
***** 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\IMC Samples\IMC-2120\W6H-IMC-212

Report Generated On : 4/19/2017 10:43:26 AM

Sample Title : W6H-IMC-2120-S-P-7

Sample Description :

Sample Identification : 2120-S-P-7

Sample Type :

Sample Geometry : cylinder

Peak Locate Threshold : 3.00

Peak Locate Range (in channels) : 40 - 8192

Peak Area Range (in channels) : 40 - 8192

Identification Energy Tolerance : 1.500 keV

Sample Size : 2.554E+002 grams

Sample Taken On : 3/17/2017 12:00:00 AM

Acquisition Started : 3/30/2017 7:27:41 AM

Live Time : 1800.0 seconds

Real Time : 1800.4 seconds

Dead Time : 0.02 %

Energy Calibration Used Done On : 3/24/2017

Efficiency Calibration Used Done On : 4/19/2017

Efficiency ID : H-IMC-2120-S-P-7

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

Detector Name: 8566

Sample Title: W6H-IMC-2120-S-P-7

Peak Analysis Performed on: 4/19/2017 10:43:23 AM

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	183-	193	186.21	46.75	0.72	5.42E+001	18.64	5.32E+001
M	2	296-	314	299.80	75.17	0.75	1.15E+002	26.47	8.48E+001
m	3	296-	314	308.35	77.30	0.75	1.05E+002	24.43	7.54E+001
F	4	344-	354	348.16	87.26	0.78	5.15E+001	19.64	6.23E+001
F	5	736-	748	741.58	185.67	1.20	5.85E+001	20.19	4.88E+001
F	6	946-	959	953.15	238.60	0.98	1.09E+002	24.04	5.08E+001
F	7	1398-	1411	1405.35	351.71	1.08	5.85E+001	17.67	2.66E+001
F	8	2425-	2441	2433.17	608.82	1.51	4.94E+001	15.55	1.56E+001
F	9	3863-	3876	3870.25	968.30	1.32	2.74E+001	85.76	1.14E+001
F	10	5823-	5851	5837.03	1460.28	2.50	1.93E+002	26.05	8.06E+000

M = First peak in a multiplet region

m = Other peak in a multiplet region

F = Fitted singlet

Errors quoted at 1.960 sigma

 ***** N U C 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: W6H-IMC-2120-S-P-7
 Nuclide Library Used: C:\GENIE2K\CAMFILES\UNC 2017 Full NLB.NL

..... IDENTIFIED NUCLIDES

Nuclide Name	Id Confidence	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
K-40	0.980	1460.82*	10.66	1.16776E+001	1.86141E+000
Pb-210	0.997	46.54*	4.25	2.15604E+000	9.60791E-001
Pb-212	0.998	74.82*	10.28	9.34143E-001	2.86238E-001
		77.11*	17.10	5.00534E-001	1.54408E-001
		86.83	2.07		
		87.35*	3.97	9.90381E-001	4.26914E-001
		89.78	1.46		
		115.18	0.60		
		238.63*	43.60	2.83142E-001	7.68298E-002
		300.09	3.30		
BI-214	0.266	76.86*	0.55	1.57048E+001	4.86524E+000
		79.29	0.91		
		89.26	0.11		
		89.81	0.21		
		273.80	0.13		
		348.92	0.10		
		386.78	0.29		
		388.89	0.40		
		405.72	0.17		
		454.79	0.29		
		469.77	0.13		
		609.32*	45.49	3.19651E-001	1.07404E-001
		665.45	1.53		
		703.11	0.47		
		719.87	0.39		
		752.85	0.13		
		768.36	4.89		
		786.35	0.32		
		806.18	1.26		
		821.18	0.16		
		826.45	0.12		
		934.06	3.11		
		964.08	0.37		
		1051.96	0.31		
		1069.96	0.27		
		1120.29	14.92		
		1133.66	0.25		
		1155.21	1.63		
		1207.68	0.45		
		1238.11	5.83		
		1280.98	1.43		
		1303.75	0.11		

Nuclide Name	Id Confidence	Energy (keV)	Yield (%)	Activity (pCi/gram)	Activity Uncertainty
BI-214	0.266	1377.67	3.99		
		1385.31	0.79		
		1401.52	1.33		
		1407.99	2.39		
		1509.21	2.13		
		1538.53	0.40		
		1543.34	0.30		
		1583.20	0.70		
		1594.75	0.27		
		1599.37	0.32		
		1661.27	1.05		
		1684.01	0.21		
		1729.59	2.88		
		1764.49	15.30		
		1838.36	0.35		
		1847.43	2.03		
		1873.16	0.21		
		1896.05	0.15		
		2118.51	1.16		
		2204.06	4.92		
		2293.38	0.31		
		2447.70	1.55		
PB-214	0.520	74.82*	5.80	1.65569E+000	5.28519E-001
		77.11*	9.70	8.82384E-001	2.83558E-001
		86.83	1.70		
		87.35*	2.24	1.75527E+000	7.71327E-001
		89.78	0.82		
		241.99	7.25		
		258.76	0.53		
		274.80	0.35		
		295.22	18.42		
		351.93*	35.60	2.74280E-001	9.21130E-002
		462.02	0.21		
		480.43	0.34		
		487.14	0.43		
		533.66	0.18		
		580.14	0.37		
		785.96	1.06		
		839.07	0.58		
Ra-226	0.982	81.07	0.20		
		83.79	0.32		
		186.21*	3.64	1.47077E+000	5.65689E-001

* = Energy line found in the spectrum.

@ = Energy line not used for Weighted Mean Activity

Energy Tolerance : 1.500 keV

Nuclide confidence index threshold = 0.10

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/gram)	Wt mean Activity Uncertainty
K-40	0.980	1.167759E+001	1.861407E+000
Pb-210	0.997	2.156040E+000	9.607912E-001
Pb-212	0.998	3.273671E-001	6.698895E-002
BI-214	0.266	3.194445E-001	1.073609E-001
PB-214	0.520	3.103759E-001	8.694931E-002
Ra-226	0.982	1.470769E+000	5.656894E-001

? = nuclide is part of an undetermined solution

X = nuclide rejected by the interference analysis

@ = nuclide contains energy lines not used in Weighted Mean Activity

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: 4/19/2017 10:43:23 AM
 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 9	968.30	1.5223E-002	312.97		

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: cylinder
Sample Title: W6H-IMC-2120-S-P-7
Nuclide Library Used: C:\GENIE2K\CAMFILES\UNC 2017 Full NLB.NL

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)	Dec. Leve (pCi/gram)
+	K-40	1460.82*	10.66	1.075E+000	1.08E+000	1.168E+001	4.559E-00
	CO-60	1173.23	99.85	1.878E-001	1.55E-001	3.258E-002	8.662E-00
		1332.49	99.98	1.554E-001		-8.808E-002	6.959E-00
	CS-137	661.66	85.10	1.604E-001	1.60E-001	3.834E-002	7.511E-00
+	Pb-210	46.54*	4.25	1.715E+000	1.72E+000	2.156E+000	8.037E-00
	BI-212	288.20	0.34	1.958E+001	2.24E+000	5.245E-001	9.244E+00
		328.03	0.13	5.939E+001		4.720E+001	2.802E+00
		452.98	0.36	2.514E+001		7.748E+000	1.176E+00
		727.33	6.67	2.238E+000		1.492E+000	1.048E+00
		785.37	1.10	1.455E+001		5.350E+000	6.813E+00
		893.41	0.38	4.220E+001		1.099E+001	1.959E+00
		952.12	0.17	8.715E+001		-1.345E+001	4.002E+00
		1078.62	0.56	2.832E+001		7.160E-001	1.297E+00
		1512.70	0.29	5.386E+001		3.729E+001	2.383E+00
		1620.50	1.47	9.358E+000		-3.229E+000	4.029E+00
+	Pb-212	74.82*	10.28	3.707E-001	1.08E-001	9.341E-001	1.743E-00
		77.11*	17.10	2.065E-001		5.005E-001	9.677E-00
		86.83	2.07	2.581E+000		7.024E-001	1.240E+00
		87.35*	3.97	8.930E-001		9.904E-001	4.205E-00
		89.78	1.46	3.367E+000		-2.499E+000	1.614E+00
		115.18	0.60	6.443E+000		3.485E-001	3.055E+00
		238.63*	43.60	1.079E-001		2.831E-001	5.044E-00
		300.09	3.30	2.313E+000		-1.266E+000	1.099E+00
+	BI-214	76.86*	0.55	6.479E+000	1.48E-001	1.570E+001	3.036E+00
		79.29	0.91	6.237E+000		-1.183E+000	2.998E+00
		89.26	0.11	4.597E+001		-6.189E+000	2.205E+00
		89.81	0.21	2.341E+001		-1.737E+001	1.122E+00
		273.80	0.13	4.752E+001		-1.453E+001	2.240E+00
		348.92	0.10	8.680E+001		-3.121E+001	4.125E+00
		386.78	0.29	2.945E+001		1.757E+001	1.388E+00
		388.89	0.40	2.162E+001		5.539E-001	1.019E+00
		405.72	0.17	4.747E+001		-1.929E+001	2.218E+00
		454.79	0.29	3.179E+001		3.494E+000	1.488E+00
		469.77	0.13	6.940E+001		1.356E+001	3.238E+00
		609.32*	45.49	1.481E-001		3.197E-001	6.529E-00
		665.45	1.53	8.668E+000		3.893E-001	4.050E+00
		703.11	0.47	2.841E+001		4.249E+000	1.323E+00
		719.87	0.39	3.256E+001		-4.191E+001	1.508E+00
		752.85	0.13	1.181E+002		9.743E+001	5.524E+00
		768.36	4.89	2.574E+000		1.540E+000	1.185E+00
		786.35	0.32	4.951E+001		2.465E+001	2.317E+00
		806.18	1.26	1.112E+001		-2.714E+000	5.149E+00

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)	Dec. Leve (pCi/gram)
+	BI-214	821.18	0.16	8.233E+001	1.48E-001	-5.721E+000	3.788E+00
		826.45	0.12	1.067E+002		-2.808E+001	4.881E+00
		934.06	3.11	4.836E+000		-1.825E+000	2.227E+00
		964.08	0.37	5.378E+001		1.444E+001	2.522E+00
		1051.96	0.31	5.050E+001		-8.256E+000	2.315E+00
		1069.96	0.27	6.027E+001		1.985E+001	2.768E+00
		1120.29	14.92	1.259E+000		-1.441E-001	5.828E-00
		1133.66	0.25	7.074E+001		-1.523E+001	3.258E+00
		1155.21	1.63	1.201E+001		2.986E+000	5.569E+00
		1207.68	0.45	4.282E+001		2.708E+001	1.977E+00
		1238.11	5.83	3.742E+000		4.337E+000	1.741E+00
		1280.98	1.43	1.181E+001		2.007E+000	5.364E+00
		1303.75	0.11	1.693E+002		-6.553E+001	7.727E+00
		1377.67	3.99	3.989E+000		5.120E-001	1.787E+00
		1385.31	0.79	2.221E+001		3.838E+000	1.005E+00
		1401.52	1.33	1.192E+001		-9.608E-001	5.327E+00
		1407.99	2.39	6.523E+000		-7.966E-001	2.909E+00
		1509.21	2.13	6.451E+000		-2.282E+000	2.804E+00
		1538.53	0.40	2.951E+001		-9.035E+000	1.246E+00
		1543.34	0.30	4.047E+001		1.599E+001	1.722E+00
		1583.20	0.70	2.454E+001		-1.504E+001	1.094E+00
		1594.75	0.27	7.459E+001		4.997E+001	3.377E+00
		1599.37	0.32	5.693E+001		1.352E+001	2.555E+00
		1661.27	1.05	9.727E+000		-7.587E-001	3.930E+00
		1684.01	0.21	7.081E+001		2.733E+000	3.078E+00
		1729.59	2.88	5.699E+000		-3.176E+000	2.497E+00
		1764.49	15.30	1.199E+000		6.835E-001	5.318E-00
		1838.36	0.35	4.267E+001		-5.894E+000	1.827E+00
		1847.43	2.03	7.919E+000		-2.362E-001	3.427E+00
		1873.16	0.21	6.847E+001		-1.661E+001	2.913E+00
		1896.05	0.15	9.142E+001		-1.399E+001	3.829E+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
		2293.38	0.31	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	6.570E-001	1.36E-001	1.656E+000	3.090E-00
		77.11*	9.70	3.640E-001		8.824E-001	1.706E-00
		86.83	1.70	3.142E+000		8.553E-001	1.510E+00
		87.35*	2.24	1.583E+000		1.755E+000	7.452E-00
		89.78	0.82	5.995E+000		-4.449E+000	2.873E+00
		241.99	7.25	1.161E+000		-7.906E-002	5.591E-00
		258.76	0.53	1.128E+001		4.235E+000	5.328E+00
		274.80	0.35	1.656E+001		-7.815E+000	7.786E+00
		295.22	18.42	4.155E-001		-2.451E-001	1.975E-00
		351.93*	35.60	1.360E-001		2.743E-001	6.165E-00
		462.02	0.21	4.728E+001		1.896E+001	2.222E+00
		480.43	0.34	3.150E+001		2.387E+001	1.482E+00
		487.14	0.43	2.308E+001		-6.749E+000	1.080E+00
		533.66	0.18	5.646E+001		-2.730E+000	2.630E+00
		580.14	0.37	3.457E+001		7.580E+000	1.626E+00
		785.96	1.06	1.494E+001		4.857E+000	6.991E+00

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)	Dec. Leve (pCi/gram)
+	PB-214	839.07	0.58	2.342E+001	1.36E-001	-3.418E+000	1.079E+00
+	Ra-226	81.07	0.20	2.058E+001	1.00E+000	-7.692E+000	9.742E+00
		83.79	0.32	1.453E+001		6.349E+000	6.937E+00
		186.21*	3.64	1.004E+000		1.471E+000	4.680E-00
	AC-228	89.96	1.90	1.153E+016	3.29E+015	-8.554E+015	5.524E+01
		93.35	3.10	6.356E+015		-5.144E+015	3.033E+01
		99.51	1.26	1.379E+016		-4.766E+014	6.541E+01
		104.82	0.39	4.448E+016		2.172E+016	2.111E+01
		105.60	0.74	2.237E+016		-6.895E+015	1.059E+01
		108.58	0.28	5.936E+016		-3.488E+016	2.811E+01
		129.07	2.42	7.827E+015		5.137E+015	3.726E+01
		145.85	0.16	1.110E+017		-2.780E+014	5.250E+01
		153.98	0.72	2.728E+016		2.139E+016	1.296E+01
		191.35	0.12	1.764E+017		6.026E+016	8.358E+01
		199.41	0.31	6.582E+016		1.027E+015	3.105E+01
		204.03	0.11	1.995E+017		3.581E+016	9.444E+01
		209.25	3.89	6.340E+015		2.409E+015	3.014E+01
		214.85	0.76	3.178E+016		1.586E+015	1.507E+01
		270.24	3.46	8.013E+015		4.896E+015	3.784E+01
		278.95	0.16	1.771E+017		4.950E+016	8.358E+01
		321.65	0.23	1.274E+017		-1.065E+017	5.965E+01
		327.44	0.12	2.753E+017		1.180E+017	1.299E+01
		328.00	2.95	1.122E+016		8.915E+015	5.292E+01
		332.37	0.40	8.044E+016		-1.070E+017	3.785E+01
		338.32	11.27	3.322E+015		3.488E+014	1.575E+01
		340.96	0.37	1.014E+017		2.051E+016	4.808E+01
		409.46	1.92	1.931E+016		-4.048E+015	9.041E+01
		440.44	0.12	3.178E+017		1.558E+016	1.484E+01
		463.00	4.40	1.024E+016		5.079E+015	4.813E+01
		478.33	0.21	2.114E+017		-6.800E+016	9.903E+01
		503.82	0.18	2.496E+017		-5.335E+017	1.167E+01
		508.96	0.45	1.311E+017		1.282E+017	6.228E+01
		523.13	0.10	4.847E+017		5.286E+016	2.276E+01
		546.47	0.20	2.550E+017		3.368E+016	1.196E+01
		562.50	0.87	5.954E+016		-3.797E+016	2.789E+01
		570.91	0.18	2.739E+017		1.521E+016	1.278E+01
		572.14	0.15	3.377E+017		1.583E+017	1.577E+01
		583.41	0.11	5.307E+017		3.823E+017	2.500E+01
		674.75	2.10	2.633E+016		-1.095E+016	1.223E+01
		701.75	0.17	3.397E+017		4.972E+015	1.581E+01
		707.41	0.16	3.792E+017		-1.321E+017	1.763E+01
		726.86	0.62	1.059E+017		4.894E+016	4.955E+01
		755.32	1.00	6.299E+016		2.201E+016	2.931E+01
		772.29	1.49	3.825E+016		-1.247E+016	1.763E+01
		782.14	0.49	1.468E+017		1.291E+017	6.875E+01
		794.95	4.25	1.377E+016		-8.840E+015	6.347E+01
		830.49	0.54	1.071E+017		-5.588E+015	4.914E+01
		835.71	1.61	3.915E+016		3.094E+016	1.809E+01
		840.38	0.91	6.699E+016		4.469E+015	3.085E+01
		904.20	0.77	9.560E+016		-8.459E+016	4.446E+01
		911.20	25.80	3.286E+015		3.310E+015	1.543E+01

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/gram)	Nuclide MDA (pCi/gram)	Activity (pCi/gram)	Dec. Leve (pCi/gram)
AC-228	947.98	0.11	6.715E+017	3.29E+015	1.822E+017	3.105E+01
	958.61	0.28	2.613E+017		-6.340E+016	1.210E+01
	964.77	4.99	1.766E+016		5.115E+015	8.283E+01
	968.97	15.80	5.730E+015		3.011E+015	2.692E+01
	1033.25	0.20	3.712E+017		2.450E+017	1.712E+01
	1065.18	0.13	5.275E+017		1.152E+017	2.413E+01
	1095.68	0.13	6.640E+017		2.035E+017	3.084E+01
	1110.61	0.28	2.967E+017		-3.214E+017	1.375E+01
	1153.52	0.14	6.067E+017		-4.010E+016	2.805E+01
	1247.08	0.50	1.803E+017		-4.044E+016	8.334E+01
	1459.14	0.83	2.474E+017		7.058E+017	1.190E+01
	1495.91	0.86	7.655E+016		-2.084E+015	3.366E+01
	1501.57	0.46	1.631E+017		1.059E+017	7.290E+01
	1557.11	0.18	2.708E+017		-1.252E+017	1.123E+01
	1580.53	0.60	1.259E+017		1.454E+016	5.599E+01
	1588.20	3.22	2.666E+016		8.909E+015	1.203E+01
	1625.06	0.25	2.565E+017		1.368E+017	1.115E+01
	1630.63	1.51	4.084E+016		-2.236E+016	1.759E+01
	1638.28	0.47	1.361E+017		4.134E+016	5.888E+01
	1666.52	0.18	3.160E+017		5.260E+016	1.334E+01
TH-230	67.67	0.38	1.278E+001	1.28E+001	-1.899E+001	6.060E+00
PA-234	742.81	0.11	1.275E+002	1.99E+001	-9.548E-001	5.921E+00
	766.42	0.32	3.802E+001		-6.198E+000	1.744E+00
TH-234	1001.03	0.84	1.989E+001	1.62E+000	2.594E+000	9.194E+00
	63.29	3.70	1.621E+000		-2.563E-001	7.739E-00
	92.38	2.13	2.304E+000		2.737E+000	1.104E+00
	92.80	2.10	2.208E+000		-5.332E-002	1.056E+00
	112.81	0.21	1.862E+001		-3.948E+000	8.840E+00
U-234	53.20	0.12	5.011E+001	5.01E+001	-1.059E+001	2.362E+00
	120.90	0.04	9.991E+001		0.000E+000	4.710E+00
U-235	72.70	0.12	5.131E+001	3.48E-001	-2.820E+001	2.469E+00
	89.96	3.43	1.432E+000		-1.063E+000	6.863E-00
	93.35	5.54	7.977E-001		-6.456E-001	3.807E-00
	104.82	0.69	5.680E+000		2.773E+000	2.696E+00
	105.60	1.31	2.834E+000		-8.736E-001	1.342E+00
	108.58	0.50	7.456E+000		-4.381E+000	3.531E+00
	109.19	1.66	2.226E+000		-1.745E+000	1.054E+00
	140.76	0.20	1.988E+001		-4.992E+000	9.417E+00
	143.76	10.96	3.483E-001		7.499E-002	1.645E-00
	163.36	5.08	8.355E-001		2.538E-001	3.954E-00
	182.62	0.39	1.388E+001		-2.464E+000	6.628E+00
	194.94	0.63	7.531E+000		7.731E-001	3.561E+00
	202.12	1.08	4.460E+000		-1.121E+000	2.107E+00
	205.32	5.02	9.902E-001		-7.379E-001	4.684E-00
	221.39	0.12	4.694E+001		-4.402E+001	2.226E+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

 *** LINE ACTIVITY CONSISTENCY EVALUATOR ***

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 Analysis using Key Line Activities
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Filename: C:\GENIE2K\CAMFILES\UNC 2017\IMC Samples\IMC-2120\W6H-IMC-212

Equation used to calculate plot: $\ln(\text{Ratio}) = A + B \cdot \ln(\text{Energy})$

where: Ratio = Activity/KL Activity

Notes:

'^' Denotes Key Line energy

* All uncertainties quoted at 1.96 sigma

Nuclide	Energy (keV)		Activity (pCi/gram)	Activity %Uncert*	Ratio[%Uncert]	A	B [uncert]
-----	-----		-----	-----	-----	-----	-----
K-40	1460.8	^	1.17E+001	15.940			
Pb-210	46.5	^	2.16E+000	44.563			
Pb-212	74.8		9.34E-001	30.642	3.299[40.929]	4.68	-0.852
	77.1		5.01E-001	30.849	1.768[41.084]		[0.411]
	87.3		9.90E-001	43.106	3.498[50.935]		
	238.6	^	2.83E-001	27.135	1.000[38.374]		

Nuclide	Energy (keV)		Activity (pCi/gram)	Activity %Uncert*	Ratio[%Uncert]	A	B [uncert]
-----	-----		-----	-----	-----	-----	-----
BI-214	76.9		1.57E+001	30.979	49.131[45.702]	12.06	-1.881
	609.3	^	3.20E-001	33.600	1.000[47.518]		[0.318]
PB-214	74.8		1.66E+000	31.921	6.036[46.334]	6.11	-1.038
	77.1		8.82E-001	32.135	3.217[46.482]		[0.368]
	87.3		1.76E+000	43.943	6.400[55.307]		
	351.9	^	2.74E-001	33.584	1.000[47.494]		
Ra-226	186.2	^	1.47E+000	38.462			