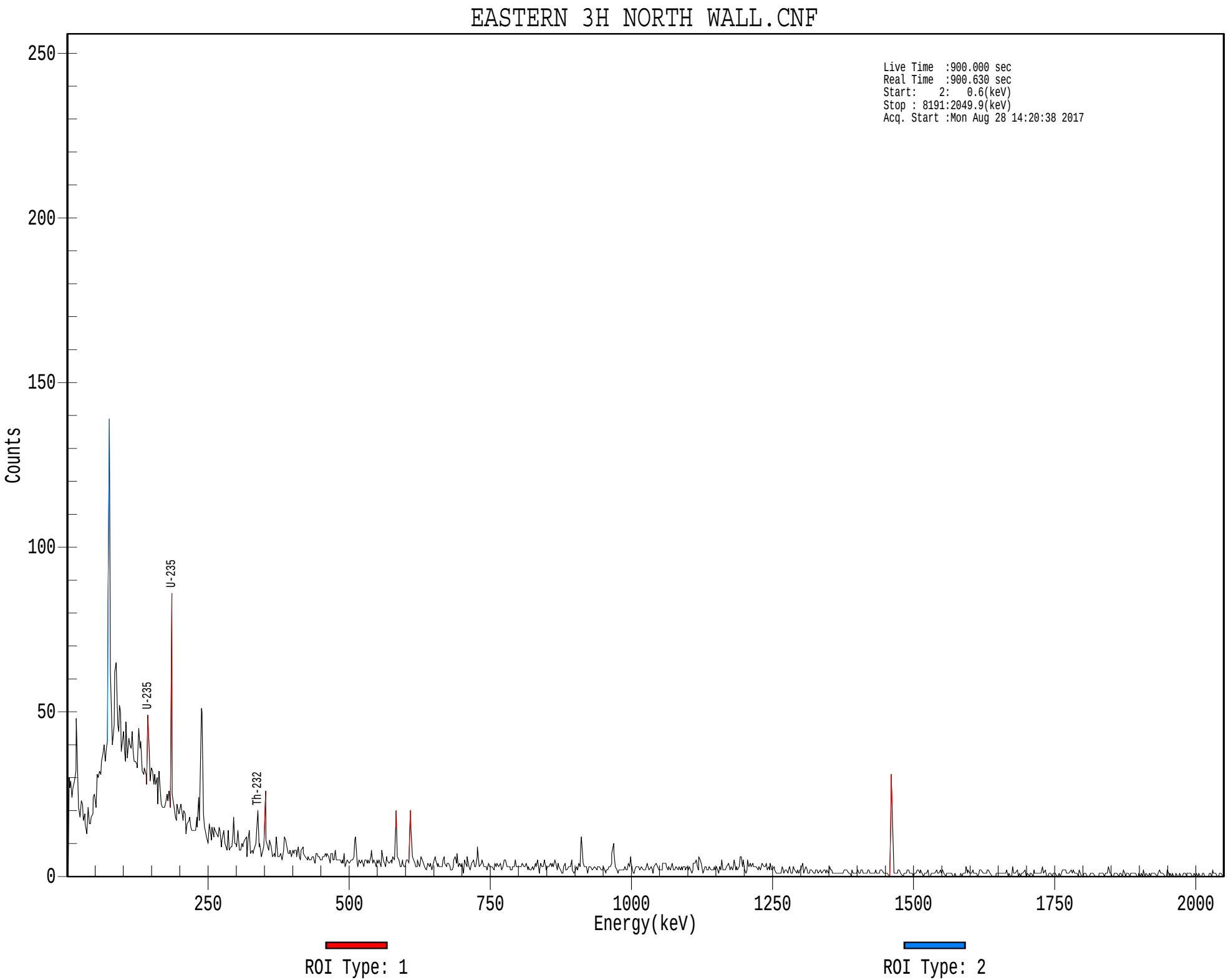
EASTERN 3H NORTH WALL.CNF
Live Time :900.000 sec
Real Time :900.630 sec
Start: 2: 0.6(keV)
Stop : 8191:2049.9(keV)
Acq. Start :Mon Aug 28 14:20:38 2017
Counts
Energy(keV)
U-235
U-235
Th-232
ROI Type: 1
ROI Type: 2

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

Filename: C:\GENIE2K\CAMFILES\UNC 2017\INSITU\Eastern 3H north wall.CNF

Report Generated On : 10/4/2017 3:31:14 PM

Sample Title : Eastern 3H North Wall
Sample Description :
Sample Identification : Eastern 3H North
Sample Type :
Sample Geometry : wall

Peak Locate Threshold : 3.00
Peak Locate Range (in channels) : 40 - 8192
Peak Area Range (in channels) : 40 - 8192
Identification Energy Tolerance : 1.000 keV

Sample Size : 1.000E+000 g

Sample Taken On : 8/28/2017 2:00:00 PM
Acquisition Started : 8/28/2017 2:20:38 PM

Live Time : 900.0 seconds
Real Time : 900.6 seconds

Dead Time : 0.07 %

Energy Calibration Used Done On : 4/13/2017
Efficiency Calibration Used Done On : 10/4/2017
Efficiency ID : UNC-2017-001

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

Detector Name: 8566
Sample Title: Eastern 3H North Wall
Peak Analysis Performed on: 10/4/2017 3:31:10 PM
Peak Analysis From Channel: 40
Peak Analysis To Channel: 8192

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
F	1	567-	578	573.80	143.70	0.68	6.15E+001	13.64	2.96E+002
F	2	735-	750	742.08	185.81	1.03	2.91E+002	59.37	2.20E+002
F	3	948-	959	953.32	238.68	1.04	1.76E+002	15.61	1.38E+002
F	4	1345-	1356	1351.44	338.30	0.67	2.80E+001	7.99	6.00E+001
F	5	2322-	2336	2329.59	583.08	1.19	6.02E+001	10.07	4.88E+001
F	6	2424-	2443	2433.49	609.08	1.53	9.02E+001	11.50	5.67E+001
F	7	5823-	5851	5837.04	1460.80	2.65	2.89E+002	17.45	6.44E+000

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

Errors quoted at 1.000 sigma

****
***** P E A K L O C A T E R E P O R T *****
****

Detector Name: 8566
Sample Title: Eastern 3H North Wall
Peak Locate Performed on: 10/4/2017 3:31:10 PM
Peak Locate From Channel: 40
Peak Locate To Channel: 8192
Peak Search Sensitivity: 3.00

Peak No.	Centroid Channel	Centroid Uncertainty	Energy (keV)	Peak Significance
1	573.86	0.3342	143.70	3.77
2	742.09	0.1990	185.81	8.11
3	953.34	0.2094	238.68	6.40
4	1351.41	0.3017	338.30	3.59
5	2329.47	0.2181	583.08	4.58
6	2433.14	0.2019	609.08	4.74
7	5837.18	0.1304	1460.80	6.49

? = Adjacent peak noted

Errors quoted at 1.960 sigma

****
***** N U C L I D E I D E N T I F I C A T I O N R E P O R T *****
****

Sample Title: Eastern 3H North Wall
Nuclide Library Used: C:\GENIE2K\CAMFILES\UNC 2017 NLB 0328201

..... IDENTIFIED NUCLIDES .....

Nuclide Name	Id Confidence	Energy (keV)	Yield (%)	Activity (pCi/g)	Activity Uncertainty
K-40	1.000	1460.82*	10.66	2.16267E+003	5.89839E+002
Pb-212	1.000	74.82	10.28		
		77.11	17.10		
		86.83	2.07		
		87.35	3.97		
		89.78	1.46		
		115.18	0.60		
		238.63*	43.60	2.76856E+002	9.63790E+001
		300.09	3.30		
BI-214	0.997	76.86	0.55		
		79.29	0.91		
		609.32*	45.49	1.45441E+002	3.79524E+001
		665.45	1.53		
		768.36	4.89		
		806.18	1.26		
		934.06	3.11		
		1120.29	14.92		
		1155.21	1.63		
		1238.11	5.83		
		1280.98	1.43		
		1377.67	3.99		
		1385.31	0.79		
		1401.52	1.33		
		1407.99	2.39		
		1509.21	2.13		
		1583.20	0.70		
		1661.27	1.05		
		1729.59	2.88		
		1764.49	15.30		
		1847.43	2.03		
		2118.51	1.16		
		2204.06	4.92		
		2447.70	1.55		
Ra-226	0.978	81.07	0.20		
		83.79	0.32		
		186.21*	3.64	8.92671E+003	3.69724E+003
AC-228	0.602	89.96	1.90		
		93.35	3.10		
		99.51	1.26		
		105.60	0.74		
		129.07	2.42		
		153.98	0.72		

Nuclide Name	Id Confidence	Energy (keV)	Yield (%)	Activity (pCi/g)	Activity Uncertainty
AC-228	0.602	209.25	3.89		
		214.85	0.76		
		270.24	3.46		
		328.00	2.95		
		338.32*	11.27	2.15164E+002	1.21784E+002
		409.46	1.92		
		463.00	4.40		
		562.50	0.87		
		674.75	2.10		
		726.86	0.62		
		755.32	1.00		
		772.29	1.49		
		794.95	4.25		
		830.49	0.54		
		835.71	1.61		
		840.38	0.91		
		904.20	0.77		
		911.20	25.80		
		964.77	4.99		
		968.97	15.80		
		1247.08	0.50		
		1459.14	0.83		
		1495.91	0.86		
		1588.20	3.22		
		1630.63	1.51		
U-235	1.000	89.96	3.43		
		93.35	5.54		
		104.82	0.69		
		105.60	1.31		
		108.58	0.50		
		109.19	1.66		
		143.76*	10.96	7.07678E+002	3.16603E+002
		163.36	5.08		
		194.94	0.63		
		202.12	1.08		
		205.32	5.02		

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.000 keV
Nuclide confidence index threshold = 0.60
Errors quoted at 1.960 sigma

****
***** I N T E R F E R E N C E C O R R E C T E D R E P O R T *****
****

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/g)	Wt mean Activity Uncertainty
K-40	1.000	2.162666E+003	5.898390E+002
Pb-212	1.000	2.768564E+002	9.637897E+001
BI-214	0.997	1.454410E+002	3.795235E+001
Ra-226	0.978	8.926705E+003	3.697236E+003
AC-228	0.602	2.151643E+002	1.217840E+002
U-235	1.000	7.076781E+002	3.166031E+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 Locate Performed on: 10/4/2017 3:31:10 PM
Peak Locate From Channel: 40
Peak Locate To Channel: 8192

	Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty	Peak Type	Tol. Nuclide
F	5	583.08	6.6902E-002	32.78		

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

Errors quoted at 1.960 sigma

****
***** N U C L I D E M D A R E P O R T *****
****

Detector Name: 8566
Sample Geometry: wall
Sample Title: Eastern 3H North Wall
Nuclide Library Used: C:\GENIE2K\CAMFILES\UNC 2017 NLB 0328201

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/g)	Nuclide MDA (pCi/g)	Activity (pCi/g)	Dec. Leve (pCi/g
+	K-40	1460.82*	10.66	8.123E+002	8.12E+002	2.163E+003	3.883E+00
	Pb-210	46.54	4.25	1.459E+004	1.46E+004	-1.861E+003	7.032E+00
	BI-212	727.33	6.67	6.089E+002	6.09E+002	4.708E+002	2.887E+00
		785.37	1.10	2.792E+003		-1.355E+003	1.297E+00
		1078.62	0.56	7.230E+003		3.537E+003	3.366E+00
		1620.50	1.47	2.475E+003		-1.368E+002	1.095E+00
+	Pb-212	74.82	10.28	3.412E+003	1.86E+002	8.026E+003	1.678E+00
		77.11	17.10	1.836E+003		3.096E+003	9.020E+00
		86.83	2.07	1.174E+004		1.116E+004	5.756E+00
		87.35	3.97	5.924E+003		-1.991E+003	2.903E+00
		89.78	1.46	1.490E+004		-4.141E+003	7.295E+00
		115.18	0.60	3.010E+004		-1.578E+004	1.473E+00
		238.63*	43.60	1.862E+002		2.769E+002	9.005E+00
		300.09	3.30	1.944E+003		-1.885E+003	9.364E+00
+	BI-214	76.86	0.55	5.856E+004	6.95E+001	1.429E+005	2.878E+00
		79.29	0.91	2.789E+004		1.061E+003	1.366E+00
		609.32*	45.49	6.954E+001		1.454E+002	3.259E+00
		665.45	1.53	2.340E+003		1.643E+003	1.104E+00
		768.36	4.89	6.960E+002		-5.748E+002	3.260E+00
		806.18	1.26	2.840E+003		-3.751E+002	1.332E+00
		934.06	3.11	1.136E+003		4.582E+001	5.284E+00
		1120.29	14.92	3.269E+002		1.933E+002	1.537E+00
		1155.21	1.63	2.527E+003		-6.664E+002	1.172E+00
		1238.11	5.83	9.353E+002		8.707E+002	4.401E+00
		1280.98	1.43	2.762E+003		1.289E+002	1.265E+00
		1377.67	3.99	9.249E+002		4.701E+002	4.174E+00
		1385.31	0.79	4.676E+003		-7.579E+002	2.110E+00
		1401.52	1.33	2.777E+003		9.541E+002	1.251E+00
		1407.99	2.39	1.473E+003		3.624E+002	6.598E+00
		1509.21	2.13	1.638E+003		6.477E+002	7.269E+00
		1583.20	0.70	4.190E+003		-4.839E+003	1.804E+00
		1661.27	1.05	3.299E+003		1.462E+003	1.446E+00
		1729.59	2.88	1.268E+003		1.920E+002	5.574E+00
		1764.49	15.30	3.213E+002		3.268E+002	1.461E+00
		1847.43	2.03	2.089E+003		6.347E+002	9.318E+00
>		2118.51	1.16	0.000E+000		0.000E+000	0.000E+00
>		2204.06	4.92	0.000E+000		0.000E+000	0.000E+00
>		2447.70	1.55	0.000E+000		0.000E+000	0.000E+00
	PB-214	74.82	5.80	6.047E+003	1.80E+002	1.422E+004	2.975E+00
		77.11	9.70	3.236E+003		5.459E+003	1.590E+00
		86.83	1.70	1.429E+004		1.359E+004	7.008E+00
		87.35	2.24	1.050E+004		-3.529E+003	5.146E+00

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/g)	Nuclide MDA (pCi/g)	Activity (pCi/g)	Dec. Leve (pCi/g
	PB-214	89.78	0.82	2.653E+004	1.80E+002	-7.374E+003	1.299E+00
		241.99	7.25	1.450E+003		3.867E+002	7.067E+00
		258.76	0.53	1.437E+004		4.732E+003	6.948E+00
		295.22	18.42	3.506E+002		-7.385E+001	1.688E+00
		351.93	35.60	1.805E+002		3.192E+002	8.718E+00
		785.96	1.06	3.041E+003		9.902E+002	1.418E+00
		839.07	0.58	6.202E+003		-1.267E+003	2.906E+00
+	Ra-226	81.07	0.20	1.183E+005	2.68E+003	-4.809E+004	5.788E+00
		83.79	0.32	7.453E+004		1.730E+004	3.651E+00
		186.21*	3.64	2.679E+003		8.927E+003	1.298E+00
+	AC-228	89.96	1.90	1.271E+004	2.06E+002	-4.048E+003	6.229E+00
		93.35	3.10	7.445E+003		-1.435E+003	3.648E+00
		99.51	1.26	1.620E+004		-9.106E+003	7.927E+00
		105.60	0.74	2.704E+004		-9.397E+003	1.324E+00
		129.07	2.42	6.942E+003		2.530E+003	3.393E+00
		153.98	0.72	1.934E+004		-1.443E+004	9.430E+00
		209.25	3.89	2.533E+003		-8.954E+002	1.228E+00
		214.85	0.76	1.257E+004		-5.043E+002	6.090E+00
		270.24	3.46	2.173E+003		1.344E+002	1.049E+00
		328.00	2.95	1.948E+003		-2.291E+003	9.337E+00
		338.32*	11.27	3.110E+002		2.152E+002	1.451E+00
		409.46	1.92	2.345E+003		-5.135E+002	1.116E+00
		463.00	4.40	1.033E+003		3.704E+002	4.925E+00
		562.50	0.87	4.590E+003		3.014E+003	2.176E+00
		674.75	2.10	1.703E+003		9.172E+001	8.005E+00
		726.86	0.62	6.821E+003		2.637E+003	3.232E+00
		755.32	1.00	3.558E+003		-1.725E+003	1.666E+00
		772.29	1.49	2.476E+003		4.968E+002	1.162E+00
		794.95	4.25	9.140E+002		4.448E+002	4.297E+00
		830.49	0.54	6.742E+003		2.934E+003	3.150E+00
		835.71	1.61	2.376E+003		-2.746E+001	1.114E+00
		840.38	0.91	4.271E+003		2.633E+003	2.003E+00
		904.20	0.77	5.782E+003		-1.161E+004	2.726E+00
		911.20	25.80	2.064E+002		2.596E+002	9.826E+00
		964.77	4.99	1.107E+003		2.027E+003	5.265E+00
		968.97	15.80	3.430E+002		4.262E+002	1.630E+00
		1247.08	0.50	9.568E+003		-6.496E+003	4.442E+00
		1459.14	0.83	1.526E+004		5.314E+004	7.389E+00
		1495.91	0.86	3.865E+003		-1.599E+003	1.694E+00
		1588.20	3.22	1.338E+003		9.515E+002	6.018E+00
		1630.63	1.51	2.552E+003		2.442E+002	1.129E+00
	TH-230	67.67	0.38	7.399E+004	7.40E+004	-3.567E+004	3.611E+00
	PA-234	742.81	0.11	3.119E+004	4.52E+003	8.133E+003	1.460E+00
		766.42	0.32	1.073E+004		2.116E+003	5.023E+00
		1001.03	0.84	4.517E+003		9.830E+002	2.103E+00
	TH-234	63.29	3.70	8.608E+003	8.61E+003	1.250E+003	4.199E+00
		92.38	2.13	1.029E+004		-4.074E+003	5.039E+00
		92.80	2.10	1.051E+004		3.340E+003	5.152E+00
		112.81	0.21	8.621E+004		-7.404E+004	4.219E+00
	U-234	53.20	0.12	3.415E+005	3.42E+005	-2.187E+004	1.655E+00
		120.90	0.04	4.772E+005		-1.146E+005	2.333E+00

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/g)	Nuclide MDA (pCi/g)	Activity (pCi/g)	Dec. Leve (pCi/g
+	U-235	89.96	3.43	6.678E+003	1.06E+003	-2.127E+003	3.273E+00
		93.35	5.54	3.951E+003		-7.617E+002	1.936E+00
		104.82	0.69	2.812E+004		7.754E+003	1.377E+00
		105.60	1.31	1.449E+004		-5.035E+003	7.092E+00
		108.58	0.50	3.761E+004		-8.351E+003	1.841E+00
		109.19	1.66	1.118E+004		-9.765E+003	5.474E+00
		143.76*	10.96	1.061E+003		7.077E+002	5.148E+00
		163.36	5.08	2.511E+003		-7.608E+002	1.224E+00
		194.94	0.63	1.604E+004		-6.931E+002	7.785E+00
		202.12	1.08	9.550E+003		3.399E+003	4.641E+00
		205.32	5.02	1.971E+003		-1.459E+003	9.569E+00

+ = Nuclide identified during the nuclide identification
* = Energy line found in the spectrum
> = MDA value not calculated
@ = Half-life too short to be able to perform the decay correction

****
**** L I N E A C T I V I T Y C O N S I S T E N C Y E V A L U A T O R ***
****

==========
Analysis using Key Line Activities
==========

Filename: C:\GENIE2K\CAMFILES\UNC 2017\INSITU\Eastern 3H north wall.CNF

Equation used to calculate plot: ln(Ratio) = A + B*ln(Energy)
where: Ratio = Activity/KL Activity

Notes:
'^' Denotes Key Line energy
* All uncertainties quoted at 1.96 sigma

Nuclide	Energy (keV)		Activity (pCi/g)	Activity %Uncert*	Ratio[%Uncert]	A	B [uncert]
K-40	1460.8	^	2.16E+003	27.274			
Pb-212	238.6	^	2.77E+002	34.812			
BI-214	609.3	^	1.45E+002	26.095			
Ra-226	186.2	^	8.93E+003	41.418			
AC-228	338.3		2.15E+002	******			
U-235	143.8	^	7.08E+002	44.738			