05

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	1.3767E-001	9.96E-002	1.0491E-001
	1332.49	100.00	9.9578E-002		1.0407E-001
Nb-94	702.63	100.00	1.1322E-001	1.09E-001	5.8500E-002
	871.10	100.00	1.0864E-001		-1.8543E-002
Ag-108m	79.20	7.10	6.9510E+000	1.27E-001	-1.6052E+001
	433.93	89.90	1.3984E-001		9.6693E-002
	614.37	90.40	1.3690E-001		1.7487E-002
	722.95	90.50	1.2746E-001		3.9807E-003
Sb-125	176.33	6.89	2.3721E+000	4.26E-001	-1.1298E+000
	427.89	29.33	4.2592E-001		2.5880E-002
	463.38	10.35	1.1315E+000		9.3436E-005
	600.56	17.80	6.2172E-001		3.5853E-002
	606.64	5.02	2.9290E+000		-5.9173E-002
	635.90	11.32	9.2135E-001		-1.6976E-001
Cs-134	563.23	8.38	1.4012E+000	1.30E-001	8.9848E-001
	569.32	15.43	7.4596E-001		-2.6719E-001
	604.70	97.60	1.4428E-001		-4.0937E-002
	795.84	85.40	1.2973E-001		2.1350E-002
	801.93	8.73	1.1942E+000		-1.5737E-001
Cs-137	661.65	85.12	1.3882E-001	1.39E-001	5.0926E-002
Eu-152	121.78	28.40	7.9556E-001	3.93E-001	-8.3889E-002
	244.69	7.49	1.9252E+000		-1.7778E+000
	344.27	26.50	4.7854E-001		1.6488E-002
	778.89	12.74	8.4738E-001		6.0695E-001
	867.32	4.16	2.5397E+000		-2.8818E+000
	964.01	14.40	9.2252E-001		3.6437E-001
	1085.78	10.00	1.0255E+000		-9.2073E-001
	1112.02	13.30	8.0312E-001		4.3632E-001
	1407.95	20.70	3.9336E-001		1.2225E-001
Eu-154	123.07	40.50	5.5756E-001	2.71E-001	3.6072E-001
	247.94	6.60	2.1941E+000		1.1470E+000
	591.81	4.83	2.2462E+000		-1.1251E+000
	723.30	19.70	5.8560E-001		9.4960E-002
	756.87	4.33	2.4141E+000		-2.3411E+000
	873.19	11.50	9.6272E-001		3.2816E-001
	996.32	10.30	1.0728E+000		-3.1629E-001
	1004.76	17.90	6.0403E-001		5.6718E-003
	1274.45	35.50	2.7096E-001		1.5021E-001
Eu-155	86.54	30.90	1.3145E+000	1.31E+000	8.8571E-001
	105.31	20.70	1.3736E+000		6.8472E-001
Am-241	59.54	35.90	2.5435E+000	2.54E+000	-2.1204E-002
Cm-243	228.19	10.56	1.4493E+000	9.93E-001	-3.9977E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	9.9291E-001	9.93E-001	3.3606E-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 7/31/2006 11:19:30 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: BRN7722

Spectrum File: BRN7722
Sample ID: NOL-02-04-107-F-
Sample Title: NOL-02-04-107-F-G
Description: 20% Satulated Soil

Sample Type:
Geometry:

Acquisition Started: 7/31/2006 11:09:27 AM
Live Time: 600.0 seconds
Real Time: 601.0 seconds

Energy Calibration Date: 6/29/2006
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-02-04-107-F-
Title: NOL-02-04-107-F-G
Description: 20% Satulated Soil

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	75.18	0.86	2.45E+002	86.28	7.50E+002
	2	949-	960	953.95	238.59	1.07	2.57E+002	61.97	2.92E+002
M	3	1155-	1186	1159.96	290.09	0.68	3.15E+001	19.72	1.32E+002
m	4	1155-	1186	1180.36	295.19	0.68	7.38E+001	24.86	1.17E+002
	5	1400-	1414	1406.78	351.80	0.83	1.24E+002	47.35	1.59E+002
	6	2032-	2052	2042.84	510.82	1.32	1.14E+002	51.56	1.56E+002
	7	2324-	2338	2332.06	583.13	1.32	1.67E+002	38.09	7.29E+001
	8	2427-	2447	2436.69	609.29	1.25	1.43E+002	40.50	7.84E+001
	9	2900-	2914	2907.93	727.11	0.61	5.42E+001	29.13	5.78E+001
	10	3288-	3297	3292.47	823.25	0.43	1.40E+001	15.11	2.00E+001
	11	3436-	3446	3440.74	860.32	0.30	1.83E+001	18.53	2.97E+001
	12	3636-	3652	3644.78	911.33	1.26	1.38E+002	32.67	4.43E+001
	13	3855-	3883	3875.27	968.96	1.44	6.58E+001	48.66	1.17E+002
	14	4476-	4491	4482.53	1120.78	1.29	5.82E+001	26.81	4.28E+001
	15	5327-	5340	5332.97	1333.41	0.87	3.16E+001	16.92	1.54E+001
	16	5833-	5859	5845.66	1461.59	1.98	1.02E+003	65.63	2.29E+001
	17	7055-	7071	7062.90	1765.91	0.88	4.78E+001	17.50	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

N U C L I 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	0.999	511.00*		100.00	1.94939E-001	9.19004E-002
K-40	0.977	1460.81*		10.67	2.17064E+001	2.24220E+000
TL-208	0.904	277.35		6.80		
		510.84*		21.60	9.02497E-001	4.31802E-001
		583.14*		84.20	3.53426E-001	9.27759E-002
		860.37*		12.46	2.88776E-001	2.94318E-001
Bi-212	1.000	727.17*		11.80	8.69052E-001	4.78370E-001
Pb-212	0.580	74.81*	@	10.70	7.93431E+000	3.19817E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	8.02462E-001	2.30627E-001
Bi-214	0.982	609.31*		46.30	5.56169E-001	1.72184E-001
		1120.29*		15.10	8.00756E-001	3.78495E-001
		1764.49*		15.80	7.45845E-001	2.82954E-001
PB-214	0.619	74.82*	@	6.21	1.36710E+001	5.59918E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	5.63139E-001	2.12024E-001
		351.92*		37.20	5.08492E-001	2.12266E-001
Ac-228	0.633	338.32		11.40		
		911.07*		27.70	9.88781E-001	2.60759E-001
		969.11*		16.60	7.98612E-001	5.96602E-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		0.999	1.198449E-001	9.383927E-002
K-40		0.977	2.170637E+001	2.242203E+000
TL-208		0.904	3.476595E-001	8.785645E-002
Bi-212		1.000	8.690517E-001	4.783700E-001
Pb-212	@	0.580	8.024622E-001	2.306270E-001
Bi-214		0.982	6.327923E-001	1.371016E-001
PB-214	@	0.619	5.358466E-001	1.500088E-001
Ac-228		0.633	9.582797E-001	2.389336E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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 3	290.09	5.2558E-002	62.52
10	823.25	2.3333E-002	107.95
15	1333.41	5.2651E-002	53.56

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: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	9.90E-002	6.3725E-002
	1332.49	100.00	9.9031E-002		3.2032E-002
Nb-94	702.63	100.00	1.1941E-001	1.12E-001	-7.1657E-002
	871.10	100.00	1.1224E-001		1.1723E-001
Ag-108m	79.20	7.10	7.4564E+000	1.39E-001	-1.1513E+001
	433.93	89.90	1.3932E-001		-1.1779E-002
	614.37	90.40	1.5570E-001		2.1864E-002
	722.95	90.50	1.4313E-001		3.1086E-003
Sb-125	176.33	6.89	2.4401E+000	4.38E-001	-7.6448E-001
	427.89	29.33	4.3848E-001		-7.9268E-002
	463.38	10.35	1.2925E+000		1.1739E+000
	600.56	17.80	6.7163E-001		4.4052E-001
	606.64	5.02	3.0213E+000		0.0000E+000
	635.90	11.32	1.0393E+000		-1.6012E-001
Cs-134	563.23	8.38	1.3468E+000	1.40E-001	-9.3127E-001
	569.32	15.43	7.7896E-001		3.6297E-001
	604.70	97.60	1.4322E-001		1.6939E-002
	795.84	85.40	1.3964E-001		2.7718E-002
	801.93	8.73	1.2446E+000		-1.2256E+000
Cs-137	661.65	85.12	1.4923E-001	1.49E-001	4.4112E-004
Eu-152	121.78	28.40	8.4193E-001	4.13E-001	2.3717E-001
	244.69	7.49	2.1225E+000		-1.3719E+000
	344.27	26.50	4.9293E-001		-3.1234E-002
	778.89	12.74	8.4431E-001		-7.0254E-001
	867.32	4.16	2.6955E+000		3.5664E-001
	964.01	14.40	9.6912E-001		-2.6189E-001
	1085.78	10.00	1.0015E+000		-5.6254E-001
	1112.02	13.30	8.1683E-001		-1.7241E-001
	1407.95	20.70	4.1343E-001		7.7054E-002
Eu-154	123.07	40.50	5.8928E-001	2.83E-001	-6.6800E-002
	247.94	6.60	2.3275E+000		-2.0182E-001
	591.81	4.83	2.3739E+000		-4.0356E-001
	723.30	19.70	6.6545E-001		1.0559E-001
	756.87	4.33	2.5479E+000		-3.6984E-001
	873.19	11.50	9.4165E-001		-2.8264E-002
	996.32	10.30	1.0646E+000		-3.7503E-001
	1004.76	17.90	5.8926E-001		3.3849E-001
	1274.45	35.50	2.8309E-001		-2.2661E-001
Eu-155	86.54	30.90	1.4040E+000	1.39E+000	2.1651E+000
	105.31	20.70	1.3904E+000		-2.4505E-001
Am-241	59.54	35.90	2.5636E+000	2.56E+000	-7.6911E-001
Cm-243	228.19	10.56	1.5975E+000	1.06E+000	-7.1668E-002

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	1.0619E+000	1.06E+000	4.9243E-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 7/31/2006 11:38:09 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: BRN7722

Spectrum File: BRN7722
Sample ID: NOL-02-04-108-F-
Sample Title: NOL-02-04-108-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 7/31/2006 11:28:06 AM
Live Time: 600.0 seconds
Real Time: 600.9 seconds

Energy Calibration Date: 6/29/2006
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-02-04-108-F-
Title: NOL-02-04-108-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	296-	305	300.11	75.12	0.85	1.84E+002	86.39	7.76E+002
2	932-	961	954.37	238.69	1.05	2.52E+002	114.41	6.61E+002
3	1348-	1357	1353.16	338.40	1.01	6.44E+001	36.67	1.26E+002
4	1401-	1416	1407.07	351.87	1.01	1.29E+002	46.79	1.47E+002
5	1633-	1641	1636.93	409.34	0.75	1.95E+001	23.73	5.95E+001
6	2322-	2342	2332.55	583.26	0.70	1.83E+002	44.85	9.40E+001
7	2429-	2446	2436.69	609.29	1.04	1.53E+002	40.54	8.44E+001
8	3637-	3655	3645.29	911.46	1.04	1.31E+002	35.71	5.96E+001
9	3868-	3886	3876.03	969.15	1.05	8.95E+001	26.74	2.85E+001
10	5325-	5339	5332.20	1333.21	0.40	3.63E+001	18.70	1.87E+001
11	5831-	5859	5845.31	1461.50	1.84	1.00E+003	66.60	3.27E+001
12	6367-	6380	6373.62	1593.58	0.31	1.21E+001	8.29	1.89E+000
13	7055-	7069	7062.16	1765.73	1.17	4.17E+001	16.22	9.33E+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
K-40	0.982	1460.81*	10.67	2.12862E+001	2.22858E+000
TL-208	0.472	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.87164E-001	1.07419E-001
		860.37	12.46		
Pb-212	0.580	74.81* @	10.70	5.98777E+000	3.04097E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	7.85404E-001	3.77508E-001
Bi-214	0.683	609.31*	46.30	5.95187E-001	1.74286E-001
		1120.29	15.10		
		1764.49*	15.80	6.49914E-001	2.61258E-001
Ac-228	0.997	338.32*	11.40	8.54685E-001	5.05056E-001
		911.07*	27.70	9.43712E-001	2.78509E-001
		969.11*	16.60	1.08656E+000	3.44008E-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	0.982	2.128617E+001	2.228578E+000
TL-208	0.472	3.871639E-001	1.074190E-001
Pb-212 @	0.580	7.854043E-001	3.775079E-001
Bi-214	0.683	6.120414E-001	1.449854E-001
Ac-228	0.997	9.776795E-001	1.989586E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	351.87	2.1569E-001	36.16
5	409.34	3.2484E-002	121.74
10	1333.21	6.0553E-002	51.46
12	1593.58	2.0179E-002	68.44

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: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	1.2478E-001	1.09E-001	1.7129E-002
	1332.49	100.00	1.0892E-001		8.5675E-002
Nb-94	702.63	100.00	1.1393E-001	1.13E-001	-9.6162E-002
	871.10	100.00	1.1263E-001		4.8272E-002
Ag-108m	79.20	7.10	7.2412E+000	1.30E-001	-7.2015E+000
	433.93	89.90	1.2955E-001		-5.9358E-002
	614.37	90.40	1.5685E-001		-9.5716E-002
	722.95	90.50	1.3680E-001		7.1855E-002
Sb-125	176.33	6.89	2.4480E+000	4.12E-001	1.3650E+000
	427.89	29.33	4.1215E-001		-2.0266E-001
	463.38	10.35	1.2052E+000		7.0552E-001
	600.56	17.80	6.3094E-001		-4.9993E-001
	606.64	5.02	3.1521E+000		-3.9057E-001
	635.90	11.32	1.0162E+000		3.3362E-001
Cs-134	563.23	8.38	1.5073E+000	1.33E-001	7.6101E-001
	569.32	15.43	7.5973E-001		-5.1066E-002
	604.70	97.60	1.4665E-001		-9.8212E-002
	795.84	85.40	1.3326E-001		-8.5202E-005
	801.93	8.73	1.2174E+000		-4.2316E-001
Cs-137	661.65	85.12	1.3370E-001	1.34E-001	-1.5547E-002
Eu-152	121.78	28.40	8.2643E-001	3.79E-001	-7.5867E-002
	244.69	7.49	2.0912E+000		-1.3826E+000
	344.27	26.50	4.6606E-001		-2.1135E-001
	778.89	12.74	7.9365E-001		-3.7713E-001
	867.32	4.16	2.6285E+000		-2.1939E+000
	964.01	14.40	9.0318E-001		3.1745E-001
	1085.78	10.00	1.0536E+000		2.3693E-002
	1112.02	13.30	8.5334E-001		-3.4698E-001
	1407.95	20.70	3.7935E-001		8.8226E-002
Eu-154	123.07	40.50	5.7411E-001	2.93E-001	3.7151E-001
	247.94	6.60	2.3404E+000		1.7915E+000
	591.81	4.83	2.3739E+000		6.5234E-001
	723.30	19.70	6.2851E-001		3.2263E-001
	756.87	4.33	2.5738E+000		1.9862E+000
	873.19	11.50	9.3810E-001		2.0982E-002
	996.32	10.30	9.6428E-001		-1.5107E-001
	1004.76	17.90	5.5849E-001		4.5755E-001
	1274.45	35.50	2.9327E-001		1.8160E-002
Eu-155	86.54	30.90	1.3574E+000	1.36E+000	1.3865E+000
	105.31	20.70	1.3682E+000		9.2122E-001
Am-241	59.54	35.90	2.5130E+000	2.51E+000	2.3876E-001
Cm-243	228.19	10.56	1.5154E+000	9.98E-001	-4.4401E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	9.9766E-001	9.98E-001	-3.4063E-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 7/31/2006 10:11:23 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-02-04-109-F-
Sample Title: NOL-02-04-109-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 7/31/2006 10:01:20 AM
Live Time: 600.0 seconds
Real Time: 601.0 seconds

Energy Calibration Date: 6/29/2006
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-02-04-109-F-
Title: NOL-02-04-109-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	287-	306	291.00	72.84	0.79	1.24E+002	42.78	5.60E+002
m	2	287-	306	299.83	75.05	0.79	1.91E+002	48.05	7.45E+002
	3	405-	413	407.36	101.93	0.86	5.98E+001	61.92	4.35E+002
	4	948-	960	954.25	238.66	1.24	2.37E+002	63.31	3.04E+002
	5	1175-	1203	1180.10	295.13	1.21	8.65E+001	84.04	3.68E+002
	6	1347-	1360	1351.88	338.07	0.63	7.56E+001	41.64	1.34E+002
	7	1399-	1415	1406.48	351.73	0.97	1.51E+002	49.40	1.55E+002
	8	2326-	2342	2331.42	582.97	1.13	1.57E+002	41.88	9.24E+001
	9	2428-	2444	2435.99	609.12	1.45	1.49E+002	38.73	7.75E+001
	10	2640-	2655	2645.11	661.40	0.35	4.05E+001	29.75	6.25E+001
	11	3635-	3652	3643.60	911.04	1.15	1.25E+002	31.90	4.28E+001
	12	3867-	3881	3874.68	968.81	0.55	6.08E+001	26.24	4.12E+001
	13	4473-	4485	4479.57	1120.04	0.64	3.29E+001	23.50	4.11E+001
	14	5832-	5857	5844.55	1461.31	1.65	9.46E+002	61.96	1.27E+001
	15	7054-	7067	7060.68	1765.36	1.38	3.59E+001	16.36	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

N U C L I 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	0.990	1460.81*		10.67	2.00754E+001	2.09036E+000
Cs-137	0.998	661.65*		85.12	8.81185E-002	6.56227E-002
TL-208	0.471	277.35		6.80		
		510.84		21.60		
		583.14*		84.20	3.31201E-001	9.85106E-002
		860.37		12.46		
Pb-212	0.581	74.81*	@	10.70	6.22984E+000	1.98477E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	7.38746E-001	2.28934E-001
Bi-214	0.993	609.31*		46.30	5.79224E-001	1.67065E-001
		1120.29*		15.10	4.52890E-001	3.26794E-001
		1764.49*		15.80	5.59523E-001	2.61160E-001
PB-214	0.619	74.82*	@	6.21	1.07342E+001	3.50746E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	6.59773E-001	6.50516E-001
		351.92*		37.20	6.20352E-001	2.27877E-001
Ac-228	0.998	338.32*		11.40	1.00334E+000	5.74746E-001
		911.07*		27.70	8.98913E-001	2.51398E-001
		969.11*		16.60	7.38248E-001	3.27844E-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		0.990	2.007540E+001	2.090357E+000
Cs-137		0.998	8.811854E-002	6.562273E-002
TL-208		0.471	3.312007E-001	9.851064E-002
Pb-212	@	0.581	7.387461E-001	2.289345E-001
Bi-214		0.993	5.546340E-001	1.292565E-001
PB-214	@	0.619	6.246607E-001	2.150630E-001
Ac-228		0.998	8.570466E-001	1.884656E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.0594E-001	34.62
3	101.93	9.9585E-002	103.63

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
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	1.1564E-001	1.03E-001	5.8898E-002
		1332.49	100.00	1.0279E-001		7.3900E-002
	Nb-94	702.63	100.00	1.2074E-001	1.05E-001	-3.4896E-004
		871.10	100.00	1.0533E-001		3.4695E-002
	Ag-108m	79.20	7.10	7.2753E+000	1.31E-001	-3.4979E+000
		433.93	89.90	1.3984E-001		-1.3734E-002
		614.37	90.40	1.4522E-001		1.9579E-002
		722.95	90.50	1.3090E-001		-2.6526E-002
	Sb-125	176.33	6.89	2.4063E+000	4.15E-001	-6.9457E-001
		427.89	29.33	4.1462E-001		-6.3453E-003
		463.38	10.35	1.1763E+000		-6.8636E-001
		600.56	17.80	6.1799E-001		-2.7334E-001
		606.64	5.02	3.1061E+000		6.5224E+000
		635.90	11.32	1.0016E+000		-6.0359E-001
	Cs-134	563.23	8.38	1.4329E+000	1.25E-001	-4.2997E-001
		569.32	15.43	7.6941E-001		2.3162E-001
		604.70	97.60	1.4768E-001		-5.0258E-002
		795.84	85.40	1.2517E-001		6.1972E-002
		801.93	8.73	1.1895E+000		4.5152E-002
+	Cs-137	661.65*	85.12	1.0465E-001	1.05E-001	8.8119E-002
	Eu-152	121.78	28.40	8.1470E-001	3.79E-001	-2.0369E-001
		244.69	7.49	2.0764E+000		-2.6899E-001
		344.27	26.50	4.8692E-001		-8.8121E-002
		778.89	12.74	8.4431E-001		1.2465E-001
		867.32	4.16	2.4992E+000		-4.4804E+000
		964.01	14.40	9.1049E-001		-1.0757E-001
		1085.78	10.00	1.1250E+000		3.8210E-001
		1112.02	13.30	7.8915E-001		-2.7987E-001
		1407.95	20.70	3.7935E-001		-8.6196E-002
	Eu-154	123.07	40.50	5.6257E-001	2.68E-001	-2.5784E-001
		247.94	6.60	2.2729E+000		3.7327E-001
		591.81	4.83	2.2183E+000		-1.6248E+000
		723.30	19.70	6.0488E-001		-2.4401E-001
		756.87	4.33	2.5217E+000		-2.6878E-001
		873.19	11.50	9.4520E-001		5.4429E-001
		996.32	10.30	1.0179E+000		-1.1623E+000
		1004.76	17.90	6.3015E-001		3.8247E-001
		1274.45	35.50	2.6784E-001		1.3208E-001
	Eu-155	86.54	30.90	1.3622E+000	1.33E+000	2.0200E+000
		105.31	20.70	1.3350E+000		-1.2662E-001
	Am-241	59.54	35.90	2.6148E+000	2.61E+000	-5.0212E-002
	Cm-243	228.19	10.56	1.4687E+000	1.06E+000	-6.0655E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	1.0564E+000	1.06E+000	2.2190E-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 7/31/2006 12:56:01 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: ORG7829

Spectrum File: ORG7829
Sample ID: NOL-02-04-110-F-
Sample Title: NOL-02-04-110-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 7/31/2006 12:45:58 PM
Live Time: 600.0 seconds
Real Time: 601.3 seconds

Energy Calibration Date: 7/20/2006
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-02-04-110-F-
Title: NOL-02-04-110-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	948-	964	954.30	238.55	2.14	2.38E+002	71.22	3.44E+002
2	1399-	1418	1407.21	351.80	0.87	1.69E+002	53.48	1.64E+002
3	2427-	2447	2437.82	609.48	0.98	1.41E+002	40.49	7.88E+001
4	3638-	3657	3646.44	911.67	1.58	1.14E+002	30.95	3.88E+001
5	5833-	5861	5847.55	1462.03	1.92	8.78E+002	62.79	3.23E+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: 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	0.952	1460.81*		10.67	1.99540E+001	2.15582E+000
Pb-212	0.446	74.81	@	10.70		
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	7.77558E-001	2.62472E-001
Bi-214	0.402	609.31*		46.30	5.82097E-001	1.81607E-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		0.952	1.995400E+001	2.155820E+000
Pb-212	@	0.446	7.775577E-001	2.624724E-001
Bi-214		0.402	5.820966E-001	1.816069E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.8120E-001	31.70
4	911.67	1.9032E-001	27.10

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: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	1.2891E-001	1.01E-001	-4.8229E-003
	1332.49	100.00	1.0075E-001		2.8237E-002
Nb-94	702.63	100.00	1.2316E-001	1.12E-001	-5.8664E-002
	871.10	100.00	1.1153E-001		4.5497E-002
Ag-108m	79.20	7.10	1.0749E+001	1.46E-001	-1.6730E+001
	433.93	89.90	1.5011E-001		5.6112E-002
	614.37	90.40	1.7911E-001		8.2995E-003
	722.95	90.50	1.4632E-001		-2.1818E-003
Sb-125	176.33	6.89	3.0263E+000	4.79E-001	-1.2120E+000
	427.89	29.33	4.7932E-001		3.4846E-001
	463.38	10.35	1.3144E+000		-4.0374E-001
	600.56	17.80	6.8906E-001		9.1318E-002
	606.64	5.02	3.2463E+000		6.1075E+000
	635.90	11.32	1.0684E+000		3.0859E-001
Cs-134	563.23	8.38	1.5614E+000	1.40E-001	6.0034E-001
	569.32	15.43	8.2162E-001		-7.9532E-001
	604.70	97.60	1.5788E-001		1.4307E-002
	795.84	85.40	1.3969E-001		2.2214E-002
	801.93	8.73	1.2692E+000		-1.8484E+000
Cs-137	661.65	85.12	1.4935E-001	1.49E-001	-1.7501E-002
Eu-152	121.78	28.40	9.9080E-001	4.38E-001	-4.7952E-001
	244.69	7.49	2.3814E+000		-2.8664E+000
	344.27	26.50	5.8358E-001		-3.9574E-001
	778.89	12.74	9.7143E-001		5.0272E-002
	867.32	4.16	2.8238E+000		-1.8078E+000
	964.01	14.40	1.0424E+000		4.0081E-001
	1085.78	10.00	1.1378E+000		1.7673E-001
	1112.02	13.30	8.7926E-001		-1.5171E-001
	1407.95	20.70	4.3825E-001		1.9367E-001
Eu-154	123.07	40.50	6.8535E-001	3.10E-001	-1.1819E-001
	247.94	6.60	2.5569E+000		-1.2745E+000
	591.81	4.83	2.7111E+000		1.8862E+000
	723.30	19.70	6.8427E-001		4.8053E-001
	756.87	4.33	2.7245E+000		6.3628E-001
	873.19	11.50	9.4681E-001		7.2199E-002
	996.32	10.30	1.1602E+000		9.5245E-001
	1004.76	17.90	6.4889E-001		3.7356E-001
	1274.45	35.50	3.0951E-001		-2.5063E-001
Eu-155	86.54	30.90	1.7939E+000	1.73E+000	2.9838E+000
	105.31	20.70	1.7337E+000		-4.1795E-001
Am-241	59.54	35.90	5.2830E+000	5.28E+000	-8.0340E+000
Cm-243	228.19	10.56	1.6831E+000	1.20E+000	-5.9532E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.1962E+000	1.20E+000	1.3798E-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 7/31/2006 11:48:41 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: ORG7829

Spectrum File: ORG7829
Sample ID: NOL-02-04-111-F-
Sample Title: NOL-02-04-111-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 7/31/2006 11:38:38 AM
Live Time: 600.0 seconds
Real Time: 601.2 seconds

Energy Calibration Date: 7/20/2006
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-02-04-111-F-
Title: NOL-02-04-111-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	945-	964	953.95	238.47	1.74	2.26E+002	81.03	4.23E+002
2	1401-	1418	1407.80	351.94	1.41	1.10E+002	49.49	1.61E+002
3	2322-	2342	2332.74	583.21	0.59	1.32E+002	43.55	9.97E+001
4	2427-	2448	2438.90	609.75	0.81	1.34E+002	42.35	8.83E+001
5	3636-	3656	3646.03	911.57	1.17	1.25E+002	32.61	4.21E+001
6	3869-	3886	3876.81	969.28	1.03	5.98E+001	30.32	5.52E+001
7	5831-	5860	5845.44	1461.50	2.54	9.20E+002	61.67	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	0.984	1460.81*		10.67	2.09164E+001	2.19834E+000
TL-208	0.471	277.35		6.80		
		510.84		21.60		
		583.14*		84.20	2.95373E-001	1.04533E-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	7.37733E-001	2.88639E-001
Bi-214	0.399	609.31*		46.30	5.50910E-001	1.87275E-001
		1120.29		15.10		
		1764.49		15.80		
Ac-228	0.628	338.32		11.40		
		911.07*		27.70	9.50522E-001	2.71236E-001
		969.11*		16.60	7.72479E-001	3.99793E-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	0.984	2.091644E+001	2.198337E+000
TL-208	0.471	2.953733E-001	1.045327E-001
Pb-212 @	0.446	7.377328E-001	2.886394E-001
Bi-214	0.399	5.509104E-001	1.872750E-001
Ac-228	0.628	8.944028E-001	2.244546E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	351.94	1.8265E-001	45.16

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: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	1.2936E-001	9.88E-002	2.4095E-002
	1332.49	100.00	9.8816E-002		6.8491E-002
Nb-94	702.63	100.00	1.2021E-001	1.09E-001	3.7329E-002
	871.10	100.00	1.0928E-001		8.5953E-002
Ag-108m	79.20	7.10	9.8826E+000	1.39E-001	-1.7458E+001
	433.93	89.90	1.3931E-001		-1.4962E-002
	614.37	90.40	1.7400E-001		8.0058E-002
	722.95	90.50	1.3896E-001		-1.4863E-001
Sb-125	176.33	6.89	2.8346E+000	4.35E-001	8.9863E-001
	427.89	29.33	4.3536E-001		-2.4729E-001
	463.38	10.35	1.1852E+000		-1.4793E-001
	600.56	17.80	6.5064E-001		-4.2582E-001
	606.64	5.02	3.1404E+000		-2.3157E+000
	635.90	11.32	1.0622E+000		-9.2450E-001
Cs-134	563.23	8.38	1.6101E+000	1.41E-001	2.1347E+000
	569.32	15.43	8.2760E-001		-4.4744E-001
	604.70	97.60	1.5626E-001		-3.0039E-002
	795.84	85.40	1.4108E-001		-9.7638E-002
	801.93	8.73	1.2642E+000		-5.6306E-001
Cs-137	661.65	85.12	1.6020E-001	1.60E-001	9.8377E-002
Eu-152	121.78	28.40	9.6680E-001	4.45E-001	3.4999E-001
	244.69	7.49	2.3492E+000		-8.0598E-001
	344.27	26.50	5.4224E-001		-1.2620E+000
	778.89	12.74	9.5341E-001		-5.1075E-001
	867.32	4.16	2.7103E+000		-3.4261E+000
	964.01	14.40	1.0495E+000		-1.1840E-001
	1085.78	10.00	1.1763E+000		9.3287E-001
	1112.02	13.30	8.3837E-001		-6.1188E-001
	1407.95	20.70	4.4533E-001		3.0329E-001
Eu-154	123.07	40.50	6.6599E-001	3.11E-001	8.9316E-002
	247.94	6.60	2.5004E+000		-1.2355E+000
	591.81	4.83	2.5606E+000		-4.9981E-001
	723.30	19.70	6.3843E-001		-3.0361E-001
	756.87	4.33	2.8487E+000		-1.1124E-001
	873.19	11.50	9.2266E-001		5.2008E-001
	996.32	10.30	1.0272E+000		9.5602E-002
	1004.76	17.90	6.1183E-001		-3.3149E-001
	1274.45	35.50	3.1109E-001		1.1538E-001
Eu-155	86.54	30.90	1.6618E+000	1.66E+000	2.2697E+000
	105.31	20.70	1.6588E+000		9.3258E-001
Am-241	59.54	35.90	5.1389E+000	5.14E+000	-2.9043E+000
Cm-243	228.19	10.56	1.6782E+000	1.17E+000	1.1433E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.1690E+000	1.17E+000	-4.8185E-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 7/31/2006 11:31:28 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: ORG7829

Spectrum File: ORG7829
Sample ID: NOL-02-04-112-F-
Sample Title: NOL-02-04-112-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 7/31/2006 11:21:24 AM
Live Time: 600.0 seconds
Real Time: 601.3 seconds

Energy Calibration Date: 7/20/2006
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-02-04-112-F-
Title: NOL-02-04-112-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	2032-	2054	2042.66	510.68	1.58	1.49E+002	41.03	7.46E+001
2	2323-	2345	2333.96	583.51	1.16	1.42E+002	45.63	1.03E+002
3	2904-	2916	2909.80	727.49	0.36	4.95E+001	23.91	3.75E+001
4	3637-	3656	3646.50	911.69	0.85	1.15E+002	32.41	4.50E+001
5	3995-	4007	4000.79	1000.28	0.37	1.25E+001	13.95	1.45E+001
6	4088-	4099	4093.01	1023.33	0.98	1.87E+001	13.28	9.27E+000
7	5833-	5861	5846.44	1461.75	2.27	8.70E+002	62.02	2.85E+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

N U C L I 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	0.997	511.00*	100.00	2.68394E-001	8.21827E-002
K-40	0.971	1460.81*	10.67	1.97877E+001	2.13400E+000
TL-208	0.749	277.35	6.80		
		510.84*	21.60	1.24257E+000	3.93775E-001
		583.14*	84.20	3.17504E-001	1.09929E-001
		860.37	12.46		
Bi-212	0.997	727.17*	11.80	8.40227E-001	4.18008E-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	0.997	1.998135E-001	8.551492E-002
K-40	0.971	1.978767E+001	2.134003E+000
TL-208	0.749	3.175040E-001	1.094405E-001
Bi-212	0.997	8.402274E-001	4.180075E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	911.69	1.9167E-001	28.18
5	1000.28	2.0787E-002	111.85
6	1023.33	3.1220E-002	70.87

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: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	1.3757E-001	1.12E-001	6.8557E-002
	1332.49	100.00	1.1217E-001		7.2628E-002
Nb-94	702.63	100.00	1.2096E-001	1.18E-001	-8.2137E-002
	871.10	100.00	1.1758E-001		2.8026E-002
Ag-108m	79.20	7.10	1.0193E+001	1.47E-001	-8.9798E+000
	433.93	89.90	1.5037E-001		1.0912E-001
	614.37	90.40	1.6573E-001		-3.6525E-002
	722.95	90.50	1.4707E-001		-7.8131E-002
Sb-125	176.33	6.89	2.8645E+000	4.64E-001	-1.1456E+000
	427.89	29.33	4.6435E-001		2.8263E-001
	463.38	10.35	1.2753E+000		2.0562E-001
	600.56	17.80	7.1107E-001		-2.6325E-002
	606.64	5.02	3.2164E+000		4.7954E+000
	635.90	11.32	1.0465E+000		-1.4399E+000
Cs-134	563.23	8.38	1.5684E+000	1.35E-001	2.6077E-001
	569.32	15.43	8.1961E-001		-2.4289E-001
	604.70	97.60	1.5626E-001		-1.9062E-001
	795.84	85.40	1.3543E-001		6.7637E-002
	801.93	8.73	1.3458E+000		-1.0234E-001
Cs-137	661.65	85.12	1.5214E-001	1.52E-001	-3.3298E-002
Eu-152	121.78	28.40	9.8159E-001	3.97E-001	2.5455E-001
	244.69	7.49	2.3618E+000		-8.5512E+000
	344.27	26.50	5.3702E-001		-6.1324E-001
	778.89	12.74	8.9705E-001		-8.0117E-001
	867.32	4.16	2.8739E+000		-1.3518E+000
	964.01	14.40	9.8337E-001		-5.7034E-001
	1085.78	10.00	1.1230E+000		-2.8130E-002
	1112.02	13.30	9.5886E-001		-3.7610E-002
	1407.95	20.70	3.9689E-001		2.1430E-001
Eu-154	123.07	40.50	6.7529E-001	3.19E-001	-3.4115E-001
	247.94	6.60	2.5396E+000		-1.8416E+000
	591.81	4.83	2.5606E+000		-1.6531E+000
	723.30	19.70	6.7743E-001		-3.3775E-001
	756.87	4.33	2.8226E+000		8.8004E-001
	873.19	11.50	1.0339E+000		1.4113E-001
	996.32	10.30	1.0074E+000		-2.4311E-001
	1004.76	17.90	5.5737E-001		3.4931E-001
	1274.45	35.50	3.1888E-001		1.4626E-001
Eu-155	86.54	30.90	1.7338E+000	1.71E+000	2.4388E+000
	105.31	20.70	1.7110E+000		5.9821E-001
Am-241	59.54	35.90	5.0798E+000	5.08E+000	-4.9425E+000
Cm-243	228.19	10.56	1.6794E+000	1.19E+000	-9.9705E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.1930E+000	1.19E+000	2.6142E-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 7/31/2006 11:10:17 AM

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

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-02-04-113-F-
Sample Title: NOL-02-04-113-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 7/31/2006 11:00:17 AM
Live Time: 600.0 seconds
Real Time: 601.3 seconds

Energy Calibration Date: 7/20/2006
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-02-04-113-F-
Title: NOL-02-04-113-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	295-	310	301.66	75.37	1.71	3.03E+002	119.39	1.13E+003
2	946-	965	954.88	238.70	1.53	2.84E+002	76.97	3.58E+002
3	1402-	1419	1408.08	352.01	0.37	8.15E+001	50.77	1.80E+002
4	2323-	2346	2333.89	583.50	1.90	1.93E+002	45.23	8.50E+001
5	2428-	2447	2437.54	609.41	2.23	1.56E+002	38.86	6.76E+001
6	2827-	2839	2833.68	708.46	0.53	2.76E+001	18.83	2.44E+001
7	3637-	3655	3646.57	911.71	0.77	1.20E+002	35.11	5.95E+001
8	5831-	5862	5846.80	1461.84	2.32	9.66E+002	63.84	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: 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	0.966	1460.81*	10.67	2.19499E+001	2.29436E+000
TL-208	0.469	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	4.30945E-001	1.15512E-001
		860.37	12.46		
Pb-212	0.593	74.81* @	10.70	1.16120E+001	5.11337E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	9.25955E-001	2.90186E-001
Bi-214	0.402	609.31*	46.30	6.44669E-001	1.78749E-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	0.966	2.194994E+001	2.294359E+000
TL-208	0.469	4.309446E-001	1.155125E-001
Pb-212 @	0.593	9.259548E-001	2.901861E-001
Bi-214	0.402	6.446688E-001	1.787486E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	352.01	1.3582E-001	62.30
6	708.46	4.5946E-002	68.31
7	911.71	1.9918E-001	29.38

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: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	1.1714E-001	8.77E-002	-3.3146E-002
	1332.49	100.00	8.7736E-002		-1.3879E-002
Nb-94	702.63	100.00	1.2059E-001	1.16E-001	2.1140E-002
	871.10	100.00	1.1589E-001		5.3702E-002
Ag-108m	79.20	7.10	1.0363E+001	1.44E-001	-4.8031E+000
	433.93	89.90	1.4356E-001		-4.4120E-002
	614.37	90.40	1.7429E-001		4.5415E-003
	722.95	90.50	1.5295E-001		1.4231E-001
Sb-125	176.33	6.89	2.9451E+000	4.51E-001	2.3052E+000
	427.89	29.33	4.5051E-001		-8.9291E-002
	463.38	10.35	1.2803E+000		4.1194E-001
	600.56	17.80	7.2889E-001		1.8631E-001
	606.64	5.02	3.2463E+000		5.4634E+000
	635.90	11.32	1.0715E+000		-1.4033E+000
Cs-134	563.23	8.38	1.5578E+000	1.42E-001	-3.5872E-001
	569.32	15.43	8.3551E-001		-2.5369E-001
	604.70	97.60	1.5788E-001		-3.3500E-002
	795.84	85.40	1.4200E-001		-1.3233E-002
	801.93	8.73	1.3504E+000		-1.1129E+000
Cs-137	661.65	85.12	1.5641E-001	1.56E-001	7.9744E-002
Eu-152	121.78	28.40	9.7229E-001	4.73E-001	-1.4336E-001
	244.69	7.49	2.3546E+000		-1.3733E+000
	344.27	26.50	5.5973E-001		-1.4516E+000
	778.89	12.74	9.2568E-001		-8.3992E-001
	867.32	4.16	2.8937E+000		-2.8056E+000
	964.01	14.40	9.9346E-001		-8.6520E-002
	1085.78	10.00	1.0349E+000		7.3139E-001
	1112.02	13.30	8.5348E-001		-2.0271E-001
	1407.95	20.70	4.7251E-001		1.3900E-001
Eu-154	123.07	40.50	6.7461E-001	2.98E-001	-1.6494E-001
	247.94	6.60	2.4982E+000		-1.0349E+000
	591.81	4.83	2.6140E+000		-3.2074E+000
	723.30	19.70	6.9607E-001		1.4816E-001
	756.87	4.33	2.9088E+000		-2.2780E-003
	873.19	11.50	9.6646E-001		-5.0590E-001
	996.32	10.30	1.0024E+000		-1.2368E+000
	1004.76	17.90	5.9238E-001		2.4982E-001
	1274.45	35.50	2.9819E-001		-4.6542E-002
Eu-155	86.54	30.90	1.7563E+000	1.64E+000	3.4785E+000
	105.31	20.70	1.6443E+000		-6.4641E-001
Am-241	59.54	35.90	5.8999E+000	5.90E+000	-1.3207E+000
Cm-243	228.19	10.56	1.6384E+000	1.21E+000	-6.7988E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.2102E+000	1.21E+000	2.8470E-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 7/31/2006 10:30:30 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: ORG7829

Spectrum File: ORG7829
Sample ID: NOL-02-04-114-F-
Sample Title: NOL-02-04-114-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 7/31/2006 10:20:27 AM
Live Time: 600.0 seconds
Real Time: 601.3 seconds

Energy Calibration Date: 7/20/2006
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-02-04-114-F-
Title: NOL-02-04-114-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	944-	962	954.48	238.60	1.57	2.12E+002	74.33	3.63E+002
2	1398-	1416	1408.21	352.04	0.65	1.31E+002	52.68	1.74E+002
3	2032-	2048	2042.16	510.55	1.09	6.63E+001	41.02	1.18E+002
4	2322-	2344	2332.69	583.20	1.75	1.86E+002	43.78	8.05E+001
5	3635-	3655	3645.21	911.37	1.19	1.06E+002	36.44	6.58E+001
6	5833-	5860	5846.02	1461.64	2.12	8.97E+002	63.74	3.67E+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	0.977	1460.81*		10.67	2.03973E+001	2.19690E+000
TL-208	0.752	277.35		6.80		
		510.84*		21.60	5.51445E-001	3.52048E-001
		583.14*		84.20	4.16208E-001	1.11729E-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	6.90937E-001	2.65710E-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		0.993		
	K-40		0.977	2.039732E+001	2.196900E+000
	TL-208		0.752	4.285828E-001	1.064946E-001
	Pb-212	@	0.446	6.909365E-001	2.657096E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	352.04	2.1806E-001	40.27
5	911.37	1.7700E-001	34.31

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: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	1.1665E-001	1.04E-001	1.1275E-002
	1332.49	100.00	1.0388E-001		-2.6398E-002
Nb-94	702.63	100.00	1.2133E-001	1.18E-001	7.3966E-002
	871.10	100.00	1.1758E-001		-1.6207E-002
Ag-108m	79.20	7.10	1.0242E+001	1.47E-001	-1.4389E+001
	433.93	89.90	1.4741E-001		7.0229E-002
	614.37	90.40	1.7050E-001		-4.8744E-002
	722.95	90.50	1.5259E-001		1.7180E-002
Sb-125	176.33	6.89	2.8601E+000	4.30E-001	1.3359E+000
	427.89	29.33	4.3019E-001		-2.5101E-001
	463.38	10.35	1.2950E+000		5.1195E-001
	600.56	17.80	7.2536E-001		4.2469E-001
	606.64	5.02	3.3870E+000		6.6525E+000
	635.90	11.32	1.0653E+000		6.8835E-001
Cs-134	563.23	8.38	1.5755E+000	1.45E-001	1.6848E-001
	569.32	15.43	8.9252E-001		5.7130E-001
	604.70	97.60	1.6755E-001		-5.2581E-002
	795.84	85.40	1.4517E-001		3.3519E-002
	801.93	8.73	1.2888E+000		-9.5538E-001
Cs-137	661.65	85.12	1.5603E-001	1.56E-001	-8.2840E-002
Eu-152	121.78	28.40	9.9585E-001	3.59E-001	7.4443E-002
	244.69	7.49	2.3092E+000		-3.7781E-001
	344.27	26.50	5.3852E-001		-6.3816E-001
	778.89	12.74	9.6546E-001		-6.2575E-001
	867.32	4.16	2.8339E+000		-9.5336E-003
	964.01	14.40	1.0424E+000		6.3075E-001
	1085.78	10.00	1.1951E+000		-8.2307E-001
	1112.02	13.30	8.6093E-001		-4.0421E-001
	1407.95	20.70	3.5918E-001		-5.7762E-002
Eu-154	123.07	40.50	6.9131E-001	3.06E-001	-5.2402E-002
	247.94	6.60	2.5179E+000		-7.9418E-001
	591.81	4.83	2.3566E+000		-5.7885E+000
	723.30	19.70	7.1421E-001		5.5606E-001
	756.87	4.33	2.8226E+000		2.4850E+000
	873.19	11.50	1.0267E+000		2.0873E-001
	996.32	10.30	1.1296E+000		6.4222E-001
	1004.76	17.90	6.0634E-001		4.6614E-001
	1274.45	35.50	3.0632E-001		1.8816E-001
Eu-155	86.54	30.90	1.7119E+000	1.66E+000	3.0704E+000
	105.31	20.70	1.6631E+000		3.0698E-001
Am-241	59.54	35.90	5.5280E+000	5.53E+000	-2.4591E+000
Cm-243	228.19	10.56	1.7062E+000	1.11E+000	4.8088E-003

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	1.5937E+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 7/31/2006 2:03:34 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-02-04-115-F-
Sample Title: NOL-02-04-115-F-G
Description: 50% saturated soil

Sample Type:
Geometry:

Acquisition Started: 7/31/2006 1:53:30 PM
Live Time: 600.0 seconds
Real Time: 601.4 seconds

Energy Calibration Date: 7/20/2006
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-02-04-115-F-
Title: NOL-02-04-115-F-G
Description: 50% saturated soil

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	292-	310	301.49	75.33	0.85	4.42E+002	131.15	1.19E+003
2	945-	965	954.78	238.67	0.69	2.71E+002	83.09	4.19E+002
3	2322-	2342	2333.23	583.33	1.90	1.85E+002	44.97	9.40E+001
4	2429-	2449	2438.94	609.76	2.35	1.48E+002	41.89	8.45E+001
5	3637-	3656	3646.69	911.74	1.86	1.24E+002	34.79	5.35E+001
6	3871-	3885	3878.13	969.61	2.14	6.35E+001	27.17	4.45E+001
7	4478-	4493	4485.68	1121.51	1.35	4.08E+001	24.50	3.82E+001
8	5324-	5343	5333.14	1333.41	0.51	5.90E+001	23.72	2.50E+001
9	5834-	5861	5848.02	1462.14	2.05	8.64E+002	61.67	2.80E+001
10	7057-	7071	7064.59	1766.33	0.37	3.78E+001	14.96	7.17E+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	0.943	1460.81*	10.67	1.96419E+001	2.12002E+000
TL-208	0.471	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	4.12882E-001	1.13871E-001
		860.37	12.46		
Pb-212	0.593	74.81* @	10.70	1.69997E+001	6.04181E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	8.85411E-001	3.04700E-001
Bi-214	0.964	609.31*	46.30	6.08108E-001	1.88185E-001
		1120.29*	15.10	6.01831E-001	3.67179E-001
		1764.49*	15.80	6.15314E-001	2.50959E-001
Ac-228	0.623	338.32	11.40		
		911.07*	27.70	9.40402E-001	2.86051E-001
		969.11*	16.60	8.19454E-001	3.61133E-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	0.943	1.964194E+001	2.120018E+000
TL-208	0.471	4.128821E-001	1.138706E-001
Pb-212 @	0.593	8.854105E-001	3.046997E-001
Bi-214	0.964	6.094249E-001	1.393020E-001
Ac-228	0.623	8.937730E-001	2.242308E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	1333.41	9.8333E-002	40.21

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: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	1.3715E-001	1.34E-001	3.4585E-002
	1332.49	100.00	1.3431E-001		1.5856E-001
Nb-94	702.63	100.00	1.1984E-001	1.20E-001	3.3780E-002
	871.10	100.00	1.2008E-001		-4.2245E-002
Ag-108m	79.20	7.10	1.0070E+001	1.47E-001	-4.0524E+000
	433.93	89.90	1.6090E-001		6.6097E-002
	614.37	90.40	1.7798E-001		3.7968E-002
	722.95	90.50	1.4745E-001		-1.9044E-003
Sb-125	176.33	6.89	2.9233E+000	4.78E-001	-6.8436E-001
	427.89	29.33	4.7777E-001		9.1848E-002
	463.38	10.35	1.3639E+000		8.2629E-001
	600.56	17.80	7.6657E-001		8.4706E-001
	606.64	5.02	3.3917E+000		3.7536E-002
	635.90	11.32	1.1402E+000		7.1964E-001
Cs-134	563.23	8.38	1.6306E+000	1.54E-001	1.4001E+000
	569.32	15.43	8.6829E-001		-6.4369E-001
	604.70	97.60	1.6396E-001		4.6522E-002
	795.84	85.40	1.5384E-001		2.5139E-002
	801.93	8.73	1.4571E+000		1.4994E-001
Cs-137	661.65	85.12	1.5982E-001	1.60E-001	3.1700E-002
Eu-152	121.78	28.40	9.9175E-001	3.93E-001	-4.7269E-003
	244.69	7.49	2.5212E+000		-2.3379E-001
	344.27	26.50	5.8905E-001		-9.8396E-001
	778.89	12.74	8.9381E-001		-2.1310E-001
	867.32	4.16	2.8339E+000		-3.3490E-001
	964.01	14.40	1.0352E+000		-8.1248E-001
	1085.78	10.00	1.1427E+000		-1.1835E+000
	1112.02	13.30	8.9364E-001		2.8775E-001
	1407.95	20.70	3.9289E-001		1.3456E-001
Eu-154	123.07	40.50	6.8734E-001	3.03E-001	-2.5002E-002
	247.94	6.60	2.6908E+000		-2.4393E+000
	591.81	4.83	2.6598E+000		-2.4331E+000
	723.30	19.70	6.7743E-001		-2.2862E-001
	756.87	4.33	2.9003E+000		-1.3164E-001
	873.19	11.50	1.0519E+000		4.4638E-001
	996.32	10.30	1.0656E+000		-3.3746E-002
	1004.76	17.90	6.0634E-001		-2.2514E-001
	1274.45	35.50	3.0310E-001		-2.5398E-001
Eu-155	86.54	30.90	1.7166E+000	1.72E+000	2.2965E+000
	105.31	20.70	1.7290E+000		1.0469E+000
Am-241	59.54	35.90	5.4273E+000	5.43E+000	-7.0553E+000
Cm-243	228.19	10.56	1.6977E+000	1.16E+000	1.5343E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.1634E+000	1.16E+000	-4.7450E-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 7/31/2006 7:08:14 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: YEL7810

Spectrum File: YEL7810
Sample ID: NOL-02-04-116-F-
Sample Title: NOL-02-04-116-F-G
Description: 40% MUD

Sample Type:
Geometry:

Acquisition Started: 7/31/2006 6:58:12 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-02-04-116-F-
Title: NOL-02-04-116-F-G
Description: 40% MUD

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	289.44	72.38	1.36	2.36E+002	48.56	7.93E+002
m	2	283-	307	299.30	74.85	1.36	3.57E+002	55.63	1.34E+003
	3	947-	961	954.10	238.56	1.34	2.14E+002	69.84	3.65E+002
	4	1347-	1361	1352.07	338.07	1.33	8.78E+001	44.57	1.47E+002
	5	1401-	1416	1406.55	351.69	0.76	8.01E+001	51.04	1.97E+002
	6	2323-	2338	2331.30	582.89	1.19	1.16E+002	40.26	1.02E+002
	7	2428-	2443	2435.76	609.01	1.24	1.43E+002	39.00	8.41E+001
	8	3633-	3655	3642.87	910.82	1.57	1.49E+002	38.32	6.02E+001
	9	3865-	3885	3874.44	968.72	1.20	8.08E+001	33.08	5.62E+001
	10	4472-	4485	4479.45	1119.98	0.49	3.32E+001	22.77	3.68E+001
	11	5831-	5856	5843.27	1460.97	2.27	8.95E+002	62.47	2.87E+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	0.999	1460.81*	10.67	2.06814E+001	2.21037E+000
TL-208	0.468	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	2.58239E-001	9.53981E-002
		860.37	12.46		
Pb-212	0.576	74.81* @	10.70	1.12297E+001	2.81041E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	6.60699E-001	2.39289E-001
Bi-214	0.709	609.31*	46.30	5.86134E-001	1.75554E-001
		1120.29*	15.10	4.85449E-001	3.36795E-001
		1764.49	15.80		
Ac-228	0.997	338.32*	11.40	1.17706E+000	6.25096E-001
		911.07*	27.70	1.12885E+000	3.18456E-001
		969.11*	16.60	1.03817E+000	4.38739E-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	2.068143E+001	2.210370E+000
TL-208		0.468	2.582391E-001	9.539811E-002
Pb-212	@	0.576	6.606987E-001	2.392893E-001
Bi-214		0.709	5.646224E-001	1.556748E-001
Ac-228		0.997	1.109114E+000	2.382654E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	72.38	3.9406E-001	20.54
5	351.69	1.3347E-001	63.73

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: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	1.3533E-001	8.86E-002	1.0176E-001
	1332.49	100.00	8.8635E-002		4.0198E-002
Nb-94	702.63	100.00	1.2599E-001	1.10E-001	1.0296E-001
	871.10	100.00	1.0992E-001		-5.8746E-002
Ag-108m	79.20	7.10	7.9442E+000	1.48E-001	-3.1415E+000
	433.93	89.90	1.5121E-001		-5.1513E-002
	614.37	90.40	1.6300E-001		5.5011E-003
	722.95	90.50	1.4848E-001		1.2144E-001
Sb-125	176.33	6.89	2.7829E+000	4.43E-001	-1.6434E+000
	427.89	29.33	4.4281E-001		-9.4672E-002
	463.38	10.35	1.3501E+000		1.0455E-001
	600.56	17.80	6.5534E-001		-7.3996E-001
	606.64	5.02	3.3392E+000		6.1584E+000
	635.90	11.32	1.0665E+000		4.1128E-001
Cs-134	563.23	8.38	1.4580E+000	1.43E-001	-3.8949E-001
	569.32	15.43	8.2129E-001		-6.7062E-001
	604.70	97.60	1.6271E-001		-2.3015E-002
	795.84	85.40	1.4315E-001		7.2049E-002
	801.93	8.73	1.3249E+000		-6.6267E-001
Cs-137	661.65	85.12	1.6024E-001	1.60E-001	8.5769E-002
Eu-152	121.78	28.40	9.1637E-001	4.54E-001	-9.8158E-001
	244.69	7.49	2.3637E+000		-6.1621E-001
	344.27	26.50	5.2877E-001		-4.9079E-001
	778.89	12.74	9.5215E-001		-1.4037E+000
	867.32	4.16	2.6073E+000		-4.7879E+000
	964.01	14.40	1.0679E+000		-2.1080E-001
	1085.78	10.00	1.2217E+000		4.7373E-001
	1112.02	13.30	9.1020E-001		-1.3730E-001
	1407.95	20.70	4.5353E-001		8.7789E-002
Eu-154	123.07	40.50	6.3507E-001	2.84E-001	-4.6619E-001
	247.94	6.60	2.4912E+000		5.5647E-001
	591.81	4.83	2.6320E+000		-3.7269E-001
	723.30	19.70	6.8046E-001		3.5386E-001
	756.87	4.33	2.7933E+000		-5.5236E-001
	873.19	11.50	9.7566E-001		-3.1532E-001
	996.32	10.30	1.0964E+000		-4.4226E-001
	1004.76	17.90	6.2956E-001		-4.6947E-001
	1274.45	35.50	2.8398E-001		-2.6057E-001
Eu-155	86.54	30.90	1.4493E+000	1.45E+000	1.4649E+000
	105.31	20.70	1.5551E+000		-4.5970E-001
Am-241	59.54	35.90	2.9160E+000	2.92E+000	-1.6401E-001
Cm-243	228.19	10.56	1.6883E+000	1.12E+000	8.7432E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	1.1219E+000	1.12E+000	-3.7718E-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 7/31/2006 12:53:48 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: BRN7722

Spectrum File: BRN7722
Sample ID: NOL-02-04-117-F-
Sample Title: NOL-02-04-117-F-G
Description: Large ledge

Sample Type:
Geometry:

Acquisition Started: 7/31/2006 12:43:45 PM
Live Time: 600.0 seconds
Real Time: 601.0 seconds

Energy Calibration Date: 6/29/2006
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-02-04-117-F-
Title: NOL-02-04-117-F-G
Description: Large ledge

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	291.96	73.08	0.97	2.05E+002	45.52	7.19E+002
m	2	285-	306	299.83	75.04	0.98	3.87E+002	54.22	9.08E+002
	3	335-	345	340.05	85.10	1.08	1.12E+002	81.39	6.69E+002
	4	946-	960	953.83	238.56	0.95	2.71E+002	69.03	3.37E+002
	5	1074-	1083	1079.17	269.89	0.89	4.05E+001	38.52	1.53E+002
	6	1176-	1188	1179.80	295.05	0.72	1.01E+002	43.47	1.48E+002
	7	1348-	1358	1352.74	338.29	1.01	6.10E+001	39.29	1.43E+002
	8	1399-	1416	1407.49	351.98	0.94	1.69E+002	55.60	1.93E+002
	9	2032-	2050	2041.07	510.38	1.40	1.18E+002	47.36	1.38E+002
	10	2323-	2340	2331.71	583.05	1.02	2.20E+002	44.16	8.81E+001
	11	2430-	2445	2436.66	609.28	1.49	1.56E+002	38.91	7.88E+001
	12	2905-	2915	2909.75	727.57	0.54	2.52E+001	24.03	5.18E+001
	13	3435-	3447	3442.10	860.66	0.66	2.59E+001	19.84	2.91E+001
	14	3634-	3654	3644.51	911.27	0.81	1.52E+002	35.83	4.98E+001
	15	3869-	3885	3875.88	969.11	1.42	9.24E+001	29.84	4.46E+001
	16	5833-	5858	5845.17	1461.46	1.96	9.87E+002	64.86	2.56E+001
	17	7054-	7069	7062.20	1765.74	0.78	5.49E+001	15.36	2.08E+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

N U C L I 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	0.985	511.00*		100.00	2.01723E-001	8.53255E-002
K-40	0.984	1460.81*		10.67	2.09485E+001	2.18407E+000
TL-208	0.902	277.35		6.80		
		510.84*		21.60	9.33904E-001	4.02321E-001
		583.14*		84.20	4.65107E-001	1.11308E-001
		860.37*		12.46	4.08175E-001	3.16772E-001
Bi-212	0.994	727.17*		11.80	4.04450E-001	3.88548E-001
Pb-212	0.580	74.81*	@	10.70	1.26061E+001	3.03692E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	8.45139E-001	2.52795E-001
Bi-214	0.683	609.31*		46.30	6.09122E-001	1.69303E-001
		1120.29		15.10		
		1764.49*		15.80	8.56657E-001	2.54417E-001
PB-214	0.619	74.82*	@	6.21	2.17206E+001	5.46509E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	7.69254E-001	3.55949E-001
		351.92*		37.20	6.94045E-001	2.56201E-001
Ac-228	0.999	338.32*		11.40	8.09897E-001	5.36852E-001
		911.07*		27.70	1.09341E+000	2.86458E-001
		969.11*		16.60	1.12191E+000	3.80866E-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		0.985	1.025914E-001	8.824032E-002
K-40		0.984	2.094855E+001	2.184072E+000
TL-208		0.902	4.589436E-001	1.041317E-001
Bi-212		0.994	4.044496E-001	3.885485E-001
Pb-212	@	0.580	8.451389E-001	2.527952E-001
Bi-214		0.683	6.850947E-001	1.409472E-001
PB-214	@	0.619	7.197116E-001	2.079384E-001
Ac-228		0.999	1.058503E+000	2.105849E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	3.4153E-001	22.21
3	85.10	1.8701E-001	72.54
5	269.89	6.7500E-002	95.10

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: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	1.2478E-001	9.16E-002	5.3896E-002
	1332.49	100.00	9.1612E-002		-1.0737E-002
Nb-94	702.63	100.00	1.1498E-001	1.13E-001	-1.0216E-002
	871.10	100.00	1.1341E-001		2.7421E-002
Ag-108m	79.20	7.10	7.1217E+000	1.40E-001	-1.4203E+000
	433.93	89.90	1.4010E-001		8.4689E-002
	614.37	90.40	1.5512E-001		-6.7044E-002
	722.95	90.50	1.4484E-001		-4.5113E-002
Sb-125	176.33	6.89	2.5092E+000	4.34E-001	-1.5091E+000
	427.89	29.33	4.3381E-001		-2.3445E-001
	463.38	10.35	1.2381E+000		1.1783E+000
	600.56	17.80	6.7845E-001		-1.7706E-001
	606.64	5.02	3.2110E+000		-1.8269E+000
	635.90	11.32	1.0701E+000		-3.7862E-001
Cs-134	563.23	8.38	1.4012E+000	1.34E-001	-3.4795E-001
	569.32	15.43	7.7706E-001		6.8298E-002
	604.70	97.60	1.5151E-001		-1.9728E-001
	795.84	85.40	1.3370E-001		1.0639E-001
	801.93	8.73	1.2886E+000		8.6083E-001
Cs-137	661.65	85.12	1.4300E-001	1.43E-001	5.2867E-002
Eu-152	121.78	28.40	8.4876E-001	4.07E-001	8.3973E-002
	244.69	7.49	2.1424E+000		1.6837E-001
	344.27	26.50	5.0399E-001		8.2374E-002
	778.89	12.74	9.0917E-001		1.9015E-001
	867.32	4.16	2.7515E+000		1.2001E+000
	964.01	14.40	9.9599E-001		-3.6668E-003
	1085.78	10.00	1.0765E+000		2.6215E-001
	1112.02	13.30	8.5980E-001		6.3781E-001
	1407.95	20.70	4.0686E-001		-1.6805E-001
Eu-154	123.07	40.50	5.8882E-001	3.02E-001	-1.2190E-001
	247.94	6.60	2.3766E+000		1.3269E+000
	591.81	4.83	2.3934E+000		7.6210E-001
	723.30	19.70	6.7166E-001		-1.0564E-001
	756.87	4.33	2.6247E+000		-3.0983E-001
	873.19	11.50	9.7992E-001		-2.0771E-002
	996.32	10.30	1.0728E+000		-8.7608E-001
	1004.76	17.90	6.0159E-001		2.4905E-001
	1274.45	35.50	3.0171E-001		4.6878E-002
Eu-155	86.54	30.90	1.3600E+000	1.36E+000	1.5702E+000
	105.31	20.70	1.3888E+000		3.0130E-001
Am-241	59.54	35.90	2.6890E+000	2.69E+000	6.1900E-001
Cm-243	228.19	10.56	1.5570E+000	1.03E+000	-1.3553E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	1.0337E+000	1.03E+000	2.1351E-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 7/31/2006 1:19:03 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: BRN7722

Spectrum File: BRN7722
Sample ID: NOL-02-04-118-F-
Sample Title: NOL-02-04-118-F-G
Description: 50% Large Rock

Sample Type:
Geometry:

Acquisition Started: 7/31/2006 1:09:00 PM
Live Time: 600.0 seconds
Real Time: 601.0 seconds

Energy Calibration Date: 6/29/2006
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-02-04-118-F-
Title: NOL-02-04-118-F-G
Description: 50% Large Rock

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	291.45	72.95	1.04	2.63E+002	48.15	8.21E+002
m	2	284-	307	300.35	75.17	1.05	4.45E+002	55.63	9.69E+002
	3	946-	961	954.45	238.71	1.08	2.57E+002	75.14	4.04E+002
	4	1175-	1186	1179.80	295.05	0.54	6.92E+001	45.43	1.86E+002
	5	1348-	1359	1351.93	338.09	0.98	5.72E+001	42.17	1.60E+002
	6	1401-	1412	1406.90	351.83	0.86	1.06E+002	40.63	1.29E+002
	7	2034-	2052	2042.20	510.66	1.10	1.18E+002	48.26	1.45E+002
	8	2323-	2340	2332.22	583.17	1.33	2.00E+002	42.22	8.11E+001
	9	2426-	2444	2435.80	609.07	0.92	1.67E+002	43.92	9.92E+001
	10	3177-	3188	3181.03	795.39	0.66	2.68E+001	22.54	4.12E+001
	11	3384-	3393	3388.69	847.31	0.89	9.75E+000	12.95	1.43E+001
	12	3634-	3653	3644.22	911.19	0.99	1.39E+002	34.43	4.79E+001
	13	3868-	3884	3875.33	968.98	1.94	9.75E+001	26.55	2.75E+001
	14	4473-	4488	4481.42	1120.51	0.55	4.61E+001	27.03	4.79E+001
	15	5832-	5858	5845.42	1461.53	1.79	1.10E+003	66.76	1.34E+001
	16	7053-	7068	7060.74	1765.37	0.72	4.01E+001	14.11	3.86E+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	0.996	511.00*		100.00	2.02237E-001	8.68233E-002
K-40	0.980	1460.81*		10.67	2.33709E+001	2.36352E+000
TL-208	0.753	277.35		6.80		
		510.84*		21.60	9.36281E-001	4.09168E-001
		583.14*		84.20	4.22788E-001	1.04893E-001
		860.37		12.46		
Pb-212	0.580	74.81*	@	10.70	1.44257E+001	3.35291E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	8.01306E-001	2.65937E-001
Bi-214	0.992	609.31*		46.30	6.50440E-001	1.89095E-001
		1120.29*		15.10	6.34683E-001	3.77916E-001
		1764.49*		15.80	6.25988E-001	2.28836E-001
PB-214	0.619	74.82*	@	6.21	2.48560E+001	6.05238E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	5.28121E-001	3.57714E-001
		351.92*		37.20	4.34565E-001	1.82001E-001
Ac-228	0.999	338.32*		11.40	7.59126E-001	5.72292E-001
		911.07*		27.70	9.99032E-001	2.72672E-001
		969.11*		16.60	1.18342E+000	3.45307E-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	1.109145E-001	8.968144E-002
K-40		0.980	2.337088E+001	2.363516E+000
TL-208		0.753	4.227878E-001	1.039844E-001
Pb-212	@	0.580	8.013063E-001	2.659368E-001
Bi-214		0.992	6.397628E-001	1.360013E-001
PB-214	@	0.619	4.538032E-001	1.622127E-001
Ac-228		0.999	1.031734E+000	2.004420E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	4.3774E-001	18.33
10	795.39	4.4737E-002	83.97
11	847.31	1.6250E-002	132.78

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: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	1.1988E-001	1.02E-001	5.6547E-002
	1332.49	100.00	1.0226E-001		1.0140E-001
Nb-94	702.63	100.00	1.1567E-001	1.08E-001	5.8542E-003
	871.10	100.00	1.0823E-001		-2.8921E-002
Ag-108m	79.20	7.10	7.4154E+000	1.37E-001	-3.5437E+000
	433.93	89.90	1.3668E-001		-6.9574E-002
	614.37	90.40	1.5130E-001		-8.1126E-002
	722.95	90.50	1.4140E-001		1.6067E-001
Sb-125	176.33	6.89	2.5308E+000	4.31E-001	3.7812E-002
	427.89	29.33	4.3068E-001		2.5799E-001
	463.38	10.35	1.2679E+000		2.8892E-001
	600.56	17.80	6.8687E-001		1.5957E-002
	606.64	5.02	3.2908E+000		6.1858E+000
	635.90	11.32	1.0191E+000		1.1813E-001
Cs-134	563.23	8.38	1.5495E+000	1.37E-001	2.4255E-001
	569.32	15.43	8.1239E-001		-5.4964E-002
	604.70	97.60	1.5840E-001		-7.8383E-003
	795.84	85.40	1.3712E-001		1.7874E-003
	801.93	8.73	1.3186E+000		1.5795E-001
Cs-137	661.65	85.12	1.5826E-001	1.58E-001	1.5494E-001
Eu-152	121.78	28.40	8.5071E-001	4.20E-001	2.7782E-002
	244.69	7.49	2.1442E+000		6.2042E-001
	344.27	26.50	5.2609E-001		-5.8523E-002
	778.89	12.74	8.8907E-001		-1.4336E-001
	867.32	4.16	2.5796E+000		-3.7418E+000
	964.01	14.40	9.7139E-001		5.5279E-001
	1085.78	10.00	1.1464E+000		2.2216E-001
	1112.02	13.30	8.4026E-001		2.4846E-001
	1407.95	20.70	4.1989E-001		2.3685E-001
Eu-154	123.07	40.50	6.0096E-001	2.86E-001	1.3150E-001
	247.94	6.60	2.3253E+000		-2.1745E+000
	591.81	4.83	2.4824E+000		-2.3864E+000
	723.30	19.70	6.5603E-001		8.1676E-001
	756.87	4.33	2.7797E+000		-7.2786E-001
	873.19	11.50	9.4873E-001		-6.9987E-001
	996.32	10.30	1.1012E+000		4.9367E-001
	1004.76	17.90	5.9915E-001		-1.6527E-001
	1274.45	35.50	2.8604E-001		-9.8988E-002
Eu-155	86.54	30.90	1.3809E+000	1.38E+000	1.2518E+000
	105.31	20.70	1.3753E+000		-7.7306E-001
Am-241	59.54	35.90	2.5918E+000	2.59E+000	-5.2591E-002
Cm-243	228.19	10.56	1.5999E+000	1.10E+000	-6.8924E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	1.0969E+000	1.10E+000	9.2372E-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 7/31/2006 1:44:01 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: BRN7722

Spectrum File: BRN7722
Sample ID: NOL-02-04-119-F-
Sample Title: NOL-02-04-119-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 7/31/2006 1:33:58 PM
Live Time: 600.0 seconds
Real Time: 600.9 seconds

Energy Calibration Date: 6/29/2006
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-02-04-119-F-
Title: NOL-02-04-119-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	286-	304	291.48	72.96	0.77	1.25E+002	40.97	6.68E+002
m	2	286-	304	300.17	75.13	0.77	3.28E+002	53.49	7.35E+002
	3	946-	960	954.21	238.65	1.11	2.72E+002	68.98	3.36E+002
	4	1177-	1187	1181.02	295.36	0.92	5.17E+001	39.02	1.42E+002
	5	1398-	1414	1407.48	351.97	1.14	1.68E+002	49.61	1.51E+002
	6	2034-	2051	2042.02	510.62	1.56	9.72E+001	44.67	1.29E+002
	7	2323-	2342	2331.91	583.10	1.47	1.82E+002	44.55	9.57E+001
	8	2429-	2445	2437.04	609.38	1.21	1.61E+002	38.40	7.06E+001
	9	2642-	2651	2646.09	661.64	0.53	2.15E+001	21.30	4.25E+001
	10	3636-	3653	3644.44	911.25	1.04	1.45E+002	33.46	4.50E+001
	11	3731-	3742	3736.52	934.27	0.59	1.46E+001	18.49	2.84E+001
	12	3869-	3887	3874.87	968.86	0.89	7.90E+001	32.53	5.70E+001
	13	4475-	4488	4481.12	1120.43	0.50	2.46E+001	25.58	5.04E+001
	14	4949-	4962	4955.71	1239.09	0.75	3.30E+001	21.19	3.00E+001
	15	5834-	5858	5845.79	1461.62	2.09	1.07E+003	65.80	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: 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	1.65914E-001	7.94908E-002
K-40	0.975	1460.81*		10.67	2.26382E+001	2.30400E+000
Cs-137	1.000	661.65*		85.12	4.68350E-002	4.67317E-002
TL-208	0.752	277.35		6.80		
		510.84*		21.60	7.68120E-001	3.73321E-001
		583.14*		84.20	3.85648E-001	1.06772E-001
		860.37		12.46		
Pb-212	0.580	74.81*	@	10.70	1.06602E+001	2.71644E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	8.49263E-001	2.53028E-001
Bi-214	0.707	609.31*		46.30	6.29766E-001	1.68664E-001
		1120.29*		15.10	3.37845E-001	3.53658E-001
		1764.49		15.80		
PB-214	0.619	74.82*	@	6.21	1.83678E+001	4.86671E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	3.94019E-001	3.04956E-001
		351.92*		37.20	6.90069E-001	2.34184E-001
Ac-228	0.633	338.32		11.40		
		911.07*		27.70	1.04149E+000	2.68551E-001
		969.11*		16.60	9.59030E-001	4.07508E-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	8.261394E-002	8.272433E-002
K-40		0.975	2.263816E+001	2.304003E+000
Cs-137		1.000	4.683502E-002	4.673170E-002
TL-208		0.752	3.856480E-001	1.060301E-001
Pb-212	@	0.580	8.492633E-001	2.530280E-001
Bi-214		0.707	5.756731E-001	1.522374E-001
PB-214	@	0.619	5.802478E-001	1.857371E-001
Ac-228		0.633	1.016520E+000	2.242373E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	72.96	2.0811E-001	32.81
11	934.27	2.4302E-002	126.78
14	1239.09	5.5033E-002	64.16

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: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	1.1736E-001	8.35E-002	4.3516E-002
		1332.49	100.00	8.3487E-002		3.1866E-002
	Nb-94	702.63	100.00	1.1428E-001	1.06E-001	-4.1826E-003
		871.10	100.00	1.0617E-001		-3.8396E-002
	Ag-108m	79.20	7.10	7.2805E+000	1.42E-001	-1.7529E+001
		433.93	89.90	1.4319E-001		1.1191E-001
		614.37	90.40	1.5396E-001		1.2901E-002
		722.95	90.50	1.4175E-001		3.2236E-002
	Sb-125	176.33	6.89	2.5735E+000	4.39E-001	1.0314E+000
		427.89	29.33	4.3925E-001		7.2365E-002
		463.38	10.35	1.2542E+000		2.9870E-001
		600.56	17.80	6.9021E-001		4.0398E-002
		606.64	5.02	3.1749E+000		4.4824E-002
		635.90	11.32	1.0393E+000		8.6072E-001
	Cs-134	563.23	8.38	1.6153E+000	1.48E-001	4.2936E-001
		569.32	15.43	8.4618E-001		-1.2973E-001
		604.70	97.60	1.4794E-001		-3.6611E-002
		795.84	85.40	1.5078E-001		1.3044E-001
		801.93	8.73	1.2535E+000		-4.8894E-001
+	Cs-137	661.65*	85.12	7.6345E-002	7.63E-002	4.6835E-002
	Eu-152	121.78	28.40	8.1874E-001	4.04E-001	-1.6425E-001
		244.69	7.49	2.1388E+000		4.5628E-001
		344.27	26.50	4.9293E-001		-2.2245E-001
		778.89	12.74	8.8616E-001		-3.8761E-002
		867.32	4.16	2.6090E+000		-2.6823E+000
		964.01	14.40	9.7139E-001		-1.9572E-001
		1085.78	10.00	1.1379E+000		6.8651E-002
		1112.02	13.30	8.5658E-001		2.2038E-001
		1407.95	20.70	4.0353E-001		1.8042E-001
	Eu-154	123.07	40.50	5.6471E-001	3.03E-001	-2.2387E-001
		247.94	6.60	2.2618E+000		-3.8165E-001
		591.81	4.83	2.4510E+000		1.6083E-001
		723.30	19.70	6.5285E-001		2.1452E-001
		756.87	4.33	2.6993E+000		2.1941E+000
		873.19	11.50	9.5225E-001		-1.0325E-001
		996.32	10.30	1.0309E+000		-2.9967E-001
		1004.76	17.90	5.8676E-001		-6.8292E-001
		1274.45	35.50	3.0309E-001		2.2284E-002
	Eu-155	86.54	30.90	1.3592E+000	1.36E+000	1.0744E+000
		105.31	20.70	1.3715E+000		7.1986E-001
	Am-241	59.54	35.90	2.5703E+000	2.57E+000	-1.2395E-001
	Cm-243	228.19	10.56	1.5928E+000	1.05E+000	1.2454E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	1.0507E+000	1.05E+000	3.9802E-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 7/31/2006 1:59:28 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: BRN7722

Spectrum File: BRN7722
Sample ID: NOL-02-04-120-F-
Sample Title: NOL-02-04-120-F-G
Description: large rock/ledge

Sample Type:
Geometry:

Acquisition Started: 7/31/2006 1:49:25 PM
Live Time: 600.0 seconds
Real Time: 600.9 seconds

Energy Calibration Date: 6/29/2006
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-02-04-120-F-
Title: NOL-02-04-120-F-G
Description: large rock/ledge

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	296-	305	300.60	75.24	0.85	1.87E+002	83.94	7.28E+002
2	949-	959	953.94	238.58	1.08	2.04E+002	58.02	2.80E+002
3	1176-	1185	1180.00	295.10	1.06	5.93E+001	39.11	1.49E+002
4	1397-	1415	1406.32	351.68	0.61	1.74E+002	50.81	1.47E+002
5	2323-	2338	2332.40	583.22	0.92	1.63E+002	39.57	8.06E+001
6	2430-	2445	2436.79	609.32	1.62	1.63E+002	35.09	5.20E+001
7	3636-	3655	3645.80	911.59	1.75	1.50E+002	36.38	5.58E+001
8	3871-	3883	3876.77	969.33	0.37	6.85E+001	25.40	3.65E+001
9	3980-	3991	3985.17	996.43	0.35	2.24E+001	14.65	1.26E+001
10	5834-	5859	5846.08	1461.69	1.85	9.66E+002	63.47	1.95E+001
11	7056-	7070	7063.77	1766.13	0.87	5.03E+001	16.77	7.72E+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	0.970	1460.81*	10.67	2.04849E+001	2.13637E+000
TL-208	0.472	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.45689E-001	9.50253E-002
		860.37	12.46		
Pb-212	0.580	74.81* @	10.70	6.04943E+000	2.96010E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	6.36605E-001	2.06643E-001
Bi-214	0.674	609.31*	46.30	6.35824E-001	1.57698E-001
		1120.29	15.10		
		1764.49*	15.80	7.84415E-001	2.73130E-001
PB-214	0.618	74.82* @	6.21	1.04233E+001	5.15616E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	4.52042E-001	3.07830E-001
		351.92*	37.20	7.14946E-001	2.40495E-001
Ac-228	0.629	338.32	11.40		
		911.07*	27.70	1.07891E+000	2.89279E-001
		969.11*	16.60	8.31447E-001	3.20457E-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		0.970	2.048491E+001	2.136372E+000
TL-208		0.472	3.456894E-001	9.502535E-002
Pb-212	@	0.580	6.366045E-001	2.066435E-001
Bi-214		0.674	6.729739E-001	1.365693E-001
PB-214	@	0.618	6.152991E-001	1.895150E-001
Ac-228		0.629	9.678016E-001	2.147302E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
9	996.43	3.7357E-002	65.36

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	1.1905E-001	8.67E-002	-3.7842E-002
	1332.49	100.00	8.6709E-002		-1.2724E-003
Nb-94	702.63	100.00	1.2041E-001	1.05E-001	4.7355E-002
	871.10	100.00	1.0491E-001		-1.4416E-001
Ag-108m	79.20	7.10	7.0733E+000	1.38E-001	-9.5507E+000
	433.93	89.90	1.3827E-001		-7.6835E-002
	614.37	90.40	1.5278E-001		7.2625E-002
	722.95	90.50	1.3788E-001		5.8967E-002
Sb-125	176.33	6.89	2.4289E+000	4.32E-001	9.0534E-001
	427.89	29.33	4.3225E-001		2.4967E-001
	463.38	10.35	1.2171E+000		1.3538E-001
	600.56	17.80	6.5426E-001		-7.0247E-001
	606.64	5.02	3.0593E+000		-1.1141E-001
	635.90	11.32	9.8367E-001		-5.1040E-001
Cs-134	563.23	8.38	1.4294E+000	1.24E-001	5.7319E-001
	569.32	15.43	7.7896E-001		6.3887E-001
	604.70	97.60	1.4134E-001		-7.2377E-002
	795.84	85.40	1.2376E-001		-2.4963E-002
	801.93	8.73	1.0807E+000		-1.5710E+000
Cs-137	661.65	85.12	1.4851E-001	1.49E-001	9.8962E-003
Eu-152	121.78	28.40	8.0791E-001	3.83E-001	3.4531E-001
	244.69	7.49	2.1261E+000		-1.7725E+000
	344.27	26.50	4.9959E-001		-1.3623E-001
	778.89	12.74	8.3506E-001		-7.7320E-001
	867.32	4.16	2.5497E+000		-3.0218E+000
	964.01	14.40	9.2252E-001		-1.1709E-001
	1085.78	10.00	1.0583E+000		-5.8964E-001
	1112.02	13.30	7.9965E-001		-6.9729E-001
	1407.95	20.70	3.8290E-001		-1.7475E-001
Eu-154	123.07	40.50	5.6210E-001	3.18E-001	-3.6440E-001
	247.94	6.60	2.3275E+000		-2.8363E-001
	591.81	4.83	2.3210E+000		-2.3393E+000
	723.30	19.70	6.3346E-001		-2.6982E-002
	756.87	4.33	2.5392E+000		-1.9851E-001
	873.19	11.50	9.4873E-001		6.5139E-001
	996.32	10.30	1.0223E+000		5.5488E-001
	1004.76	17.90	6.2783E-001		1.1208E+000
	1274.45	35.50	3.1787E-001		1.5418E-001
Eu-155	86.54	30.90	1.3788E+000	1.37E+000	2.2326E+000
	105.31	20.70	1.3698E+000		-2.1127E-001
Am-241	59.54	35.90	2.5968E+000	2.60E+000	2.1102E-001
Cm-243	228.19	10.56	1.5952E+000	1.02E+000	1.0197E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	1.0188E+000	1.02E+000	2.6628E-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 7/31/2006 8:57:57 AM

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

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-02-04-121-F-
Sample Title: NOL-02-04-121-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 7/31/2006 8:48:02 AM
Live Time: 600.0 seconds
Real Time: 601.2 seconds

Energy Calibration Date: 7/20/2006
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-02-04-121-F-
Title: NOL-02-04-121-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	944-	962	954.72	238.66	2.00	2.41E+002	76.90	3.85E+002
2	1398-	1413	1407.88	351.96	0.74	8.81E+001	48.90	1.78E+002
3	2321-	2342	2332.06	583.04	1.77	1.48E+002	45.89	1.07E+002
4	2427-	2447	2436.45	609.14	0.76	1.28E+002	43.45	9.98E+001
5	3634-	3654	3644.62	911.22	1.19	1.34E+002	38.09	6.72E+001
6	3868-	3881	3875.67	968.99	1.56	6.18E+001	24.97	3.62E+001
7	4473-	4488	4480.83	1120.30	0.27	4.15E+001	22.83	3.05E+001
8	5830-	5858	5843.67	1461.05	2.50	9.19E+002	61.35	1.37E+001
9	7053-	7066	7059.79	1765.12	0.69	4.38E+001	14.95	5.22E+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: 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	2.08955E+001	2.19238E+000
TL-208	0.471	277.35		6.80		
		510.84		21.60		
		583.14*		84.20	3.31029E-001	1.11125E-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	7.88112E-001	2.79789E-001
Bi-214	0.997	609.31*		46.30	5.28421E-001	1.90500E-001
		1120.29*		15.10	6.12925E-001	3.42964E-001
		1764.49*		15.80	7.11913E-001	2.53319E-001
Ac-228	0.632	338.32		11.40		
		911.07*		27.70	1.01862E+000	3.12709E-001
		969.11*		16.60	7.98411E-001	3.33076E-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		0.998	2.089545E+001	2.192380E+000
TL-208		0.471	3.310290E-001	1.111248E-001
Pb-212	@	0.446	7.881125E-001	2.797888E-001
Bi-214		0.997	5.977049E-001	1.391567E-001
Ac-228		0.632	9.154527E-001	2.279788E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	351.96	1.4682E-001	55.51

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: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	1.1911E-001	1.02E-001	-9.6968E-002
	1332.49	100.00	1.0202E-001		2.4353E-002
Nb-94	702.63	100.00	1.2639E-001	1.13E-001	2.8870E-002
	871.10	100.00	1.1329E-001		-2.4512E-002
Ag-108m	79.20	7.10	1.0224E+001	1.50E-001	-1.0261E+001
	433.93	89.90	1.4984E-001		-5.0030E-002
	614.37	90.40	1.7371E-001		2.7475E-002
	722.95	90.50	1.5259E-001		1.0830E-001
Sb-125	176.33	6.89	2.8867E+000	4.60E-001	7.6134E-001
	427.89	29.33	4.6032E-001		-8.9675E-002
	463.38	10.35	1.3120E+000		2.6614E-002
	600.56	17.80	7.2712E-001		-3.5033E-001
	606.64	5.02	3.3964E+000		5.8123E+000
	635.90	11.32	1.1109E+000		6.5446E-001
Cs-134	563.23	8.38	1.5578E+000	1.40E-001	-3.1723E-001
	569.32	15.43	8.5687E-001		2.8671E-001
	604.70	97.60	1.6653E-001		6.0461E-003
	795.84	85.40	1.4016E-001		1.2850E-001
	801.93	8.73	1.2790E+000		-1.4786E+000
Cs-137	661.65	85.12	1.4569E-001	1.46E-001	6.5143E-002
Eu-152	121.78	28.40	9.8319E-001	3.76E-001	-1.3618E-001
	244.69	7.49	2.4219E+000		-3.0021E-001
	344.27	26.50	5.4813E-001		-6.4156E-001
	778.89	12.74	8.9381E-001		-1.1309E+000
	867.32	4.16	2.7625E+000		-1.8681E+000
	964.01	14.40	1.0424E+000		-4.0861E-001
	1085.78	10.00	1.1668E+000		1.6202E-001
	1112.02	13.30	8.5348E-001		-4.3573E-001
	1407.95	20.70	3.7645E-001		8.5041E-002
Eu-154	123.07	40.50	6.8778E-001	3.25E-001	3.6272E-001
	247.94	6.60	2.6414E+000		-1.9997E+000
	591.81	4.83	2.6856E+000		1.0282E+000
	723.30	19.70	6.9774E-001		1.8675E-001
	756.87	4.33	2.8660E+000		1.6708E+000
	873.19	11.50	1.0120E+000		9.1906E-001
	996.32	10.30	1.1559E+000		5.3785E-001
	1004.76	17.90	6.0080E-001		-5.3398E-001
	1274.45	35.50	3.2496E-001		3.1669E-001
Eu-155	86.54	30.90	1.7330E+000	1.66E+000	2.0326E+000
	105.31	20.70	1.6578E+000		2.2415E-001
Am-241	59.54	35.90	5.0900E+000	5.09E+000	-4.2090E+000
Cm-243	228.19	10.56	1.6819E+000	1.21E+000	3.9855E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.2112E+000	1.21E+000	4.9766E-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 7/31/2006 8:43:12 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: ORG7829

Spectrum File: ORG7829
Sample ID: NOL-02-04-122-F-
Sample Title: NOL-02-04-122-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 7/31/2006 8:33:07 AM
Live Time: 600.0 seconds
Real Time: 601.1 seconds

Energy Calibration Date: 7/20/2006
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-02-04-122-F-
Title: NOL-02-04-122-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	944-	961	954.87	238.69	0.68	3.01E+002	72.08	3.22E+002
2	1369-	1378	1373.13	343.27	0.76	3.34E+001	27.14	6.96E+001
3	1398-	1413	1408.17	352.03	0.61	8.70E+001	47.17	1.64E+002
4	1729-	1740	1735.01	433.76	0.53	2.14E+001	24.85	5.56E+001
5	2322-	2341	2332.70	583.20	1.25	1.45E+002	43.57	9.97E+001
6	2425-	2445	2435.41	608.88	1.37	1.22E+002	41.81	9.18E+001
7	3634-	3653	3644.17	911.11	1.27	1.44E+002	37.21	6.17E+001
8	3870-	3882	3875.38	968.92	0.74	5.38E+001	25.39	4.32E+001
9	5830-	5859	5843.75	1461.08	2.18	9.20E+002	62.34	1.90E+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

N U C L I 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	2.09103E+001	2.20760E+000
TL-208	0.471	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.24383E-001	1.06024E-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	9.82402E-001	2.81237E-001
Bi-214	0.399	609.31*	46.30	5.03338E-001	1.83061E-001
		1120.29	15.10		
		1764.49	15.80		
Ac-228	0.632	338.32	11.40		
		911.07*	27.70	1.09809E+000	3.10155E-001
		969.11*	16.60	6.95021E-001	3.35853E-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		0.998	2.091028E+001	2.207602E+000
TL-208		0.471	3.243832E-001	1.060245E-001
Pb-212	@	0.446	9.824017E-001	2.812373E-001
Bi-214		0.399	5.033375E-001	1.830614E-001
Ac-228		0.632	9.125629E-001	2.278568E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	343.27	5.5647E-002	81.29
3	352.03	1.4499E-001	54.22
4	433.76	3.5720E-002	115.96

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: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	1.2247E-001	8.16E-002	-8.3327E-003
	1332.49	100.00	8.1587E-002		-2.4079E-003
Nb-94	702.63	100.00	1.2568E-001	1.13E-001	4.3683E-002
	871.10	100.00	1.1329E-001		2.4601E-002
Ag-108m	79.20	7.10	9.9062E+000	1.44E-001	-4.5575E+000
	433.93	89.90	1.4412E-001		-9.9052E-002
	614.37	90.40	1.6267E-001		-9.2124E-002
	722.95	90.50	1.4632E-001		6.2096E-002
Sb-125	176.33	6.89	2.8911E+000	4.46E-001	1.2689E+000
	427.89	29.33	4.4552E-001		5.6727E-002
	463.38	10.35	1.3168E+000		7.9386E-001
	600.56	17.80	6.9092E-001		-3.1810E-001
	606.64	5.02	3.2808E+000		3.9297E+000
	635.90	11.32	1.0465E+000		-7.6120E-002
Cs-134	563.23	8.38	1.5894E+000	1.41E-001	1.2592E-002
	569.32	15.43	8.5303E-001		2.5229E-001
	604.70	97.60	1.6474E-001		-9.0733E-003
	795.84	85.40	1.4062E-001		1.2211E-001
	801.93	8.73	1.3458E+000		-2.2643E+000
Cs-137	661.65	85.12	1.6316E-001	1.63E-001	9.2108E-002
Eu-152	121.78	28.40	9.7261E-001	4.12E-001	-2.1618E-001
	244.69	7.49	2.3347E+000		-2.8851E+000
	344.27	26.50	5.5468E-001		-1.1535E+000
	778.89	12.74	9.8619E-001		-9.9429E-001
	867.32	4.16	2.7521E+000		-1.7662E+000
	964.01	14.40	1.0636E+000		-5.6601E-001
	1085.78	10.00	1.1904E+000		9.9852E-001
	1112.02	13.30	8.6831E-001		-1.0912E+000
	1407.95	20.70	4.1245E-001		2.0046E-001
Eu-154	123.07	40.50	6.7686E-001	2.81E-001	-7.7159E-002
	247.94	6.60	2.5070E+000		-1.7630E+000
	591.81	4.83	2.4432E+000		-4.1490E-001
	723.30	19.70	6.6703E-001		-4.4891E-002
	756.87	4.33	2.7873E+000		1.4742E+000
	873.19	11.50	9.7034E-001		-1.6720E-001
	996.32	10.30	1.0703E+000		-1.5712E-001
	1004.76	17.90	5.9520E-001		-2.5865E-001
	1274.45	35.50	2.8117E-001		-9.4226E-002
Eu-155	86.54	30.90	1.6483E+000	1.62E+000	1.1979E+000
	105.31	20.70	1.6198E+000		-6.5787E-001
Am-241	59.54	35.90	5.0871E+000	5.09E+000	1.2489E+000
Cm-243	228.19	10.56	1.7086E+000	1.18E+000	-3.9102E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.1810E+000	1.18E+000	4.2148E-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 7/31/2006 9:55:36 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: ORG7829

Spectrum File: ORG7829
Sample ID: NOL-02-04-123-F-
Sample Title: NOL-02-04-123-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 7/31/2006 9:45:35 AM
Live Time: 600.0 seconds
Real Time: 601.3 seconds

Energy Calibration Date: 7/20/2006
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-02-04-123-F-
Title: NOL-02-04-123-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	330-	346	337.79	84.40	0.75	1.16E+002	108.47	9.39E+002
2	948-	963	954.11	238.50	0.35	1.41E+002	71.15	3.85E+002
3	1076-	1085	1080.84	270.19	0.48	3.36E+001	36.84	1.41E+002
4	1176-	1187	1180.54	295.12	0.70	5.31E+001	39.73	1.42E+002
5	2427-	2445	2436.78	609.22	1.14	1.26E+002	41.14	9.24E+001
6	2903-	2916	2909.52	727.42	1.19	3.64E+001	26.00	5.06E+001
7	3636-	3656	3644.97	911.31	1.01	1.41E+002	37.43	6.15E+001
8	3867-	3887	3875.43	968.93	0.35	7.57E+001	34.04	6.23E+001
9	4475-	4486	4480.88	1120.31	0.58	2.10E+001	18.46	2.70E+001
10	5831-	5859	5845.21	1461.44	2.52	9.45E+002	64.91	3.27E+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: 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	0.987	1460.81*		10.67	2.14870E+001	2.28111E+000
Bi-212	0.998	727.17*		11.80	6.17992E-001	4.47478E-001
Pb-212	0.446	74.81	@	10.70		
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	4.61385E-001	2.43218E-001
Bi-214	0.705	609.31*		46.30	5.17327E-001	1.81092E-001
		1120.29*		15.10	3.09793E-001	2.74318E-001
		1764.49		15.80		
Ac-228	0.632	338.32		11.40		
		911.07*		27.70	1.07688E+000	3.10663E-001
		969.11*		16.60	9.76735E-001	4.51210E-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		0.987	2.148703E+001	2.281107E+000
Bi-212		0.998	6.179918E-001	4.474782E-001
Pb-212	@	0.446	4.613854E-001	2.432180E-001
Bi-214		0.705	4.543352E-001	1.511305E-001
Ac-228		0.632	1.044676E+000	2.558786E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	84.40	1.9342E-001	93.47
3	270.19	5.6060E-002	109.53
4	295.12	8.8513E-002	74.82

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
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	1.2980E-001	9.06E-002	1.4110E-002
	1332.49	100.00	9.0643E-002		7.7826E-003
Nb-94	702.63	100.00	1.2496E-001	1.09E-001	9.7425E-002
	871.10	100.00	1.0928E-001		-3.9701E-002
Ag-108m	79.20	7.10	1.0274E+001	1.42E-001	-8.4940E+000
	433.93	89.90	1.4930E-001		-4.8502E-003
	614.37	90.40	1.7543E-001		-9.5495E-002
	722.95	90.50	1.4211E-001		-4.7738E-002
Sb-125	176.33	6.89	2.9436E+000	4.53E-001	-6.6013E-001
	427.89	29.33	4.5298E-001		-1.2200E-002
	463.38	10.35	1.3144E+000		7.0441E-001
	600.56	17.80	7.2889E-001		3.9250E-001
	606.64	5.02	3.3247E+000		5.0600E+000
	635.90	11.32	1.1138E+000		6.5230E-001
Cs-134	563.23	8.38	1.6067E+000	1.29E-001	-1.4566E-001
	569.32	15.43	8.5495E-001		-7.3215E-001
	604.70	97.60	1.6500E-001		-1.5467E-002
	795.84	85.40	1.2902E-001		-8.8710E-002
	801.93	8.73	1.2692E+000		-1.5461E+000
Cs-137	661.65	85.12	1.5526E-001	1.55E-001	-3.1306E-002
Eu-152	121.78	28.40	9.7422E-001	4.24E-001	-3.4099E-001
	244.69	7.49	2.4132E+000		7.1765E-003
	344.27	26.50	5.5468E-001		-7.0679E-001
	778.89	12.74	9.8032E-001		3.8874E-001
	867.32	4.16	2.8339E+000		-1.2213E+000
	964.01	14.40	1.1026E+000		-2.4974E-002
	1085.78	10.00	1.1230E+000		-5.8371E-001
	1112.02	13.30	8.2297E-001		-9.8985E-001
	1407.95	20.70	4.2372E-001		5.4913E-002
Eu-154	123.07	40.50	6.8045E-001	3.06E-001	3.2218E-001
	247.94	6.60	2.6847E+000		1.5624E+000
	591.81	4.83	2.6272E+000		1.3613E+000
	723.30	19.70	6.6352E-001		-7.1882E-003
	756.87	4.33	2.7154E+000		3.0615E+000
	873.19	11.50	9.1032E-001		-1.0398E+000
	996.32	10.30	1.0562E+000		-1.6695E-001
	1004.76	17.90	6.4373E-001		2.0660E-001
	1274.45	35.50	3.0632E-001		-3.1140E-001
Eu-155	86.54	30.90	1.6822E+000	1.68E+000	8.8834E-002
	105.31	20.70	1.6906E+000		-1.1779E+000
Am-241	59.54	35.90	5.5731E+000	5.57E+000	2.7994E+000
Cm-243	228.19	10.56	1.7526E+000	1.13E+000	-5.0264E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.1330E+000	1.13E+000	-1.5459E-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 7/31/2006 10:14:04 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: ORG7829

Spectrum File: ORG7829
Sample ID: NOL-02-04-124-F-
Sample Title: NOL-02-04-124-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 7/31/2006 10:04:02 AM
Live Time: 600.0 seconds
Real Time: 601.4 seconds

Energy Calibration Date: 7/20/2006
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-02-04-124-F-
Title: NOL-02-04-124-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	945-	964	955.99	238.97	1.41	2.71E+002	78.87	3.85E+002
2	1399-	1419	1408.73	352.18	1.19	1.54E+002	54.77	1.73E+002
3	2324-	2343	2332.32	583.10	1.77	1.49E+002	40.44	7.94E+001
4	2429-	2446	2438.35	609.61	1.21	1.31E+002	39.25	8.30E+001
5	3636-	3657	3646.17	911.61	0.84	1.36E+002	35.69	5.20E+001
6	3870-	3884	3875.81	969.03	1.10	5.39E+001	24.86	3.71E+001
7	4475-	4490	4482.51	1120.72	0.36	4.40E+001	25.58	4.20E+001
8	5832-	5859	5845.51	1461.51	2.38	8.75E+002	60.84	2.02E+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

N U C L I 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	0.984	1460.81*		10.67	1.98845E+001	2.12240E+000
TL-208	0.472	277.35		6.80		
		510.84		21.60		
		583.14*		84.20	3.31722E-001	1.00067E-001
		860.37		12.46		
Pb-212	0.444	74.81	@	10.70		
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	8.85593E-001	2.92585E-001
Bi-214	0.702	609.31*		46.30	5.39901E-001	1.74875E-001
		1120.29*		15.10	6.48467E-001	3.83577E-001
		1764.49		15.80		
Ac-228	0.628	338.32		11.40		
		911.07*		27.70	1.03551E+000	2.96661E-001
		969.11*		16.60	6.96247E-001	3.29121E-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	0.984	1.988445E+001	2.122396E+000
TL-208	0.472	3.317219E-001	1.000673E-001
Pb-212 @	0.444	8.855934E-001	2.925848E-001
Bi-214	0.702	5.585831E-001	1.591186E-001
Ac-228	0.628	8.834313E-001	2.203560E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	352.18	2.5702E-001	35.52

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: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	1.05E-001	-2.8188E-002
	1332.49	100.00	1.0511E-001		-2.5157E-002
Nb-94	702.63	100.00	1.1871E-001	1.16E-001	-1.0441E-001
	871.10	100.00	1.1632E-001		-2.1544E-002
Ag-108m	79.20	7.10	1.0368E+001	1.55E-001	-1.3954E+001
	433.93	89.90	1.5789E-001		2.9106E-002
	614.37	90.40	1.7342E-001		-6.7018E-002
	722.95	90.50	1.5474E-001		1.4171E-001
Sb-125	176.33	6.89	2.9451E+000	4.91E-001	-2.8524E-001
	427.89	29.33	4.9081E-001		2.4120E-001
	463.38	10.35	1.3023E+000		7.0062E-001
	600.56	17.80	7.2181E-001		-3.8118E-001
	606.64	5.02	3.3198E+000		5.9384E+000
	635.90	11.32	1.0653E+000		2.7801E-001
Cs-134	563.23	8.38	1.5400E+000	1.41E-001	4.8625E-001
	569.32	15.43	7.6124E-001		-1.1017E+000
	604.70	97.60	1.6448E-001		1.1094E-002
	795.84	85.40	1.4108E-001		-3.4204E-002
	801.93	8.73	1.3318E+000		-1.7013E-001
Cs-137	661.65	85.12	1.5015E-001	1.50E-001	-3.4422E-003
Eu-152	121.78	28.40	9.5374E-001	4.16E-001	-3.9789E-001
	244.69	7.49	2.3293E+000		-1.8309E+000
	344.27	26.50	5.7318E-001		-4.8002E-001
	778.89	12.74	9.6845E-001		7.0614E-002
	867.32	4.16	2.9905E+000		-3.5596E+000
	964.01	14.40	1.0566E+000		3.1603E-001
	1085.78	10.00	9.7910E-001		-5.6159E-001
	1112.02	13.30	8.0327E-001		-7.6707E-001
	1407.95	20.70	4.1624E-001		-1.0374E-001
Eu-154	123.07	40.50	6.6003E-001	3.16E-001	-1.5437E-001
	247.94	6.60	2.5974E+000		1.7290E-001
	591.81	4.83	2.5267E+000		-1.7980E+000
	723.30	19.70	7.1908E-001		9.7045E-001
	756.87	4.33	3.0735E+000		3.3762E+000
	873.19	11.50	9.9705E-001		-4.7536E-003
	996.32	10.30	1.1428E+000		8.8871E-001
	1004.76	17.90	6.0634E-001		9.1658E-002
	1274.45	35.50	3.1579E-001		-2.8308E-001
Eu-155	86.54	30.90	1.7811E+000	1.62E+000	9.7900E-001
	105.31	20.70	1.6231E+000		-5.6997E-001
Am-241	59.54	35.90	5.8082E+000	5.81E+000	-8.5331E-001
Cm-243	228.19	10.56	1.6233E+000	1.15E+000	-5.7222E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.1523E+000	1.15E+000	1.6767E-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 7/31/2006 4:48:06 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: YEL7810

Spectrum File: YEL7810
Sample ID: NOL-02-04-125-F-
Sample Title: NOL-02-04-125-F-G
Description: Satulated Soil

Sample Type:
Geometry:

Acquisition Started: 7/31/2006 4:38:02 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-02-04-125-F-
Title: NOL-02-04-125-F-G
Description: Satulated Soil

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	295-	305	300.04	75.03	1.21	1.23E+002	93.75	9.07E+002
2	944-	962	954.12	238.57	1.21	3.29E+002	84.73	4.55E+002
3	1174-	1188	1180.03	295.05	1.23	5.42E+001	53.92	2.43E+002
4	1345-	1361	1353.35	338.39	0.40	8.55E+001	52.94	2.03E+002
5	1398-	1414	1407.14	351.83	0.87	1.52E+002	52.71	1.83E+002
6	2323-	2342	2331.56	582.96	1.39	1.72E+002	46.26	1.10E+002
7	2423-	2443	2435.68	608.99	1.29	1.13E+002	46.52	1.24E+002
8	3436-	3447	3441.80	860.55	1.06	1.98E+001	20.04	3.22E+001
9	3631-	3652	3643.57	910.99	2.25	1.24E+002	33.77	4.63E+001
10	3865-	3882	3874.34	968.69	1.66	7.70E+001	34.58	7.20E+001
11	5829-	5857	5843.73	1461.09	2.04	9.51E+002	64.05	2.54E+001
12	7055-	7068	7061.34	1765.52	1.22	3.70E+001	16.41	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: 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	0.997	1460.81*		10.67	2.19600E+001	2.31301E+000
TL-208	0.619	277.35		6.80		
		510.84		21.60		
		583.14*		84.20	3.82437E-001	1.14038E-001
		860.37*		12.46	3.29177E-001	3.36220E-001
Pb-212	0.576	74.81*	@	10.70	3.84085E+000	3.01848E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	1.01506E+000	3.06293E-001
Bi-214	0.686	609.31*		46.30	4.61727E-001	1.99152E-001
		1120.29		15.10		
		1764.49*		15.80	6.29926E-001	2.86378E-001
PB-214	0.614	74.82*	@	6.21	6.61789E+000	5.22307E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	4.13810E-001	4.17907E-001
		351.92*		37.20	6.33267E-001	2.43281E-001
Ac-228	0.998	338.32*		11.40	1.14640E+000	7.31981E-001
		911.07*		27.70	9.38751E-001	2.78039E-001
		969.11*		16.60	9.89151E-001	4.56138E-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		0.997	2.196004E+001	2.313014E+000
TL-208		0.619	3.769417E-001	1.079953E-001
Pb-212	@	0.576	1.015058E+000	3.062927E-001
Bi-214		0.686	5.165538E-001	1.635030E-001
PB-214	@	0.614	5.777202E-001	2.102497E-001
Ac-228		0.998	9.708695E-001	2.258291E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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: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	1.3195E-001	9.83E-002	1.0419E-001
	1332.49	100.00	9.8343E-002		-1.9369E-002
Nb-94	702.63	100.00	1.3222E-001	1.19E-001	6.3258E-002
	871.10	100.00	1.1855E-001		-1.0664E-001
Ag-108m	79.20	7.10	8.2348E+000	1.40E-001	-1.2414E+001
	433.93	89.90	1.4943E-001		-1.6813E-002
	614.37	90.40	1.5991E-001		-7.1058E-002
	722.95	90.50	1.4007E-001		4.1537E-002
Sb-125	176.33	6.89	2.8753E+000	4.42E-001	8.0429E-002
	427.89	29.33	4.4200E-001		-3.2405E-001
	463.38	10.35	1.4096E+000		1.2031E+000
	600.56	17.80	7.2887E-001		2.9398E-001
	606.64	5.02	3.3487E+000		5.7528E+000
	635.90	11.32	1.1553E+000		5.9545E-001
Cs-134	563.23	8.38	1.5309E+000	1.48E-001	-2.9266E-001
	569.32	15.43	8.6355E-001		3.8161E-001
	604.70	97.60	1.6554E-001		-1.0528E-002
	795.84	85.40	1.4847E-001		4.0042E-002
	801.93	8.73	1.3666E+000		-6.1576E-001
Cs-137	661.65	85.12	1.6539E-001	1.65E-001	1.2930E-002
Eu-152	121.78	28.40	9.4757E-001	4.01E-001	6.5128E-001
	244.69	7.49	2.4395E+000		-6.6680E-001
	344.27	26.50	5.5368E-001		8.6069E-002
	778.89	12.74	9.2133E-001		-9.8543E-001
	867.32	4.16	2.8372E+000		-1.3396E+000
	964.01	14.40	1.1174E+000		-5.2837E-002
	1085.78	10.00	1.1668E+000		-7.2097E-002
	1112.02	13.30	8.9983E-001		-2.8582E-001
	1407.95	20.70	4.0105E-001		-3.7787E-001
Eu-154	123.07	40.50	6.5314E-001	2.73E-001	-2.2612E-001
	247.94	6.60	2.6467E+000		-7.8643E-001
	591.81	4.83	2.6960E+000		8.1360E-001
	723.30	19.70	6.4713E-001		-5.3962E-002
	756.87	4.33	2.9892E+000		4.8558E-001
	873.19	11.50	1.0529E+000		2.1166E-002
	996.32	10.30	1.1579E+000		-2.8034E-002
	1004.76	17.90	6.4251E-001		-4.5724E-002
	1274.45	35.50	2.7339E-001		-1.6232E-001
Eu-155	86.54	30.90	1.5019E+000	1.50E+000	1.3666E+000
	105.31	20.70	1.5816E+000		-5.0145E-001
Am-241	59.54	35.90	2.9848E+000	2.98E+000	-1.1886E+000
Cm-243	228.19	10.56	1.6927E+000	1.19E+000	6.6463E-002

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	1.1871E+000	1.19E+000	1.0311E+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 8/2/2006 6:23:42 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: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-02-04-126-F-G
Sample ID: NOL-02-04-126-F-
Sample Title: NOL-02-04-126-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 7/31/2006 4:32:37 PM
Live Time: 600.0 seconds
Real Time: 600.8 seconds

Energy Calibration Date: 6/29/2006
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: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-02-04-126-F-G
Log Number: NOL-02-04-126-F-
Title: NOL-02-04-126-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	295-	305	300.43	75.19	0.83	1.90E+002	89.02	7.82E+002
M	2	949-	969	954.14	238.63	0.97	2.42E+002	38.98	2.38E+002
m	3	949-	969	964.93	241.33	0.98	4.05E+001	25.06	2.41E+002
	4	1175-	1188	1179.63	295.01	1.14	7.87E+001	43.24	1.47E+002
	5	1398-	1415	1406.21	351.66	1.17	1.15E+002	46.40	1.37E+002
	6	2037-	2051	2042.43	510.72	1.23	9.45E+001	41.36	1.20E+002
	7	2323-	2339	2332.03	583.13	1.32	1.79E+002	39.42	7.22E+001
	8	2428-	2443	2436.17	609.16	1.32	1.21E+002	34.68	6.40E+001
	9	3637-	3653	3645.51	911.52	0.98	1.49E+002	35.83	5.94E+001
	10	3868-	3883	3875.68	969.06	0.88	8.34E+001	26.17	3.16E+001
	11	5833-	5858	5845.73	1461.60	2.10	9.64E+002	62.07	9.43E+000
	12	7056-	7069	7062.24	1765.75	0.60	3.75E+001	13.46	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-02-04-126-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	1.61369E-001	7.39142E-002
K-40	0.976	1460.81*		10.67	2.04434E+001	2.11506E+000
TL-208	0.753	277.35		6.80		
		510.84*		21.60	7.47079E-001	3.47592E-001
		583.14*		84.20	3.78177E-001	9.68183E-002
		860.37		12.46		
Pb-212	0.580	74.81*	@	10.70	6.14394E+000	3.12300E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	7.54091E-001	1.69598E-001
Bi-214	0.682	609.31*		46.30	4.71953E-001	1.47214E-001
		1120.29		15.10		
		1764.49*		15.80	5.84926E-001	2.17922E-001
PB-214	0.773	74.82*	@	6.21	1.05862E+001	5.43561E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98*		7.49	7.54516E-001	4.83220E-001
		295.21*		19.20	5.99951E-001	3.44915E-001
		351.92*		37.20	4.72231E-001	2.06260E-001
Ac-228	0.631	338.32		11.40		
		911.07*		27.70	1.06756E+000	2.85121E-001
		969.11*		16.60	1.01207E+000	3.34920E-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-02-04-126-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	7.968282E-002	7.676959E-002
K-40		0.976	2.044344E+001	2.115059E+000
TL-208		0.753	3.781770E-001	9.603066E-002
Pb-212	@	0.580	7.540914E-001	1.695983E-001
Bi-214		0.682	5.073534E-001	1.219878E-001
PB-214	@	0.773	5.352942E-001	1.662197E-001
Ac-228		0.631	1.044239E+000	2.171042E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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-02-04-126-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	1.1077E-001	8.08E-002	-6.1360E-002
	1332.49	100.00	8.0810E-002		-3.2604E-002
Nb-94	702.63	100.00	1.0926E-001	1.07E-001	-7.0575E-002
	871.10	100.00	1.0659E-001		6.0190E-002
Ag-108m	79.20	7.10	7.0328E+000	1.23E-001	-1.1891E+000
	433.93	89.90	1.2288E-001		-6.4253E-002
	614.37	90.40	1.3657E-001		-7.8070E-002
	722.95	90.50	1.3090E-001		1.2528E-001
Sb-125	176.33	6.89	2.3606E+000	4.00E-001	1.6553E+000
	427.89	29.33	3.9959E-001		-2.3728E-003
	463.38	10.35	1.1640E+000		1.3981E-001
	600.56	17.80	5.7533E-001		-6.0801E-002
	606.64	5.02	2.8793E+000		5.2678E+000
	635.90	11.32	9.3416E-001		5.1409E-002
Cs-134	563.23	8.38	1.4706E+000	1.30E-001	1.6547E+000
	569.32	15.43	7.1760E-001		1.3439E-001
	604.70	97.60	1.3750E-001		3.9488E-002
	795.84	85.40	1.3018E-001		2.3319E-002
	801.93	8.73	1.2035E+000		-2.5539E-001
Cs-137	661.65	85.12	1.4150E-001	1.41E-001	4.3361E-002
Eu-152	121.78	28.40	7.8475E-001	3.33E-001	-8.9934E-002
	244.69	7.49	1.9789E+000		-5.8868E-001
	344.27	26.50	4.5728E-001		-1.6167E-001
	778.89	12.74	7.7038E-001		-6.9028E-001
	867.32	4.16	2.5894E+000		-2.0178E+000
	964.01	14.40	9.6456E-001		1.1939E-001
	1085.78	10.00	1.0208E+000		5.4501E-002
	1112.02	13.30	8.5009E-001		4.6779E-001
	1407.95	20.70	3.3345E-001		-1.0783E-001
Eu-154	123.07	40.50	5.3551E-001	2.74E-001	-3.3863E-001
	247.94	6.60	2.1618E+000		9.3932E-001
	591.81	4.83	2.3076E+000		1.5690E+000
	723.30	19.70	6.0315E-001		2.6675E-001
	756.87	4.33	2.4233E+000		2.3945E+000
	873.19	11.50	9.2371E-001		8.3496E-001
	996.32	10.30	9.1705E-001		-5.5770E-001
	1004.76	17.90	5.2581E-001		-4.3592E-001
	1274.45	35.50	2.7405E-001		2.3859E-001
Eu-155	86.54	30.90	1.3002E+000	1.30E+000	2.2353E+000
	105.31	20.70	1.3495E+000		1.5316E-001
Am-241	59.54	35.90	2.4752E+000	2.48E+000	-4.2168E-001
Cm-243	228.19	10.56	1.4098E+000	9.66E-001	-1.1237E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	9.6633E-001	9.66E-001	-8.9653E-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 7/31/2006 3:47:20 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: BRN7722

Spectrum File: BRN7722
Sample ID: NOL-02-04-127-F-
Sample Title: NOL-02-04-127-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 7/31/2006 3:37:18 PM
Live Time: 600.0 seconds
Real Time: 600.9 seconds

Energy Calibration Date: 6/29/2006
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-02-04-127-F-
Title: NOL-02-04-127-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	285-	304	291.57	72.98	1.00	2.12E+002	45.36	7.01E+002
m	2	285-	304	299.93	75.07	1.00	2.94E+002	51.38	8.59E+002
	3	948-	961	954.51	238.73	0.99	2.81E+002	65.13	2.98E+002
	4	1174-	1185	1180.42	295.21	1.46	7.82E+001	40.70	1.41E+002
	5	1347-	1359	1353.15	338.39	1.29	8.55E+001	41.95	1.41E+002
	6	1400-	1414	1407.62	352.01	1.16	1.48E+002	46.52	1.44E+002
	7	2036-	2053	2043.44	510.97	1.53	1.03E+002	45.41	1.33E+002
	8	2325-	2338	2331.44	582.98	1.07	1.54E+002	40.37	9.58E+001
	9	2427-	2444	2436.83	609.33	1.34	1.57E+002	40.51	8.32E+001
	10	3636-	3654	3644.61	911.29	1.18	1.69E+002	36.66	5.28E+001
	11	3870-	3884	3876.98	969.39	1.26	8.58E+001	29.36	4.82E+001
	12	5833-	5860	5846.16	1461.71	2.02	1.05E+003	64.02	3.28E+000
	13	7056-	7069	7062.47	1765.81	0.50	2.82E+001	14.21	8.78E+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: 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	1.000	511.00*		100.00	1.75082E-001	8.10792E-002
K-40	0.969	1460.81*		10.67	2.23356E+001	2.26161E+000
TL-208	0.752	277.35		6.80		
		510.84*		21.60	8.10565E-001	3.81159E-001
		583.14*		84.20	3.26055E-001	9.53566E-002
		860.37		12.46		
Pb-212	0.580	74.81*	@	10.70	9.55747E+000	2.51071E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	8.76500E-001	2.45261E-001
Bi-214	0.682	609.31*		46.30	6.11622E-001	1.75056E-001
		1120.29		15.10		
		1764.49*		15.80	4.40124E-001	2.25904E-001
PB-214	0.620	74.82*	@	6.21	1.64678E+001	4.48815E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	5.96728E-001	3.26267E-001
		351.92*		37.20	6.08663E-001	2.16502E-001
Ac-228	0.998	338.32*		11.40	1.13590E+000	5.84767E-001
		911.07*		27.70	1.21516E+000	2.98084E-001
		969.11*		16.60	1.04154E+000	3.72784E-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		1.000	1.046541E-001	8.362296E-002
K-40		0.969	2.233556E+001	2.261612E+000
TL-208		0.752	3.260553E-001	9.476267E-002
Pb-212	@	0.580	8.764998E-001	2.452607E-001
Bi-214		0.682	5.472770E-001	1.383727E-001
PB-214	@	0.620	6.050140E-001	1.803978E-001
Ac-228		0.998	1.145867E+000	2.162967E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	3.5367E-001	21.38

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: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	1.1736E-001	8.54E-002	1.6393E-002
	1332.49	100.00	8.5436E-002		-1.6961E-002
Nb-94	702.63	100.00	1.1941E-001	1.06E-001	-8.3291E-002
	871.10	100.00	1.0575E-001		-1.4937E-002
Ag-108m	79.20	7.10	7.2095E+000	1.26E-001	-1.3069E+001
	433.93	89.90	1.2554E-001		-1.2547E-001
	614.37	90.40	1.5219E-001		6.5101E-004
	722.95	90.50	1.3752E-001		5.3568E-002
Sb-125	176.33	6.89	2.4448E+000	3.95E-001	1.2350E-001
	427.89	29.33	3.9531E-001		-2.4874E-001
	463.38	10.35	1.1860E+000		6.8505E-001
	600.56	17.80	6.3094E-001		-3.3787E-002
	606.64	5.02	3.1246E+000		7.8394E+000
	635.90	11.32	9.5925E-001		-2.6135E-001
Cs-134	563.23	8.38	1.4536E+000	1.40E-001	1.1069E+000
	569.32	15.43	7.7516E-001		2.1890E-001
	604.70	97.60	1.4134E-001		-7.3002E-002
	795.84	85.40	1.4005E-001		6.5020E-002
	801.93	8.73	1.1800E+000		-8.2299E-001
Cs-137	661.65	85.12	1.3959E-001	1.40E-001	-6.6703E-002
Eu-152	121.78	28.40	8.2443E-001	3.86E-001	5.5619E-001
	244.69	7.49	2.0501E+000		5.0755E-001
	344.27	26.50	5.0617E-001		-8.4630E-002
	778.89	12.74	7.6017E-001		-3.6470E-001
	867.32	4.16	2.5697E+000		-3.9700E+000
	964.01	14.40	1.0091E+000		3.6183E-001
	1085.78	10.00	1.1336E+000		2.8477E-001
	1112.02	13.30	8.0657E-001		-5.3891E-001
	1407.95	20.70	3.8642E-001		5.8250E-002
Eu-154	123.07	40.50	5.7527E-001	2.90E-001	3.2529E-001
	247.94	6.60	2.1872E+000		-5.3656E-001
	591.81	4.83	2.4128E+000		3.3588E-001
	723.30	19.70	6.2519E-001		4.7063E-002
	756.87	4.33	2.5823E+000		-1.5320E-003
	873.19	11.50	9.4873E-001		-4.0846E-001
	996.32	10.30	1.0932E+000		1.6137E+000
	1004.76	17.90	5.7919E-001		3.6473E-001
	1274.45	35.50	2.9040E-001		-2.7345E-001
Eu-155	86.54	30.90	1.3553E+000	1.36E+000	9.3353E-001
	105.31	20.70	1.3747E+000		2.8902E-001
Am-241	59.54	35.90	2.4822E+000	2.48E+000	-1.0286E+000
Cm-243	228.19	10.56	1.5067E+000	1.01E+000	-4.1359E-002

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	1.0094E+000	1.01E+000	-2.0022E-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 7/31/2006 2:56:05 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: BRN7722

Spectrum File: BRN7722
Sample ID: NOL-02-04-128-F-
Sample Title: NOL-02-04-128-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 7/31/2006 2:46:02 PM
Live Time: 600.0 seconds
Real Time: 600.9 seconds

Energy Calibration Date: 6/29/2006
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-02-04-128-F-
Title: NOL-02-04-128-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	287-	306	291.70	73.01	0.83	1.75E+002	44.78	5.93E+002
m	2	287-	306	299.98	75.08	0.83	2.96E+002	51.35	7.63E+002
	3	947-	961	953.91	238.58	0.95	1.87E+002	69.42	3.68E+002
	4	1346-	1360	1352.83	338.31	1.38	8.16E+001	45.13	1.55E+002
	5	1398-	1414	1407.59	352.00	1.17	1.47E+002	49.49	1.57E+002
	6	1845-	1855	1850.84	462.82	0.92	2.36E+001	29.65	8.54E+001
	7	2038-	2052	2043.14	510.90	1.36	7.57E+001	41.48	1.26E+002
	8	2321-	2342	2332.40	583.22	1.83	2.04E+002	48.25	1.07E+002
	9	2425-	2445	2436.71	609.30	0.69	1.49E+002	44.63	1.02E+002
	10	2640-	2652	2646.86	661.84	0.32	5.64E+001	29.80	6.66E+001
	11	2903-	2914	2908.65	727.29	0.62	2.66E+001	23.43	4.64E+001
	12	3174-	3186	3180.11	795.16	1.19	4.16E+001	18.76	1.84E+001
	13	3635-	3654	3644.95	911.37	1.61	1.35E+002	37.32	6.50E+001
	14	3868-	3886	3876.45	969.25	1.54	9.53E+001	35.09	6.67E+001
	15	5834-	5859	5846.60	1461.82	1.82	9.94E+002	64.15	1.86E+001
	16	7056-	7069	7062.91	1765.92	0.84	2.53E+001	12.96	6.67E+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: 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	0.961	1460.81*	10.67	2.10989E+001	2.18413E+000
Cs-137	0.999	661.65*	85.12	1.22913E-001	6.65218E-002
TL-208	0.753	277.35	6.80		
		510.84*	21.60	5.98095E-001	3.41221E-001
		583.14*	84.20	4.31060E-001	1.16459E-001
		860.37	12.46		
Bi-212	0.999	727.17*	11.80	4.27070E-001	3.79233E-001
Pb-212	0.580	74.81* @	10.70	9.63982E+000	2.52146E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	5.84473E-001	2.35105E-001
Bi-214	0.679	609.31*	46.30	5.81720E-001	1.88242E-001
		1120.29	15.10		
		1764.49*	15.80	3.95085E-001	2.05993E-001
Ac-228	0.998	338.32*	11.40	1.08348E+000	6.22796E-001
		911.07*	27.70	9.69689E-001	2.90336E-001
		969.11*	16.60	1.15657E+000	4.42893E-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
X	ANN		1.000		
	K-40		0.961	2.109893E+001	2.184127E+000
	Cs-137		0.999	1.229135E-001	6.652184E-002
	TL-208		0.753	4.484874E-001	1.102168E-001
	Bi-212		0.999	4.270700E-001	3.792332E-001
	Pb-212	@	0.580	5.844732E-001	2.351051E-001
	Bi-214		0.679	4.967893E-001	1.389596E-001
	Ac-228		0.998	1.033462E+000	2.262279E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.9143E-001	25.61
5	352.00	2.4518E-001	33.64
6	462.82	3.9297E-002	125.74
12	795.16	6.9354E-002	45.08

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: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	1.1736E-001	8.67E-002	4.6982E-002
		1332.49	100.00	8.6709E-002		1.4938E-002
	Nb-94	702.63	100.00	1.1287E-001	1.02E-001	1.6231E-002
		871.10	100.00	1.0191E-001		-5.9112E-002
	Ag-108m	79.20	7.10	7.3561E+000	1.35E-001	-5.7576E-001
		433.93	89.90	1.3801E-001		-1.0527E-002
		614.37	90.40	1.5599E-001		-5.3663E-002
		722.95	90.50	1.3499E-001		-1.9081E-002
	Sb-125	176.33	6.89	2.5231E+000	4.16E-001	1.1005E+000
		427.89	29.33	4.1625E-001		2.2648E-001
		463.38	10.35	1.2565E+000		6.1554E-001
		600.56	17.80	6.9519E-001		6.8297E-002
		606.64	5.02	3.2110E+000		8.7571E-002
		635.90	11.32	1.0133E+000		-4.7532E-001
	Cs-134	563.23	8.38	1.4672E+000	1.36E-001	-2.4700E-001
		569.32	15.43	8.2679E-001		6.0632E-002
		604.70	97.60	1.5351E-001		2.9261E-002
		795.84	85.40	1.3585E-001		8.9703E-002
		801.93	8.73	1.1895E+000		-7.1814E-001
+	Cs-137	661.65*	85.12	1.0066E-001	1.01E-001	1.2291E-001
	Eu-152	121.78	28.40	8.1097E-001	4.13E-001	7.7450E-002
		244.69	7.49	2.1906E+000		8.4104E-001
		344.27	26.50	5.1123E-001		2.6342E-001
		778.89	12.74	8.6550E-001		7.1668E-002
		867.32	4.16	2.5597E+000		-1.5698E+000
		964.01	14.40	1.0157E+000		2.2549E-001
		1085.78	10.00	9.5653E-001		-1.0122E+000
		1112.02	13.30	8.3695E-001		-5.1003E-002
		1407.95	20.70	4.1343E-001		2.1809E-001
	Eu-154	123.07	40.50	5.5995E-001	2.80E-001	-4.1823E-001
		247.94	6.60	2.2707E+000		6.4475E-001
		591.81	4.83	2.4256E+000		-1.3786E+000
		723.30	19.70	6.1343E-001		-1.7279E-001
		756.87	4.33	2.6247E+000		-9.5938E-001
		873.19	11.50	9.0909E-001		-4.7968E-001
		996.32	10.30	9.8701E-001		1.1334E-001
		1004.76	17.90	5.5584E-001		2.3022E-001
		1274.45	35.50	2.8011E-001		-1.4970E-002
	Eu-155	86.54	30.90	1.3682E+000	1.37E+000	1.7631E+000
		105.31	20.70	1.4213E+000		1.3087E+000
	Am-241	59.54	35.90	2.5852E+000	2.59E+000	1.4486E-001
	Cm-243	228.19	10.56	1.5253E+000	1.03E+000	1.2983E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	1.0337E+000	1.03E+000	8.0180E-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 8/3/2006 9:49:50 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: ORG7829

Spectrum File: ORG7829
Sample ID: NOL-02-04-129-F
Sample Title: NOL-02-04-129-F
Description:

Sample Type:
Geometry:

Acquisition Started: 8/3/2006 9:39:47 AM
Live Time: 600.0 seconds
Real Time: 601.4 seconds

Energy Calibration Date: 7/20/2006
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-02-04-129-F
Title: NOL-02-04-129-F
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	300.92	75.19	0.85	2.60E+002	101.63	9.19E+002
2	948-	961	954.68	238.65	0.87	2.22E+002	62.61	2.87E+002
3	1397-	1413	1408.11	352.02	0.37	9.78E+001	50.83	1.83E+002
4	2322-	2341	2331.81	582.98	1.57	1.17E+002	44.01	1.10E+002
5	2429-	2447	2436.80	609.23	1.71	1.20E+002	38.17	7.67E+001
6	3636-	3653	3644.20	911.12	0.40	1.09E+002	31.37	4.50E+001
7	3866-	3883	3875.31	968.90	0.82	7.41E+001	26.66	3.39E+001
8	5829-	5857	5844.01	1461.14	1.99	1.12E+003	67.16	1.10E+001
9	7054-	7067	7060.67	1765.35	0.37	2.78E+001	12.73	5.23E+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

N U C L I 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	0.996	1460.81*	10.67	2.55255E+001	2.56922E+000
TL-208	0.471	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	2.60480E-001	1.03916E-001
		860.37	12.46		
Pb-212	0.593	74.81* @	10.70	1.00435E+001	4.39682E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	7.23380E-001	2.33744E-001
Bi-214	0.692	609.31*	46.30	4.95813E-001	1.68732E-001
		1120.29	15.10		
		1764.49*	15.80	4.51680E-001	2.11971E-001
Ac-228	0.632	338.32	11.40		
		911.07*	27.70	8.29669E-001	2.57115E-001
		969.11*	16.60	9.56711E-001	3.58486E-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	0.996	2.552546E+001	2.569222E+000
TL-208	0.471	2.604800E-001	1.039162E-001
Pb-212 @	0.593	7.233797E-001	2.337441E-001
Bi-214	0.692	4.786951E-001	1.320138E-001
Ac-228	0.632	8.728221E-001	2.089323E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	1.6302E-001	51.96

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: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	1.2341E-001	1.03E-001	-4.3703E-003
	1332.49	100.00	1.0264E-001		-1.4093E-002
Nb-94	702.63	100.00	1.2568E-001	1.13E-001	4.0982E-002
	871.10	100.00	1.1329E-001		-7.4627E-002
Ag-108m	79.20	7.10	1.0470E+001	1.49E-001	-5.2896E+000
	433.93	89.90	1.4877E-001		-1.0068E-001
	614.37	90.40	1.6813E-001		4.1481E-002
	722.95	90.50	1.4856E-001		-1.3232E-002
Sb-125	176.33	6.89	2.9058E+000	4.61E-001	-5.9023E-001
	427.89	29.33	4.6113E-001		5.4819E-002
	463.38	10.35	1.3047E+000		4.5288E-001
	600.56	17.80	7.3414E-001		-8.3343E-002
	606.64	5.02	3.2314E+000		6.4243E+000
	635.90	11.32	1.0622E+000		-1.8025E-001
Cs-134	563.23	8.38	1.5684E+000	1.51E-001	3.3399E-002
	569.32	15.43	8.7394E-001		5.2570E-002
	604.70	97.60	1.6551E-001		-6.8266E-002
	795.84	85.40	1.5087E-001		6.5485E-002
	801.93	8.73	1.4137E+000		-1.7617E+000
Cs-137	661.65	85.12	1.3935E-001	1.39E-001	-1.1894E-001
Eu-152	121.78	28.40	9.4183E-001	4.35E-001	-2.3849E-001
	244.69	7.49	2.4289E+000		-1.2943E+000
	344.27	26.50	5.6543E-001		-5.8225E-001
	778.89	12.74	9.8912E-001		-3.0254E-001
	867.32	4.16	2.8339E+000		-2.9020E+000
	964.01	14.40	1.0471E+000		-2.4728E-002
	1085.78	10.00	1.1620E+000		-2.4891E-001
	1112.02	13.30	1.0072E+000		4.2381E-001
	1407.95	20.70	4.3467E-001		1.0472E-001
Eu-154	123.07	40.50	6.5447E-001	3.35E-001	-4.1207E-001
	247.94	6.60	2.6600E+000		7.5936E-001
	591.81	4.83	2.6468E+000		-2.1723E+000
	723.30	19.70	6.8766E-001		-3.4026E-002
	756.87	4.33	2.8746E+000		1.4329E+000
	873.19	11.50	1.0194E+000		5.0924E-001
	996.32	10.30	1.1731E+000		-3.2152E-001
	1004.76	17.90	6.5145E-001		-5.6907E-001
	1274.45	35.50	3.3533E-001		5.7035E-002
Eu-155	86.54	30.90	1.8136E+000	1.77E+000	3.1391E+000
	105.31	20.70	1.7721E+000		1.7566E+000
Am-241	59.54	35.90	5.0009E+000	5.00E+000	-6.5481E+000
Cm-243	228.19	10.56	1.6397E+000	1.20E+000	-1.3953E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.2016E+000	1.20E+000	3.5755E-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 7/31/2006 1:45:37 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: ORG7829

Spectrum File: ORG7829
Sample ID: NOL-02-04-130-F-
Sample Title: NOL-02-04-130-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 7/31/2006 1:35:35 PM
Live Time: 600.0 seconds
Real Time: 601.3 seconds

Energy Calibration Date: 7/20/2006
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-02-04-130-F-
Title: NOL-02-04-130-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	293-	307	300.92	75.19	1.61	2.36E+002	109.28	9.97E+002
2	945-	964	955.52	238.86	1.84	2.40E+002	79.31	3.98E+002
3	1348-	1358	1353.10	338.27	0.38	4.71E+001	34.28	1.08E+002
4	2323-	2343	2333.28	583.34	1.34	1.68E+002	42.96	8.63E+001
5	2431-	2449	2438.79	609.72	0.87	8.39E+001	39.47	9.51E+001
6	3637-	3658	3646.69	911.74	1.05	1.15E+002	37.85	6.86E+001
7	3870-	3888	3878.16	969.61	2.12	7.78E+001	28.87	4.12E+001
8	5832-	5862	5847.95	1462.13	2.32	9.65E+002	62.67	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

N U C L I 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	0.944	1460.81*	10.67	2.19454E+001	2.27745E+000
TL-208	0.471	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.74306E-001	1.07570E-001
		860.37	12.46		
Pb-212	0.592	74.81* @	10.70	9.13878E+000	4.59109E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	7.83374E-001	2.86586E-001
Bi-214	0.399	609.31*	46.30	3.45880E-001	1.68146E-001
		1120.29	15.10		
		1764.49	15.80		
Ac-228	0.990	338.32*	11.40	6.53956E-001	4.86998E-001
		911.07*	27.70	8.78746E-001	3.05337E-001
		969.11*	16.60	1.00433E+000	3.87395E-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		0.944	2.194540E+001	2.277452E+000
TL-208		0.471	3.743057E-001	1.075699E-001
Pb-212	@	0.592	7.833737E-001	2.865855E-001
Bi-214		0.399	3.458804E-001	1.681456E-001
Ac-228		0.990	8.736091E-001	2.151367E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	1.3113E-001	1.00E-001	-3.7613E-002
	1332.49	100.00	1.0011E-001		-2.5193E-003
Nb-94	702.63	100.00	1.2170E-001	1.18E-001	1.0180E-001
	871.10	100.00	1.1842E-001		3.1458E-002
Ag-108m	79.20	7.10	1.0140E+001	1.39E-001	-6.5967E+000
	433.93	89.90	1.4632E-001		1.9433E-002
	614.37	90.40	1.6451E-001		-7.1481E-002
	722.95	90.50	1.3856E-001		-2.2668E-002
Sb-125	176.33	6.89	2.9465E+000	4.53E-001	5.8292E-001
	427.89	29.33	4.5298E-001		-1.7683E-001
	463.38	10.35	1.2803E+000		5.0691E-001
	600.56	17.80	7.4626E-001		1.4932E-001
	606.64	5.02	3.1710E+000		-1.6741E-001
	635.90	11.32	1.1109E+000		-3.0294E-001
Cs-134	563.23	8.38	1.6936E+000	1.49E-001	1.5753E+000
	569.32	15.43	8.7582E-001		3.0400E-001
	604.70	97.60	1.5571E-001		-1.0600E-001
	795.84	85.40	1.4870E-001		1.2444E-001
	801.93	8.73	1.3643E+000		-1.0107E+000
Cs-137	661.65	85.12	1.4569E-001	1.46E-001	2.5278E-002
Eu-152	121.78	28.40	1.0265E+000	3.85E-001	3.0818E-001
	244.69	7.49	2.4359E+000		-5.9120E-001
	344.27	26.50	5.2568E-001		-7.1153E-001
	778.89	12.74	9.3811E-001		-2.4028E-001
	867.32	4.16	2.8640E+000		-3.0928E+000
	964.01	14.40	1.0495E+000		1.1226E-001
	1085.78	10.00	1.1475E+000		3.7624E-001
	1112.02	13.30	9.4552E-001		-4.8338E-002
	1407.95	20.70	3.8477E-001		2.3949E-001
Eu-154	123.07	40.50	7.2248E-001	3.35E-001	6.5421E-001
	247.94	6.60	2.6289E+000		7.8336E-001
	591.81	4.83	2.6337E+000		-3.7153E-001
	723.30	19.70	6.3292E-001		-7.0909E-002
	756.87	4.33	2.7785E+000		2.5441E+000
	873.19	11.50	1.0412E+000		3.8747E-001
	996.32	10.30	1.1207E+000		-6.2844E-002
	1004.76	17.90	6.4114E-001		1.0242E-001
	1274.45	35.50	3.3533E-001		3.3804E-002
Eu-155	86.54	30.90	1.7063E+000	1.69E+000	1.9658E+000
	105.31	20.70	1.6896E+000		-3.7031E-001
Am-241	59.54	35.90	5.1160E+000	5.12E+000	5.9813E-001
Cm-243	228.19	10.56	1.6819E+000	1.13E+000	1.4655E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.1296E+000	1.13E+000	-8.4782E-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 8/1/2006 7:30:53 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: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-02-04-131-F-G
Sample ID: NOL-02-04-139-F
Sample Title: NOL-02-04-131-F-G
Description: Large Rock

Sample Type:
Geometry:

Acquisition Started: 7/31/2006 1:05:38 PM
Live Time: 600.0 seconds
Real Time: 601.2 seconds

Energy Calibration Date: 7/20/2006
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: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-02-04-131-F-G
Log Number: NOL-02-04-139-F
Title: NOL-02-04-131-F-G
Description: Large Rock

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	949-	964	954.65	238.64	1.21	1.78E+002	67.46	3.33E+002
2	2040-	2052	2045.12	511.29	1.46	7.03E+001	34.68	9.17E+001
3	2325-	2346	2334.36	583.61	1.47	1.41E+002	44.90	9.88E+001
4	2427-	2449	2437.49	609.40	0.71	1.39E+002	40.40	7.38E+001
5	3638-	3657	3646.62	911.72	0.82	9.92E+001	37.16	7.18E+001
6	3869-	3888	3879.03	969.83	0.53	8.99E+001	28.62	3.51E+001
7	5832-	5862	5847.87	1462.11	2.26	9.58E+002	63.00	1.55E+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-02-04-131-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
ANN	0.997	511.00*		100.00	1.26360E-001	6.46233E-002
K-40	0.946	1460.81*		10.67	2.17674E+001	2.27087E+000
TL-208	0.747	277.35		6.80		
		510.84*		21.60	5.85000E-001	3.02972E-001
		583.14*		84.20	3.15300E-001	1.08316E-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	5.79923E-001	2.38237E-001
Bi-214	0.402	609.31*		46.30	5.73489E-001	1.80825E-001
		1120.29		15.10		
		1764.49		15.80		
Ac-228	0.621	338.32		11.40		
		911.07*		27.70	7.55288E-001	2.95890E-001
		969.11*		16.60	1.16113E+000	3.89041E-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-02-04-131-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
ANN		0.997	5.825526E-002	6.869224E-002
K-40		0.946	2.176737E+001	2.270873E+000
TL-208		0.747	3.152995E-001	1.078271E-001
Pb-212	@	0.446	5.799227E-001	2.382367E-001
Bi-214		0.402	5.734893E-001	1.808245E-001
Ac-228		0.621	9.040159E-001	2.355126E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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-02-04-131-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	1.2341E-001	1.06E-001	-9.2024E-002
	1332.49	100.00	1.0572E-001		3.1240E-002
Nb-94	702.63	100.00	1.2674E-001	1.22E-001	1.2867E-001
	871.10	100.00	1.2212E-001		1.0792E-001
Ag-108m	79.20	7.10	1.0104E+001	1.50E-001	-1.5146E+001
	433.93	89.90	1.5865E-001		5.2064E-002
	614.37	90.40	1.7168E-001		6.9980E-002
	722.95	90.50	1.4967E-001		6.5839E-002
Sb-125	176.33	6.89	2.9277E+000	4.58E-001	8.7492E-001
	427.89	29.33	4.5789E-001		-1.6067E-001
	463.38	10.35	1.3047E+000		3.9213E-001
	600.56	17.80	7.1646E-001		5.6022E-001
	606.64	5.02	3.1710E+000		-1.3598E-001
	635.90	11.32	1.0653E+000		6.9065E-001
Cs-134	563.23	8.38	1.5255E+000	1.40E-001	1.3185E+000
	569.32	15.43	8.1760E-001		-1.5356E-001
	604.70	97.60	1.5734E-001		3.3243E-002
	795.84	85.40	1.3969E-001		-3.6386E-002
	801.93	8.73	1.2936E+000		-1.8976E+000
Cs-137	661.65	85.12	1.4975E-001	1.50E-001	-2.5247E-002
Eu-152	121.78	28.40	9.5538E-001	4.20E-001	-4.9861E-001
	244.69	7.49	2.4149E+000		5.0130E-001
	344.27	26.50	5.3402E-001		-4.7642E-001
	778.89	12.74	9.1307E-001		-5.2806E-001
	867.32	4.16	2.9618E+000		-2.8765E-001
	964.01	14.40	9.9596E-001		2.7673E-001
	1085.78	10.00	1.1620E+000		-7.0100E-001
	1112.02	13.30	9.4216E-001		-1.2788E-001
	1407.95	20.70	4.2000E-001		-3.4751E-002
Eu-154	123.07	40.50	6.7371E-001	2.98E-001	2.4773E-001
	247.94	6.60	2.5783E+000		-2.8463E+000
	591.81	4.83	2.5267E+000		-3.3236E-001
	723.30	19.70	6.9774E-001		1.1370E+000
	756.87	4.33	3.0169E+000		-5.1366E-001
	873.19	11.50	1.0194E+000		-2.5713E-002
	996.32	10.30	1.1515E+000		-4.3572E-001
	1004.76	17.90	6.6160E-001		-1.0226E+000
	1274.45	35.50	2.9819E-001		1.1228E-001
Eu-155	86.54	30.90	1.6800E+000	1.67E+000	1.5244E+000
	105.31	20.70	1.6652E+000		7.2535E-001
Am-241	59.54	35.90	5.2858E+000	5.29E+000	2.5516E-002
Cm-243	228.19	10.56	1.6733E+000	1.17E+000	3.6225E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.1656E+000	1.17E+000	-8.7592E-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 7/31/2006 2:45:52 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: YEL7810

Spectrum File: YEL7810
Sample ID: NOL-02-04-132-F-
Sample Title: NOL-02-04-132-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 7/31/2006 2:35:56 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-02-04-132-F-
Title: NOL-02-04-132-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	292-	309	301.10	75.30	1.27	3.25E+002	125.03	1.15E+003
2	949-	963	954.82	238.74	1.35	1.93E+002	71.55	3.91E+002
3	1398-	1417	1407.00	351.80	1.17	1.50E+002	52.97	1.66E+002
4	2034-	2052	2041.60	510.46	0.84	1.13E+002	43.83	1.13E+002
5	2325-	2340	2331.86	583.04	1.21	1.52E+002	38.89	8.03E+001
6	2429-	2446	2436.42	609.18	1.42	1.54E+002	36.95	6.19E+001
7	3174-	3185	3179.84	795.05	0.42	2.49E+001	20.60	3.41E+001
8	3635-	3654	3644.72	911.28	0.62	1.21E+002	37.34	6.92E+001
9	5831-	5859	5845.02	1461.41	2.30	1.01E+003	64.15	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

N U C L I 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	0.990	511.00*	100.00	2.01042E-001	8.23037E-002
K-40	0.987	1460.81*	10.67	2.32868E+001	2.39817E+000
TL-208	0.750	277.35	6.80		
		510.84*	21.60	9.30750E-001	3.88543E-001
		583.14*	84.20	3.36419E-001	9.67238E-002
		860.37	12.46		
Pb-212	0.575	74.81* @	10.70	1.00103E+001	4.32694E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	5.97479E-001	2.40072E-001
Bi-214	0.406	609.31*	46.30	6.32388E-001	1.70467E-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
ANN	0.990	1.283754E-001	8.488101E-002
K-40	0.987	2.328680E+001	2.398173E+000
TL-208	0.750	3.364189E-001	9.610043E-002
Pb-212 @	0.575	5.974792E-001	2.400721E-001
Bi-214	0.406	6.323884E-001	1.704671E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.5062E-001	35.22
7	795.05	4.1490E-002	82.74
8	911.28	2.0129E-001	30.91

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

Errors quoted at 1.960 sigma

Y A N K E E 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	1.2444E-001	9.01E-002	1.5231E-001
	1332.49	100.00	9.0091E-002		-1.2136E-002
Nb-94	702.63	100.00	1.2705E-001	1.09E-001	7.8005E-003
	871.10	100.00	1.0947E-001		-3.1058E-002
Ag-108m	79.20	7.10	7.8137E+000	1.48E-001	-6.5747E+000
	433.93	89.90	1.5171E-001		6.4533E-002
	614.37	90.40	1.5897E-001		3.6416E-002
	722.95	90.50	1.4848E-001		2.6523E-002
Sb-125	176.33	6.89	2.7483E+000	4.68E-001	-4.4596E-001
	427.89	29.33	4.6779E-001		-7.7293E-002
	463.38	10.35	1.3113E+000		-1.4576E-001
	600.56	17.80	7.1834E-001		6.3208E-002
	606.64	5.02	3.2814E+000		-3.0458E-001
	635.90	11.32	1.1294E+000		4.9134E-001
Cs-134	563.23	8.38	1.5309E+000	1.43E-001	4.7865E-002
	569.32	15.43	8.5414E-001		5.1547E-001
	604.70	97.60	1.6089E-001		-2.0960E-002
	795.84	85.40	1.4315E-001		-5.7631E-002
	801.93	8.73	1.3343E+000		-5.9664E-001
Cs-137	661.65	85.12	1.5569E-001	1.56E-001	1.1128E-001
Eu-152	121.78	28.40	8.9476E-001	4.39E-001	-4.9085E-001
	244.69	7.49	2.2802E+000		-4.9317E-001
	344.27	26.50	5.4275E-001		-3.1453E-001
	778.89	12.74	8.8938E-001		-7.8561E-001
	867.32	4.16	2.6827E+000		-2.8049E+000
	964.01	14.40	1.0422E+000		1.4441E-001
	1085.78	10.00	1.1286E+000		1.3735E-001
	1112.02	13.30	9.5047E-001		5.7740E-001
	1407.95	20.70	4.3923E-001		4.3110E-001
Eu-154	123.07	40.50	6.2132E-001	3.06E-001	-1.3242E-001
	247.94	6.60	2.3858E+000		-1.2009E+000
	591.81	4.83	2.5796E+000		1.2912E+000
	723.30	19.70	6.8895E-001		3.9642E-001
	756.87	4.33	2.8887E+000		-5.7590E-001
	873.19	11.50	9.6021E-001		-6.3691E-001
	996.32	10.30	1.1276E+000		7.2399E-002
	1004.76	17.90	5.7466E-001		-1.9868E-001
	1274.45	35.50	3.0558E-001		-3.7272E-002
Eu-155	86.54	30.90	1.4445E+000	1.44E+000	1.8242E+000
	105.31	20.70	1.5300E+000		-2.1447E-001
Am-241	59.54	35.90	2.8578E+000	2.86E+000	-1.4120E+000
Cm-243	228.19	10.56	1.6298E+000	1.13E+000	1.2464E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	1.1313E+000	1.13E+000	-6.2165E-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 7/31/2006 3:01:37 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: YEL7810

Spectrum File: YEL7810
Sample ID: NOL-02-04-133-F-
Sample Title: NOL-02-04-133-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 7/31/2006 2:51:36 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-02-04-133-F-
Title: NOL-02-04-133-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	946-	964	954.01	238.54	1.53	2.41E+002	81.53	4.36E+002
2	1400-	1415	1406.96	351.79	0.99	1.05E+002	47.72	1.62E+002
3	2323-	2340	2332.24	583.13	1.33	1.18E+002	41.09	9.89E+001
4	3635-	3654	3644.14	911.14	1.11	1.06E+002	35.00	6.06E+001
5	5829-	5858	5844.22	1461.21	2.25	9.37E+002	62.27	1.51E+001
6	7054-	7067	7060.87	1765.40	0.33	3.07E+001	13.20	5.27E+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
K-40	0.994	1460.81*		10.67	2.16423E+001	2.26707E+000
TL-208	0.470	277.35		6.80		
		510.84		21.60		
		583.14*		84.20	2.61985E-001	9.73015E-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	7.45246E-001	2.77597E-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	0.994	2.164228E+001	2.267072E+000
TL-208	0.470	2.619849E-001	9.730149E-002
Pb-212 @	0.420	7.452460E-001	2.775973E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	351.79	1.7530E-001	45.38
4	911.14	1.7731E-001	32.90
6	1765.40	5.1215E-002	42.96

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: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	9.22E-002	3.5528E-002
	1332.49	100.00	9.2228E-002		1.0058E-002
Nb-94	702.63	100.00	1.2239E-001	1.06E-001	-2.6772E-002
	871.10	100.00	1.0579E-001		-1.4130E-001
Ag-108m	79.20	7.10	7.9442E+000	1.45E-001	-1.5914E+001
	433.93	89.90	1.5121E-001		8.3809E-002
	614.37	90.40	1.5483E-001		-2.1091E-001
	722.95	90.50	1.4472E-001		6.1332E-002
Sb-125	176.33	6.89	2.7037E+000	4.60E-001	-7.4085E-001
	427.89	29.33	4.6014E-001		2.4243E-001
	463.38	10.35	1.3411E+000		1.3356E+000
	600.56	17.80	6.6691E-001		1.8296E-001
	606.64	5.02	3.1473E+000		5.5126E+000
	635.90	11.32	1.1177E+000		3.0383E-001
Cs-134	563.23	8.38	1.6105E+000	1.38E-001	6.5308E-001
	569.32	15.43	8.0132E-001		-6.6862E-001
	604.70	97.60	1.4890E-001		-1.1538E-001
	795.84	85.40	1.3807E-001		1.2948E-001
	801.93	8.73	1.3436E+000		-3.3034E-001
Cs-137	661.65	85.12	1.6099E-001	1.61E-001	1.7033E-001
Eu-152	121.78	28.40	8.7350E-001	4.36E-001	-7.0110E-001
	244.69	7.49	2.3051E+000		-2.6170E+000
	344.27	26.50	5.3300E-001		-6.0180E-001
	778.89	12.74	8.8285E-001		-7.4031E-001
	867.32	4.16	2.6933E+000		-1.5431E+000
	964.01	14.40	1.0374E+000		4.9352E-001
	1085.78	10.00	1.0686E+000		-6.7079E-002
	1112.02	13.30	9.3725E-001		-2.3809E-001
	1407.95	20.70	4.3557E-001		4.0643E-001
Eu-154	123.07	40.50	6.0993E-001	3.01E-001	-3.2071E-002
	247.94	6.60	2.5089E+000		6.0146E-001
	591.81	4.83	2.5261E+000		-1.7289E-001
	723.30	19.70	6.5961E-001		3.2464E-001
	756.87	4.33	2.7577E+000		-1.7969E+000
	873.19	11.50	9.1632E-001		-6.3285E-001
	996.32	10.30	1.0116E+000		-5.4850E-001
	1004.76	17.90	6.1632E-001		2.2410E-002
	1274.45	35.50	3.0074E-001		3.9249E-001
Eu-155	86.54	30.90	1.4138E+000	1.41E+000	1.1798E+000
	105.31	20.70	1.5381E+000		5.6818E-001
Am-241	59.54	35.90	2.9280E+000	2.93E+000	5.6701E-001
Cm-243	228.19	10.56	1.6230E+000	1.08E+000	3.0718E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	1.0846E+000	1.08E+000	6.8908E-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 7/31/2006 3:17:27 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: YEL7810

Spectrum File: YEL7810
Sample ID: NOL-02-04-134-F-
Sample Title: NOL-02-04-134-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 7/31/2006 3:07:24 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-02-04-134-F-
Title: NOL-02-04-134-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	281-	305	290.78	72.72	0.98	1.03E+002	41.51	8.57E+002
m	2	281-	305	299.40	74.87	0.98	2.53E+002	51.58	9.62E+002
	3	947-	963	954.55	238.68	1.26	3.22E+002	76.60	3.84E+002
	4	1348-	1358	1352.80	338.25	0.99	5.52E+001	36.03	1.18E+002
	5	1400-	1416	1407.68	351.97	1.50	1.42E+002	48.39	1.49E+002
	6	2323-	2340	2332.00	583.07	0.97	1.50E+002	38.73	7.40E+001
	7	2427-	2445	2436.05	609.08	1.22	1.81E+002	41.01	7.60E+001
	8	3632-	3652	3643.71	911.03	1.53	1.41E+002	35.27	5.06E+001
	9	3868-	3884	3874.75	968.79	0.72	7.83E+001	29.42	4.68E+001
	10	5832-	5856	5844.58	1461.30	1.92	8.75E+002	60.08	1.56E+001
	11	7053-	7067	7060.75	1765.37	0.32	4.15E+001	14.82	5.49E+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
K-40	0.992	1460.81*	10.67	2.02239E+001	2.14647E+000
TL-208	0.470	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.32588E-001	9.61957E-002
		860.37	12.46		
Pb-212	0.576	74.81* @	10.70	7.93738E+000	2.24511E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	9.95367E-001	2.83468E-001
Bi-214	0.689	609.31*	46.30	7.42703E-001	1.91540E-001
		1120.29	15.10		
		1764.49*	15.80	7.06692E-001	2.61995E-001
Ac-228	0.999	338.32*	11.40	7.39161E-001	4.96669E-001
		911.07*	27.70	1.07310E+000	2.94735E-001
		969.11*	16.60	1.00532E+000	3.92418E-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		0.992	2.022391E+001	2.146466E+000
TL-208		0.470	3.325880E-001	9.619568E-002
Pb-212	@	0.576	9.953674E-001	2.834682E-001
Bi-214		0.689	7.301598E-001	1.546243E-001
Ac-228		0.999	9.917791E-001	2.129139E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	1.7159E-001	40.32
5	351.97	2.3630E-001	34.13

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: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	9.22E-002	7.9171E-002
	1332.49	100.00	9.2228E-002		1.0929E-002
Nb-94	702.63	100.00	1.1792E-001	1.13E-001	-5.2069E-002
	871.10	100.00	1.1346E-001		-1.0926E-002
Ag-108m	79.20	7.10	7.7891E+000	1.43E-001	-8.2403E+000
	433.93	89.90	1.4314E-001		1.0295E-002
	614.37	90.40	1.6146E-001		-2.8239E-002
	722.95	90.50	1.5069E-001		2.7818E-002
Sb-125	176.33	6.89	2.7240E+000	4.37E-001	-1.8151E+000
	427.89	29.33	4.3714E-001		5.4554E-002
	463.38	10.35	1.4415E+000		7.4438E-001
	600.56	17.80	6.8388E-001		1.2737E-001
	606.64	5.02	3.3960E+000		7.6905E+000
	635.90	11.32	1.0125E+000		-8.2809E-001
Cs-134	563.23	8.38	1.4766E+000	1.47E-001	-8.3299E-001
	569.32	15.43	7.9114E-001		1.5896E-001
	604.70	97.60	1.6452E-001		-5.2407E-002
	795.84	85.40	1.4716E-001		1.5549E-001
	801.93	8.73	1.2270E+000		-2.2799E+000
Cs-137	661.65	85.12	1.5297E-001	1.53E-001	6.8031E-002
Eu-152	121.78	28.40	8.8260E-001	4.01E-001	1.6984E-001
	244.69	7.49	2.2517E+000		-7.1987E-001
	344.27	26.50	5.2664E-001		1.2899E-001
	778.89	12.74	9.5819E-001		3.5437E-001
	867.32	4.16	2.7248E+000		-4.5390E+000
	964.01	14.40	1.0445E+000		-1.8058E-001
	1085.78	10.00	1.1668E+000		-3.8421E-001
	1112.02	13.30	8.5706E-001		-5.4111E-002
	1407.95	20.70	4.0105E-001		-2.1642E-001
Eu-154	123.07	40.50	6.1014E-001	2.92E-001	1.0603E-003
	247.94	6.60	2.4023E+000		-2.2649E+000
	591.81	4.83	2.5530E+000		5.4297E-001
	723.30	19.70	7.0066E-001		5.0594E-001
	756.87	4.33	2.6851E+000		4.4811E-001
	873.19	11.50	9.6797E-001		-7.0050E-001
	996.32	10.30	1.0502E+000		6.4899E-001
	1004.76	17.90	6.0550E-001		-6.6014E-001
	1274.45	35.50	2.9249E-001		1.1905E-001
Eu-155	86.54	30.90	1.4453E+000	1.45E+000	2.5831E+000
	105.31	20.70	1.5145E+000		3.0007E-001
Am-241	59.54	35.90	2.8809E+000	2.88E+000	-5.8872E-001
Cm-243	228.19	10.56	1.6632E+000	1.12E+000	2.5928E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	1.1156E+000	1.12E+000	-2.1537E-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 7/31/2006 4:08:28 PM

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

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-02-04-135-F-
Sample Title: NOL-02-04-135-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 7/31/2006 3:58:26 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-02-04-135-F-
Title: NOL-02-04-135-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	295-	308	299.83	74.98	1.27	1.71E+002	107.60	1.02E+003
2	944-	960	954.08	238.56	1.29	3.22E+002	76.08	3.79E+002
3	1173-	1188	1179.62	294.95	0.94	6.81E+001	51.67	2.06E+002
4	1400-	1415	1406.96	351.79	1.60	1.42E+002	46.98	1.44E+002
5	2324-	2342	2331.01	582.82	1.19	1.68E+002	41.00	8.01E+001
6	2428-	2443	2435.63	608.98	1.16	1.19E+002	35.28	6.82E+001
7	3173-	3187	3181.00	795.34	1.31	4.77E+001	23.50	3.33E+001
8	3632-	3654	3644.22	911.16	1.23	1.30E+002	37.95	6.32E+001
9	3867-	3884	3875.13	968.89	1.99	7.47E+001	30.67	5.23E+001
10	5832-	5858	5844.02	1461.16	2.08	9.33E+002	63.21	2.54E+001
11	7054-	7067	7060.68	1765.35	0.29	3.42E+001	17.34	1.58E+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	0.996	1460.81*	10.67	2.15429E+001	2.27468E+000
TL-208	0.467	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.72355E-001	1.03037E-001
		860.37	12.46		
Pb-212	0.576	74.81* @	10.70	5.32764E+000	3.52055E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	9.95426E-001	2.82110E-001
Bi-214	0.688	609.31*	46.30	4.87583E-001	1.56721E-001
		1120.29	15.10		
		1764.49*	15.80	5.82826E-001	3.00860E-001
PB-214	0.614	74.82* @	6.21	9.17966E+000	6.10250E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	5.20641E-001	4.04404E-001
		351.92*	37.20	5.91400E-001	2.18843E-001
Ac-228	0.628	338.32	11.40		
		911.07*	27.70	9.84677E-001	3.09448E-001
		969.11*	16.60	9.59290E-001	4.06656E-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		0.996	2.154290E+001	2.274678E+000
TL-208		0.467	3.723553E-001	1.030369E-001
Pb-212	@	0.576	9.954258E-001	2.821099E-001
Bi-214		0.688	5.079114E-001	1.389939E-001
PB-214	@	0.614	5.753725E-001	1.924689E-001
Ac-228		0.628	9.753675E-001	2.462573E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	795.34	7.9424E-002	49.31

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: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	1.2714E-001	9.50E-002	1.2678E-003
	1332.49	100.00	9.4998E-002		-1.9042E-002
Nb-94	702.63	100.00	1.1943E-001	1.10E-001	-2.2230E-002
	871.10	100.00	1.1037E-001		-1.4634E-002
Ag-108m	79.20	7.10	7.8092E+000	1.46E-001	-1.2464E+001
	433.93	89.90	1.4553E-001		-1.2066E-001
	614.37	90.40	1.5418E-001		-5.0903E-002
	722.95	90.50	1.4811E-001		1.0580E-002
Sb-125	176.33	6.89	2.8586E+000	4.39E-001	2.4234E-002
	427.89	29.33	4.3877E-001		-3.5118E-001
	463.38	10.35	1.3546E+000		5.1287E-001
	600.56	17.80	7.1301E-001		-6.4148E-001
	606.64	5.02	3.1976E+000		4.8651E+000
	635.90	11.32	1.1496E+000		-7.3662E-001
Cs-134	563.23	8.38	1.5238E+000	1.48E-001	-8.7174E-001
	569.32	15.43	8.1734E-001		3.6904E-002
	604.70	97.60	1.6063E-001		-5.4981E-002
	795.84	85.40	1.4760E-001		2.0839E-002
	801.93	8.73	1.2012E+000		-5.6375E-001
Cs-137	661.65	85.12	1.4154E-001	1.42E-001	-3.5379E-002
Eu-152	121.78	28.40	8.8638E-001	4.13E-001	-1.5381E-001
	244.69	7.49	2.3117E+000		-2.3073E+000
	344.27	26.50	5.2877E-001		-8.4334E-001
	778.89	12.74	8.8938E-001		-4.3020E-001
	867.32	4.16	2.7456E+000		-4.9025E+000
	964.01	14.40	1.0398E+000		-7.3554E-002
	1085.78	10.00	1.1383E+000		-1.1778E+000
	1112.02	13.30	9.0330E-001		-9.9238E-001
	1407.95	20.70	4.1290E-001		-4.7358E-002
Eu-154	123.07	40.50	6.1280E-001	3.15E-001	-1.2198E-001
	247.94	6.60	2.4792E+000		-1.2945E+000
	591.81	4.83	2.5329E+000		3.7539E-002
	723.30	19.70	6.8556E-001		1.5690E-001
	756.87	4.33	2.7217E+000		-1.5073E+000
	873.19	11.50	9.9835E-001		2.8025E-001
	996.32	10.30	1.1276E+000		1.5666E+000
	1004.76	17.90	6.8222E-001		-7.6604E-002
	1274.45	35.50	3.1503E-001		-7.8549E-002
Eu-155	86.54	30.90	1.4441E+000	1.44E+000	9.9722E-001
	105.31	20.70	1.5218E+000		1.7036E-001
Am-241	59.54	35.90	2.9519E+000	2.95E+000	2.7538E-001
Cm-243	228.19	10.56	1.6421E+000	1.15E+000	-1.2037E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	1.1458E+000	1.15E+000	6.0768E-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 7/31/2006 6:46:04 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-02-04-136-F-
Sample Title: NOL-02-04-136-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 7/31/2006 6:36:02 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-02-04-136-F-
Title: NOL-02-04-136-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	285-	306	291.04	72.78	1.08	1.24E+002	43.56	7.66E+002
m	2	285-	306	299.84	74.98	1.08	2.72E+002	52.03	1.08E+003
	3	330-	343	339.41	84.88	1.25	1.13E+002	96.47	8.38E+002
	4	947-	960	954.21	238.59	0.92	2.52E+002	69.10	3.60E+002
	5	1343-	1360	1352.22	338.10	1.01	6.06E+001	51.74	1.95E+002
	6	1398-	1414	1407.36	351.89	1.11	9.01E+001	52.63	2.02E+002
	7	2325-	2339	2332.12	583.10	1.46	1.66E+002	39.29	8.20E+001
	8	2425-	2443	2435.90	609.05	1.65	1.51E+002	41.19	8.65E+001
	9	3637-	3652	3644.55	911.24	2.23	1.05E+002	30.42	4.55E+001
	10	3866-	3884	3875.61	969.01	1.43	9.70E+001	30.93	4.50E+001
	11	4476-	4488	4481.02	1120.37	1.02	4.87E+001	21.59	2.73E+001
	12	5831-	5857	5843.74	1461.09	1.61	8.88E+002	60.97	1.90E+001
	13	7054-	7068	7060.65	1765.34	0.54	3.41E+001	15.86	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: 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	0.997	1460.81*	10.67	2.05131E+001	2.17757E+000
TL-208	0.470	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.68159E-001	9.94461E-002
		860.37	12.46		
Pb-212	0.576	74.81* @	10.70	8.49822E+000	2.32732E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	7.76932E-001	2.45749E-001
Bi-214	0.993	609.31*	46.30	6.17606E-001	1.85344E-001
		1120.29*	15.10	7.11331E-001	3.24598E-001
		1764.49*	15.80	5.80149E-001	2.76088E-001
Ac-228	0.999	338.32*	11.40	8.11884E-001	7.04920E-001
		911.07*	27.70	7.93294E-001	2.48216E-001
		969.11*	16.60	1.24687E+000	4.18274E-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	0.997	2.051312E+001	2.177575E+000
TL-208	0.470	3.681594E-001	9.944610E-002
Pb-212 @	0.576	7.769324E-001	2.457490E-001
Bi-214	0.993	6.253037E-001	1.390498E-001
Ac-228	0.999	9.030623E-001	2.042983E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.0673E-001	35.12
3	84.88	1.8790E-001	85.57
6	351.89	1.5022E-001	58.40

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

Errors quoted at 1.960 sigma

Y A N K E E 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	1.2214E-001	8.94E-002	-5.0616E-002
	1332.49	100.00	8.9366E-002		-3.0427E-002
Nb-94	702.63	100.00	1.1677E-001	1.07E-001	-4.7079E-002
	871.10	100.00	1.0719E-001		-3.1879E-003
Ag-108m	79.20	7.10	7.9332E+000	1.47E-001	-3.1792E+000
	433.93	89.90	1.5322E-001		-9.0554E-004
	614.37	90.40	1.5644E-001		8.3720E-003
	722.95	90.50	1.4699E-001		-6.0688E-002
Sb-125	176.33	6.89	2.8262E+000	4.46E-001	1.9880E-001
	427.89	29.33	4.4601E-001		-1.8501E-001
	463.38	10.35	1.3434E+000		4.2591E-001
	600.56	17.80	6.8574E-001		-4.4750E-002
	606.64	5.02	3.2570E+000		3.6499E+000
	635.90	11.32	1.0665E+000		-1.2036E+000
Cs-134	563.23	8.38	1.5380E+000	1.45E-001	9.0835E-001
	569.32	15.43	8.1137E-001		3.9484E-001
	604.70	97.60	1.6323E-001		-2.7451E-002
	795.84	85.40	1.4495E-001		1.5694E-001
	801.93	8.73	1.2770E+000		-9.3083E-001
Cs-137	661.65	85.12	1.4614E-001	1.46E-001	-6.0390E-002
Eu-152	121.78	28.40	9.2085E-001	3.72E-001	5.1967E-002
	244.69	7.49	2.3556E+000		-2.0070E+000
	344.27	26.50	5.2948E-001		-1.4544E-001
	778.89	12.74	8.8938E-001		-1.6511E+000
	867.32	4.16	2.6399E+000		-2.0945E+000
	964.01	14.40	1.0422E+000		-2.2355E-001
	1085.78	10.00	1.1286E+000		1.7948E-001
	1112.02	13.30	8.9983E-001		2.2978E-001
	1407.95	20.70	3.7179E-001		-1.2583E-001
Eu-154	123.07	40.50	6.3900E-001	3.02E-001	2.1060E-001
	247.94	6.60	2.4872E+000		-4.1866E-001
	591.81	4.83	2.7460E+000		-4.8612E-001
	723.30	19.70	6.7012E-001		-2.8056E-001
	756.87	4.33	2.8371E+000		7.3224E-001
	873.19	11.50	9.3253E-001		1.9476E-001
	996.32	10.30	9.7133E-001		-4.9885E-002
	1004.76	17.90	6.0002E-001		6.7033E-002
	1274.45	35.50	3.0237E-001		-1.3728E-001
Eu-155	86.54	30.90	1.4195E+000	1.42E+000	-9.1709E-001
	105.31	20.70	1.5873E+000		-2.1014E-001
Am-241	59.54	35.90	2.8551E+000	2.86E+000	-3.1564E+000
Cm-243	228.19	10.56	1.7067E+000	1.16E+000	-2.2610E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	1.1601E+000	1.16E+000	1.0348E+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 7/31/2006 6:08:36 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-02-04-137-F-
Sample Title: NOL-02-04-137-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 7/31/2006 5:58:38 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-02-04-137-F-
Title: NOL-02-04-137-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	295-	308	300.14	75.06	1.00	1.75E+002	108.75	1.05E+003
2	948-	963	954.36	238.63	1.16	2.26E+002	71.09	3.56E+002
3	1171-	1187	1180.90	295.27	1.30	1.02E+002	52.31	1.95E+002
4	1398-	1415	1407.61	351.95	1.03	1.41E+002	49.18	1.49E+002
5	2035-	2051	2042.74	510.75	0.93	1.10E+002	42.94	1.18E+002
6	2324-	2340	2331.56	582.96	1.58	1.84E+002	42.50	9.03E+001
7	2428-	2446	2436.30	609.15	1.55	1.78E+002	39.48	6.69E+001
8	2638-	2652	2644.49	661.20	0.25	4.22E+001	26.39	4.68E+001
9	3633-	3652	3644.37	911.19	1.30	1.11E+002	36.44	6.71E+001
10	5831-	5858	5845.04	1461.41	1.72	8.75E+002	62.44	3.13E+001
11	7055-	7069	7061.40	1765.53	0.80	4.12E+001	14.50	4.81E+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: 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	0.998	511.00*		100.00	1.94384E-001	8.05351E-002
K-40	0.987	1460.81*		10.67	2.02081E+001	2.18123E+000
Cs-137	0.993	661.65*		85.12	9.73430E-002	6.19098E-002
TL-208	0.751	277.35		6.80		
		510.84*		21.60	8.99928E-001	3.80022E-001
		583.14*		84.20	4.07411E-001	1.08142E-001
		860.37		12.46		
Pb-212	0.576	74.81*	@	10.70	5.44324E+000	3.55147E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	6.96571E-001	2.45247E-001
Bi-214	0.687	609.31*		46.30	7.30988E-001	1.85334E-001
		1120.29		15.10		
		1764.49*		15.80	7.01267E-001	2.56599E-001
PB-214	0.615	74.82*	@	6.21	9.37886E+000	6.15703E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	7.81014E-001	4.20918E-001
		351.92*		37.20	5.85272E-001	2.26585E-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		0.998	1.063837E-001	8.380517E-002
K-40		0.987	2.020810E+001	2.181226E+000
Cs-137		0.993	9.734297E-002	6.190985E-002
TL-208		0.751	4.074106E-001	1.073241E-001
Pb-212	@	0.576	6.965715E-001	2.452474E-001
Bi-214		0.687	7.207992E-001	1.502433E-001
PB-214	@	0.615	6.292503E-001	1.995144E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
9	911.19	1.8489E-001	32.85

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: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	1.1594E-001	8.72E-002	3.6712E-002
		1332.49	100.00	8.7153E-002		-3.7717E-002
	Nb-94	702.63	100.00	1.1677E-001	1.09E-001	-7.3543E-002
		871.10	100.00	1.0947E-001		-2.9656E-002
	Ag-108m	79.20	7.10	7.9068E+000	1.48E-001	-3.1580E+000
		433.93	89.90	1.4840E-001		-2.7454E-002
		614.37	90.40	1.5124E-001		-7.3906E-002
		722.95	90.50	1.4773E-001		1.8740E-001
	Sb-125	176.33	6.89	2.6542E+000	4.55E-001	-1.0842E+000
		427.89	29.33	4.5548E-001		-6.2897E-002
		463.38	10.35	1.2808E+000		-6.0668E-001
		600.56	17.80	6.5534E-001		-3.5221E-001
		606.64	5.02	3.2716E+000		-6.1862E-001
		635.90	11.32	1.1236E+000		1.1275E+000
	Cs-134	563.23	8.38	1.4505E+000	1.37E-001	-6.6493E-001
		569.32	15.43	8.1337E-001		3.1963E-001
		604.70	97.60	1.5637E-001		-8.3266E-003
		795.84	85.40	1.3713E-001		7.2015E-002
		801.93	8.73	1.2770E+000		-1.1230E+000
+	Cs-137	661.65*	85.12	9.5681E-002	9.57E-002	9.7343E-002
	Eu-152	121.78	28.40	8.8055E-001	4.05E-001	2.9044E-001
		244.69	7.49	2.2836E+000		1.0161E+000
		344.27	26.50	4.9959E-001		-8.8663E-001
		778.89	12.74	8.8938E-001		-1.3154E+000
		867.32	4.16	2.6399E+000		-5.0631E+000
		964.01	14.40	9.5314E-001		4.8245E-001
		1085.78	10.00	1.1431E+000		3.1288E-001
		1112.02	13.30	8.7156E-001		-4.0847E-001
		1407.95	20.70	4.0504E-001		8.4862E-002
	Eu-154	123.07	40.50	6.0684E-001	2.79E-001	-2.3843E-001
		247.94	6.60	2.4187E+000		-1.7557E+000
		591.81	4.83	2.3652E+000		-1.4210E+000
		723.30	19.70	6.8387E-001		7.2587E-001
		756.87	4.33	2.8284E+000		1.4768E+000
		873.19	11.50	9.4053E-001		-6.3435E-001
		996.32	10.30	1.0262E+000		-6.1229E-002
		1004.76	17.90	6.0002E-001		2.0133E-001
		1274.45	35.50	2.7874E-001		-3.0158E-001
	Eu-155	86.54	30.90	1.4142E+000	1.41E+000	1.6157E+000
		105.31	20.70	1.5259E+000		3.8936E-001
	Am-241	59.54	35.90	2.8179E+000	2.82E+000	-2.2628E+000
	Cm-243	228.19	10.56	1.5876E+000	1.07E+000	-3.7271E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	1.0693E+000	1.07E+000	6.8248E-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 7/31/2006 3:12:40 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: BRN7722

Spectrum File: BRN7722
Sample ID: NOL-02-04-138-F-
Sample Title: NOL-02-04-138-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 7/31/2006 3:02:38 PM
Live Time: 600.0 seconds
Real Time: 601.0 seconds

Energy Calibration Date: 6/29/2006
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-02-04-138-F-
Title: NOL-02-04-138-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	286-	306	291.95	73.08	0.69	1.45E+002	43.26	6.48E+002
m	2	286-	306	300.42	75.19	0.69	2.81E+002	52.14	7.24E+002
	3	946-	961	954.38	238.69	1.20	2.91E+002	71.49	3.46E+002
	4	1176-	1187	1180.84	295.31	1.08	5.05E+001	44.91	1.87E+002
	5	1344-	1359	1352.88	338.32	0.91	9.66E+001	48.40	1.70E+002
	6	1401-	1414	1407.19	351.90	0.59	1.30E+002	46.24	1.55E+002
	7	2321-	2339	2332.29	583.19	1.40	1.95E+002	43.35	8.76E+001
	8	2427-	2445	2436.38	609.21	1.20	1.42E+002	42.94	9.98E+001
	9	2640-	2655	2646.55	661.76	0.88	4.82E+001	34.35	8.58E+001
	10	2904-	2914	2908.55	727.27	0.51	3.17E+001	24.17	5.03E+001
	11	3175-	3184	3179.70	795.06	1.00	2.51E+001	18.71	2.89E+001
	12	3637-	3652	3645.11	911.42	1.03	1.42E+002	32.43	4.32E+001
	13	3855-	3887	3876.91	969.37	1.44	9.97E+001	51.94	1.16E+002
	14	4476-	4489	4483.18	1120.95	0.50	3.18E+001	24.54	4.42E+001
	15	5833-	5859	5846.16	1461.71	1.83	1.02E+003	65.13	1.99E+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
K-40	0.969	1460.81*	10.67	2.16016E+001	2.22890E+000
Cs-137	1.000	661.65*	85.12	1.05037E-001	7.58505E-002
TL-208	0.472	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	4.13231E-001	1.06314E-001
		860.37	12.46		
Bi-212	1.000	727.17*	11.80	5.09240E-001	3.92485E-001
Pb-212	0.580	74.81* @	10.70	9.08155E+000	2.45309E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	9.07225E-001	2.64495E-001
Bi-214	0.704	609.31*	46.30	5.54599E-001	1.80875E-001
		1120.29*	15.10	4.37335E-001	3.40716E-001
		1764.49	15.80		
PB-214	0.619	74.82* @	6.21	1.56478E+001	4.37672E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	3.85515E-001	3.48692E-001
		351.92*	37.20	5.35699E-001	2.10009E-001
Ac-228	0.997	338.32*	11.40	1.28277E+000	6.73309E-001
		911.07*	27.70	1.01827E+000	2.60711E-001
		969.11*	16.60	1.21072E+000	6.43178E-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		0.969	2.160162E+001	2.228896E+000
Cs-137		1.000	1.050375E-001	7.585045E-002
TL-208		0.472	4.132306E-001	1.063139E-001
Bi-212		1.000	5.092404E-001	3.924851E-001
Pb-212	@	0.580	9.072248E-001	2.644950E-001
Bi-214		0.704	5.288176E-001	1.597586E-001
PB-214	@	0.619	4.957226E-001	1.799005E-001
Ac-228		0.997	1.072505E+000	2.274165E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.4189E-001	29.81
11	795.06	4.1790E-002	74.62

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	1.1988E-001	9.16E-002	4.2785E-003
		1332.49	100.00	9.1612E-002		7.1784E-002
	Nb-94	702.63	100.00	1.1498E-001	1.10E-001	-2.0574E-003
		871.10	100.00	1.0985E-001		-2.0790E-002
	Ag-108m	79.20	7.10	7.5327E+000	1.41E-001	-2.7840E+000
		433.93	89.90	1.4088E-001		5.1104E-002
		614.37	90.40	1.5771E-001		6.7420E-002
		722.95	90.50	1.5017E-001		-2.4512E-002
	Sb-125	176.33	6.89	2.4765E+000	4.54E-001	-7.2745E-002
		427.89	29.33	4.5441E-001		1.5355E-001
		463.38	10.35	1.2656E+000		6.4503E-001
		600.56	17.80	6.5426E-001		-1.1075E-001
		606.64	5.02	3.2155E+000		-5.0704E-001
		635.90	11.32	1.0506E+000		1.3601E-001
	Cs-134	563.23	8.38	1.5007E+000	1.34E-001	1.2505E+000
		569.32	15.43	7.9400E-001		1.3339E-002
		604.70	97.60	1.5425E-001		-6.5492E-002
		795.84	85.40	1.3413E-001		-2.3991E-003
		801.93	8.73	1.1942E+000		-2.4381E-001
+	Cs-137	661.65*	85.12	1.2123E-001	1.21E-001	1.0504E-001
	Eu-152	121.78	28.40	8.6258E-001	4.20E-001	1.6198E-001
		244.69	7.49	2.1550E+000		4.4883E-001
		344.27	26.50	5.1338E-001		1.6980E-001
		778.89	12.74	8.8031E-001		-1.0815E+000
		867.32	4.16	2.5796E+000		-4.7977E+000
		964.01	14.40	9.8712E-001		-1.4335E-001
		1085.78	10.00	1.1250E+000		-3.7278E-002
		1112.02	13.30	8.5334E-001		5.6762E-001
		1407.95	20.70	4.1989E-001		1.8762E-001
	Eu-154	123.07	40.50	5.8905E-001	2.99E-001	-6.2724E-001
		247.94	6.60	2.3532E+000		5.8345E-001
		591.81	4.83	2.4256E+000		-1.6660E+000
		723.30	19.70	6.9294E-001		-1.4427E-001
		756.87	4.33	2.5565E+000		-1.2427E+000
		873.19	11.50	9.4873E-001		-4.8600E-001
		996.32	10.30	1.0563E+000		-1.5969E-001
		1004.76	17.90	6.2079E-001		3.1853E-002
		1274.45	35.50	2.9892E-001		-1.2077E-001
	Eu-155	86.54	30.90	1.3982E+000	1.40E+000	1.4487E+000
		105.31	20.70	1.4550E+000		1.1905E-001
	Am-241	59.54	35.90	2.6344E+000	2.63E+000	6.8543E-001
	Cm-243	228.19	10.56	1.6324E+000	1.06E+000	7.2790E-001

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	-1.2371E-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 7/31/2006 4:02:03 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: ORG7829

Spectrum File: ORG7829
Sample ID: NOL-02-04-139-F-
Sample Title: NOL-02-04-139-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 7/31/2006 3:52:01 PM
Live Time: 600.0 seconds
Real Time: 601.2 seconds

Energy Calibration Date: 7/20/2006
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-02-04-139-F-
Title: NOL-02-04-139-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	330-	347	339.79	84.90	0.60	1.01E+002	110.34	9.42E+002
2	406-	420	411.58	102.86	0.87	7.73E+001	93.38	7.60E+002
3	944-	963	954.77	238.67	0.67	2.18E+002	76.88	3.77E+002
4	1157-	1166	1161.88	290.45	0.34	2.65E+001	31.92	1.05E+002
5	2323-	2343	2333.39	583.37	1.62	1.66E+002	39.40	6.56E+001
6	2426-	2447	2437.94	609.51	0.42	1.21E+002	42.17	9.09E+001
7	3438-	3449	3443.60	860.96	0.42	2.46E+001	19.31	2.84E+001
8	3637-	3655	3644.60	911.22	1.28	9.30E+001	35.84	7.00E+001
9	4947-	4960	4952.91	1238.34	0.66	2.99E+001	22.08	3.51E+001
10	5832-	5860	5846.46	1461.75	2.04	8.52E+002	60.52	2.18E+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: 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	0.971	1460.81*	10.67	1.93720E+001	2.08630E+000
TL-208	0.620	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.71471E-001	1.00378E-001
		860.37*	12.46	4.10551E-001	3.26326E-001
Pb-212	0.446	74.81 @	10.70		
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	7.10937E-001	2.74614E-001
Bi-214	0.402	609.31*	46.30	4.99028E-001	1.84326E-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	0.971	1.937204E+001	2.086297E+000
TL-208	0.620	3.748492E-001	9.594143E-002
Pb-212 @	0.446	7.109373E-001	2.746136E-001
Bi-214	0.402	4.990279E-001	1.843260E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	84.90	1.6884E-001	108.92
2	102.86	1.2889E-001	120.75
4	290.45	4.4236E-002	120.25
8	911.22	1.5504E-001	38.53
9	1238.34	4.9808E-002	73.90

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	1.2891E-001	8.85E-002	9.8474E-002
	1332.49	100.00	8.8473E-002		5.1155E-003
Nb-94	702.63	100.00	1.2316E-001	1.06E-001	-3.0814E-002
	871.10	100.00	1.0558E-001		1.6689E-002
Ag-108m	79.20	7.10	9.2549E+000	1.41E-001	-1.7372E+001
	433.93	89.90	1.4741E-001		-1.1412E-001
	614.37	90.40	1.6783E-001		5.8358E-002
	722.95	90.50	1.4054E-001		1.3003E-001
Sb-125	176.33	6.89	2.8181E+000	4.73E-001	-4.3595E-001
	427.89	29.33	4.7308E-001		-6.6681E-002
	463.38	10.35	1.2876E+000		-7.6197E-002
	600.56	17.80	7.0563E-001		1.2255E-001
	606.64	5.02	3.2164E+000		4.2615E+000
	635.90	11.32	9.9448E-001		3.2114E-001
Cs-134	563.23	8.38	1.5964E+000	1.34E-001	2.1775E+000
	569.32	15.43	8.3944E-001		5.1803E-001
	604.70	97.60	1.6082E-001		7.3145E-002
	795.84	85.40	1.3398E-001		4.5668E-002
	801.93	8.73	1.2592E+000		-2.9891E+000
Cs-137	661.65	85.12	1.4692E-001	1.47E-001	7.2763E-002
Eu-152	121.78	28.40	9.7068E-001	3.89E-001	1.5973E-001
	244.69	7.49	2.3055E+000		-1.7940E+000
	344.27	26.50	5.1952E-001		-4.4055E-001
	778.89	12.74	9.5037E-001		2.0673E-001
	867.32	4.16	2.6784E+000		1.0616E+000
	964.01	14.40	1.0448E+000		1.7216E-001
	1085.78	10.00	1.1130E+000		3.8291E-002
	1112.02	13.30	8.5348E-001		-9.1704E-003
	1407.95	20.70	3.8885E-001		1.9113E-001
Eu-154	123.07	40.50	6.7439E-001	2.98E-001	1.8906E-001
	247.94	6.60	2.4893E+000		-4.0191E-001
	591.81	4.83	2.6856E+000		1.6942E+000
	723.30	19.70	6.3292E-001		-6.2699E-002
	756.87	4.33	2.7962E+000		-6.3559E-001
	873.19	11.50	9.3482E-001		1.2344E+000
	996.32	10.30	1.0843E+000		-6.1273E-001
	1004.76	17.90	6.2800E-001		4.9944E-001
	1274.45	35.50	2.9819E-001		5.2388E-002
Eu-155	86.54	30.90	1.6357E+000	1.64E+000	3.2962E-001
	105.31	20.70	1.6891E+000		-2.7663E-001
Am-241	59.54	35.90	5.1575E+000	5.16E+000	5.1861E+000
Cm-243	228.19	10.56	1.6572E+000	1.14E+000	5.0501E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.1421E+000	1.14E+000	-2.3130E-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 7/31/2006 3:44:32 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: ORG7829

Spectrum File: ORG7829
Sample ID: NOL-02-04-140-F-
Sample Title: NOL-02-04-140-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 7/31/2006 3:34:30 PM
Live Time: 600.0 seconds
Real Time: 601.4 seconds

Energy Calibration Date: 7/20/2006
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-02-04-140-F-
Title: NOL-02-04-140-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
	1	297-	306	301.39	75.30	0.85	1.74E+002	80.73	6.71E+002
	2	947-	961	955.70	238.90	1.62	2.37E+002	63.83	2.86E+002
	3	1401-	1418	1407.61	351.90	1.45	8.45E+001	51.97	1.89E+002
	4	2322-	2343	2333.31	583.35	1.57	1.36E+002	47.53	1.18E+002
	5	2428-	2446	2437.14	609.31	1.84	1.29E+002	39.43	8.12E+001
M	6	3636-	3678	3645.95	911.55	1.89	1.30E+002	26.06	5.52E+001
m	7	3636-	3678	3672.71	918.24	1.89	2.31E+001	14.05	3.64E+001
	8	3868-	3886	3876.08	969.09	1.17	6.85E+001	32.38	6.05E+001
	9	5834-	5859	5846.13	1461.67	1.97	8.91E+002	62.70	3.16E+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	0.976	1460.81*	10.67	2.02634E+001	2.17322E+000
TL-208	0.471	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.03267E-001	1.13202E-001
		860.37	12.46		
Pb-212	0.592	74.81* @	10.70	6.70740E+000	3.37284E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	7.75269E-001	2.41280E-001
Bi-214	0.403	609.31*	46.30	5.30827E-001	1.75137E-001
		1120.29	15.10		
		1764.49	15.80		
Ac-228	0.629	338.32	11.40		
		911.07*	27.70	9.85897E-001	2.28455E-001
		969.11*	16.60	8.84434E-001	4.28193E-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	0.976	2.026341E+001	2.173220E+000
TL-208	0.471	3.032671E-001	1.132023E-001
Pb-212 @	0.592	7.752685E-001	2.412802E-001
Bi-214	0.403	5.308273E-001	1.751368E-001
Ac-228	0.629	9.634149E-001	2.015611E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	1.4090E-001	61.47
m 7	918.24	3.8525E-002	60.76

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
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	1.3157E-001	1.00E-001	1.1433E-001
	1332.49	100.00	1.0011E-001		8.2279E-003
Nb-94	702.63	100.00	1.1565E-001	1.16E-001	-6.1499E-002
	871.10	100.00	1.1967E-001		-5.2494E-003
Ag-108m	79.20	7.10	1.0122E+001	1.51E-001	-4.9972E+000
	433.93	89.90	1.5143E-001		3.6131E-002
	614.37	90.40	1.7515E-001		-4.2117E-002
	722.95	90.50	1.6033E-001		8.3019E-002
Sb-125	176.33	6.89	2.8331E+000	4.50E-001	6.8304E-001
	427.89	29.33	4.4968E-001		1.5928E-002
	463.38	10.35	1.2728E+000		-2.2327E-001
	600.56	17.80	7.2889E-001		8.1705E-002
	606.64	5.02	3.3295E+000		4.6919E+000
	635.90	11.32	1.1344E+000		5.8949E-001
Cs-134	563.23	8.38	1.5998E+000	1.48E-001	7.2266E-001
	569.32	15.43	8.0133E-001		-5.1269E-001
	604.70	97.60	1.6653E-001		-2.5596E-002
	795.84	85.40	1.4826E-001		9.7927E-002
	801.93	8.73	1.3779E+000		-1.2928E+000
Cs-137	661.65	85.12	1.4444E-001	1.44E-001	-3.1679E-002
Eu-152	121.78	28.40	9.9080E-001	4.49E-001	3.4038E-001
	244.69	7.49	2.3183E+000		-3.4990E+000
	344.27	26.50	5.7318E-001		-9.5780E-001
	778.89	12.74	9.5341E-001		1.1633E-001
	867.32	4.16	2.9714E+000		6.9936E-001
	964.01	14.40	1.0729E+000		3.0123E-001
	1085.78	10.00	1.1572E+000		-7.3074E-001
	1112.02	13.30	8.3070E-001		1.8854E-001
	1407.95	20.70	4.4882E-001		1.6782E-001
Eu-154	123.07	40.50	6.9131E-001	3.08E-001	2.2462E-001
	247.94	6.60	2.6205E+000		1.5497E+000
	591.81	4.83	2.6074E+000		-6.9619E-001
	723.30	19.70	7.3030E-001		-5.9585E-002
	756.87	4.33	2.7245E+000		1.1908E+000
	873.19	11.50	9.9328E-001		-6.1435E-001
	996.32	10.30	1.1207E+000		6.0598E-001
	1004.76	17.90	6.2533E-001		4.5989E-001
	1274.45	35.50	3.0792E-001		-8.5940E-002
Eu-155	86.54	30.90	1.6698E+000	1.67E+000	7.5949E-001
	105.31	20.70	1.6711E+000		2.0438E-001
Am-241	59.54	35.90	4.8423E+000	4.84E+000	-3.9997E+000
Cm-243	228.19	10.56	1.6855E+000	1.18E+000	-1.3056E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.1843E+000	1.18E+000	7.2330E-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 7/31/2006 2:20:25 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: YEL7810

Spectrum File: YEL7810
Sample ID: NOL-02-04-141-F-
Sample Title: NOL-02-04-141-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 7/31/2006 2:10:14 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-02-04-141-F-
Title: NOL-02-04-141-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-	307	300.16	75.06	1.16	2.94E+002	124.61	1.19E+003
2	330-	345	338.93	84.76	1.06	1.28E+002	108.70	9.74E+002
3	946-	960	954.67	238.71	1.16	3.03E+002	68.12	3.15E+002
4	1176-	1190	1180.44	295.15	0.76	6.24E+001	49.88	2.02E+002
5	1349-	1359	1353.95	338.53	0.37	4.81E+001	36.99	1.29E+002
6	1398-	1414	1407.36	351.89	1.30	9.37E+001	48.22	1.63E+002
7	2031-	2046	2041.61	510.47	0.92	9.28E+001	39.79	1.06E+002
8	2321-	2341	2332.17	583.11	1.28	1.37E+002	42.54	9.20E+001
9	2430-	2445	2436.40	609.17	1.07	1.28E+002	39.05	8.93E+001
10	3217-	3228	3222.65	805.75	0.31	1.82E+001	16.86	2.18E+001
11	3635-	3674	3643.75	911.04	1.40	9.40E+001	59.16	1.22E+002
12	3731-	3742	3736.07	934.12	1.13	1.59E+001	18.54	2.91E+001
13	3869-	3885	3875.87	969.07	1.58	8.38E+001	30.41	4.92E+001
14	5833-	5857	5844.85	1461.37	1.75	9.35E+002	62.62	2.12E+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: 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	0.990	511.00*		100.00	1.64384E-001	7.39425E-002
K-40	0.989	1460.81*		10.67	2.15957E+001	2.26928E+000
TL-208	0.751	277.35		6.80		
		510.84*		21.60	7.61038E-001	3.47922E-001
		583.14*		84.20	3.03893E-001	1.02306E-001
		860.37		12.46		
Pb-212	0.576	74.81*	@	10.70	9.15842E+000	4.27548E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	9.37351E-001	2.56696E-001
Bi-214	0.406	609.31*		46.30	5.24169E-001	1.72752E-001
		1120.29		15.10		
		1764.49		15.80		
PB-214	0.615	74.82*	@	6.21	1.57802E+001	7.45530E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	4.76555E-001	3.89549E-001
		351.92*		37.20	3.89187E-001	2.10669E-001
Ac-228	1.000	338.32*		11.40	6.44228E-001	5.06023E-001
		911.07*		27.70	7.13267E-001	4.56296E-001
		969.11*		16.60	1.07673E+000	4.06638E-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		0.990	9.874334E-002	7.714426E-002
K-40		0.989	2.159571E+001	2.269283E+000
TL-208		0.751	3.038933E-001	1.018254E-001
Pb-212	@	0.576	9.373514E-001	2.566964E-001
Bi-214		0.406	5.241690E-001	1.727516E-001
PB-214	@	0.615	4.089572E-001	1.853064E-001
Ac-228		1.000	8.439595E-001	2.603257E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	84.76	2.1268E-001	85.18
10	805.75	3.0260E-002	92.84
12	934.12	2.6519E-002	116.55

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: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	1.1594E-001	8.49E-002	5.0776E-002
	1332.49	100.00	8.4878E-002		-7.6525E-002
Nb-94	702.63	100.00	1.2055E-001	1.12E-001	-3.8042E-002
	871.10	100.00	1.1214E-001		-5.2010E-002
Ag-108m	79.20	7.10	7.8980E+000	1.43E-001	-1.7951E+000
	433.93	89.90	1.4287E-001		-4.5035E-002
	614.37	90.40	1.5960E-001		-4.8165E-002
	722.95	90.50	1.4811E-001		8.7574E-002
Sb-125	176.33	6.89	2.7050E+000	4.43E-001	3.1351E-001
	427.89	29.33	4.4281E-001		1.4430E-001
	463.38	10.35	1.3702E+000		5.4806E-001
	600.56	17.80	6.7639E-001		2.4082E-002
	606.64	5.02	3.3200E+000		5.2994E+000
	635.90	11.32	1.0939E+000		1.1503E-002
Cs-134	563.23	8.38	1.5166E+000	1.49E-001	1.6380E+000
	569.32	15.43	7.8289E-001		-4.7296E-001
	604.70	97.60	1.6426E-001		-7.1023E-002
	795.84	85.40	1.4934E-001		1.2793E-001
	801.93	8.73	1.3012E+000		-2.0305E-001
Cs-137	661.65	85.12	1.4899E-001	1.49E-001	8.4118E-002
Eu-152	121.78	28.40	8.9505E-001	4.17E-001	-8.8489E-001
	244.69	7.49	2.3264E+000		-4.8865E+000
	344.27	26.50	5.3511E-001		-1.5719E-001
	778.89	12.74	9.3069E-001		-5.1165E-001
	867.32	4.16	2.8472E+000		-1.3182E+000
	964.01	14.40	1.0398E+000		-2.3218E-001
	1085.78	10.00	1.1621E+000		-2.2006E-001
	1112.02	13.30	8.1961E-001		-3.5529E-001
	1407.95	20.70	4.1677E-001		-2.6776E-001
Eu-154	123.07	40.50	6.2213E-001	2.94E-001	1.7030E-001
	247.94	6.60	2.5750E+000		7.9975E-001
	591.81	4.83	2.5796E+000		5.4981E-001
	723.30	19.70	6.7531E-001		1.4307E-001
	756.87	4.33	2.7217E+000		3.9333E-001
	873.19	11.50	9.7182E-001		-4.7686E-001
	996.32	10.30	1.0549E+000		7.3151E-001
	1004.76	17.90	6.7008E-001		-6.3141E-002
	1274.45	35.50	2.9416E-001		1.3284E-001
Eu-155	86.54	30.90	1.4702E+000	1.47E+000	6.1395E-002
	105.31	20.70	1.5241E+000		-6.9884E-001
Am-241	59.54	35.90	2.8877E+000	2.89E+000	-1.6942E-001
Cm-243	228.19	10.56	1.6883E+000	1.18E+000	-3.3969E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	1.1791E+000	1.18E+000	1.7052E+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 7/31/2006 1:54:13 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: YEL7810

Spectrum File: YEL7810
Sample ID: NOL-02-04-142-F-
Sample Title: NOL-02-04-142-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 7/31/2006 1:44:10 PM
Live Time: 600.0 seconds
Real Time: 601.7 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-02-04-142-F-
Title: NOL-02-04-142-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	295-	305	300.75	75.21	0.80	1.26E+002	91.02	8.50E+002
2	948-	961	954.39	238.64	1.03	2.66E+002	67.88	3.36E+002
3	1346-	1360	1352.63	338.20	0.34	8.05E+001	47.08	1.73E+002
4	1399-	1415	1407.30	351.87	1.19	1.24E+002	53.14	1.95E+002
5	2031-	2053	2041.92	510.54	0.90	1.54E+002	51.02	1.35E+002
6	2323-	2342	2331.82	583.03	1.58	1.63E+002	44.21	9.81E+001
7	2429-	2444	2436.36	609.16	1.23	1.56E+002	37.17	6.77E+001
8	3637-	3655	3644.62	911.26	1.71	1.52E+002	34.92	4.89E+001
9	3868-	3883	3875.76	969.05	0.80	8.71E+001	27.35	3.59E+001
10	4473-	4488	4480.98	1120.37	0.92	3.04E+001	26.68	5.06E+001
11	5832-	5859	5844.76	1461.34	2.15	1.05E+003	65.22	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: 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	0.993	511.00*		100.00	2.72837E-001	9.76852E-002
K-40	0.990	1460.81*		10.67	2.43307E+001	2.48003E+000
TL-208	0.751	277.35		6.80		
		510.84*		21.60	1.26314E+000	4.63862E-001
		583.14*		84.20	3.61375E-001	1.08743E-001
		860.37		12.46		
Pb-212	0.575	74.81*	@	10.70	3.89541E+000	2.91903E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	8.20580E-001	2.45998E-001
Bi-214	0.711	609.31*		46.30	6.41224E-001	1.71757E-001
		1120.29*		15.10	4.43879E-001	3.92902E-001
		1764.49		15.80		
Ac-228	0.999	338.32*		11.40	1.07887E+000	6.53200E-001
		911.07*		27.70	1.15418E+000	2.96362E-001
		969.11*		16.60	1.11927E+000	3.70490E-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	0.993	1.947803E-001	1.004372E-001
K-40	0.990	2.433069E+001	2.480034E+000
TL-208	0.751	3.613752E-001	1.081031E-001
Pb-212 @	0.575	8.205797E-001	2.459979E-001
Bi-214	0.711	6.095617E-001	1.573771E-001
Ac-228	0.999	1.133680E+000	2.181419E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	351.87	2.0734E-001	42.71

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: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	1.2353E-001	9.77E-002	1.4734E-002
	1332.49	100.00	9.7684E-002		2.3030E-002
Nb-94	702.63	100.00	1.2880E-001	1.21E-001	-6.1698E-002
	871.10	100.00	1.2102E-001		1.1241E-001
Ag-108m	79.20	7.10	8.1198E+000	1.54E-001	-9.2300E+000
	433.93	89.90	1.5667E-001		1.6434E-002
	614.37	90.40	1.6269E-001		-2.9630E-002
	722.95	90.50	1.5394E-001		1.0871E-001
Sb-125	176.33	6.89	2.8144E+000	4.74E-001	7.8859E-001
	427.89	29.33	4.7383E-001		1.0448E-001
	463.38	10.35	1.3857E+000		-3.0412E-001
	600.56	17.80	7.0765E-001		1.9097E-001
	606.64	5.02	3.2911E+000		7.1043E+000
	635.90	11.32	1.1972E+000		3.3032E-001
Cs-134	563.23	8.38	1.5130E+000	1.51E-001	3.8467E-001
	569.32	15.43	8.2719E-001		1.6408E-001
	604.70	97.60	1.5825E-001		-5.6669E-002
	795.84	85.40	1.5149E-001		8.5779E-003
	801.93	8.73	1.3529E+000		-1.4511E+000
Cs-137	661.65	85.12	1.5646E-001	1.56E-001	9.9640E-002
Eu-152	121.78	28.40	9.1102E-001	4.24E-001	1.8043E-001
	244.69	7.49	2.3845E+000		-4.1734E-002
	344.27	26.50	5.7619E-001		-4.9845E-001
	778.89	12.74	9.5215E-001		-4.5063E-001
	867.32	4.16	2.9161E+000		-2.3797E+000
	964.01	14.40	1.0632E+000		7.3476E-002
	1085.78	10.00	1.1715E+000		-1.2466E-001
	1112.02	13.30	8.8228E-001		-3.8425E-001
	1407.95	20.70	4.2440E-001		-1.6331E-001
Eu-154	123.07	40.50	6.3448E-001	2.79E-001	5.6727E-001
	247.94	6.60	2.5615E+000		-2.4604E-002
	591.81	4.83	2.6385E+000		-1.7312E+000
	723.30	19.70	7.1053E-001		3.1002E-001
	756.87	4.33	2.9394E+000		-6.7307E-001
	873.19	11.50	1.0386E+000		2.6903E-001
	996.32	10.30	1.0873E+000		-8.3155E-001
	1004.76	17.90	6.9415E-001		5.0261E-001
	1274.45	35.50	2.7874E-001		-4.7249E-002
Eu-155	86.54	30.90	1.4456E+000	1.45E+000	1.5603E+000
	105.31	20.70	1.5644E+000		-1.1318E+000
Am-241	59.54	35.90	2.9373E+000	2.94E+000	-2.6947E-001
Cm-243	228.19	10.56	1.7163E+000	1.17E+000	9.2291E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	1.1741E+000	1.17E+000	1.2145E+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 7/31/2006 2:37:15 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: BRN7722

Spectrum File: BRN7722
Sample ID: NOL-02-04-144-F-
Sample Title: NOL-02-04-143-F-G
Description: large rock/ledge & concrete wall
vegetation

Sample Type:
Geometry:

Acquisition Started: 7/31/2006 2:27:12 PM
Live Time: 600.0 seconds
Real Time: 600.9 seconds

Energy Calibration Date: 6/29/2006
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-02-04-144-F-
Title: NOL-02-04-143-F-G
Description: large rock/ledge & concrete wall lots or vegetation

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	291.16	72.88	1.09	1.93E+002	44.43	7.44E+002
m	2	284-	306	300.23	75.15	1.09	3.79E+002	53.74	9.90E+002
	3	946-	963	954.74	238.78	0.89	2.28E+002	77.33	4.06E+002
	4	1398-	1414	1406.88	351.82	0.87	7.80E+001	53.54	2.13E+002
	5	2325-	2340	2332.86	583.33	1.64	1.56E+002	37.52	7.01E+001
	6	2430-	2447	2437.26	609.44	1.37	1.57E+002	41.75	9.00E+001
	7	3206-	3216	3210.52	802.76	0.31	1.76E+001	16.69	2.24E+001
	8	3636-	3653	3646.15	911.67	1.16	1.24E+002	33.07	4.95E+001
	9	3869-	3886	3877.22	969.45	0.79	8.38E+001	29.77	4.52E+001
	10	5835-	5861	5846.68	1461.84	1.89	9.14E+002	62.03	2.14E+001
	11	7057-	7071	7063.65	1766.10	0.55	4.08E+001	16.80	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: 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	0.960	1460.81*	10.67	1.93845E+001	2.04822E+000
TL-208	0.471	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.29822E-001	9.02415E-002
		860.37	12.46		
Pb-212	0.580	74.81* @	10.70	1.22990E+001	2.97469E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	7.09837E-001	2.65646E-001
Bi-214	0.675	609.31*	46.30	6.12457E-001	1.79468E-001
		1120.29	15.10		
		1764.49*	15.80	6.35676E-001	2.69715E-001
Ac-228	0.627	338.32	11.40		
		911.07*	27.70	8.87437E-001	2.58542E-001
		969.11*	16.60	1.01725E+000	3.76754E-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		0.960	1.938451E+001	2.048221E+000
TL-208		0.471	3.298215E-001	9.024146E-002
Pb-212	@	0.580	7.098366E-001	2.656460E-001
Bi-214		0.675	6.195827E-001	1.494140E-001
Ac-228		0.627	9.289959E-001	2.131754E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	3.2175E-001	23.01
4	351.82	1.3004E-001	68.62
7	802.76	2.9333E-002	94.84

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: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	1.0661E-001	9.10E-002	-6.7575E-002
	1332.49	100.00	9.1015E-002		4.0695E-002
Nb-94	702.63	100.00	1.2140E-001	1.11E-001	-3.7102E-003
	871.10	100.00	1.1105E-001		5.2079E-002
Ag-108m	79.20	7.10	7.2543E+000	1.43E-001	-3.9942E+000
	433.93	89.90	1.4293E-001		1.5595E-002
	614.37	90.40	1.5483E-001		-1.5212E-002
	722.95	90.50	1.4619E-001		9.5362E-002
Sb-125	176.33	6.89	2.4416E+000	4.28E-001	3.1042E-001
	427.89	29.33	4.2751E-001		1.9824E-001
	463.38	10.35	1.2404E+000		4.9265E-001
	600.56	17.80	6.6301E-001		-2.4575E-001
	606.64	5.02	3.1975E+000		-7.1330E-002
	635.90	11.32	9.6541E-001		1.4063E-001
Cs-134	563.23	8.38	1.4974E+000	1.37E-001	7.7835E-001
	569.32	15.43	7.8840E-001		-4.6815E-001
	604.70	97.60	1.4375E-001		2.0784E-002
	795.84	85.40	1.3670E-001		1.6041E-001
	801.93	8.73	1.2265E+000		-2.3061E-001
Cs-137	661.65	85.12	1.5030E-001	1.50E-001	2.8230E-002
Eu-152	121.78	28.40	8.4324E-001	4.00E-001	-2.1452E-001
	244.69	7.49	2.1658E+000		1.5582E+000
	344.27	26.50	4.8084E-001		-2.1205E-001
	778.89	12.74	8.0017E-001		-7.7832E-001
	867.32	4.16	2.7236E+000		-2.8015E+000
	964.01	14.40	9.5999E-001		7.7308E-002
	1085.78	10.00	9.0923E-001		-2.6539E-001
	1112.02	13.30	7.6771E-001		-5.4740E-001
	1407.95	20.70	4.0017E-001		1.7900E-001
Eu-154	123.07	40.50	5.8837E-001	2.88E-001	2.9920E-001
	247.94	6.60	2.3976E+000		1.7319E+000
	591.81	4.83	2.3999E+000		-1.8953E+000
	723.30	19.70	6.7166E-001		2.2628E-001
	756.87	4.33	2.5479E+000		-8.2641E-001
	873.19	11.50	9.7308E-001		4.0845E-001
	996.32	10.30	1.1052E+000		5.9634E-002
	1004.76	17.90	5.7665E-001		-4.6170E-001
	1274.45	35.50	2.8750E-001		-2.5012E-001
Eu-155	86.54	30.90	1.3256E+000	1.33E+000	5.4142E-001
	105.31	20.70	1.3791E+000		-4.3007E-002
Am-241	59.54	35.90	2.6327E+000	2.63E+000	5.5843E-001
Cm-243	228.19	10.56	1.5485E+000	1.03E+000	1.4750E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	1.0337E+000	1.03E+000	1.2843E-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 7/31/2006 2:20:04 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: BRN7722

Spectrum File: BRN7722
Sample ID: NOL-02-04-144-F-
Sample Title: NOL-02-04-144-F-G
Description: large rock/ledge & concrete wall

Sample Type:
Geometry:

Acquisition Started: 7/31/2006 2:10:01 PM
Live Time: 600.0 seconds
Real Time: 600.9 seconds

Energy Calibration Date: 6/29/2006
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-02-04-144-F-
Title: NOL-02-04-144-F-G
Description: large rock/ledge & concrete wall

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	291.44	72.95	0.86	1.55E+002	41.85	6.57E+002
m	2	285-	305	299.95	75.08	0.86	2.80E+002	50.84	8.24E+002
	3	332-	343	339.34	84.92	0.76	1.66E+002	83.38	6.52E+002
	4	945-	959	954.38	238.69	1.00	3.06E+002	67.28	3.03E+002
	5	1174-	1186	1180.05	295.11	0.56	7.47E+001	44.70	1.67E+002
	6	1348-	1360	1352.77	338.30	1.12	6.63E+001	41.99	1.49E+002
	7	1401-	1415	1407.23	351.91	0.89	1.73E+002	44.87	1.21E+002
	8	2034-	2047	2042.76	510.80	1.02	8.12E+001	38.25	1.09E+002
	9	2325-	2341	2332.12	583.15	0.96	1.53E+002	40.38	8.62E+001
	10	2429-	2444	2436.42	609.23	1.14	1.22E+002	35.06	6.59E+001
	11	2904-	2914	2909.14	727.41	1.04	3.05E+001	21.82	3.85E+001
	12	3637-	3655	3645.65	911.55	0.89	1.27E+002	31.87	4.09E+001
	13	3868-	3884	3876.58	969.29	1.30	9.37E+001	29.51	4.23E+001
	14	4476-	4490	4483.14	1120.94	0.99	4.18E+001	21.54	2.62E+001
	15	5326-	5337	5331.93	1333.15	0.49	2.35E+001	14.82	1.35E+001
	16	5834-	5859	5846.76	1461.86	1.91	8.82E+002	62.08	2.88E+001
	17	7056-	7069	7062.51	1765.82	0.53	2.94E+001	16.85	1.46E+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	0.999	511.00*		100.00	1.38660E-001	6.79453E-002
K-40	0.958	1460.81*		10.67	1.87192E+001	2.00803E+000
TL-208	0.753	277.35		6.80		
		510.84*		21.60	6.41947E-001	3.18900E-001
		583.14*		84.20	3.23188E-001	9.52005E-002
		860.37		12.46		
Bi-212	0.998	727.17*		11.80	4.89052E-001	3.54822E-001
Pb-212	0.580	74.81*	@	10.70	9.11512E+000	2.43432E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	9.53065E-001	2.57613E-001
Bi-214	0.983	609.31*		46.30	4.76103E-001	1.48781E-001
		1120.29*		15.10	5.75173E-001	3.02491E-001
		1764.49*		15.80	4.58377E-001	2.66813E-001
PB-214	0.620	74.82*	@	6.21	1.57056E+001	4.34659E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	5.69977E-001	3.54172E-001
		351.92*		37.20	7.10213E-001	2.19241E-001
Ac-228	0.995	338.32*		11.40	8.80286E-001	5.74280E-001
		911.07*		27.70	9.13203E-001	2.51868E-001
		969.11*		16.60	1.13797E+000	3.77619E-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		0.999	6.885178E-002	7.095233E-002
K-40		0.958	1.871916E+001	2.008026E+000
TL-208		0.753	3.231884E-001	9.461609E-002
Bi-212		0.998	4.890525E-001	3.548222E-001
Pb-212	@	0.580	9.530647E-001	2.576132E-001
Bi-214		0.983	4.879875E-001	1.193934E-001
PB-214	@	0.620	6.713631E-001	1.864150E-001
Ac-228		0.995	9.704112E-001	1.968424E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.5888E-001	26.94
3	84.92	2.7626E-001	50.30
15	1333.15	3.9234E-002	62.98

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	1.1736E-001	9.63E-002	1.3299E-001
	1332.49	100.00	9.6250E-002		7.6428E-002
Nb-94	702.63	100.00	1.0779E-001	9.70E-002	-8.6052E-003
	871.10	100.00	9.7003E-002		-4.5021E-002
Ag-108m	79.20	7.10	7.0083E+000	1.36E-001	-4.1393E+000
	433.93	89.90	1.3641E-001		3.2913E-002
	614.37	90.40	1.4080E-001		-7.4884E-002
	722.95	90.50	1.3571E-001		-3.8015E-002
Sb-125	176.33	6.89	2.3770E+000	4.11E-001	-1.1623E+000
	427.89	29.33	4.1133E-001		-2.2148E-001
	463.38	10.35	1.1238E+000		9.3030E-002
	600.56	17.80	5.9512E-001		4.7143E-002
	606.64	5.02	2.8692E+000		3.4938E+000
	635.90	11.32	9.6234E-001		-2.6432E-002
Cs-134	563.23	8.38	1.4432E+000	1.28E-001	1.5542E+000
	569.32	15.43	7.2582E-001		-1.0766E-001
	604.70	97.60	1.3354E-001		-1.6614E-002
	795.84	85.40	1.2838E-001		-4.0155E-002
	801.93	8.73	1.1800E+000		-5.4744E-001
Cs-137	661.65	85.12	1.4560E-001	1.46E-001	1.3467E-001
Eu-152	121.78	28.40	8.1199E-001	3.68E-001	-8.1303E-002
	244.69	7.49	2.0444E+000		-1.4940E+000
	344.27	26.50	4.7078E-001		-2.5814E-001
	778.89	12.74	8.1622E-001		3.4072E-002
	867.32	4.16	2.4159E+000		-5.5904E-001
	964.01	14.40	9.2491E-001		2.9683E-001
	1085.78	10.00	9.6671E-001		1.6635E-001
	1112.02	13.30	7.7132E-001		-4.7266E-001
	1407.95	20.70	3.6846E-001		1.5511E-001
Eu-154	123.07	40.50	5.7060E-001	2.43E-001	3.0794E-001
	247.94	6.60	2.2305E+000		2.3039E-001
	591.81	4.83	2.1397E+000		-5.4351E-001
	723.30	19.70	6.1850E-001		-3.4626E-001
	756.87	4.33	2.1304E+000		-1.7140E+000
	873.19	11.50	9.1643E-001		2.5421E-001
	996.32	10.30	9.6428E-001		1.0620E-001
	1004.76	17.90	5.6112E-001		3.8116E-001
	1274.45	35.50	2.4304E-001		-3.0666E-001
Eu-155	86.54	30.90	1.3527E+000	1.35E+000	2.9856E-001
	105.31	20.70	1.3605E+000		9.1957E-001
Am-241	59.54	35.90	2.4015E+000	2.40E+000	-8.5090E-001
Cm-243	228.19	10.56	1.5104E+000	1.01E+000	3.7604E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	1.0118E+000	1.01E+000	2.5122E-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 7/31/2006 3:32:29 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: BRN7722

Spectrum File: BRN7722
Sample ID: NOL-02-04-145-F-
Sample Title: NOL-02-04-145-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 7/31/2006 3:22:27 PM
Live Time: 600.0 seconds
Real Time: 600.9 seconds

Energy Calibration Date: 6/29/2006
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-02-04-145-F-
Title: NOL-02-04-145-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	285-	306	291.56	72.98	0.95	2.29E+002	45.97	7.31E+002
m	2	285-	306	300.21	75.14	0.96	3.91E+002	54.91	8.72E+002
	3	333-	344	339.20	84.89	0.89	1.05E+002	89.49	7.79E+002
	4	948-	960	954.40	238.70	0.87	2.55E+002	66.11	3.35E+002
	5	1175-	1189	1180.55	295.24	0.87	9.75E+001	49.17	1.83E+002
	6	1349-	1357	1353.11	338.38	0.98	6.16E+001	34.18	1.13E+002
	7	1400-	1415	1407.38	351.95	0.86	1.49E+002	46.80	1.39E+002
	8	2032-	2050	2043.09	510.89	1.09	1.19E+002	47.02	1.35E+002
	9	2324-	2342	2332.48	583.24	1.55	1.75E+002	44.44	9.87E+001
	10	2428-	2445	2437.08	609.39	0.96	1.36E+002	39.81	8.51E+001
	11	2904-	2915	2909.12	727.41	0.73	4.51E+001	22.97	3.59E+001
	12	3636-	3652	3645.02	911.39	1.37	1.60E+002	35.04	5.10E+001
M	13	3853-	3887	3859.63	965.05	1.83	6.10E+001	17.57	2.47E+001
m	14	3853-	3887	3876.92	969.37	1.84	9.87E+001	20.63	2.91E+001
	15	4473-	4489	4482.26	1120.71	0.93	4.45E+001	27.44	4.85E+001
	16	5832-	5859	5846.81	1461.87	1.95	9.51E+002	64.48	2.85E+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

N U C L I 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	0.999	511.00*		100.00	2.02517E-001	8.48356E-002
K-40	0.957	1460.81*		10.67	2.01880E+001	2.13146E+000
TL-208	0.753	277.35		6.80		
		510.84*		21.60	9.37580E-001	4.00151E-001
		583.14*		84.20	3.70865E-001	1.05670E-001
		860.37		12.46		
Bi-212	0.998	727.17*		11.80	7.22958E-001	3.78252E-001
Pb-212	0.580	74.81*	@	10.70	1.26905E+001	3.05953E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	7.94309E-001	2.40908E-001
Bi-214	0.706	609.31*		46.30	5.30020E-001	1.68439E-001
		1120.29*		15.10	6.12503E-001	3.83046E-001
		1764.49		15.80		
PB-214	0.620	74.82*	@	6.21	2.18662E+001	5.50544E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98		7.49		
		295.21*		19.20	7.44029E-001	3.95430E-001
		351.92*		37.20	6.12605E-001	2.17812E-001
Ac-228	0.997	338.32*		11.40	8.18487E-001	4.71579E-001
		911.07*		27.70	1.14905E+000	2.84263E-001
		969.11*		16.60	1.19878E+000	2.80127E-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		0.999	1.224104E-001	8.781358E-002
K-40		0.957	2.018802E+001	2.131457E+000
TL-208		0.753	3.708647E-001	1.049765E-001
Bi-212		0.998	7.229579E-001	3.782519E-001
Pb-212	@	0.580	7.943091E-001	2.409079E-001
Bi-214		0.706	5.433855E-001	1.541898E-001
PB-214	@	0.620	6.431980E-001	1.907840E-001
Ac-228		0.997	1.120261E+000	1.837552E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	3.8088E-001	20.12
3	84.89	1.7557E-001	84.95
M 13	965.05	1.0164E-001	28.81

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

Errors quoted at 1.960 sigma

Y A N K E E 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	1.1650E-001	8.54E-002	9.5888E-002
	1332.49	100.00	8.5436E-002		5.1576E-002
Nb-94	702.63	100.00	1.2074E-001	1.04E-001	8.4689E-002
	871.10	100.00	1.0449E-001		-8.1442E-002
Ag-108m	79.20	7.10	7.4538E+000	1.40E-001	-9.5444E-001
	433.93	89.90	1.4191E-001		3.7963E-002
	614.37	90.40	1.5308E-001		5.1196E-002
	722.95	90.50	1.4035E-001		-3.8293E-002
Sb-125	176.33	6.89	2.5431E+000	4.24E-001	9.7312E-002
	427.89	29.33	4.2433E-001		1.3168E-001
	463.38	10.35	1.2052E+000		6.7903E-001
	600.56	17.80	6.6992E-001		2.7319E-001
	606.64	5.02	3.0545E+000		-1.9437E-001
	635.90	11.32	1.0307E+000		4.9468E-001
Cs-134	563.23	8.38	1.4329E+000	1.46E-001	4.8944E-001
	569.32	15.43	7.5386E-001		-5.1140E-001
	604.70	97.60	1.4612E-001		-6.3862E-003
	795.84	85.40	1.4690E-001		8.2998E-002
	801.93	8.73	1.2886E+000		-1.0300E-002
Cs-137	661.65	85.12	1.4338E-001	1.43E-001	7.8324E-002
Eu-152	121.78	28.40	8.1975E-001	3.76E-001	-4.7619E-001
	244.69	7.49	2.1729E+000		-4.9906E-001
	344.27	26.50	5.4189E-001		5.4361E-001
	778.89	12.74	8.3506E-001		-7.5322E-002
	867.32	4.16	2.7882E+000		-8.6450E-001
	964.01	14.40	9.9378E-001		-4.8435E-001
	1085.78	10.00	1.0490E+000		-6.8855E-001
	1112.02	13.30	8.1000E-001		5.5585E-002
	1407.95	20.70	3.7576E-001		9.8914E-002
Eu-154	123.07	40.50	5.7434E-001	2.83E-001	-1.5755E-001
	247.94	6.60	2.3404E+000		-5.7044E-001
	591.81	4.83	2.3476E+000		-2.1850E+000
	723.30	19.70	6.4323E-001		-1.7047E-001
	756.87	4.33	2.7955E+000		2.0733E+000
	873.19	11.50	9.3093E-001		2.1755E-001
	996.32	10.30	1.1012E+000		7.4503E-001
	1004.76	17.90	6.1605E-001		-1.9526E-001
	1274.45	35.50	2.8309E-001		-1.9707E-001
Eu-155	86.54	30.90	1.4019E+000	1.40E+000	2.7164E-001
	105.31	20.70	1.4155E+000		9.4845E-001
Am-241	59.54	35.90	2.6489E+000	2.65E+000	-3.9294E-001
Cm-243	228.19	10.56	1.5534E+000	1.07E+000	1.0488E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	1.0686E+000	1.07E+000	5.9512E-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 7/31/2006 4:04:35 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: BRN7722

Spectrum File: BRN7722
Sample ID: NOL-02-04-146-F-
Sample Title: NOL-02-04-146-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 7/31/2006 3:54:32 PM
Live Time: 600.0 seconds
Real Time: 600.9 seconds

Energy Calibration Date: 6/29/2006
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-02-04-146-F-
Title: NOL-02-04-146-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-	306	300.28	75.16	0.80	1.62E+002	97.08	9.11E+002
	2	333-	345	339.23	84.90	0.94	1.27E+002	93.27	8.03E+002
M	3	950-	973	954.31	238.67	0.93	3.05E+002	41.75	2.11E+002
m	4	950-	973	969.29	242.42	0.94	4.39E+001	24.80	2.12E+002
	5	1346-	1358	1352.37	338.20	1.03	1.03E+002	41.53	1.32E+002
	6	1401-	1414	1406.64	351.76	1.34	9.43E+001	44.63	1.54E+002
	7	1847-	1860	1852.02	463.12	0.62	3.83E+001	31.85	8.17E+001
	8	2032-	2053	2042.92	510.84	1.73	1.73E+002	51.34	1.37E+002
	9	2324-	2339	2332.12	583.15	1.48	1.82E+002	39.11	7.20E+001
	10	2428-	2441	2435.99	609.12	1.08	1.45E+002	34.92	6.28E+001
	11	3634-	3654	3645.54	911.52	1.68	1.54E+002	36.72	5.44E+001
	12	3868-	3885	3875.45	969.01	0.86	9.76E+001	31.88	5.14E+001
	13	5833-	5859	5845.92	1461.65	1.74	1.03E+003	63.31	3.24E+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: 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	0.999	511.00*		100.00	2.95780E-001	9.63839E-002
K-40	0.973	1460.81*		10.67	2.18480E+001	2.22112E+000
TL-208	0.753	277.35		6.80		
		510.84*		21.60	1.36935E+000	4.60022E-001
		583.14*		84.20	3.84944E-001	9.67080E-002
		860.37		12.46		
Pb-212	0.580	74.81*	@	10.70	5.25353E+000	3.31140E+000
		77.11	@	18.00		
		87.30	@	8.00		
		238.63*		44.60	9.52383E-001	1.98132E-001
Bi-214	0.401	609.31*		46.30	5.66202E-001	1.53011E-001
		1120.29		15.10		
		1764.49		15.80		
PB-214	0.383	74.82*	@	6.21	9.05198E+000	5.74335E+000
		77.11	@	10.50		
		87.30	@	4.67		
		241.98*		7.49	8.17970E-001	4.81806E-001
		295.21		19.20		
		351.92*		37.20	3.87379E-001	1.94424E-001
Ac-228	0.996	338.32*		11.40	1.37227E+000	5.91903E-001
		911.07*		27.70	1.10314E+000	2.92640E-001
		969.11*		16.60	1.18442E+000	4.06423E-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		0.999	2.126319E-001	9.858430E-002
K-40		0.973	2.184805E+001	2.221124E+000
TL-208		0.753	3.849438E-001	9.589091E-002
Pb-212	@	0.580	9.523834E-001	1.981316E-001
Bi-214		0.401	5.662022E-001	1.530114E-001
PB-214	@	0.383	4.476769E-001	1.802974E-001
Ac-228		0.996	1.164360E+000	2.204045E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	84.90	2.1198E-001	73.33
7	463.12	6.3906E-002	83.06

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: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	1.2676E-001	8.01E-002	-2.0948E-002
	1332.49	100.00	8.0126E-002		3.0262E-002
Nb-94	702.63	100.00	1.1428E-001	1.06E-001	-1.2855E-001
	871.10	100.00	1.0617E-001		-2.6749E-002
Ag-108m	79.20	7.10	7.0626E+000	1.35E-001	-6.0492E+000
	433.93	89.90	1.3534E-001		-4.8327E-002
	614.37	90.40	1.5100E-001		-2.8021E-001
	722.95	90.50	1.3462E-001		7.9615E-002
Sb-125	176.33	6.89	2.5201E+000	4.33E-001	2.0325E+000
	427.89	29.33	4.3303E-001		1.1570E-001
	463.38	10.35	1.2241E+000		1.2284E+000
	600.56	17.80	6.5602E-001		6.0229E-001
	606.64	5.02	3.0213E+000		4.2829E+000
	635.90	11.32	9.9266E-001		-4.1950E-001
Cs-134	563.23	8.38	1.4012E+000	1.40E-001	-1.1575E+000
	569.32	15.43	8.1601E-001		1.9545E-001
	604.70	97.60	1.4586E-001		-3.5766E-003
	795.84	85.40	1.3964E-001		1.0430E-001
	801.93	8.73	1.1560E+000		-1.4487E+000
Cs-137	661.65	85.12	1.3410E-001	1.34E-001	-3.1151E-002
Eu-152	121.78	28.40	8.0689E-001	3.97E-001	-3.0567E-001
	244.69	7.49	2.0482E+000		-6.2181E-001
	344.27	26.50	4.7700E-001		-1.2904E-001
	778.89	12.74	8.3816E-001		3.0965E-002
	867.32	4.16	2.5697E+000		-3.8987E+000
	964.01	14.40	9.8712E-001		-7.9907E-002
	1085.78	10.00	1.1207E+000		1.8891E-001
	1112.02	13.30	8.0657E-001		1.7339E-001
	1407.95	20.70	3.9678E-001		1.5842E-001
Eu-154	123.07	40.50	5.6943E-001	2.53E-001	2.7672E-001
	247.94	6.60	2.2596E+000		1.2638E+000
	591.81	4.83	2.3542E+000		-6.9807E-001
	723.30	19.70	6.2353E-001		5.0993E-001
	756.87	4.33	2.5392E+000		-1.5186E+000
	873.19	11.50	9.4873E-001		8.3566E-002
	996.32	10.30	1.0223E+000		-1.0824E-001
	1004.76	17.90	5.5318E-001		-4.1063E-001
	1274.45	35.50	2.5327E-001		-3.3884E-001
Eu-155	86.54	30.90	1.3873E+000	1.35E+000	5.4971E-001
	105.31	20.70	1.3484E+000		-4.4033E-001
Am-241	59.54	35.90	2.5636E+000	2.56E+000	-1.1116E+000
Cm-243	228.19	10.56	1.5987E+000	1.05E+000	-3.4715E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	1.0451E+000	1.05E+000	2.6352E-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 7/31/2006 4:24:31 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: BRN7722

Spectrum File: BRN7722
Sample ID: NOL-02-04-147-F-
Sample Title: NOL-02-04-147-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 7/31/2006 4:14:28 PM
Live Time: 600.0 seconds
Real Time: 600.9 seconds

Energy Calibration Date: 6/29/2006
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-02-04-147-F-
Title: NOL-02-04-147-F-G
Description:

Geometry:

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	287-	304	291.61	72.99	0.68	1.47E+002	42.40	5.53E+002
m	2	287-	304	300.19	75.14	0.68	2.47E+002	49.02	6.44E+002
	3	947-	961	954.60	238.75	1.14	3.26E+002	69.10	3.19E+002
	4	1348-	1362	1352.88	338.32	0.52	8.42E+001	47.94	1.77E+002
	5	1401-	1415	1406.57	351.75	1.42	1.41E+002	47.09	1.49E+002
M	6	1846-	1867	1850.89	462.83	0.61	2.71E+001	16.55	6.03E+001
m	7	1846-	1867	1862.30	465.69	0.62	1.65E+001	13.53	4.97E+001
	8	2325-	2341	2332.06	583.13	1.28	1.94E+002	42.87	9.05E+001
	9	2425-	2444	2436.18	609.16	1.34	1.63E+002	39.10	6.73E+001
	10	3636-	3656	3645.13	911.42	0.66	1.58E+002	36.07	4.97E+001
M	11	3851-	3885	3858.27	964.71	1.61	4.19E+001	15.74	3.09E+001
m	12	3851-	3885	3876.25	969.20	1.61	9.76E+001	22.72	5.50E+001
	13	4473-	4489	4482.86	1120.86	0.90	4.04E+001	26.28	4.46E+001
	14	4829-	4840	4834.99	1208.90	0.53	1.65E+001	18.80	2.95E+001
	15	5833-	5859	5846.26	1461.74	1.95	1.04E+003	64.35	9.77E+000
	16	6349-	6362	6355.07	1588.95	0.83	1.57E+001	10.86	5.33E+000
	17	7056-	7069	7062.06	1765.70	0.88	3.57E+001	15.68	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: 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	0.967	1460.81*	10.67	2.19858E+001	2.24335E+000
TL-208	0.472	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	4.09334E-001	1.05177E-001
		860.37	12.46		
Pb-212	0.580	74.81* @	10.70	8.01797E+000	2.23604E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	1.01801E+000	2.68203E-001
Bi-214	0.985	609.31*	46.30	6.34687E-001	1.71387E-001
		1120.29*	15.10	5.56067E-001	3.66284E-001
		1764.49*	15.80	5.57453E-001	2.50784E-001
Ac-228	0.998	338.32*	11.40	1.11775E+000	6.60253E-001
		911.07*	27.70	1.13742E+000	2.90254E-001
		969.11*	16.60	1.18480E+000	3.02487E-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		0.967	2.198584E+001	2.243352E+000
TL-208		0.472	4.093344E-001	1.051772E-001
Pb-212	@	0.580	1.018012E+000	2.682033E-001
Bi-214		0.985	6.030827E-001	1.319934E-001
Ac-228		0.998	1.156258E+000	1.996295E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.4433E-001	28.92
5	351.75	2.3446E-001	33.47
M 6	462.83	4.5239E-002	60.96
m 7	465.69	2.7497E-002	82.01
M 11	964.71	6.9849E-002	37.55
14	1208.90	2.7428E-002	114.24
16	1588.95	2.6111E-002	69.30

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: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	1.1988E-001	8.41E-002	1.0948E-001
	1332.49	100.00	8.4142E-002		3.3099E-002
Nb-94	702.63	100.00	1.1874E-001	1.08E-001	-6.6757E-002
	871.10	100.00	1.0782E-001		-2.1125E-002
Ag-108m	79.20	7.10	7.3535E+000	1.31E-001	-1.1682E+001
	433.93	89.90	1.3906E-001		5.1510E-002
	614.37	90.40	1.4553E-001		-6.3458E-002
	722.95	90.50	1.3090E-001		2.9836E-002
Sb-125	176.33	6.89	2.4432E+000	4.35E-001	-1.1385E+000
	427.89	29.33	4.3459E-001		6.9665E-002
	463.38	10.35	1.2880E+000		3.7977E-001
	600.56	17.80	6.5426E-001		3.6897E-001
	606.64	5.02	3.0687E+000		6.1121E+000
	635.90	11.32	9.9861E-001		-5.5962E-001
Cs-134	563.23	8.38	1.4154E+000	1.25E-001	1.8521E-001
	569.32	15.43	7.0927E-001		-3.6736E-001
	604.70	97.60	1.4897E-001		2.3004E-002
	795.84	85.40	1.2470E-001		-1.6027E-003
	801.93	8.73	1.1364E+000		-4.4448E-001
Cs-137	661.65	85.12	1.4074E-001	1.41E-001	-3.8325E-002
Eu-152	121.78	28.40	8.3735E-001	4.39E-001	-1.2123E-001
	244.69	7.49	2.0387E+000		-2.7088E-001
	344.27	26.50	4.7700E-001		-1.1748E-001
	778.89	12.74	8.6550E-001		-2.4534E-001
	867.32	4.16	2.6574E+000		-3.2132E+000
	964.01	14.40	9.9156E-001		-1.0485E-001
	1085.78	10.00	1.0397E+000		-4.9005E-001
	1112.02	13.30	7.8562E-001		3.3640E-001
	1407.95	20.70	4.3866E-001		4.3553E-001
Eu-154	123.07	40.50	5.8655E-001	2.95E-001	3.6633E-002
	247.94	6.60	2.2507E+000		-9.5821E-001
	591.81	4.83	2.3343E+000		-2.7784E-001
	723.30	19.70	6.0488E-001		4.0655E-001
	756.87	4.33	2.7717E+000		1.2702E+000
	873.19	11.50	9.3810E-001		-8.4886E-002
	996.32	10.30	1.0309E+000		-4.0109E-001
	1004.76	17.90	6.6185E-001		6.8913E-001
	1274.45	35.50	2.9470E-001		-1.9640E-002
Eu-155	86.54	30.90	1.3712E+000	1.37E+000	6.6848E-001
	105.31	20.70	1.3931E+000		-1.2078E-001
Am-241	59.54	35.90	2.5334E+000	2.53E+000	-1.2037E+000
Cm-243	228.19	10.56	1.5067E+000	1.02E+000	-7.5477E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	1.0153E+000	1.02E+000	6.0650E-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 7/31/2006 4:25:10 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-02-04-148-F-
Sample Title: NOL-02-04-148-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 7/31/2006 4:15:07 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-02-04-148-F-
Title: NOL-02-04-148-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	285-	306	291.88	72.99	1.16	1.38E+002	45.23	8.15E+002
m	2	285-	306	299.87	74.99	1.16	2.85E+002	53.32	1.12E+003
	3	947-	960	954.37	238.63	0.86	2.29E+002	71.38	3.99E+002
	4	1176-	1186	1180.96	295.28	0.42	3.87E+001	42.95	1.82E+002
	5	1342-	1358	1352.78	338.24	0.43	9.35E+001	48.83	1.68E+002
	6	1396-	1416	1406.74	351.73	1.28	1.59E+002	55.92	1.81E+002
	7	2322-	2341	2331.86	583.04	1.50	1.43E+002	43.05	9.69E+001
	8	2427-	2446	2436.29	609.15	0.37	1.57E+002	38.07	6.30E+001
	9	3433-	3447	3440.29	860.17	0.76	3.64E+001	21.01	2.66E+001
	10	3633-	3653	3643.19	910.90	0.88	1.37E+002	36.69	5.82E+001
M	11	3852-	3887	3858.93	964.84	1.88	3.32E+001	15.90	3.71E+001
m	12	3852-	3887	3874.54	968.74	1.88	1.08E+002	23.40	4.44E+001
	13	4471-	4488	4480.43	1120.23	0.38	5.03E+001	26.95	4.27E+001
	14	5830-	5857	5843.65	1461.06	1.94	1.02E+003	64.53	1.37E+001
	15	7053-	7066	7059.39	1765.03	0.92	3.01E+001	16.87	1.59E+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	2.36393E+001	2.42583E+000
TL-208	0.620	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.17401E-001	1.04036E-001
		860.37*	12.46	6.05687E-001	3.57736E-001
Pb-212	0.576	74.81* @	10.70	8.91339E+000	2.41353E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	7.07430E-001	2.46814E-001
Bi-214	0.997	609.31*	46.30	6.44108E-001	1.75211E-001
		1120.29*	15.10	7.35852E-001	4.01622E-001
		1764.49*	15.80	5.13184E-001	2.91763E-001
PB-214	0.614	74.82* @	6.21	1.53580E+001	4.30542E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	2.95762E-001	3.32037E-001
		351.92*	37.20	6.62309E-001	2.57398E-001
Ac-228	0.998	338.32*	11.40	1.25330E+000	6.83265E-001
		911.07*	27.70	1.03813E+000	3.02936E-001
		969.11*	16.60	1.38634E+000	3.33876E-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	2.363926E+001	2.425831E+000
TL-208		0.620	3.398814E-001	9.989689E-002
Pb-212	@	0.576	7.074295E-001	2.468137E-001
Bi-214		0.997	6.249235E-001	1.406899E-001
PB-214	@	0.614	5.247185E-001	2.034305E-001
Ac-228		0.998	1.200994E+000	2.131544E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	2.2929E-001	32.88
M 11	964.84	5.5374E-002	47.87

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: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	1.1837E-001	9.08E-002	3.4003E-002
	1332.49	100.00	9.0809E-002		5.1025E-002
Nb-94	702.63	100.00	1.2810E-001	1.14E-001	-2.0051E-002
	871.10	100.00	1.1432E-001		7.7463E-003
Ag-108m	79.20	7.10	7.9660E+000	1.40E-001	-6.1157E+000
	433.93	89.90	1.4632E-001		-6.0170E-002
	614.37	90.40	1.3952E-001		-3.5392E-002
	722.95	90.50	1.5178E-001		1.0681E-001
Sb-125	176.33	6.89	2.7630E+000	4.52E-001	1.8443E+000
	427.89	29.33	4.5156E-001		7.9257E-002
	463.38	10.35	1.3366E+000		3.0161E-001
	600.56	17.80	7.4266E-001		5.8181E-001
	606.64	5.02	3.2716E+000		-7.5805E-001
	635.90	11.32	1.1610E+000		-8.1484E-001
Cs-134	563.23	8.38	1.5166E+000	1.49E-001	-3.3711E-001
	569.32	15.43	8.2326E-001		-4.8800E-001
	604.70	97.60	1.6141E-001		-2.4263E-002
	795.84	85.40	1.4934E-001		7.5534E-002
	801.93	8.73	1.3483E+000		-8.5040E-001
Cs-137	661.65	85.12	1.5179E-001	1.52E-001	2.5179E-002
Eu-152	121.78	28.40	8.9390E-001	4.50E-001	-3.4012E-001
	244.69	7.49	2.2935E+000		-3.0507E+000
	344.27	26.50	5.4275E-001		-1.5255E-001
	778.89	12.74	8.9263E-001		-4.5927E-001
	867.32	4.16	2.7038E+000		-5.3621E-001
	964.01	14.40	1.1019E+000		1.8059E-001
	1085.78	10.00	1.1188E+000		-2.7223E-001
	1112.02	13.30	9.0330E-001		2.4558E-001
	1407.95	20.70	4.5000E-001		2.5027E-001
Eu-154	123.07	40.50	6.2434E-001	3.26E-001	1.3106E-001
	247.94	6.60	2.4792E+000		2.3856E-002
	591.81	4.83	2.5329E+000		4.1590E-001
	723.30	19.70	6.9733E-001		5.2255E-001
	756.87	4.33	2.7933E+000		1.7960E+000
	873.19	11.50	9.4845E-001		-1.1991E-001
	996.32	10.30	1.0919E+000		-2.4336E-001
	1004.76	17.90	6.4761E-001		1.0484E-001
	1274.45	35.50	3.2568E-001		-1.1748E-002
Eu-155	86.54	30.90	1.4537E+000	1.45E+000	1.6861E+000
	105.31	20.70	1.5480E+000		1.6846E-001
Am-241	59.54	35.90	2.8796E+000	2.88E+000	-1.3720E+000
Cm-243	228.19	10.56	1.6709E+000	1.13E+000	1.2784E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	1.1334E+000	1.13E+000	-5.1535E-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 7/31/2006 6:24:43 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: YEL7810

Spectrum File: YEL7810
Sample ID: NOL-02-04-149-F-
Sample Title: NOL-02-04-149-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 7/31/2006 6:14:43 PM
Live Time: 600.0 seconds
Real Time: 600.7 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-02-04-149-F-
Title: NOL-02-04-149-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	294-	307	300.04	75.03	1.22	1.54E+002	105.33	9.89E+002
2	945-	961	954.67	238.71	1.54	3.08E+002	72.34	3.37E+002
3	1349-	1360	1353.27	338.37	1.14	5.67E+001	37.48	1.22E+002
4	1399-	1414	1407.37	351.89	0.81	1.23E+002	47.91	1.58E+002
5	2324-	2342	2331.16	582.86	1.17	1.75E+002	41.51	7.93E+001
6	2429-	2444	2435.46	608.94	1.06	1.16E+002	38.98	9.30E+001
7	2642-	2651	2646.68	661.75	0.53	1.66E+001	17.36	2.64E+001
8	2901-	2914	2906.91	726.81	0.53	4.28E+001	23.22	3.52E+001
9	3635-	3653	3643.27	910.92	0.72	1.24E+002	31.06	3.75E+001
10	3866-	3885	3875.11	968.88	1.22	9.37E+001	32.63	5.23E+001
11	5832-	5857	5844.19	1461.20	2.22	8.73E+002	60.44	1.87E+001
12	7055-	7068	7061.94	1765.67	0.69	2.71E+001	15.21	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: 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	2.01730E+001	2.14871E+000
Cs-137	1.000	661.65*	85.12	3.82132E-002	4.02901E-002
TL-208	0.468	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.87288E-001	1.04954E-001
		860.37	12.46		
Bi-212	0.995	727.17*	11.80	7.26370E-001	4.03202E-001
Pb-212	0.576	74.81* @	10.70	4.81257E+000	3.41664E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	9.50292E-001	2.68585E-001
Bi-214	0.682	609.31*	46.30	4.76009E-001	1.70343E-001
		1120.29	15.10		
		1764.49*	15.80	4.61331E-001	2.63054E-001
Ac-228	0.999	338.32*	11.40	7.59669E-001	5.16294E-001
		911.07*	27.70	9.44518E-001	2.59503E-001
		969.11*	16.60	1.20413E+000	4.37864E-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	0.995	2.017298E+001	2.148706E+000
Cs-137	1.000	3.821321E-002	4.029006E-002
TL-208	0.468	3.872884E-001	1.049540E-001
Bi-212	0.995	7.263698E-001	4.032021E-001
Pb-212 @	0.576	9.502917E-001	2.685851E-001
Bi-214	0.682	4.716727E-001	1.429825E-001
Ac-228	0.999	9.722563E-001	2.049073E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	351.89	2.0499E-001	38.95

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: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	1.1495E-001	8.41E-002	3.7689E-003
		1332.49	100.00	8.4105E-002		-2.9739E-002
	Nb-94	702.63	100.00	1.1677E-001	1.05E-001	-2.4071E-002
		871.10	100.00	1.0532E-001		-7.1975E-002
	Ag-108m	79.20	7.10	7.8315E+000	1.39E-001	-1.9595E+000
		433.93	89.90	1.3907E-001		-4.9149E-002
		614.37	90.40	1.5321E-001		-8.6056E-002
		722.95	90.50	1.4773E-001		5.1607E-002
	Sb-125	176.33	6.89	2.6360E+000	4.27E-001	1.0865E+000
		427.89	29.33	4.2725E-001		-1.7107E-001
		463.38	10.35	1.3343E+000		1.3794E+000
		600.56	17.80	6.5144E-001		-4.8529E-001
		606.64	5.02	3.2619E+000		4.5288E+000
		635.90	11.32	1.0540E+000		6.7754E-002
	Cs-134	563.23	8.38	1.5238E+000	1.44E-001	1.0131E+000
		569.32	15.43	8.2129E-001		-6.1051E-001
		604.70	97.60	1.5905E-001		-1.2543E-001
		795.84	85.40	1.4405E-001		6.9924E-002
		801.93	8.73	1.3847E+000		-1.5225E-001
+	Cs-137	661.65*	85.12	6.5930E-002	6.59E-002	3.8213E-002
	Eu-152	121.78	28.40	8.6252E-001	4.01E-001	1.8599E-001
		244.69	7.49	2.2348E+000		-1.9897E+000
		344.27	26.50	5.0334E-001		-1.6613E-001
		778.89	12.74	8.6962E-001		-3.6727E-001
		867.32	4.16	2.5742E+000		-2.1504E+000
		964.01	14.40	1.0609E+000		-1.7138E-001
		1085.78	10.00	1.1946E+000		8.6112E-001
		1112.02	13.30	8.5706E-001		-7.4125E-001
		1407.95	20.70	4.0105E-001		2.2825E-001
	Eu-154	123.07	40.50	5.9685E-001	3.23E-001	9.5319E-002
		247.94	6.60	2.4105E+000		-7.7466E-001
		591.81	4.83	2.4436E+000		1.5269E+000
		723.30	19.70	6.7358E-001		2.8734E-001
		756.87	4.33	2.9057E+000		1.5916E+000
		873.19	11.50	9.2851E-001		5.8844E-002
		996.32	10.30	1.0359E+000		-2.8226E-001
		1004.76	17.90	5.7466E-001		-6.9906E-001
		1274.45	35.50	3.2267E-001		7.3046E-002
	Eu-155	86.54	30.90	1.4005E+000	1.40E+000	9.4269E-001
		105.31	20.70	1.5021E+000		-4.9858E-002
	Am-241	59.54	35.90	2.9717E+000	2.97E+000	8.2715E-001
	Cm-243	228.19	10.56	1.5737E+000	1.12E+000	-8.4561E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	1.1188E+000	1.12E+000	-1.8049E-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 7/31/2006 3:33:17 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: YEL7810

Spectrum File: YEL7810
Sample ID: NOL-02-04-150-F-
Sample Title: NOL-02-04-150-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 7/31/2006 3:23:14 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-02-04-150-F-
Title: NOL-02-04-150-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	295-	305	300.65	75.19	1.05	1.84E+002	89.33	7.93E+002
2	947-	962	954.74	238.72	0.84	2.41E+002	73.08	3.82E+002
3	1173-	1189	1181.99	295.54	0.98	1.08E+002	52.43	1.94E+002
4	1346-	1358	1353.48	338.42	1.44	9.13E+001	41.53	1.36E+002
5	1401-	1414	1407.73	351.98	0.55	1.28E+002	44.29	1.38E+002
6	2034-	2053	2044.05	511.08	0.60	8.96E+001	47.70	1.41E+002
7	2321-	2341	2332.27	583.14	1.59	1.90E+002	44.03	8.66E+001
8	2428-	2444	2436.09	609.10	1.22	1.41E+002	38.24	7.54E+001
9	3069-	3080	3074.57	768.73	0.44	2.24E+001	18.52	2.66E+001
10	3635-	3654	3643.91	911.08	1.44	1.37E+002	35.10	5.27E+001
11	5546-	5557	5551.81	1388.10	0.48	8.40E+000	8.83	4.60E+000
12	5832-	5858	5844.88	1461.37	2.05	8.72E+002	61.91	2.94E+001
13	6364-	6377	6370.69	1592.84	0.79	2.90E+001	10.55	0.00E+000
14	7056-	7069	7062.44	1765.79	0.79	3.80E+001	14.08	5.02E+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

N U C L I 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	0.989	1460.81*	10.67	2.01350E+001	2.16874E+000
TL-208	0.751	277.35	6.80		
		510.84*	21.60	7.35024E-001	4.08337E-001
		583.14*	84.20	4.22186E-001	1.12049E-001
		860.37	12.46		
Pb-212	0.575	74.81* @	10.70	5.69971E+000	2.98496E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	7.43044E-001	2.54050E-001
Bi-214	0.682	609.31*	46.30	5.76816E-001	1.72242E-001
		1120.29	15.10		
		1764.49*	15.80	6.46701E-001	2.48369E-001
PB-214	0.614	74.82* @	6.21	9.82075E+000	5.19235E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	8.22850E-001	4.24136E-001
		351.92*	37.20	5.30260E-001	2.04302E-001
Ac-228	0.542	338.32*	11.40	1.22356E+000	5.88852E-001
		911.07*	27.70	1.04160E+000	2.92069E-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: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
X	ANN		1.000		
	K-40		0.989	2.013503E+001	2.168735E+000
	TL-208		0.751	4.440925E-001	1.080545E-001
	Pb-212	@	0.575	7.430436E-001	2.540502E-001
	Bi-214		0.682	5.995112E-001	1.415373E-001
	PB-214	@	0.614	5.853626E-001	1.840611E-001
	Ac-228		0.542	1.077524E+000	2.616521E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

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

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
9	768.73	3.7262E-002	82.83
11	1388.10	1.4006E-002	105.06
13	1592.84	4.8333E-002	36.40

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

Errors quoted at 1.960 sigma

Y A N K E E 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	1.1446E-001	9.43E-002	-3.0965E-002
	1332.49	100.00	9.4314E-002		6.0824E-002
Nb-94	702.63	100.00	1.2599E-001	1.09E-001	-4.8161E-002
	871.10	100.00	1.0856E-001		3.4941E-002
Ag-108m	79.20	7.10	7.7262E+000	1.42E-001	-9.9759E+000
	433.93	89.90	1.4917E-001		-5.6862E-002
	614.37	90.40	1.5321E-001		2.7438E-002
	722.95	90.50	1.4202E-001		2.1733E-002
Sb-125	176.33	6.89	2.7145E+000	4.53E-001	-8.6267E-001
	427.89	29.33	4.5313E-001		2.5651E-001
	463.38	10.35	1.3090E+000		3.6264E-001
	600.56	17.80	7.0585E-001		8.6973E-002
	606.64	5.02	3.1675E+000		3.0494E+000
	635.90	11.32	1.1582E+000		1.5268E+000
Cs-134	563.23	8.38	1.4278E+000	1.39E-001	-6.0190E-001
	569.32	15.43	8.1337E-001		3.6620E-001
	604.70	97.60	1.5958E-001		-4.9536E-002
	795.84	85.40	1.3901E-001		8.4970E-002
	801.93	8.73	1.2721E+000		-2.4387E+000
Cs-137	661.65	85.12	1.3677E-001	1.37E-001	-1.0219E-001
Eu-152	121.78	28.40	8.7439E-001	3.67E-001	1.4378E-002
	244.69	7.49	2.2601E+000		8.3983E-002
	344.27	26.50	5.4551E-001		-6.6269E-001
	778.89	12.74	9.0869E-001		-1.3018E+000
	867.32	4.16	2.5742E+000		-3.4956E+000
	964.01	14.40	9.9870E-001		1.9616E-001
	1085.78	10.00	9.9926E-001		-8.8938E-001
	1112.02	13.30	8.8582E-001		-2.5143E-001
	1407.95	20.70	3.6740E-001		-1.1705E-001
Eu-154	123.07	40.50	6.1565E-001	3.15E-001	4.3631E-001
	247.94	6.60	2.4653E+000		-9.2848E-001
	591.81	4.83	2.5126E+000		-1.4669E+000
	723.30	19.70	6.5251E-001		1.9990E-001
	756.87	4.33	2.8458E+000		2.5612E-001
	873.19	11.50	9.4053E-001		7.5955E-001
	996.32	10.30	1.1054E+000		1.5548E+000
	1004.76	17.90	6.0550E-001		-6.5198E-001
	1274.45	35.50	3.1503E-001		-1.2910E-003
Eu-155	86.54	30.90	1.4233E+000	1.42E+000	2.6905E+000
	105.31	20.70	1.5609E+000		4.5157E-001
Am-241	59.54	35.90	2.8564E+000	2.86E+000	-1.1062E-001
Cm-243	228.19	10.56	1.5737E+000	1.17E+000	-1.5126E+000

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	1.1671E+000	1.17E+000	5.8707E-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 7/31/2006 3:52:10 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-02-04-151-F-
Sample Title: NOL-02-04-151-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 7/31/2006 3:42:07 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-02-04-151-F-
Title: NOL-02-04-151-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	296-	304	299.85	74.99	1.03	1.31E+002	78.23	6.83E+002
2	947-	964	954.17	238.58	1.49	3.14E+002	74.06	3.40E+002
3	1346-	1360	1352.92	338.28	0.52	7.71E+001	45.07	1.57E+002
4	1399-	1415	1406.44	351.66	0.89	1.17E+002	51.86	1.86E+002
5	2326-	2341	2331.33	582.90	1.22	1.43E+002	38.86	8.08E+001
6	2429-	2441	2436.18	609.12	0.97	7.36E+001	33.73	8.44E+001
7	3635-	3654	3644.17	911.14	1.51	1.31E+002	31.24	3.50E+001
8	3867-	3885	3875.03	968.86	0.75	8.85E+001	28.75	3.75E+001
9	5831-	5857	5844.38	1461.25	2.01	9.41E+002	61.94	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: 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	0.993	1460.81*	10.67	2.17302E+001	2.26772E+000
TL-208	0.468	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	3.17612E-001	9.55910E-002
		860.37	12.46		
Pb-212	0.576	74.81* @	10.70	4.09119E+000	2.57192E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	9.71195E-001	2.74805E-001
Bi-214	0.406	609.31*	46.30	3.02069E-001	1.43324E-001
		1120.29	15.10		
		1764.49	15.80		
Ac-228	0.999	338.32*	11.40	1.03346E+000	6.25392E-001
		911.07*	27.70	9.94012E-001	2.63189E-001
		969.11*	16.60	1.13764E+000	3.88085E-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	0.993	2.173024E+001	2.267716E+000
TL-208	0.468	3.176119E-001	9.559105E-002
Pb-212 @	0.576	9.711949E-001	2.748050E-001
Bi-214	0.406	3.020688E-001	1.433239E-001
Ac-228	0.999	1.038632E+000	2.057028E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	351.66	1.9513E-001	44.30

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: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	1.1446E-001	9.08E-002	-1.4182E-001
	1332.49	100.00	9.0809E-002		-4.2508E-002
Nb-94	702.63	100.00	1.1792E-001	1.10E-001	-4.9433E-002
	871.10	100.00	1.0992E-001		5.8213E-002
Ag-108m	79.20	7.10	7.8003E+000	1.42E-001	-8.8067E+000
	433.93	89.90	1.4658E-001		-1.3855E-001
	614.37	90.40	1.4516E-001		-2.7139E-001
	722.95	90.50	1.4241E-001		8.9101E-002
Sb-125	176.33	6.89	2.6065E+000	4.40E-001	-1.7228E+000
	427.89	29.33	4.4039E-001		-4.4089E-001
	463.38	10.35	1.3043E+000		1.1021E-001
	600.56	17.80	7.0404E-001		5.7621E-001
	606.64	5.02	3.2275E+000		7.5155E+000
	635.90	11.32	9.9601E-001		-9.8170E-001
Cs-134	563.23	8.38	1.4618E+000	1.38E-001	-8.1242E-001
	569.32	15.43	8.1536E-001		4.8837E-003
	604.70	97.60	1.5502E-001		-6.3307E-002
	795.84	85.40	1.3807E-001		1.1146E-002
	801.93	8.73	1.2818E+000		-1.3515E-001
Cs-137	661.65	85.12	1.5646E-001	1.56E-001	-1.4990E-002
Eu-152	121.78	28.40	8.8580E-001	3.85E-001	-2.6583E-001
	244.69	7.49	2.2022E+000		-1.8383E+000
	344.27	26.50	5.1658E-001		-5.2800E-001
	778.89	12.74	8.6293E-001		-6.5045E-001
	867.32	4.16	2.7559E+000		-1.9487E+000
	964.01	14.40	1.0036E+000		2.2540E-001
	1085.78	10.00	1.1431E+000		-2.8147E-001
	1112.02	13.30	9.1362E-001		-1.1223E-001
	1407.95	20.70	3.8462E-001		7.0092E-002
Eu-154	123.07	40.50	6.2031E-001	3.18E-001	2.9148E-001
	247.94	6.60	2.3440E+000		-9.3285E-001
	591.81	4.83	2.5193E+000		-6.3218E-001
	723.30	19.70	6.5784E-001		4.4801E-001
	756.87	4.33	2.6759E+000		-9.4108E-001
	873.19	11.50	9.7566E-001		1.6673E-001
	996.32	10.30	1.0736E+000		3.8940E-001
	1004.76	17.90	5.9170E-001		1.1958E-001
	1274.45	35.50	3.1811E-001		-3.6603E-001
Eu-155	86.54	30.90	1.4131E+000	1.41E+000	1.6885E+000
	105.31	20.70	1.5363E+000		1.2248E+000
Am-241	59.54	35.90	2.8809E+000	2.88E+000	-2.8039E-002
Cm-243	228.19	10.56	1.6388E+000	1.11E+000	-1.1577E-002

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GRAM)	Nuclide MDA (pCi/GRAM)	Activity (pCi/GRAM)
Cm-243	277.60	14.00	1.1146E+000	1.11E+000	5.9840E-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 7/31/2006 4:28:32 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: ORG7829

Spectrum File: ORG7829
Sample ID: NOL-02-04-152-F-
Sample Title: NOL-02-04-152-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 7/31/2006 4:18:29 PM
Live Time: 600.0 seconds
Real Time: 601.3 seconds

Energy Calibration Date: 7/20/2006
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-02-04-152-F-
Title: NOL-02-04-152-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	944-	961	955.06	238.74	1.78	2.60E+002	75.14	3.68E+002
2	2325-	2344	2332.89	583.24	1.20	1.52E+002	46.99	1.21E+002
3	2429-	2449	2437.26	609.34	1.50	1.54E+002	43.61	9.44E+001
4	3635-	3655	3644.96	911.31	0.69	1.41E+002	34.60	4.71E+001
5	3869-	3885	3877.40	969.42	1.77	6.90E+001	29.65	5.10E+001
6	4475-	4488	4482.03	1120.60	0.83	3.18E+001	23.86	4.02E+001
7	5831-	5861	5846.23	1461.70	2.34	9.32E+002	60.41	3.75E+000
8	7058-	7071	7064.27	1766.25	1.15	3.04E+001	16.39	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: 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	0.974	1460.81*		10.67	2.11915E+001	2.19764E+000
TL-208	0.471	277.35		6.80		
		510.84		21.60		
		583.14*		84.20	3.40377E-001	1.13868E-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	8.50084E-001	2.79163E-001
Bi-214	0.979	609.31*		46.30	6.33077E-001	1.95874E-001
		1120.29*		15.10	4.68973E-001	3.55479E-001
		1764.49*		15.80	4.94315E-001	2.71194E-001
Ac-228	0.631	338.32		11.40		
		911.07*		27.70	1.07217E+000	2.90846E-001
		969.11*		16.60	8.90970E-001	3.94097E-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		0.974	2.119150E+001	2.197643E+000
TL-208		0.471	3.403773E-001	1.138682E-001
Pb-212	@	0.446	8.500842E-001	2.791635E-001
Bi-214		0.979	5.661221E-001	1.449812E-001
Ac-228		0.631	1.008276E+000	2.340170E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	1.2936E-001	9.14E-002	-1.5826E-002
	1332.49	100.00	9.1354E-002		-2.1514E-003
Nb-94	702.63	100.00	1.2603E-001	1.09E-001	-8.7426E-002
	871.10	100.00	1.0928E-001		1.9187E-002
Ag-108m	79.20	7.10	1.0450E+001	1.47E-001	-2.0219E+001
	433.93	89.90	1.4660E-001		-1.5697E-001
	614.37	90.40	1.8188E-001		-3.2570E-002
	722.95	90.50	1.4819E-001		5.5274E-002
Sb-125	176.33	6.89	2.9263E+000	4.76E-001	-1.0134E+000
	427.89	29.33	4.7621E-001		6.1307E-002
	463.38	10.35	1.3569E+000		1.3789E+000
	600.56	17.80	6.7397E-001		-5.8117E-001
	606.64	5.02	3.3101E+000		-1.6597E+000
	635.90	11.32	1.1019E+000		-4.2259E-001
Cs-134	563.23	8.38	1.5964E+000	1.47E-001	1.8284E-001
	569.32	15.43	8.8699E-001		8.2851E-001
	604.70	97.60	1.6214E-001		-3.9524E-002
	795.84	85.40	1.4650E-001		6.5629E-002
	801.93	8.73	1.3824E+000		-2.4587E+000
Cs-137	661.65	85.12	1.4975E-001	1.50E-001	4.9568E-002
Eu-152	121.78	28.40	9.9491E-001	4.24E-001	-1.0219E+000
	244.69	7.49	2.4237E+000		-2.4173E+000
	344.27	26.50	5.7388E-001		-6.6878E-001
	778.89	12.74	9.7143E-001		-1.3624E+000
	867.32	4.16	2.6784E+000		-3.2386E+000
	964.01	14.40	1.0424E+000		-2.0842E-001
	1085.78	10.00	1.0721E+000		-2.1123E+000
	1112.02	13.30	8.5348E-001		4.9976E-001
	1407.95	20.70	4.2372E-001		-9.6986E-002
Eu-154	123.07	40.50	6.9416E-001	3.11E-001	5.4550E-001
	247.94	6.60	2.5825E+000		-1.6083E+000
	591.81	4.83	2.7615E+000		8.8133E-003
	723.30	19.70	6.9607E-001		7.5476E-001
	756.87	4.33	2.9758E+000		1.7434E+000
	873.19	11.50	9.3883E-001		5.7095E-001
	996.32	10.30	1.1027E+000		1.3612E-001
	1004.76	17.90	6.4632E-001		-1.8192E-001
	1274.45	35.50	3.1109E-001		-6.6338E-002
Eu-155	86.54	30.90	1.7240E+000	1.64E+000	1.5773E+000
	105.31	20.70	1.6438E+000		-6.4057E-002
Am-241	59.54	35.90	5.0958E+000	5.10E+000	-1.4106E+001
Cm-243	228.19	10.56	1.6572E+000	1.19E+000	-1.1545E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.1854E+000	1.19E+000	5.1907E-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 7/31/2006 4:15:27 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: ORG7829

Spectrum File: ORG7829
Sample ID: NOL-02-04-153-F-
Sample Title: NOL-02-04-153-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 7/31/2006 4:05:25 PM
Live Time: 600.0 seconds
Real Time: 601.4 seconds

Energy Calibration Date: 7/20/2006
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-02-04-153-F-
Title: NOL-02-04-153-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	291-	308	299.85	74.92	1.49	2.88E+002	128.70	1.24E+003
2	949-	964	954.33	238.56	1.67	2.53E+002	73.42	3.79E+002
3	1177-	1189	1181.24	295.30	1.27	4.73E+001	45.62	1.86E+002
4	1397-	1418	1407.33	351.82	1.52	1.41E+002	58.29	1.98E+002
5	2324-	2343	2334.31	583.60	1.96	2.12E+002	42.22	7.21E+001
6	2427-	2449	2438.25	609.59	1.41	1.47E+002	44.97	9.78E+001
7	2872-	2883	2877.14	719.33	0.35	1.50E+001	18.12	2.80E+001
8	3637-	3656	3645.47	911.43	1.64	1.31E+002	32.12	3.94E+001
9	3867-	3885	3876.96	969.31	0.35	8.31E+001	31.11	4.99E+001
10	5832-	5861	5846.11	1461.67	2.34	9.80E+002	65.48	2.92E+001
11	6349-	6362	6355.88	1589.13	0.55	1.17E+001	10.45	5.34E+000
12	7055-	7070	7063.35	1766.02	0.40	4.40E+001	14.67	4.00E+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: 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	0.976	1460.81*	10.67	2.22726E+001	2.33815E+000
TL-208	0.467	277.35	6.80		
		510.84	21.60		
		583.14*	84.20	4.73069E-001	1.12589E-001
		860.37	12.46		
Pb-212	0.594	74.81* @	10.70	1.12754E+001	5.50389E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	8.24235E-001	2.72277E-001
Bi-214	0.680	609.31*	46.30	6.06859E-001	1.99813E-001
		1120.29	15.10		
		1764.49*	15.80	7.15674E-001	2.49084E-001
PB-214	0.627	74.82* @	6.21	1.94278E+001	9.58765E+000
		77.11 @	10.50		
		87.30 @	4.67		
		241.98	7.49		
		295.21*	19.20	3.77581E-001	3.69621E-001
		351.92*	37.20	6.05411E-001	2.70108E-001
Ac-228	0.630	338.32	11.40		
		911.07*	27.70	9.94195E-001	2.69947E-001
		969.11*	16.60	1.07242E+000	4.17111E-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		0.976	2.227259E+001	2.338147E+000
TL-208		0.467	4.730687E-001	1.125892E-001
Pb-212	@	0.594	8.242348E-001	2.722771E-001
Bi-214		0.680	6.494652E-001	1.558608E-001
PB-214	@	0.627	5.260985E-001	2.180827E-001
Ac-228		0.630	1.017286E+000	2.266265E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	719.33	2.4981E-002	120.88
11	1589.13	1.9436E-002	89.58

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: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	1.3331E-001	1.06E-001	4.8530E-002
	1332.49	100.00	1.0632E-001		6.6948E-002
Nb-94	702.63	100.00	1.2884E-001	1.20E-001	6.2787E-002
	871.10	100.00	1.1967E-001		6.7800E-003
Ag-108m	79.20	7.10	1.0504E+001	1.55E-001	1.9140E+000
	433.93	89.90	1.5508E-001		1.1924E-001
	614.37	90.40	1.8461E-001		-3.3528E-002
	722.95	90.50	1.5616E-001		1.4211E-001
Sb-125	176.33	6.89	2.8734E+000	4.53E-001	-2.9365E+000
	427.89	29.33	4.5298E-001		-5.9654E-002
	463.38	10.35	1.3639E+000		-1.1907E-001
	600.56	17.80	7.2536E-001		2.2638E-001
	606.64	5.02	3.3536E+000		-2.0871E-001
	635.90	11.32	1.1431E+000		8.9538E-001
Cs-134	563.23	8.38	1.4999E+000	1.46E-001	-1.0552E+000
	569.32	15.43	8.5303E-001		2.0938E-001
	604.70	97.60	1.6344E-001		2.0450E-003
	795.84	85.40	1.4606E-001		1.2333E-001
	801.93	8.73	1.3824E+000		-5.4848E-001
Cs-137	661.65	85.12	1.4361E-001	1.44E-001	-1.2306E-001
Eu-152	121.78	28.40	9.8031E-001	4.31E-001	-5.8146E-002
	244.69	7.49	2.4908E+000		-1.5766E+000
	344.27	26.50	5.6614E-001		-5.4716E-001
	778.89	12.74	9.0028E-001		2.6916E-001
	867.32	4.16	3.0189E+000		-1.1286E+000
	964.01	14.40	1.0913E+000		3.2999E-001
	1085.78	10.00	1.2226E+000		9.8222E-001
	1112.02	13.30	8.9720E-001		-5.4743E-001
	1407.95	20.70	4.3105E-001		-8.1981E-002
Eu-154	123.07	40.50	6.7506E-001	2.98E-001	-2.4467E-001
	247.94	6.60	2.7010E+000		5.7614E-001
	591.81	4.83	2.6403E+000		2.3074E+000
	723.30	19.70	7.2391E-001		8.9161E-001
	756.87	4.33	2.8746E+000		-2.7288E-001
	873.19	11.50	1.0267E+000		-1.1703E-001
	996.32	10.30	1.2393E+000		8.0870E-001
	1004.76	17.90	6.6411E-001		3.3606E-001
	1274.45	35.50	2.9819E-001		-2.9444E-002
Eu-155	86.54	30.90	1.7244E+000	1.72E+000	2.7314E+000
	105.31	20.70	1.7301E+000		8.1411E-001
Am-241	59.54	35.90	5.3412E+000	5.34E+000	2.8788E+000
Cm-243	228.19	10.56	1.7479E+000	1.25E+000	-6.0492E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.2521E+000	1.25E+000	1.4615E+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 7/31/2006 3:25:29 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-02-04-154-F-
Sample Title: NOL-02-04-154-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 7/31/2006 3:15:27 PM
Live Time: 600.0 seconds
Real Time: 601.3 seconds

Energy Calibration Date: 7/20/2006
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-02-04-154-F-
Title: NOL-02-04-154-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	944-	962	954.94	238.71	0.38	1.76E+002	76.65	4.01E+002
2	1398-	1417	1408.74	352.18	1.11	1.04E+002	54.03	1.87E+002
3	2197-	2206	2201.50	550.39	0.94	1.94E+001	20.38	3.86E+001
4	2324-	2344	2333.50	583.40	0.47	1.44E+002	39.90	7.39E+001
5	2427-	2448	2437.29	609.35	0.42	1.33E+002	41.40	8.29E+001
6	3636-	3656	3645.88	911.54	0.68	1.29E+002	34.55	5.00E+001
7	3868-	3887	3876.43	969.18	1.17	7.58E+001	33.65	6.22E+001
8	5834-	5861	5846.81	1461.84	2.25	9.33E+002	63.92	2.99E+001
9	7055-	7068	7061.43	1765.54	0.62	2.23E+001	14.24	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

N U C L I 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	0.965	1460.81*		10.67	2.12112E+001	2.24951E+000
TL-208	0.470	277.35		6.80		
		510.84		21.60		
		583.14*		84.20	3.21673E-001	9.84220E-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	5.75197E-001	2.65963E-001
Bi-214	0.690	609.31*		46.30	5.48572E-001	1.83487E-001
		1120.29		15.10		
		1764.49*		15.80	3.61997E-001	2.34427E-001
Ac-228	0.629	338.32		11.40		
		911.07*		27.70	9.82150E-001	2.86238E-001
		969.11*		16.60	9.78369E-001	4.46448E-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	0.965	2.121116E+001	2.249505E+000
TL-208	0.470	3.216735E-001	9.842201E-002
Pb-212 @	0.446	5.751967E-001	2.659630E-001
Bi-214	0.690	4.776933E-001	1.444902E-001
Ac-228	0.629	9.810484E-001	2.409647E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	352.18	1.7270E-001	52.14
3	550.39	3.2414E-002	104.77

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
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	1.2891E-001	9.21E-002	1.7407E-001
	1332.49	100.00	9.2059E-002		-1.9915E-002
Nb-94	702.63	100.00	1.2133E-001	1.07E-001	-6.9076E-002
	871.10	100.00	1.0745E-001		-5.0978E-002
Ag-108m	79.20	7.10	9.9976E+000	1.49E-001	-1.2146E+001
	433.93	89.90	1.5688E-001		1.0763E-001
	614.37	90.40	1.7400E-001		5.8202E-002
	722.95	90.50	1.4856E-001		2.8693E-002
Sb-125	176.33	6.89	2.9073E+000	4.92E-001	1.1594E+000
	427.89	29.33	4.9157E-001		2.7489E-001
	463.38	10.35	1.3120E+000		6.3763E-001
	600.56	17.80	7.5139E-001		-8.5273E-003
	606.64	5.02	3.2314E+000		-9.1385E-002
	635.90	11.32	1.0143E+000		-1.6297E+000
Cs-134	563.23	8.38	1.5543E+000	1.46E-001	-7.0920E-001
	569.32	15.43	8.3157E-001		1.3328E-001
	604.70	97.60	1.5976E-001		-8.7178E-003
	795.84	85.40	1.4606E-001		1.3286E-001
	801.93	8.73	1.3597E+000		-2.2791E-001
Cs-137	661.65	85.12	1.4814E-001	1.48E-001	-1.0265E-001
Eu-152	121.78	28.40	9.4217E-001	4.35E-001	5.2022E-002
	244.69	7.49	2.3743E+000		-9.3224E-001
	344.27	26.50	5.6044E-001		-2.0087E-001
	778.89	12.74	9.2568E-001		8.0599E-002
	867.32	4.16	2.7521E+000		-6.7793E-002
	964.01	14.40	1.0182E+000		-3.1380E-001
	1085.78	10.00	1.1230E+000		-8.7496E-001
	1112.02	13.30	8.6093E-001		-4.1527E-001
	1407.95	20.70	4.3467E-001		1.7086E-001
Eu-154	123.07	40.50	6.5097E-001	3.17E-001	-7.6590E-001
	247.94	6.60	2.5396E+000		-2.0150E+000
	591.81	4.83	2.6727E+000		3.7217E-001
	723.30	19.70	6.9104E-001		4.5312E-001
	756.87	4.33	2.7785E+000		-2.4932E+000
	873.19	11.50	9.7805E-001		5.5894E-001
	996.32	10.30	1.1027E+000		4.3133E-001
	1004.76	17.90	6.7897E-001		6.4596E-001
	1274.45	35.50	3.1734E-001		-2.3921E-001
Eu-155	86.54	30.90	1.6587E+000	1.61E+000	1.3553E+000
	105.31	20.70	1.6066E+000		-6.7621E-001
Am-241	59.54	35.90	5.1275E+000	5.13E+000	-4.0381E+000
Cm-243	228.19	10.56	1.6904E+000	1.18E+000	2.6326E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.1788E+000	1.18E+000	4.5188E-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 7/31/2006 2:29:56 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: ORG7829

Spectrum File: ORG7829
Sample ID: NOL-02-04-155-F-
Sample Title: NOL-02-04-155-F-G
Description: 10% saturated soil

Sample Type:
Geometry:

Acquisition Started: 7/31/2006 2:19:54 PM
Live Time: 600.0 seconds
Real Time: 601.3 seconds

Energy Calibration Date: 7/20/2006
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-02-04-155-F-
Title: NOL-02-04-155-F-G
Description: 10% saturated soil

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	947-	965	955.42	238.83	1.66	2.48E+002	78.34	4.00E+002
2	1399-	1414	1409.40	352.34	0.92	8.07E+001	47.98	1.72E+002
3	2035-	2054	2044.03	511.02	1.70	1.47E+002	44.35	1.04E+002
4	2323-	2345	2333.49	583.40	1.80	1.73E+002	44.49	8.85E+001
5	2428-	2447	2437.87	609.49	0.74	1.46E+002	38.21	6.69E+001
6	3637-	3655	3646.54	911.70	1.52	1.25E+002	31.64	4.03E+001
7	3871-	3886	3879.00	969.82	1.65	5.36E+001	30.96	6.44E+001
8	4475-	4490	4483.30	1120.92	0.50	4.79E+001	24.05	3.41E+001
9	4689-	4703	4697.00	1174.35	0.35	4.49E+001	25.92	4.51E+001
10	5323-	5335	5329.90	1332.60	0.34	2.40E+001	19.91	2.90E+001
11	5833-	5861	5846.82	1461.84	2.30	8.87E+002	61.12	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	1.000	511.00*		100.00	2.63322E-001	8.72941E-002
K-40	0.965	1460.81*		10.67	2.01563E+001	2.14320E+000
Co-60	0.979	1173.22*		100.00	1.01362E-001	5.89998E-002
		1332.49*		100.00	5.66321E-002	4.71626E-002
TL-208	0.751	277.35		6.80		
		510.84*		21.60	1.21908E+000	4.16222E-001
		583.14*		84.20	3.85167E-001	1.11247E-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	8.11051E-001	2.85633E-001
Bi-214	0.702	609.31*		46.30	6.02009E-001	1.74046E-001
		1120.29*		15.10	7.06940E-001	3.62644E-001
		1764.49		15.80		
Ac-228	0.621	338.32		11.40		
		911.07*		27.70	9.49437E-001	2.64460E-001
		969.11*		16.60	6.91612E-001	4.06347E-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	1.000	1.801258E-001	9.050043E-002
K-40	0.965	2.015627E+001	2.143202E+000
Co-60	0.979	7.407075E-002	3.683915E-002
TL-208	0.751	3.851674E-001	1.105370E-001
Pb-212 @	0.446	8.110509E-001	2.856333E-001
Bi-214	0.702	6.216543E-001	1.569106E-001
Ac-228	0.621	8.727233E-001	2.216515E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	352.34	1.3442E-001	59.49

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: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	9.0692E-002	7.54E-002	1.0136E-001
		1332.49*	100.00	7.5419E-002		5.6632E-002
	Nb-94	702.63	100.00	1.2352E-001	1.24E-001	-7.2902E-004
		871.10	100.00	1.2842E-001		9.1807E-002
	Ag-108m	79.20	7.10	1.0527E+001	1.42E-001	-1.0906E+001
		433.93	89.90	1.5170E-001		1.1709E-002
		614.37	90.40	1.7255E-001		-7.8171E-002
		722.95	90.50	1.4211E-001		-9.6819E-002
	Sb-125	176.33	6.89	3.0723E+000	4.62E-001	1.1830E+000
		427.89	29.33	4.6194E-001		-3.5304E-001
		463.38	10.35	1.3144E+000		-2.0587E-001
		600.56	17.80	7.4109E-001		2.2224E-001
		606.64	5.02	3.2906E+000		7.4970E+000
		635.90	11.32	1.1460E+000		-1.0353E-001
	Cs-134	563.23	8.38	1.5825E+000	1.58E-001	-7.8560E-002
		569.32	15.43	8.9435E-001		1.2081E-001
		604.70	97.60	1.6135E-001		-9.9028E-003
		795.84	85.40	1.5759E-001		7.5594E-002
		801.93	8.73	1.4269E+000		-8.9407E-001
	Cs-137	661.65	85.12	1.6642E-001	1.66E-001	1.6457E-001
	Eu-152	121.78	28.40	1.0074E+000	4.12E-001	-1.3208E-002
		244.69	7.49	2.4738E+000		-2.0820E+000
		344.27	26.50	5.9783E-001		-7.2544E-001
		778.89	12.74	9.7143E-001		-7.8839E-003
		867.32	4.16	2.7313E+000		-3.3307E+000
		964.01	14.40	1.0207E+000		-3.7301E-001
		1085.78	10.00	1.2889E+000		-9.2523E-001
		1112.02	13.30	9.4888E-001		8.4683E-001
		1407.95	20.70	4.1245E-001		4.1991E-001
	Eu-154	123.07	40.50	7.0352E-001	2.97E-001	-8.1406E-002
		247.94	6.60	2.6600E+000		-1.6243E+000
		591.81	4.83	2.6403E+000		-8.8605E-003
		723.30	19.70	6.5110E-001		-2.1990E-001
		756.87	4.33	2.6226E+000		-4.3219E+000
		873.19	11.50	1.1140E+000		6.6439E-001
		996.32	10.30	1.0797E+000		-3.3273E-001
		1004.76	17.90	6.0358E-001		-3.3572E-001
		1274.45	35.50	2.9653E-001		-2.9172E-002
	Eu-155	86.54	30.90	1.7815E+000	1.75E+000	1.1816E+000
		105.31	20.70	1.7525E+000		-1.9576E+000
	Am-241	59.54	35.90	5.1704E+000	5.17E+000	6.2059E-001
	Cm-243	228.19	10.56	1.7654E+000	1.24E+000	3.4835E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.2417E+000	1.24E+000	1.1208E+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 8/1/2006 12:47:44 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: ORG7829

Spectrum File: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-02-04-156-F-G
Sample ID: NOL-02-04-156-F
Sample Title: NOL-02-04-156-F-G
Description:

Sample Type:
Geometry:

Acquisition Started: 8/1/2006 8:21:26 AM
Live Time: 600.0 seconds
Real Time: 601.3 seconds

Energy Calibration Date: 7/20/2006
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: S:\Analyzed Results\BlueLogging\Reanalysis\NOL-02-04-156-F-G
Log Number: NOL-02-04-156-F
Title: NOL-02-04-156-F-G
Description:

Geometry:

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
1	297-	306	300.52	75.09	0.87	1.45E+002	86.12	7.86E+002
2	333-	346	339.07	84.72	1.05	1.97E+002	103.95	9.44E+002
3	947-	964	954.09	238.50	1.20	2.82E+002	75.20	3.63E+002
4	1399-	1414	1406.42	351.60	1.54	1.01E+002	46.80	1.56E+002
5	1845-	1856	1850.94	462.74	0.66	2.40E+001	28.51	7.50E+001
6	2034-	2053	2041.87	510.48	0.49	1.24E+002	47.06	1.29E+002
7	2323-	2340	2330.13	582.55	1.77	1.34E+002	39.93	8.61E+001
8	2425-	2445	2435.35	608.86	1.79	1.86E+002	37.11	4.75E+001
9	3633-	3652	3642.04	910.57	0.58	1.04E+002	36.07	6.59E+001
10	3865-	3881	3873.25	968.38	0.81	6.68E+001	30.33	5.53E+001
11	5321-	5333	5327.68	1332.04	0.76	3.15E+001	19.46	2.45E+001
12	5828-	5855	5841.04	1460.40	1.92	9.40E+002	62.96	2.06E+001
13	7051-	7065	7057.90	1764.65	0.67	4.15E+001	15.88	8.49E+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-02-04-156-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
ANN	0.991	511.00*	100.00	2.22343E-001	8.97311E-002
K-40	0.994	1460.81*	10.67	2.13713E+001	2.24524E+000
TL-208	0.744	277.35	6.80		
		510.84*	21.60	1.02937E+000	4.23842E-001
		583.14*	84.20	2.98705E-001	9.72241E-002
		860.37	12.46		
Pb-212	0.593	74.81* @	10.70	5.65392E+000	3.52526E+000
		77.11 @	18.00		
		87.30 @	8.00		
		238.63*	44.60	9.20524E-001	2.84725E-001
Bi-214	0.693	609.31*	46.30	7.64373E-001	1.79544E-001
		1120.29	15.10		
		1764.49*	15.80	6.75014E-001	2.66897E-001
Ac-228	0.624	338.32	11.40		
		911.07*	27.70	7.92560E-001	2.89311E-001
		969.11*	16.60	8.61671E-001	4.01793E-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-02-04-156-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
ANN	0.991	1.578231E-001	9.213174E-002
K-40	0.994	2.137132E+001	2.245242E+000
TL-208	0.744	2.987051E-001	9.673558E-002
Pb-212 @	0.593	9.205243E-001	2.847246E-001
Bi-214	0.693	7.365333E-001	1.489729E-001
Ac-228	0.624	8.161575E-001	2.347805E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.960 sigma

U N I D E N 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	3.2900E-001	52.66
4	351.60	1.6892E-001	46.17
5	462.74	4.0000E-002	118.77
11	1332.04	5.2552E-002	61.73

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:S:\Analyzed Results\BlueLogging\Reanalysis\NOL-02-04-156-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	1.3588E-001	1.21E-001	-7.6834E-002
	1332.49	100.00	1.2091E-001		6.2481E-002
Nb-94	702.63	100.00	1.2674E-001	1.07E-001	-9.3986E-002
	871.10	100.00	1.0652E-001		-2.8356E-002
Ag-108m	79.20	7.10	1.0475E+001	1.41E-001	-1.2018E+001
	433.93	89.90	1.5662E-001		-7.7260E-002
	614.37	90.40	1.6843E-001		2.4410E-002
	722.95	90.50	1.4054E-001		1.1824E-002
Sb-125	176.33	6.89	3.1515E+000	4.75E-001	-1.3562E+000
	427.89	29.33	4.7543E-001		-4.7699E-002
	463.38	10.35	1.3685E+000		3.4410E-001
	600.56	17.80	7.0563E-001		-1.5452E-001
	606.64	5.02	3.2710E+000		5.9387E+000
	635.90	11.32	1.1168E+000		1.3885E-001
Cs-134	563.23	8.38	1.6101E+000	1.44E-001	-1.1029E+000
	569.32	15.43	8.6640E-001		4.7628E-001
	604.70	97.60	1.6881E-001		-6.0360E-002
	795.84	85.40	1.4427E-001		8.4995E-002
	801.93	8.73	1.3779E+000		1.3126E-001
Cs-137	661.65	85.12	1.4975E-001	1.50E-001	-2.4504E-003
Eu-152	121.78	28.40	1.0189E+000	4.31E-001	4.4608E-001
	244.69	7.49	2.5094E+000		-1.1417E-001
	344.27	26.50	5.6259E-001		-2.6057E-001
	778.89	12.74	1.0179E+000		-4.4412E-001
	867.32	4.16	2.5804E+000		-1.7239E+000
	964.01	14.40	1.0867E+000		7.6174E-001
	1085.78	10.00	1.1668E+000		-3.6759E-001
	1112.02	13.30	9.0427E-001		-1.7820E+000
	1407.95	20.70	4.3105E-001		-2.1277E-001
Eu-154	123.07	40.50	7.0200E-001	3.05E-001	-2.9472E-001
	247.94	6.60	2.7070E+000		-3.0175E+000
	591.81	4.83	2.5741E+000		-5.1186E-001
	723.30	19.70	6.3660E-001		-7.9725E-002
	756.87	4.33	2.8400E+000		7.0045E-001
	873.19	11.50	9.5472E-001		-1.5329E-001
	996.32	10.30	1.1559E+000		-4.1022E-001
	1004.76	17.90	6.5145E-001		-1.4115E-001
	1274.45	35.50	3.0471E-001		-8.8404E-002
Eu-155	86.54	30.90	1.8343E+000	1.79E+000	3.0289E+000
	105.31	20.70	1.7871E+000		-7.5170E-001
Am-241	59.54	35.90	5.4880E+000	5.49E+000	9.8226E-001
Cm-243	228.19	10.56	1.8606E+000	1.16E+000	3.2831E-001

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/Gram)	Nuclide MDA (pCi/Gram)	Activity (pCi/Gram)
Cm-243	277.60	14.00	1.1556E+000	1.16E+000	-7.9295E-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