

From: Vasbinder, David
To: [Conway, Kimberly](#)
Subject: [External_Sender] Updated responses
Date: Monday, February 12, 2018 5:35:39 PM
Attachments: [Response to #1 - MicroShield Calcs for Detector reponse of 2x2 NaI.PDF](#)
[Response to #4 - Appendix H - Soil Stockpile Analyses.pdf](#)
[Response to #5 - GEW-P15-005 BMRC Final Status Survey_03022015.pdf](#)

Here are the last three attachments. Hopefully everything goes through.

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MicroShield 8.02
AJNardi (8.02-0000)

Date	By	Checked

Filename	Run Date	Run Time	Duration
Case1	January 12, 2015	12:30:39 PM	00:00:00

Project Info

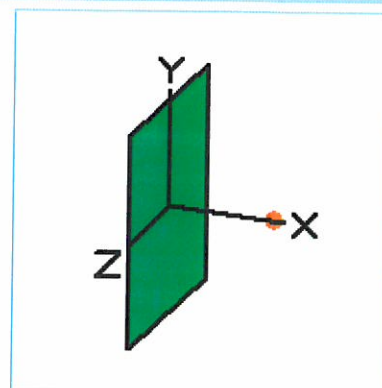
Case Title	BMRC Co-60 Surface
Description	Infinite Plane 7,100 dpm/100 cm ²
Geometry	15 - Infinite Plane

Dose Points

A	X	Y	Z
#1	10.0 cm (3.9 in)	0.0 cm (0 in)	0.0 cm (0 in)

Shields

Shield N	Dimension	Material	Density
Air Gap		Air	0.00122



Source Input: Grouping Method - Standard Indices

Number of Groups: 25
Lower Energy Cutoff: 0.015
Photons < 0.015: Included
Library: Grove

Nuclide	$\mu\text{Ci}/\text{cm}^2$	Bq/cm^2
Co-60	3.1892e-005	1.1800e+000

Buildup: The material reference is Air Gap
Integration Parameters

Results

Energy (MeV)	Activity (Photons/sec)	Fluence Rate	Fluence Rate	Exposure Rate	Exposure Rate
		MeV/cm ² /sec No Buildup	MeV/cm ² /sec With Buildup	mR/hr No Buildup	mR/hr With Buildup
0.6	1.925e-04	3.667e-04	5.287e-04	7.158e-07	1.032e-06
1.0	1.180e+00	3.886e+00	4.958e+00	7.163e-03	9.139e-03
1.5	1.180e+00	6.011e+00	7.121e+00	1.011e-02	1.198e-02
Totals	2.360e+00	9.898e+00	1.208e+01	1.728e-02	2.112e-02

MicroShield 8.02
AJNardi (8.02-0000)

Date	By	Checked

Filename	Run Date	Run Time	Duration
Case1	January 13, 2015	12:37:14 PM	00:00:00

Project Info

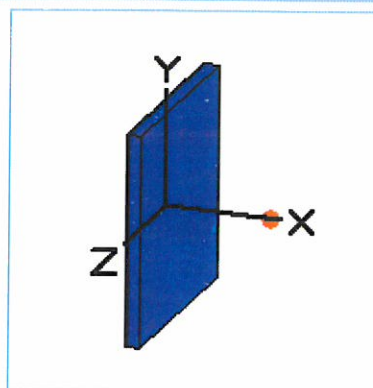
Case Title	BMRC Co-60/ .5" Soil
Description	Infinite plane @ 7,100 dpm/100 cm ² plus 0.5" soil
Geometry	15 - Infinite Plane

Dose Points

A	X	Y	Z
#1	10.0 cm (3.9 in)	0.0 cm (0 in)	0.0 cm (0 in)

Shields

Shield N	Dimension	Material	Density
Shield 1	1.25 cm	Concrete	1.6
Air Gap		Air	0.00122



Source Input: Grouping Method - Standard Indices

Number of Groups: 25

Lower Energy Cutoff: 0.015

Photons < 0.015: Included

Library: Grove

Nuclide	μCi/cm ²	Bq/cm ²
Co-60	3.1892e-005	1.1800e+000

Buildup: The material reference is Shield 1
Integration Parameters

Results

Energy (MeV)	Activity (Photons/sec)	Fluence Rate MeV/cm ² /sec No Buildup	Fluence Rate MeV/cm ² /sec With Buildup	Exposure Rate mR/hr No Buildup	Exposure Rate mR/hr With Buildup
0.6	1.925e-04	8.068e-05	1.826e-04	1.575e-07	3.564e-07
1.0	1.180e+00	9.453e-01	1.721e+00	1.743e-03	3.173e-03
1.5	1.180e+00	1.580e+00	2.461e+00	2.658e-03	4.140e-03
Totals	2.360e+00	2.525e+00	4.182e+00	4.401e-03	7.313e-03

MicroShield 8.02
AJNardi (8.02-0000)

Date	By	Checked

Filename	Run Date	Run Time	Duration
Case1	January 13, 2015	12:31:48 PM	00:00:00

Project Info

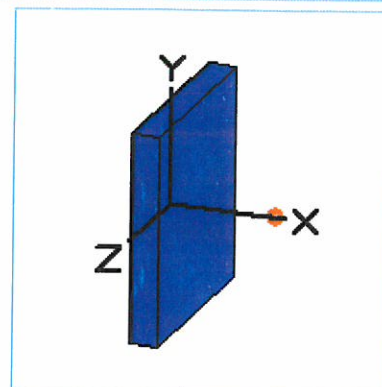
Case Title	BMRC Co-60/ 1" Soil
Description	Infinite plane @ 7,100 dpm/100 cm ² plus 1" soil
Geometry	15 - Infinite Plane

Dose Points

A	X	Y	Z
#1	10.0 cm (3.9 in)	0.0 cm (0 in)	0.0 cm (0 in)

Shields

Shield N	Dimension	Material	Density
Shield 1	2.5 cm	Concrete	1.6
Air Gap		Air	0.00122



Source Input: Grouping Method - Standard Indices

Number of Groups: 25

Lower Energy Cutoff: 0.015

Photons < 0.015: Included

Library: Grove

Nuclide	$\mu\text{Ci}/\text{cm}^2$	Bq/cm^2
Co-60	3.1892e-005	1.1800e+000

Buildup: The material reference is Shield 1

Integration Parameters

Results

Energy (MeV)	Activity (Photons/sec)	Fluence Rate MeV/cm ² /sec No Buildup	Fluence Rate MeV/cm ² /sec With Buildup	Exposure Rate mR/hr No Buildup	Exposure Rate mR/hr With Buildup
0.6	1.925e-04	4.910e-05	1.365e-04	9.585e-08	2.664e-07
1.0	1.180e+00	6.065e-01	1.292e+00	1.118e-03	2.382e-03
1.5	1.180e+00	1.054e+00	1.850e+00	1.773e-03	3.112e-03
Totals	2.360e+00	1.660e+00	3.142e+00	2.891e-03	5.494e-03

MicroShield 8.02
AJNardi (8.02-0000)

Date	By	Checked

Filename	Run Date	Run Time	Duration
Case1	January 13, 2015	12:43:39 PM	00:00:00

Project Info

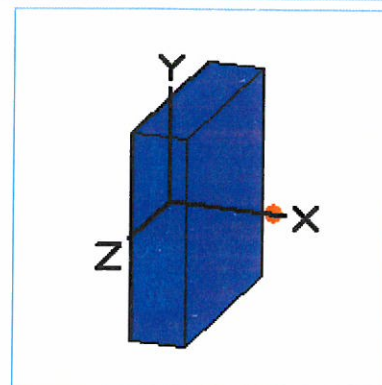
Case Title	BMRC Co-60/ 2" Soil
Description	Infinite plane @ 7,100 dpm/100 cm ² plus 2" soil
Geometry	15 - Infinite Plane

Dose Points

A	X	Y	Z
#1	10.0 cm (3.9 in)	0.0 cm (0 in)	0.0 cm (0 in)

Shields

Shield N	Dimension	Material	Density
Shield 1	5.1 cm	Concrete	1.6
Air Gap		Air	0.00122



Source Input: Grouping Method - Standard Indices

Number of Groups: 25

Lower Energy Cutoff: 0.015

Photons < 0.015: Included

Library: Grove

Nuclide	$\mu\text{Ci}/\text{cm}^2$	Bq/cm^2
Co-60	3.1892e-005	1.1800e+000

Buildup: The material reference is Shield 1

Integration Parameters

Results

Energy (MeV)	Activity (Photons/sec)	Fluence Rate MeV/cm ² /sec No Buildup	Fluence Rate MeV/cm ² /sec With Buildup	Exposure Rate mR/hr No Buildup	Exposure Rate mR/hr With Buildup
0.6	1.925e-04	2.335e-05	8.685e-05	4.558e-08	1.695e-07
1.0	1.180e+00	3.164e-01	8.470e-01	5.832e-04	1.561e-03
1.5	1.180e+00	5.880e-01	1.232e+00	9.894e-04	2.073e-03
Totals	2.360e+00	9.044e-01	2.079e+00	1.573e-03	3.635e-03

MicroShield 8.02
AJNardi (8.02-0000)

Date	By	Checked

Filename	Run Date	Run Time	Duration
Case1	January 12, 2015	2:23:44 PM	-01:59:6

Project Info

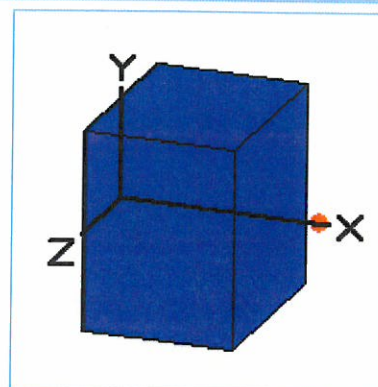
Case Title	BMRC Co-60 plus soil
Description	Infinite plane @ 7,100 dpm/100 cm ² plus 6" soil
Geometry	15 - Infinite Plane

Dose Points

A	X	Y	Z
#1	20.0 cm (7.9 in)	0.0 cm (0 in)	0.0 cm (0 in)

Shields

Shield N	Dimension	Material	Density
Shield 1	15.0 cm	Concrete	1.6
Air Gap		Air	0.00122



Source Input: Grouping Method - Standard Indices

Number of Groups: 25

Lower Energy Cutoff: 0.015

Photons < 0.015: Included

Library: Grove

Nuclide	$\mu\text{Ci}/\text{cm}^2$	Bq/cm^2
Co-60	3.1892e-005	1.1800e+000

Buildup: The material reference is Air Gap

Integration Parameters

Results

Energy (MeV)	Activity (Photons/sec)	Fluence Rate MeV/cm ² /sec No Buildup	Fluence Rate MeV/cm ² /sec With Buildup	Exposure Rate mR/hr No Buildup	Exposure Rate mR/hr With Buildup
0.6	1.925e-04	3.081e-06	2.918e-05	6.013e-09	5.695e-08
1.0	1.180e+00	5.655e-02	3.016e-01	1.042e-04	5.559e-04
1.5	1.180e+00	1.306e-01	4.586e-01	2.197e-04	7.716e-04
Totals	2.360e+00	1.871e-01	7.602e-01	3.239e-04	1.328e-03

MicroShield 8.02
AJNardi (8.02-0000)

Date	By	Checked

Filename	Run Date	Run Time	Duration
Case2	January 12, 2015	12:44:01 PM	00:00:00

Project Info

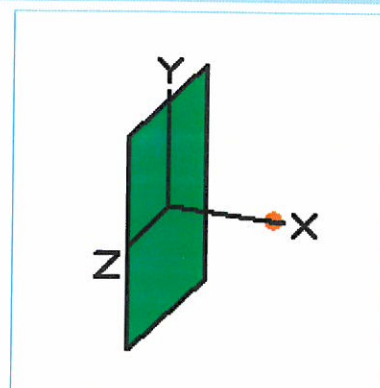
Case Title	BMRC Ag-108m
Description	Infinite Plane 17,000 dpm/100 cm ²
Geometry	15 - Infinite Plane

Dose Points

A	X	Y	Z
#1	10.0 cm (3.9 in)	0.0 cm (0 in)	0.0 cm (0 in)

Shields

Shield N	Dimension	Material	Density
Air Gap		Air	0.00122



Source Input: Grouping Method - Standard Indices

Number of Groups: 25

Lower Energy Cutoff: 0.015

Photons < 0.015: Included

Library: Grove

Nuclide	$\mu\text{Ci}/\text{cm}^2$	Bq/cm^2
Ag-108m	7.6486e-005	2.8300e+000

Buildup: The material reference is Air Gap

Integration Parameters

Results

Energy (MeV)	Activity (Photons/sec)	Fluence Rate MeV/cm ² /sec No Buildup	Fluence Rate MeV/cm ² /sec With Buildup	Exposure Rate mR/hr No Buildup	Exposure Rate mR/hr With Buildup
0.015	1.525e-01	3.917e-03	4.063e-03	3.360e-04	3.485e-04
0.02	1.856e+00	7.731e-02	8.448e-02	2.678e-03	2.926e-03
0.03	6.009e-07	4.468e-08	5.721e-08	4.429e-10	5.670e-10
0.08	2.006e-01	4.536e-02	1.209e-01	7.179e-05	1.914e-04
0.4	2.544e+00	3.145e+00	5.221e+00	6.127e-03	1.017e-02
0.6	2.558e+00	4.874e+00	7.027e+00	9.513e-03	1.372e-02
0.8	2.561e+00	6.638e+00	8.919e+00	1.263e-02	1.697e-02
Totals	9.872e+00	1.478e+01	2.138e+01	3.135e-02	4.432e-02

MicroShield 8.02
AJNardi (8.02-0000)

Date	By	Checked

Filename	Run Date	Run Time	Duration
Case1	January 13, 2015	2:48:02 PM	00:00:00

Project Info

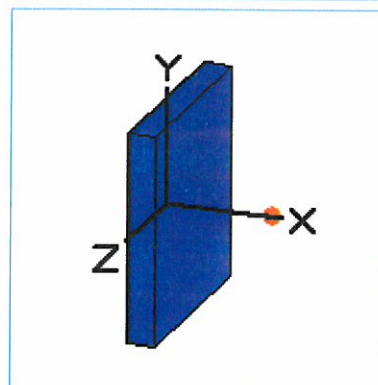
Case Title	BMRC Ag-108m/1" Soil
Description	Infinite plane @ 17,000 dpm/100 cm ² plus 1" soil
Geometry	15 - Infinite Plane

Dose Points

A	X	Y	Z
#1	10.0 cm (3.9 in)	0.0 cm (0 in)	0.0 cm (0 in)

Shields

Shield N	Dimension	Material	Density
Shield 1	2.5 cm	Concrete	1.6
Air Gap		Air	0.00122



Source Input: Grouping Method - Standard Indices

Number of Groups: 25

Lower Energy Cutoff: 0.015

Photons < 0.015: Included

Library: Grove

Nuclide	$\mu\text{Ci}/\text{cm}^2$	Bq/cm^2
Ag-108m	7.6486e-005	2.8300e+000

Buildup: The material reference is Shield 1

Integration Parameters

Results

Energy (MeV)	Activity (Photons/sec)	Fluence Rate MeV/cm ² /sec No Buildup	Fluence Rate MeV/cm ² /sec With Buildup	Exposure Rate mR/hr No Buildup	Exposure Rate mR/hr With Buildup
0.015	1.525e-01	3.180e-19	3.522e-19	2.727e-20	3.021e-20
0.02	1.856e+00	9.830e-10	1.182e-09	3.405e-11	4.095e-11
0.03	6.009e-07	1.718e-11	2.580e-11	1.702e-13	2.557e-13
0.08	2.006e-01	2.483e-03	7.817e-03	3.930e-06	1.237e-05
0.4	2.544e+00	3.716e-01	1.253e+00	7.240e-04	2.441e-03
0.6	2.558e+00	6.526e-01	1.814e+00	1.274e-03	3.541e-03
0.8	2.561e+00	9.696e-01	2.306e+00	1.844e-03	4.386e-03
Totals	9.872e+00	1.996e+00	5.381e+00	3.846e-03	1.038e-02

MicroShield 8.02
AJNardi (8.02-0000)

Date	By	Checked

Filename	Run Date	Run Time	Duration
Case2	January 12, 2015	2:55:43 PM	00:00:00

Project Info

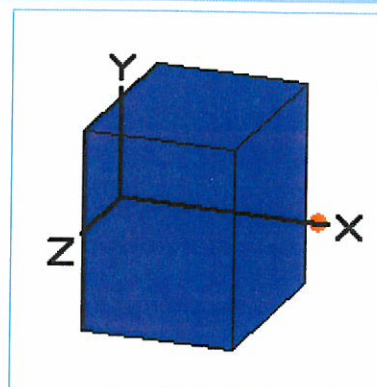
Case Title	BMRC Ag-108 plus soi
Description	Infinite plane @ 17,000 dpm/100 cm ² plus 6" soil
Geometry	15 - Infinite Plane

Dose Points

A	X	Y	Z
#1	20.0 cm (7.9 in)	0.0 cm (0 in)	0.0 cm (0 in)

Shields

Shield N	Dimension	Material	Density
Shield 1	15.0 cm	Concrete	1.6
Air Gap		Air	0.00122



Source Input: Grouping Method - Standard Indices

Number of Groups: 25

Lower Energy Cutoff: 0.015

Photons < 0.015: Included

Library: Grove

Nuclide	μCi/cm ²	Bq/cm ²
Ag-108m	7.6486e-005	2.8300e+000

Buildup: The material reference is Shield 1

Integration Parameters

Results

Energy (MeV)	Activity (Photons/sec)	Fluence Rate MeV/cm ² /sec No Buildup	Fluence Rate MeV/cm ² /sec With Buildup	Exposure Rate mR/hr No Buildup	Exposure Rate mR/hr With Buildup
0.015	1.525e-01	0.000e+00	0.000e+00	0.000e+00	0.000e+00
0.02	1.856e+00	5.639e-41	7.320e-41	1.953e-42	2.536e-42
0.03	6.009e-07	3.963e-22	7.320e-22	3.927e-24	7.254e-24
0.08	2.006e-01	1.161e-05	1.100e-04	1.837e-08	1.740e-07
0.4	2.544e+00	1.658e-02	1.621e-01	3.231e-05	3.158e-04
0.6	2.558e+00	4.094e-02	2.907e-01	7.992e-05	5.675e-04
0.8	2.561e+00	7.639e-02	4.186e-01	1.453e-04	7.963e-04
Totals	9.872e+00	1.339e-01	8.715e-01	2.575e-04	1.680e-03

Appendix H - Soil Stockpile Analyses

During the excavation of the building, the excavated soils were collected into three stockpiles designated as Class 1, Class 2 and Class 3 depending on the area from which the soil was excavated. Samples were taken of the material being excavated in accordance with the following schedule:

- Class 1 Material – Soil samples were taken systematically at a rate of approximately one sample per 10 cubic meters
- Class 2 and Class 3 Material – Soil samples were taken systematically at a rate of approximately one sample per 100 cubic meters

The analytical results for these samples were evaluated to determine that the material in each stockpile met the requirements for use as backfill material. The results of this evaluation are presented in the accompanying tables. Upon approval by the Operating Committee, the stockpiled material was used to backfill the excavation in the following manner:

- The bottom of the excavation was backfilled with clean soil of sufficient quantity to provide a level surface for the bottom of the excavation,
- Soil from the Class 1 stockpile was then placed and compacted in the excavation cavity in a six inch thick layer. A gamma walkover survey was then completed on 100% of that layer of soil. This process was repeated until all of the Class 1 stockpile had been placed in the excavation cavity.
- Soil from the Class 2 stockpile was then placed and compacted in the excavation cavity in an eight inch thick layer. A gamma walkover survey was then completed on 100% of every third layer of soil (i.e. every 2 feet in thickness). This process was repeated until all of the Class 2 stockpile had been placed in the excavation cavity.
- Soil from the Class 3 stockpile was then placed and compacted in the excavation cavity in an eight inch thick layer. A gamma walkover survey was then completed on 100% of every seventh layer of soil (i.e. every 4.7 feet in thickness). This process was repeated until all of the Class 3 stockpile had been placed in the excavation cavity.
- The excavation cavity was then backfilled with clean soil to bring the excavation cavity up to grade level.

Sum-of-Fractions Test – Table 1 provides the summary of the tests of the SOF.

Table 1 – Summary of Sum-of-Fraction calculations for Stockpile samples

Parameter	Class 1 Stockpile	Class 2 Stockpile	Class 3 Stockpile
Average	0.173	0.051	0.121
Minimum	-0.008	-0.538	-0.018
Maximum	0.513	0.291	0.264
Standard Deviation	0.145	0.116	0.077
Number of Results	39	53	10
Number of Duplicates	2	3	1

Appendix H1 - Class 1 Stockpile Soil Analyses

Client Project	Sample ID	Parameter	Results	Sigma	MDC	Units	DCGL	Fraction	SOF
BMRC Final Status Survey	2014 11 12 S1-01	Americium-241	-0.008 ±	0.395	0.639	pCi/g	2.1	-0.0038	-0.0084
BMRC Final Status Survey	2014 11 12 S1-01	Carbon-14	-0.122 ±	0.706	1.57	pCi/g	12	-0.0102	
BMRC Final Status Survey	2014 11 12 S1-01	Cesium-137	0.015 ±	0.062	0.11	pCi/g	11	0.0014	
BMRC Final Status Survey	2014 11 12 S1-01	Cobalt-60	-0.031 ±	0.142	0.132	pCi/g	3.8	-0.0082	
BMRC Final Status Survey	2014 11 12 S1-01	Europium-152	0.119 ±	0.156	0.257	pCi/g	6.9	0.0172	
BMRC Final Status Survey	2014 11 12 S1-01	Europium-154	0.134 ±	0.127	0.169	pCi/g	8	0.0168	
BMRC Final Status Survey	2014 11 12 S1-01	Nickel-63	-0.269 ±	0.575	1.493	pCi/g	2100	-0.0001	
BMRC Final Status Survey	2014 11 12 S1-01	Plutonium-238	-0.012 ±	0.032	0.053	pCi/g	2.5	-0.0048	
BMRC Final Status Survey	2014 11 12 S1-01	Pu-239/240	0.005 ±	0.01	0.017	pCi/g	2.3	0.0022	
BMRC Final Status Survey	2014 11 12 S1-01	Silver-108M	0.025 ±	0.071	0.124	pCi/g	8.2	0.0030	
BMRC Final Status Survey	2014 11 12 S1-01	Strontium-90	-0.0539 ±	0.063	0.175	pCi/g	1.7	-0.0317	
BMRC Final Status Survey	2014 11 12 S1-01	Tritium	1.08 ±	1.74	2.97	pCi/g	110	0.0098	
BMRC Final Status Survey	2014 11 12 S1-02	Americium-241	0.049 ±	0.24	0.41	pCi/g	2.1	0.0233	0.1871
BMRC Final Status Survey	2014 11 12 S1-02	Carbon-14	0.636 ±	0.973	1.68	pCi/g	12	0.0530	
BMRC Final Status Survey	2014 11 12 S1-02	Cesium-137	0.03 ±	0.037	0.061	pCi/g	11	0.0027	
BMRC Final Status Survey	2014 11 12 S1-02	Cobalt-60	0.079 ±	0.038	0.079	pCi/g	3.8	0.0208	
BMRC Final Status Survey	2014 11 12 S1-02	Europium-152	0.021 ±	0.105	0.179	pCi/g	6.9	0.0030	
BMRC Final Status Survey	2014 11 12 S1-02	Europium-154	0.038 ±	0.072	0.12	pCi/g	8	0.0048	
BMRC Final Status Survey	2014 11 12 S1-02	Nickel-63	0.349 ±	0.548	1.24	pCi/g	2100	0.0002	
BMRC Final Status Survey	2014 11 12 S1-02	Plutonium-238	0.012 ±	0.019	0.03	pCi/g	2.5	0.0048	
BMRC Final Status Survey	2014 11 12 S1-02	Pu-239/240	0.009 ±	0.01	0.015	pCi/g	2.3	0.0039	
BMRC Final Status Survey	2014 11 12 S1-02	Silver-108M	0.325 ±	0.057	0.056	pCi/g	8.2	0.0396	
BMRC Final Status Survey	2014 11 12 S1-02	Strontium-90	0.021 ±	0.077	0.183	pCi/g	1.7	0.0124	
BMRC Final Status Survey	2014 11 12 S1-02	Tritium	2.05 ±	1.77	2.83	pCi/g	110	0.0186	
BMRC Final Status Survey	2014 11 12 S1-03	Americium-241	0.015 ±	0.255	0.458	pCi/g	2.1	0.0071	0.2197
BMRC Final Status Survey	2014 11 12 S1-03	Carbon-14	0.522 ±	0.962	1.72	pCi/g	12	0.0435	
BMRC Final Status Survey	2014 11 12 S1-03	Cesium-137	0.203 ±	0.073	0.049	pCi/g	11	0.0185	
BMRC Final Status Survey	2014 11 12 S1-03	Cobalt-60	0.066 ±	0.059	0.13	pCi/g	3.8	0.0174	
BMRC Final Status Survey	2014 11 12 S1-03	Europium-152	0.031 ±	0.145	0.253	pCi/g	6.9	0.0045	
BMRC Final Status Survey	2014 11 12 S1-03	Europium-154	-0.032 ±	0.109	0.187	pCi/g	8	-0.0040	
BMRC Final Status Survey	2014 11 12 S1-03	Nickel-63	1.85 ±	0.778	2.191	pCi/g	2100	0.0009	
BMRC Final Status Survey	2014 11 12 S1-03	Plutonium-238	0.003 ±	0.019	0.032	pCi/g	2.5	0.0012	
BMRC Final Status Survey	2014 11 12 S1-03	Pu-239/240	-0.007 ±	0.013	0.024	pCi/g	2.3	-0.0030	
BMRC Final Status Survey	2014 11 12 S1-03	Silver-108M	1.07 ±	0.164	0.083	pCi/g	8.2	0.1305	
BMRC Final Status Survey	2014 11 12 S1-03	Strontium-90	0.0123 ±	0.073	0.177	pCi/g	1.7	0.0072	
BMRC Final Status Survey	2014 11 12 S1-03	Tritium	-0.438 ±	1.99	3.72	pCi/g	110	-0.0040	
BMRC Final Status Survey	2014 11 12 S1-04	Americium-241	0.063 ±	0.17	0.292	pCi/g	2.1	0.0300	0.1978
BMRC Final Status Survey	2014 11 12 S1-04	Carbon-14	0.131 ±	0.858	1.73	pCi/g	12	0.0109	
BMRC Final Status Survey	2014 11 12 S1-04	Cesium-137	0.014 ±	0.086	0.157	pCi/g	11	0.0013	
BMRC Final Status Survey	2014 11 12 S1-04	Cobalt-60	0.016 ±	0.085	0.169	pCi/g	3.8	0.0042	
BMRC Final Status Survey	2014 11 12 S1-04	Europium-152	0 ±	0.103	0.191	pCi/g	6.9	0.0000	
BMRC Final Status Survey	2014 11 12 S1-04	Europium-154	-0.005 ±	0.092	0.166	pCi/g	8	-0.0006	
BMRC Final Status Survey	2014 11 12 S1-04	Nickel-63	-0.198 ±	0.75	2.493	pCi/g	2100	-0.0001	
BMRC Final Status Survey	2014 11 12 S1-04	Plutonium-238	0.02 ±	0.024	0.035	pCi/g	2.5	0.0080	
BMRC Final Status Survey	2014 11 12 S1-04	Pu-239/240	-0.005 ±	0.017	0.03	pCi/g	2.3	-0.0022	
BMRC Final Status Survey	2014 11 12 S1-04	Silver-108M	0.053 ±	0.053	0.162	pCi/g	8.2	0.0065	
BMRC Final Status Survey	2014 11 12 S1-04	Strontium-90	0.218 ±	0.131	0.254	pCi/g	1.7	0.1282	
BMRC Final Status Survey	2014 11 12 S1-04	Tritium	1.28 ±	1.89	3.2	pCi/g	110	0.0116	
BMRC Final Status Survey	2014 11 12 S1-05	Americium-241	-0.084 ±	0.368	0.633	pCi/g	2.1	-0.0400	0.1111
BMRC Final Status Survey	2014 11 12 S1-05	Carbon-14	0.658 ±	1.01	1.73	pCi/g	12	0.0548	
BMRC Final Status Survey	2014 11 12 S1-05	Cesium-137	0.002 ±	0.068	0.123	pCi/g	11	0.0002	
BMRC Final Status Survey	2014 11 12 S1-05	Cobalt-60	-0.006 ±	0.202	0.123	pCi/g	3.8	-0.0016	
BMRC Final Status Survey	2014 11 12 S1-05	Europium-152	-0.005 ±	1.039	0.249	pCi/g	6.9	-0.0007	
BMRC Final Status Survey	2014 11 12 S1-05	Europium-154	0.12 ±	0.15	0.163	pCi/g	8	0.0150	
BMRC Final Status Survey	2014 11 12 S1-05	Nickel-63	0.254 ±	0.594	1.489	pCi/g	2100	0.0001	
BMRC Final Status Survey	2014 11 12 S1-05	Plutonium-238	-0.014 ±	0.029	0.049	pCi/g	2.5	-0.0056	

The Fraction is the Result/DCGL. SOF = Sum of the Fractions

Appendix H1 - Class 1 Stockpile Soil Analyses

Client Project	Sample ID	Parameter	Results	Sigma	MDC	Units	DCGL	Fraction	SOF
BMRC Final Status Survey	2014 11 12 S1-05	Pu-239/240	0.008 ±	0.012	0.018	pCi/g	2.3	0.0035	
BMRC Final Status Survey	2014 11 12 S1-05	Silver-108M	0.066 ±	0.077	0.125	pCi/g	8.2	0.0080	
BMRC Final Status Survey	2014 11 12 S1-05	Strontium-90	0.103 ±	0.071	0.136	pCi/g	1.7	0.0606	
BMRC Final Status Survey	2014 11 12 S1-05	Tritium	1.84 ±	1.6	2.55	pCi/g	110	0.0167	
BMRC Final Status Survey	2014 11 12 S1-06	Americium-241	-0.018 ±	0.189	0.332	pCi/g	2.1	-0.0086	0.2053
BMRC Final Status Survey	2014 11 12 S1-06	Carbon-14	1.61 ±	1.25	1.76	pCi/g	12	0.1342	
BMRC Final Status Survey	2014 11 12 S1-06	Cesium-137	0.05 ±	0.09	0.153	pCi/g	11	0.0045	
BMRC Final Status Survey	2014 11 12 S1-06	Cobalt-60	0.001 ±	0.085	0.177	pCi/g	3.8	0.0003	
BMRC Final Status Survey	2014 11 12 S1-06	Europium-152	0 ±	0.004	0.307	pCi/g	6.9	0.0000	
BMRC Final Status Survey	2014 11 12 S1-06	Europium-154	-0.014 ±	0.109	0.193	pCi/g	8	-0.0018	
BMRC Final Status Survey	2014 11 12 S1-06	Nickel-63	0.363 ±	0.592	1.459	pCi/g	2100	0.0002	
BMRC Final Status Survey	2014 11 12 S1-06	Plutonium-238	-0.002 ±	0.022	0.037	pCi/g	2.5	-0.0008	
BMRC Final Status Survey	2014 11 12 S1-06	Pu-239/240	0.006 ±	0.012	0.02	pCi/g	2.3	0.0026	
BMRC Final Status Survey	2014 11 12 S1-06	Silver-108M	0.091 ±	0.056	0.147	pCi/g	8.2	0.0111	
BMRC Final Status Survey	2014 11 12 S1-06	Strontium-90	0.0267 ±	0.08	0.189	pCi/g	1.7	0.0157	
BMRC Final Status Survey	2014 11 12 S1-06	Tritium	5.26 ±	2.23	3	pCi/g	110	0.0478	
BMRC Final Status Survey	2014 11 12 S1-07	Americium-241	0.039 ±	0.181	0.315	pCi/g	2.1	0.0186	0.1126
BMRC Final Status Survey	2014 11 12 S1-07	Carbon-14	0.131 ±	0.861	1.74	pCi/g	12	0.0109	
BMRC Final Status Survey	2014 11 12 S1-07	Cesium-137	0.013 ±	0.059	0.112	pCi/g	11	0.0012	
BMRC Final Status Survey	2014 11 12 S1-07	Cobalt-60	0.076 ±	0.08	0.132	pCi/g	3.8	0.0200	
BMRC Final Status Survey	2014 11 12 S1-07	Europium-152	-0.05 ±	0.133	0.229	pCi/g	6.9	-0.0072	
BMRC Final Status Survey	2014 11 12 S1-07	Europium-154	0.147 ±	0.156	0.15	pCi/g	8	0.0184	
BMRC Final Status Survey	2014 11 12 S1-07	Nickel-63	0.093 ±	0.547	1.288	pCi/g	2100	0.0000	
BMRC Final Status Survey	2014 11 12 S1-07	Plutonium-238	0.02 ±	0.027	0.041	pCi/g	2.5	0.0080	
BMRC Final Status Survey	2014 11 12 S1-07	Pu-239/240	0.004 ±	0.012	0.02	pCi/g	2.3	0.0017	
BMRC Final Status Survey	2014 11 12 S1-07	Silver-108M	0.204 ±	0.075	0.147	pCi/g	8.2	0.0249	
BMRC Final Status Survey	2014 11 12 S1-07	Strontium-90	-0.0257 ±	0.072	0.189	pCi/g	1.7	-0.0151	
BMRC Final Status Survey	2014 11 12 S1-07	Tritium	3.44 ±	2.21	3.34	pCi/g	110	0.0313	
BMRC Final Status Survey	2014 11 12 S1-08	Americium-241	0.058 ±	0.356	0.623	pCi/g	2.1	0.0276	0.0545
BMRC Final Status Survey	2014 11 12 S1-08	Carbon-14	0 ±	0.787	1.67	pCi/g	12	0.0000	
BMRC Final Status Survey	2014 11 12 S1-08	Cesium-137	0 ±	0.064	0.118	pCi/g	11	0.0000	
BMRC Final Status Survey	2014 11 12 S1-08	Cobalt-60	-0.019 ±	0.235	0.124	pCi/g	3.8	-0.0050	
BMRC Final Status Survey	2014 11 12 S1-08	Europium-152	0.065 ±	0.141	0.241	pCi/g	6.9	0.0094	
BMRC Final Status Survey	2014 11 12 S1-08	Europium-154	0.028 ±	0.1	0.174	pCi/g	8	0.0035	
BMRC Final Status Survey	2014 11 12 S1-08	Nickel-63	0.072 ±	0.711	2.194	pCi/g	2100	0.0000	
BMRC Final Status Survey	2014 11 12 S1-08	Plutonium-238	0.012 ±	0.029	0.046	pCi/g	2.5	0.0048	
BMRC Final Status Survey	2014 11 12 S1-08	Pu-239/240	0 ±	0.016	0.028	pCi/g	2.3	0.0000	
BMRC Final Status Survey	2014 11 12 S1-08	Silver-108M	0.046 ±	0.042	0.118	pCi/g	8.2	0.0056	
BMRC Final Status Survey	2014 11 12 S1-08	Strontium-90	0.0157 ±	0.075	0.181	pCi/g	1.7	0.0092	
BMRC Final Status Survey	2014 11 12 S1-08	Tritium	-0.0779 ±	1.56	2.87	pCi/g	110	-0.0007	
BMRC Final Status Survey	2014 11 17 S1-01	Americium-241	0.239 ±	0.365	0.607	pCi/g	2.1	0.1138	0.4312
BMRC Final Status Survey	2014 11 17 S1-01	Carbon-14	0 ±	0.302	0.543	pCi/g	12	0.0000	
BMRC Final Status Survey	2014 11 17 S1-01	Cesium-137	0.146 ±	0.085	0.081	pCi/g	11	0.0133	
BMRC Final Status Survey	2014 11 17 S1-01	Cobalt-60	0.1 ±	0.067	0.13	pCi/g	3.8	0.0263	
BMRC Final Status Survey	2014 11 17 S1-01	Europium-152	-0.011 ±	0.533	0.274	pCi/g	6.9	-0.0016	
BMRC Final Status Survey	2014 11 17 S1-01	Europium-154	0.105 ±	0.111	0.178	pCi/g	8	0.0131	
BMRC Final Status Survey	2014 11 17 S1-01	Nickel-63	2.54 ±	1.404	3.336	pCi/g	2100	0.0012	
BMRC Final Status Survey	2014 11 17 S1-01	Plutonium-238	0.011 ±	0.031	0.059	pCi/g	2.5	0.0044	
BMRC Final Status Survey	2014 11 17 S1-01	Pu-239/240	-0.011 ±	0.015	0.041	pCi/g	2.3	-0.0048	
BMRC Final Status Survey	2014 11 17 S1-01	Silver-108M	0.913 ±	0.147	0.099	pCi/g	8.2	0.1113	
BMRC Final Status Survey	2014 11 17 S1-01	Strontium-90	0.25 ±	0.132	0.238	pCi/g	1.7	0.1471	
BMRC Final Status Survey	2014 11 17 S1-01	Tritium	0.778 ±	1.46	2.52	pCi/g	110	0.0071	
BMRC Final Status Survey	2014 12 12 S1-01	Americium-241	-0.066 ±	0.327	0.568	pCi/g	2.1	-0.0314	0.0142
BMRC Final Status Survey	2014 12 12 S1-01	Carbon-14	-0.103 ±	0.373	0.699	pCi/g	12	-0.0086	
BMRC Final Status Survey	2014 12 12 S1-01	Cesium-137	0.016 ±	0.05	0.089	pCi/g	11	0.0015	
BMRC Final Status Survey	2014 12 12 S1-01	Cobalt-60	-0.016 ±	3.81	0.122	pCi/g	3.8	-0.0042	

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Appendix H1 - Class 1 Stockpile Soil Analyses

Client Project	Sample ID	Parameter	Results	Sigma	MDC	Units	DCGL	Fraction	SOF
BMRC Final Status Survey	2014 12 12 S1-01	Europium-152	0.103 ±	0.157	0.261	pCi/g	6.9	0.0149	
BMRC Final Status Survey	2014 12 12 S1-01	Europium-154	0 ±	0.018	0.183	pCi/g	8	0.0000	
BMRC Final Status Survey	2014 12 12 S1-01	Nickel-63	-0.147 ±	1.29	4.136	pCi/g	2100	-0.0001	
BMRC Final Status Survey	2014 12 12 S1-01	Plutonium-238	0.04 ±	0.025	0.034	pCi/g	2.5	0.0160	
BMRC Final Status Survey	2014 12 12 S1-01	Pu-239/240	0.002 ±	0.009	0.019	pCi/g	2.3	0.0009	
BMRC Final Status Survey	2014 12 12 S1-01	Silver-108M	0.084 ±	0.044	0.096	pCi/g	8.2	0.0102	
BMRC Final Status Survey	2014 12 12 S1-01	Strontium-90	0.0169 ±	0.053	0.1	pCi/g	1.7	0.0099	
BMRC Final Status Survey	2014 12 12 S1-01	Tritium	0.557 ±	1.56	2.73	pCi/g	110	0.0051	
BMRC Final Status Survey	2014 12 12 S1-02	Americium-241	0.115 ±	0.32	0.552	pCi/g	2.1	0.0548	0.0557
BMRC Final Status Survey	2014 12 12 S1-02	Carbon-14	0.146 ±	0.404	0.709	pCi/g	12	0.0122	
BMRC Final Status Survey	2014 12 12 S1-02	Cesium-137	0.003 ±	0.06	0.111	pCi/g	11	0.0003	
BMRC Final Status Survey	2014 12 12 S1-02	Cobalt-60	-0.018 ±	5.666	0.098	pCi/g	3.8	-0.0047	
BMRC Final Status Survey	2014 12 12 S1-02	Europium-152	-0.009 ±	0.153	0.241	pCi/g	6.9	-0.0013	
BMRC Final Status Survey	2014 12 12 S1-02	Europium-154	-0.013 ±	0.102	0.168	pCi/g	8	-0.0016	
BMRC Final Status Survey	2014 12 12 S1-02	Nickel-63	-0.607 ±	1.314	4.501	pCi/g	2100	-0.0003	
BMRC Final Status Survey	2014 12 12 S1-02	Plutonium-238	0.018 ±	0.02	0.033	pCi/g	2.5	0.0072	
BMRC Final Status Survey	2014 12 12 S1-02	Pu-239/240	0.01 ±	0.012	0.018	pCi/g	2.3	0.0043	
BMRC Final Status Survey	2014 12 12 S1-02	Silver-108M	0.029 ±	0.025	0.102	pCi/g	8.2	0.0035	
BMRC Final Status Survey	2014 12 12 S1-02	Strontium-90	-0.0275 ±	0.056	0.11	pCi/g	1.7	-0.0162	
BMRC Final Status Survey	2014 12 12 S1-02	Tritium	-0.268 ±	1.3	2.42	pCi/g	110	-0.0024	
BMRC Final Status Survey	2014 12 13 S1-01	Americium-241	-0.012 ±	0.19	0.312	pCi/g	2.1	-0.0057	0.0626
BMRC Final Status Survey	2014 12 13 S1-01	Carbon-14	0.447 ±	0.425	0.688	pCi/g	12	0.0373	
BMRC Final Status Survey	2014 12 13 S1-01	Cesium-137	0.02 ±	0.092	0.167	pCi/g	11	0.0018	
BMRC Final Status Survey	2014 12 13 S1-01	Cobalt-60	0.034 ±	0.084	0.163	pCi/g	3.8	0.0089	
BMRC Final Status Survey	2014 12 13 S1-01	Europium-152	0.076 ±	0.125	0.21	pCi/g	6.9	0.0110	
BMRC Final Status Survey	2014 12 13 S1-01	Europium-154	0 ±	0.009	0.158	pCi/g	8	0.0000	
BMRC Final Status Survey	2014 12 13 S1-01	Nickel-63	1.278 ±	1.363	3.915	pCi/g	2100	0.0006	
BMRC Final Status Survey	2014 12 13 S1-01	Plutonium-238	0.014 ±	0.025	0.044	pCi/g	2.5	0.0056	
BMRC Final Status Survey	2014 12 13 S1-01	Pu-239/240	-0.002 ±	0.01	0.024	pCi/g	2.3	-0.0009	
BMRC Final Status Survey	2014 12 13 S1-01	Silver-108M	0.001 ±	0.081	0.153	pCi/g	8.2	0.0001	
BMRC Final Status Survey	2014 12 13 S1-01	Strontium-90	-0.0066 ±	0.052	0.101	pCi/g	1.7	-0.0039	
BMRC Final Status Survey	2014 12 13 S1-01	Tritium	0.851 ±	1.46	2.5	pCi/g	110	0.0077	
BMRC Final Status Survey	2014 12 13 S1-02	Americium-241	0.001 ±	0.364	0.647	pCi/g	2.1	0.0005	0.0549
BMRC Final Status Survey	2014 12 13 S1-02	Carbon-14	0.227 ±	0.407	0.698	pCi/g	12	0.0189	
BMRC Final Status Survey	2014 12 13 S1-02	Cesium-137	0.027 ±	0.065	0.113	pCi/g	11	0.0025	
BMRC Final Status Survey	2014 12 13 S1-02	Cobalt-60	0.006 ±	0.066	0.129	pCi/g	3.8	0.0016	
BMRC Final Status Survey	2014 12 13 S1-02	Europium-152	0.07 ±	0.16	0.273	pCi/g	6.9	0.0101	
BMRC Final Status Survey	2014 12 13 S1-02	Europium-154	-0.001 ±	0.021	0.237	pCi/g	8	-0.0001	
BMRC Final Status Survey	2014 12 13 S1-02	Nickel-63	0.651 ±	1.326	3.987	pCi/g	2100	0.0003	
BMRC Final Status Survey	2014 12 13 S1-02	Plutonium-238	-0.019 ±	0.036	0.068	pCi/g	2.5	-0.0076	
BMRC Final Status Survey	2014 12 13 S1-02	Pu-239/240	0.005 ±	0.011	0.02	pCi/g	2.3	0.0022	
BMRC Final Status Survey	2014 12 13 S1-02	Silver-108M	0.059 ±	0.046	0.124	pCi/g	8.2	0.0072	
BMRC Final Status Survey	2014 12 13 S1-02	Strontium-90	0.0272 ±	0.062	0.116	pCi/g	1.7	0.0160	
BMRC Final Status Survey	2014 12 13 S1-02	Tritium	0.374 ±	1.76	3.14	pCi/g	110	0.0034	
BMRC Final Status Survey	2014 12 13 S1-03	Americium-241	-0.054 ±	0.196	0.332	pCi/g	2.1	-0.0257	-0.0071
BMRC Final Status Survey	2014 12 13 S1-03	Carbon-14	0.429 ±	0.425	0.693	pCi/g	12	0.0358	
BMRC Final Status Survey	2014 12 13 S1-03	Cesium-137	-0.001 ±	0.071	0.136	pCi/g	11	-0.0001	
BMRC Final Status Survey	2014 12 13 S1-03	Cobalt-60	0.013 ±	0.083	0.168	pCi/g	3.8	0.0034	
BMRC Final Status Survey	2014 12 13 S1-03	Europium-152	0.03 ±	0.14	0.246	pCi/g	6.9	0.0043	
BMRC Final Status Survey	2014 12 13 S1-03	Europium-154	-0.029 ±	0.112	0.191	pCi/g	8	-0.0036	
BMRC Final Status Survey	2014 12 13 S1-03	Nickel-63	0.186 ±	1.053	2.622	pCi/g	2100	0.0001	
BMRC Final Status Survey	2014 12 13 S1-03	Plutonium-238	0.028 ±	0.031	0.051	pCi/g	2.5	0.0112	
BMRC Final Status Survey	2014 12 13 S1-03	Pu-239/240	-0.002 ±	0.016	0.034	pCi/g	2.3	-0.0009	
BMRC Final Status Survey	2014 12 13 S1-03	Silver-108M	0.041 ±	0.033	0.059	pCi/g	8.2	0.0050	
BMRC Final Status Survey	2014 12 13 S1-03	Strontium-90	-0.0698 ±	0.058	0.114	pCi/g	1.7	-0.0411	
BMRC Final Status Survey	2014 12 13 S1-03	Tritium	0.49 ±	1.37	2.4	pCi/g	110	0.0045	

Appendix H1 - Class 1 Stockpile Soil Analyses

Client Project	Sample ID	Parameter	Results	Sigma	MDC	Units	DCGL	Fraction	SOF
BMRC Final Status Survey	2014 12 13 S1-04	Americium-241	0.003 ±	0.156	0.277	pCi/g	2.1	0.0014	0.0713
BMRC Final Status Survey	2014 12 13 S1-04	Carbon-14	0.33 ±	0.418	0.699	pCi/g	12	0.0275	
BMRC Final Status Survey	2014 12 13 S1-04	Cesium-137	0 ±	0.014	0.052	pCi/g	11	0.0000	
BMRC Final Status Survey	2014 12 13 S1-04	Cobalt-60	0.014 ±	0.019	0.102	pCi/g	3.8	0.0037	
BMRC Final Status Survey	2014 12 13 S1-04	Europium-152	-0.052 ±	0.178	0.278	pCi/g	6.9	-0.0075	
BMRC Final Status Survey	2014 12 13 S1-04	Europium-154	0.059 ±	0.104	0.151	pCi/g	8	0.0074	
BMRC Final Status Survey	2014 12 13 S1-04	Nickel-63	0.536 ±	1.255	3.594	pCi/g	2100	0.0003	
BMRC Final Status Survey	2014 12 13 S1-04	Plutonium-238	0.03 ±	0.027	0.043	pCi/g	2.5	0.0120	
BMRC Final Status Survey	2014 12 13 S1-04	Pu-239/240	0.003 ±	0.013	0.026	pCi/g	2.3	0.0013	
BMRC Final Status Survey	2014 12 13 S1-04	Silver-108M	0.134 ±	0.064	0.052	pCi/g	8.2	0.0163	
BMRC Final Status Survey	2014 12 13 S1-04	Strontium-90	0.0176 ±	0.05	0.0941	pCi/g	1.7	0.0104	
BMRC Final Status Survey	2014 12 13 S1-04	Tritium	-0.16 ±	1.7	3.13	pCi/g	110	-0.0015	
BMRC Final Status Survey	2014 12 13 S1-05	Americium-241	0.081 ±	0.169	0.287	pCi/g	2.1	0.0386	0.0816
BMRC Final Status Survey	2014 12 13 S1-05	Carbon-14	0.301 ±	0.432	0.73	pCi/g	12	0.0251	
BMRC Final Status Survey	2014 12 13 S1-05	Cesium-137	0.054 ±	0.082	0.138	pCi/g	11	0.0049	
BMRC Final Status Survey	2014 12 13 S1-05	Cobalt-60	0.007 ±	0.012	0.222	pCi/g	3.8	0.0018	
BMRC Final Status Survey	2014 12 13 S1-05	Europium-152	-0.032 ±	0.165	0.246	pCi/g	6.9	-0.0046	
BMRC Final Status Survey	2014 12 13 S1-05	Europium-154	0.029 ±	0.09	0.157	pCi/g	8	0.0036	
BMRC Final Status Survey	2014 12 13 S1-05	Nickel-63	-0.213 ±	1.15	3.334	pCi/g	2100	-0.0001	
BMRC Final Status Survey	2014 12 13 S1-05	Plutonium-238	0.037 ±	0.03	0.046	pCi/g	2.5	0.0148	
BMRC Final Status Survey	2014 12 13 S1-05	Pu-239/240	0.009 ±	0.011	0.017	pCi/g	2.3	0.0039	
BMRC Final Status Survey	2014 12 13 S1-05	Silver-108M	0.039 ±	0.058	0.153	pCi/g	8.2	0.0048	
BMRC Final Status Survey	2014 12 13 S1-05	Strontium-90	-0.0256 ±	0.052	0.101	pCi/g	1.7	-0.0151	
BMRC Final Status Survey	2014 12 13 S1-05	Tritium	0.429 ±	1.67	2.96	pCi/g	110	0.0039	
BMRC Final Status Survey	2014 12 13 S1-06	Americium-241	0.133 ±	0.163	0.266	pCi/g	2.1	0.0633	0.1399
BMRC Final Status Survey	2014 12 13 S1-06	Carbon-14	0.214 ±	0.42	0.724	pCi/g	12	0.0178	
BMRC Final Status Survey	2014 12 13 S1-06	Cesium-137	0.026 ±	0.066	0.119	pCi/g	11	0.0024	
BMRC Final Status Survey	2014 12 13 S1-06	Cobalt-60	0.005 ±	0.07	0.154	pCi/g	3.8	0.0013	
BMRC Final Status Survey	2014 12 13 S1-06	Europium-152	-0.035 ±	0.171	0.257	pCi/g	6.9	-0.0051	
BMRC Final Status Survey	2014 12 13 S1-06	Europium-154	-0.009 ±	0.089	0.152	pCi/g	8	-0.0011	
BMRC Final Status Survey	2014 12 13 S1-06	Nickel-63	1.203 ±	1.104	2.388	pCi/g	2100	0.0006	
BMRC Final Status Survey	2014 12 13 S1-06	Plutonium-238	0 ±	0.025	0.046	pCi/g	2.5	0.0000	
BMRC Final Status Survey	2014 12 13 S1-06	Pu-239/240	0.003 ±	0.013	0.025	pCi/g	2.3	0.0013	
BMRC Final Status Survey	2014 12 13 S1-06	Silver-108M	0.193 ±	0.063	0.136	pCi/g	8.2	0.0235	
BMRC Final Status Survey	2014 12 13 S1-06	Strontium-90	0.0485 ±	0.057	0.104	pCi/g	1.7	0.0285	
BMRC Final Status Survey	2014 12 13 S1-06	Tritium	0.808 ±	1.62	2.79	pCi/g	110	0.0073	
BMRC Final Status Survey	2014 12 22 S1-01	Americium-241	-0.127 ±	0.4	0.68	pCi/g	2.1	-0.0605	0.4891
BMRC Final Status Survey	2014 12 22 S1-01	Carbon-14	0.173 ±	0.356	0.612	pCi/g	12	0.0144	
BMRC Final Status Survey	2014 12 22 S1-01	Cesium-137	0.073 ±	0.067	0.105	pCi/g	11	0.0066	
BMRC Final Status Survey	2014 12 22 S1-01	Cobalt-60	0.264 ±	0.08	0.092	pCi/g	3.8	0.0695	
BMRC Final Status Survey	2014 12 22 S1-01	Europium-152	0.05 ±	0.194	0.332	pCi/g	6.9	0.0072	
BMRC Final Status Survey	2014 12 22 S1-01	Europium-154	0.04 ±	0.135	0.23	pCi/g	8	0.0050	
BMRC Final Status Survey	2014 12 22 S1-01	Nickel-63	0.129 ±	1.387	4.069	pCi/g	2100	0.0001	
BMRC Final Status Survey	2014 12 22 S1-01	Plutonium-238	0.007 ±	0.028	0.051	pCi/g	2.5	0.0028	
BMRC Final Status Survey	2014 12 22 S1-01	Pu-239/240	0.018 ±	0.017	0.025	pCi/g	2.3	0.0078	
BMRC Final Status Survey	2014 12 22 S1-01	Silver-108M	1.396 ±	0.211	0.109	pCi/g	8.2	0.1702	
BMRC Final Status Survey	2014 12 22 S1-01	Strontium-90	0.452 ±	0.151	0.198	pCi/g	1.7	0.2659	
BMRC Final Status Survey	2014 12 22 S1-01	Tritium	0 ±	1.84	3.32	pCi/g	110	0.0000	
BMRC Final Status Survey	2014 12 22 S1-01-DUF	Americium-241	0.006 ±	0.178	0.315	pCi/g	2.1	0.0029	0.3321
BMRC Final Status Survey	2014 12 22 S1-01-DUF	Carbon-14	0.479 ±	0.365	0.579	pCi/g	12	0.0399	
BMRC Final Status Survey	2014 12 22 S1-01-DUF	Cesium-137	0.062 ±	0.096	0.16	pCi/g	11	0.0056	
BMRC Final Status Survey	2014 12 22 S1-01-DUF	Cobalt-60	0.148 ±	0.098	0.215	pCi/g	3.8	0.0389	
BMRC Final Status Survey	2014 12 22 S1-01-DUF	Europium-152	0.006 ±	0.148	0.263	pCi/g	6.9	0.0009	
BMRC Final Status Survey	2014 12 22 S1-01-DUF	Europium-154	0.009 ±	0.095	0.17	pCi/g	8	0.0011	
BMRC Final Status Survey	2014 12 22 S1-01-DUF	Nickel-63	1.706 ±	1.462	3.832	pCi/g	2100	0.0008	
BMRC Final Status Survey	2014 12 22 S1-01-DUF	Plutonium-238	0.002 ±	0.038	0.069	pCi/g	2.5	0.0008	

Appendix H1 - Class 1 Stockpile Soil Analyses

Client Project	Sample ID	Parameter	Results	Sigma	MDC	Units	DCGL	Fraction	SOF
BMRC Final Status Survey	2014 12 22 S1-01-DUF	Pu-239/240	-0.01 ±	0.016	0.036	pCi/g	2.3	-0.0043	
BMRC Final Status Survey	2014 12 22 S1-01-DUF	Silver-108M	1.171 ±	0.192	0.13	pCi/g	8.2	0.1428	
BMRC Final Status Survey	2014 12 22 S1-01-DUF	Strontium-90	0.192 ±	0.119	0.223	pCi/g	1.7	0.1129	
BMRC Final Status Survey	2014 12 22 S1-01-DUF	Tritium	-1.13 ±	1.4	2.71	pCi/g	110	-0.0103	
BMRC Final Status Survey	2014 12 22 S1-02	Americium-241	0.01 ±	0.33	0.584	pCi/g	2.1	0.0048	0.5126
BMRC Final Status Survey	2014 12 22 S1-02	Carbon-14	0.331 ±	0.355	0.585	pCi/g	12	0.0276	
BMRC Final Status Survey	2014 12 22 S1-02	Cesium-137	0.064 ±	0.062	0.097	pCi/g	11	0.0058	
BMRC Final Status Survey	2014 12 22 S1-02	Cobalt-60	0.202 ±	0.077	0.157	pCi/g	3.8	0.0532	
BMRC Final Status Survey	2014 12 22 S1-02	Europium-152	0.146 ±	0.173	0.281	pCi/g	6.9	0.0212	
BMRC Final Status Survey	2014 12 22 S1-02	Europium-154	0.23 ±	0.134	0.144	pCi/g	8	0.0288	
BMRC Final Status Survey	2014 12 22 S1-02	Nickel-63	1.595 ±	1.497	4.111	pCi/g	2100	0.0008	
BMRC Final Status Survey	2014 12 22 S1-02	Plutonium-238	0.008 ±	0.029	0.052	pCi/g	2.5	0.0032	
BMRC Final Status Survey	2014 12 22 S1-02	Pu-239/240	0.01 ±	0.017	0.031	pCi/g	2.3	0.0043	
BMRC Final Status Survey	2014 12 22 S1-02	Silver-108M	1.241 ±	0.188	0.102	pCi/g	8.2	0.1513	
BMRC Final Status Survey	2014 12 22 S1-02	Strontium-90	0.361 ±	0.133	0.189	pCi/g	1.7	0.2124	
BMRC Final Status Survey	2014 12 22 S1-02	Tritium	-0.071 ±	1.66	3.01	pCi/g	110	-0.0006	
BMRC Final Status Survey	2014 12 22 S1-03	Americium-241	-0.008 ±	0.204	0.357	pCi/g	2.1	-0.0038	0.4112
BMRC Final Status Survey	2014 12 22 S1-03	Carbon-14	0.4 ±	0.35	0.565	pCi/g	12	0.0333	
BMRC Final Status Survey	2014 12 22 S1-03	Cesium-137	0.054 ±	0.081	0.136	pCi/g	11	0.0049	
BMRC Final Status Survey	2014 12 22 S1-03	Cobalt-60	0.209 ±	0.124	0.168	pCi/g	3.8	0.0550	
BMRC Final Status Survey	2014 12 22 S1-03	Europium-152	0.011 ±	0.208	0.361	pCi/g	6.9	0.0016	
BMRC Final Status Survey	2014 12 22 S1-03	Europium-154	-0.062 ±	0.144	0.241	pCi/g	8	-0.0078	
BMRC Final Status Survey	2014 12 22 S1-03	Nickel-63	1.034 ±	1.375	3.612	pCi/g	2100	0.0005	
BMRC Final Status Survey	2014 12 22 S1-03	Plutonium-238	0.044 ±	0.027	0.038	pCi/g	2.5	0.0176	
BMRC Final Status Survey	2014 12 22 S1-03	Pu-239/240	0.007 ±	0.015	0.027	pCi/g	2.3	0.0030	
BMRC Final Status Survey	2014 12 22 S1-03	Silver-108M	1.163 ±	0.229	0.052	pCi/g	8.2	0.1418	
BMRC Final Status Survey	2014 12 22 S1-03	Strontium-90	0.265 ±	0.115	0.181	pCi/g	1.7	0.1559	
BMRC Final Status Survey	2014 12 22 S1-03	Tritium	0.999 ±	1.69	2.88	pCi/g	110	0.0091	
BMRC Final Status Survey	2014 12 22 S1-04	Americium-241	0.137 ±	0.266	0.452	pCi/g	2.1	0.0652	0.4687
BMRC Final Status Survey	2014 12 22 S1-04	Carbon-14	0.302 ±	0.348	0.577	pCi/g	12	0.0252	
BMRC Final Status Survey	2014 12 22 S1-04	Cesium-137	0.027 ±	0.069	0.119	pCi/g	11	0.0025	
BMRC Final Status Survey	2014 12 22 S1-04	Cobalt-60	0.218 ±	0.075	0.045	pCi/g	3.8	0.0574	
BMRC Final Status Survey	2014 12 22 S1-04	Europium-152	0.039 ±	0.173	0.297	pCi/g	6.9	0.0057	
BMRC Final Status Survey	2014 12 22 S1-04	Europium-154	0.048 ±	0.083	0.195	pCi/g	8	0.0060	
BMRC Final Status Survey	2014 12 22 S1-04	Nickel-63	2.736 ±	1.757	5.378	pCi/g	2100	0.0013	
BMRC Final Status Survey	2014 12 22 S1-04	Plutonium-238	0.019 ±	0.027	0.046	pCi/g	2.5	0.0076	
BMRC Final Status Survey	2014 12 22 S1-04	Pu-239/240	-0.015 ±	0.018	0.04	pCi/g	2.3	-0.0065	
BMRC Final Status Survey	2014 12 22 S1-04	Silver-108M	1.011 ±	0.19	0.099	pCi/g	8.2	0.1233	
BMRC Final Status Survey	2014 12 22 S1-04	Strontium-90	0.271 ±	0.151	0.285	pCi/g	1.7	0.1594	
BMRC Final Status Survey	2014 12 22 S1-04	Tritium	2.39 ±	1.96	3.13	pCi/g	110	0.0217	
BMRC Final Status Survey	2014 12 22 S1-05	Americium-241	-0.044 ±	0.182	0.313	pCi/g	2.1	-0.0210	0.0961
BMRC Final Status Survey	2014 12 22 S1-05	Carbon-14	0.373 ±	0.359	0.586	pCi/g	12	0.0311	
BMRC Final Status Survey	2014 12 22 S1-05	Cesium-137	0.034 ±	0.071	0.123	pCi/g	11	0.0031	
BMRC Final Status Survey	2014 12 22 S1-05	Cobalt-60	0.048 ±	0.062	0.176	pCi/g	3.8	0.0126	
BMRC Final Status Survey	2014 12 22 S1-05	Europium-152	-0.057 ±	0.168	0.288	pCi/g	6.9	-0.0083	
BMRC Final Status Survey	2014 12 22 S1-05	Europium-154	-0.001 ±	0.331	0.174	pCi/g	8	-0.0001	
BMRC Final Status Survey	2014 12 22 S1-05	Nickel-63	0.514 ±	1.568	5.057	pCi/g	2100	0.0002	
BMRC Final Status Survey	2014 12 22 S1-05	Plutonium-238	0.044 ±	0.029	0.044	pCi/g	2.5	0.0176	
BMRC Final Status Survey	2014 12 22 S1-05	Pu-239/240	-0.008 ±	0.015	0.032	pCi/g	2.3	-0.0035	
BMRC Final Status Survey	2014 12 22 S1-05	Silver-108M	0.518 ±	0.105	0.05	pCi/g	8.2	0.0632	
BMRC Final Status Survey	2014 12 22 S1-05	Strontium-90	-0.0231 ±	0.069	0.181	pCi/g	1.7	-0.0136	
BMRC Final Status Survey	2014 12 22 S1-05	Tritium	1.61 ±	1.68	2.76	pCi/g	110	0.0146	
BMRC Final Status Survey	2014 12 22 S1-06	Americium-241	0 ±	0.012	0.754	pCi/g	2.1	0.0000	0.1657
BMRC Final Status Survey	2014 12 22 S1-06	Carbon-14	0.349 ±	0.358	0.587	pCi/g	12	0.0291	
BMRC Final Status Survey	2014 12 22 S1-06	Cesium-137	0.039 ±	0.056	0.094	pCi/g	11	0.0035	
BMRC Final Status Survey	2014 12 22 S1-06	Cobalt-60	0.052 ±	0.056	0.129	pCi/g	3.8	0.0137	

The Fraction is the Result/DCGL. SOF = Sum of the Fractions

Appendix H1 - Class 1 Stockpile Soil Analyses

Client Project	Sample ID	Parameter	Results	Sigma	MDC	Units	DCGL	Fraction	SOF
BMRC Final Status Survey	2014 12 22 S1-06	Europium-152	0.03 ±	0.147	0.257	pCi/g	6.9	0.0043	
BMRC Final Status Survey	2014 12 22 S1-06	Europium-154	0.004 ±	0.09	0.162	pCi/g	8	0.0005	
BMRC Final Status Survey	2014 12 22 S1-06	Nickel-63	1.269 ±	1.166	2.85	pCi/g	2100	0.0006	
BMRC Final Status Survey	2014 12 22 S1-06	Plutonium-238	0.013 ±	0.024	0.042	pCi/g	2.5	0.0052	
BMRC Final Status Survey	2014 12 22 S1-06	Pu-239/240	-0.023 ±	0.023	0.053	pCi/g	2.3	-0.0100	
BMRC Final Status Survey	2014 12 22 S1-06	Silver-108M	0.549 ±	0.098	0.072	pCi/g	8.2	0.0670	
BMRC Final Status Survey	2014 12 22 S1-06	Strontium-90	0.0858 ±	0.074	0.151	pCi/g	1.7	0.0505	
BMRC Final Status Survey	2014 12 22 S1-06	Tritium	0.146 ±	1.35	2.42	pCi/g	110	0.0013	
BMRC Final Status Survey	2014 12 22 S1-07	Americium-241	-0.018 ±	0.17	0.299	pCi/g	2.1	-0.0086	0.0896
BMRC Final Status Survey	2014 12 22 S1-07	Carbon-14	0.488 ±	0.372	0.589	pCi/g	12	0.0407	
BMRC Final Status Survey	2014 12 22 S1-07	Cesium-137	0 ±	0.007	0.118	pCi/g	11	0.0000	
BMRC Final Status Survey	2014 12 22 S1-07	Cobalt-60	-0.023 ±	0.936	0.097	pCi/g	3.8	-0.0061	
BMRC Final Status Survey	2014 12 22 S1-07	Europium-152	-0.018 ±	0.129	0.229	pCi/g	6.9	-0.0026	
BMRC Final Status Survey	2014 12 22 S1-07	Europium-154	0.004 ±	0.084	0.152	pCi/g	8	0.0005	
BMRC Final Status Survey	2014 12 22 S1-07	Nickel-63	1.525 ±	1.159	2.67	pCi/g	2100	0.0007	
BMRC Final Status Survey	2014 12 22 S1-07	Plutonium-238	0.006 ±	0.021	0.039	pCi/g	2.5	0.0024	
BMRC Final Status Survey	2014 12 22 S1-07	Pu-239/240	-0.004 ±	0.018	0.037	pCi/g	2.3	-0.0017	
BMRC Final Status Survey	2014 12 22 S1-07	Silver-108M	0.306 ±	0.104	0.051	pCi/g	8.2	0.0373	
BMRC Final Status Survey	2014 12 22 S1-07	Strontium-90	0.028 ±	0.197	0.476	pCi/g	1.7	0.0165	
BMRC Final Status Survey	2014 12 22 S1-07	Tritium	1.15 ±	1.28	2.12	pCi/g	110	0.0105	
BMRC Final Status Survey	2014 12 22 S1-08	Americium-241	0.282 ±	0.39	0.643	pCi/g	2.1	0.1343	0.2839
BMRC Final Status Survey	2014 12 22 S1-08	Carbon-14	-0.146 ±	0.309	0.575	pCi/g	12	-0.0122	
BMRC Final Status Survey	2014 12 22 S1-08	Cesium-137	0.021 ±	0.066	0.117	pCi/g	11	0.0019	
BMRC Final Status Survey	2014 12 22 S1-08	Cobalt-60	0.05 ±	0.056	0.147	pCi/g	3.8	0.0132	
BMRC Final Status Survey	2014 12 22 S1-08	Europium-152	-0.006 ±	0.169	0.299	pCi/g	6.9	-0.0009	
BMRC Final Status Survey	2014 12 22 S1-08	Europium-154	0.04 ±	0.113	0.195	pCi/g	8	0.0050	
BMRC Final Status Survey	2014 12 22 S1-08	Nickel-63	0.335 ±	1.111	3.014	pCi/g	2100	0.0002	
BMRC Final Status Survey	2014 12 22 S1-08	Plutonium-238	0.01 ±	0.015	0.025	pCi/g	2.5	0.0040	
BMRC Final Status Survey	2014 12 22 S1-08	Pu-239/240	0.006 ±	0.013	0.025	pCi/g	2.3	0.0026	
BMRC Final Status Survey	2014 12 22 S1-08	Silver-108M	0.454 ±	0.087	0.062	pCi/g	8.2	0.0554	
BMRC Final Status Survey	2014 12 22 S1-08	Strontium-90	0.118 ±	0.085	0.162	pCi/g	1.7	0.0694	
BMRC Final Status Survey	2014 12 22 S1-08	Tritium	1.21 ±	1.58	2.65	pCi/g	110	0.0110	
BMRC Final Status Survey	2014 12 22 S1-09	Americium-241	0.012 ±	0.146	0.261	pCi/g	2.1	0.0057	0.1156
BMRC Final Status Survey	2014 12 22 S1-09	Carbon-14	0.478 ±	0.364	0.578	pCi/g	12	0.0398	
BMRC Final Status Survey	2014 12 22 S1-09	Cesium-137	-0.023 ±	0.092	0.164	pCi/g	11	-0.0021	
BMRC Final Status Survey	2014 12 22 S1-09	Cobalt-60	0.007 ±	0.011	0.213	pCi/g	3.8	0.0018	
BMRC Final Status Survey	2014 12 22 S1-09	Europium-152	-0.009 ±	0.135	0.241	pCi/g	6.9	-0.0013	
BMRC Final Status Survey	2014 12 22 S1-09	Europium-154	-0.001 ±	0.175	0.151	pCi/g	8	-0.0001	
BMRC Final Status Survey	2014 12 22 S1-09	Nickel-63	0.146 ±	0.36	0.262	pCi/g	2100	0.0001	
BMRC Final Status Survey	2014 12 22 S1-09	Plutonium-238	0.017 ±	0.014	0.02	pCi/g	2.5	0.0068	
BMRC Final Status Survey	2014 12 22 S1-09	Pu-239/240	-0.002 ±	0.01	0.023	pCi/g	2.3	-0.0009	
BMRC Final Status Survey	2014 12 22 S1-09	Silver-108M	0.289 ±	0.067	0.054	pCi/g	8.2	0.0352	
BMRC Final Status Survey	2014 12 22 S1-09	Strontium-90	0.0436 ±	0.068	0.152	pCi/g	1.7	0.0256	
BMRC Final Status Survey	2014 12 22 S1-09	Tritium	0.529 ±	1.08	1.87	pCi/g	110	0.0048	
BMRC Final Status Survey	2014 12 22 S1-10	Americium-241	0 ±	0.011	0.727	pCi/g	2.1	0.0000	0.1239
BMRC Final Status Survey	2014 12 22 S1-10	Carbon-14	0.298 ±	0.343	0.569	pCi/g	12	0.0248	
BMRC Final Status Survey	2014 12 22 S1-10	Cesium-137	0.014 ±	0.045	0.082	pCi/g	11	0.0013	
BMRC Final Status Survey	2014 12 22 S1-10	Cobalt-60	0.024 ±	0.045	0.126	pCi/g	3.8	0.0063	
BMRC Final Status Survey	2014 12 22 S1-10	Europium-152	0.002 ±	0.136	0.243	pCi/g	6.9	0.0003	
BMRC Final Status Survey	2014 12 22 S1-10	Europium-154	0.026 ±	0.105	0.182	pCi/g	8	0.0033	
BMRC Final Status Survey	2014 12 22 S1-10	Nickel-63	0.658 ±	1.054	2.534	pCi/g	2100	0.0003	
BMRC Final Status Survey	2014 12 22 S1-10	Plutonium-238	0.015 ±	0.021	0.035	pCi/g	2.5	0.0060	
BMRC Final Status Survey	2014 12 22 S1-10	Pu-239/240	-0.005 ±	0.021	0.043	pCi/g	2.3	-0.0022	
BMRC Final Status Survey	2014 12 22 S1-10	Silver-108M	0.394 ±	0.078	0.069	pCi/g	8.2	0.0480	
BMRC Final Status Survey	2014 12 22 S1-10	Strontium-90	0.0346 ±	0.096	0.227	pCi/g	1.7	0.0204	
BMRC Final Status Survey	2014 12 22 S1-10	Tritium	1.69 ±	1.89	3.12	pCi/g	110	0.0154	

Appendix H1 - Class 1 Stockpile Soil Analyses

Client Project	Sample ID	Parameter	Results	Sigma	MDC	Units	DCGL	Fraction	SOF
BMRC Final Status Survey	2014 12 22 S1-11	Americium-241	0.145 ±	0.301	0.511	pCi/g	2.1	0.0690	0.1378
BMRC Final Status Survey	2014 12 22 S1-11	Carbon-14	0.401 ±	0.361	0.584	pCi/g	12	0.0334	
BMRC Final Status Survey	2014 12 22 S1-11	Cesium-137	0.009 ±	0.06	0.109	pCi/g	11	0.0008	
BMRC Final Status Survey	2014 12 22 S1-11	Cobalt-60	0.013 ±	0.06	0.112	pCi/g	3.8	0.0034	
BMRC Final Status Survey	2014 12 22 S1-11	Europium-152	-0.058 ±	0.179	0.307	pCi/g	6.9	-0.0084	
BMRC Final Status Survey	2014 12 22 S1-11	Europium-154	0.011 ±	0.107	0.187	pCi/g	8	0.0014	
BMRC Final Status Survey	2014 12 22 S1-11	Nickel-63	-0.227 ±	1.069	3.062	pCi/g	2100	-0.0001	
BMRC Final Status Survey	2014 12 22 S1-11	Plutonium-238	0.016 ±	0.018	0.029	pCi/g	2.5	0.0064	
BMRC Final Status Survey	2014 12 22 S1-11	Pu-239/240	0.002 ±	0.014	0.027	pCi/g	2.3	0.0009	
BMRC Final Status Survey	2014 12 22 S1-11	Silver-108M	0.047 ±	0.048	0.115	pCi/g	8.2	0.0057	
BMRC Final Status Survey	2014 12 22 S1-11	Strontium-90	0.0419 ±	0.063	0.141	pCi/g	1.7	0.0246	
BMRC Final Status Survey	2014 12 22 S1-11	Tritium	0.0631 ±	1.35	2.45	pCi/g	110	0.0006	
BMRC Final Status Survey	2014 12 22 S1-11-dup	Americium-241	-0.001 ±	0.176	0.313	pCi/g	2.1	-0.0005	0.0617
BMRC Final Status Survey	2014 12 22 S1-11-dup	Carbon-14	0.491 ±	0.374	0.593	pCi/g	12	0.0409	
BMRC Final Status Survey	2014 12 22 S1-11-dup	Cesium-137	0 ±	0.007	0.16	pCi/g	11	0.0000	
BMRC Final Status Survey	2014 12 22 S1-11-dup	Cobalt-60	0.015 ±	0.078	0.162	pCi/g	3.8	0.0039	
BMRC Final Status Survey	2014 12 22 S1-11-dup	Europium-152	0.017 ±	0.135	0.24	pCi/g	6.9	0.0025	
BMRC Final Status Survey	2014 12 22 S1-11-dup	Europium-154	-0.066 ±	0.134	0.224	pCi/g	8	-0.0083	
BMRC Final Status Survey	2014 12 22 S1-11-dup	Nickel-63	0.854 ±	1.201	3.288	pCi/g	2100	0.0004	
BMRC Final Status Survey	2014 12 22 S1-11-dup	Plutonium-238	0.002 ±	0.019	0.036	pCi/g	2.5	0.0008	
BMRC Final Status Survey	2014 12 22 S1-11-dup	Pu-239/240	-0.007 ±	0.011	0.026	pCi/g	2.3	-0.0030	
BMRC Final Status Survey	2014 12 22 S1-11-dup	Silver-108M	0.077 ±	0.047	0.146	pCi/g	8.2	0.0094	
BMRC Final Status Survey	2014 12 22 S1-11-dup	Strontium-90	0.0113 ±	0.086	0.211	pCi/g	1.7	0.0066	
BMRC Final Status Survey	2014 12 22 S1-11-dup	Tritium	0.974 ±	1.78	3.06	pCi/g	110	0.0089	
BMRC Final Status Survey	2014 12 22 S1-12	Americium-241	0.002 ±	0.372	0.657	pCi/g	2.1	0.0010	0.0571
BMRC Final Status Survey	2014 12 22 S1-12	Carbon-14	0.151 ±	0.334	0.576	pCi/g	12	0.0126	
BMRC Final Status Survey	2014 12 22 S1-12	Cesium-137	-0.003 ±	0.106	0.11	pCi/g	11	-0.0003	
BMRC Final Status Survey	2014 12 22 S1-12	Cobalt-60	-0.009 ±	0.346	0.172	pCi/g	3.8	-0.0024	
BMRC Final Status Survey	2014 12 22 S1-12	Europium-152	-0.017 ±	0.165	0.29	pCi/g	6.9	-0.0025	
BMRC Final Status Survey	2014 12 22 S1-12	Europium-154	0.002 ±	0.087	0.157	pCi/g	8	0.0003	
BMRC Final Status Survey	2014 12 22 S1-12	Nickel-63	0 ±	1.289	4.29	pCi/g	2100	0.0000	
BMRC Final Status Survey	2014 12 22 S1-12	Plutonium-238	0.036 ±	0.034	0.053	pCi/g	2.5	0.0144	
BMRC Final Status Survey	2014 12 22 S1-12	Pu-239/240	-0.002 ±	0.021	0.042	pCi/g	2.3	-0.0009	
BMRC Final Status Survey	2014 12 22 S1-12	Silver-108M	0.111 ±	0.051	0.131	pCi/g	8.2	0.0135	
BMRC Final Status Survey	2014 12 22 S1-12	Strontium-90	0.0341 ±	0.054	0.121	pCi/g	1.7	0.0201	
BMRC Final Status Survey	2014 12 22 S1-12	Tritium	0.142 ±	1.32	2.37	pCi/g	110	0.0013	
BMRC Final Status Survey	2014 12 22 S1-13	Americium-241	0.089 ±	0.157	0.263	pCi/g	2.1	0.0424	0.1805
BMRC Final Status Survey	2014 12 22 S1-13	Carbon-14	0.308 ±	0.355	0.588	pCi/g	12	0.0257	
BMRC Final Status Survey	2014 12 22 S1-13	Cesium-137	0.034 ±	0.067	0.117	pCi/g	11	0.0031	
BMRC Final Status Survey	2014 12 22 S1-13	Cobalt-60	0.011 ±	0.089	0.178	pCi/g	3.8	0.0029	
BMRC Final Status Survey	2014 12 22 S1-13	Europium-152	-0.033 ±	0.147	0.256	pCi/g	6.9	-0.0048	
BMRC Final Status Survey	2014 12 22 S1-13	Europium-154	0.034 ±	0.089	0.155	pCi/g	8	0.0043	
BMRC Final Status Survey	2014 12 22 S1-13	Nickel-63	1.665 ±	1.265	3.254	pCi/g	2100	0.0008	
BMRC Final Status Survey	2014 12 22 S1-13	Plutonium-238	0 ±	0.019	0.038	pCi/g	2.5	0.0000	
BMRC Final Status Survey	2014 12 22 S1-13	Pu-239/240	-0.002 ±	0.019	0.039	pCi/g	2.3	-0.0009	
BMRC Final Status Survey	2014 12 22 S1-13	Silver-108M	0.242 ±	0.056	0.067	pCi/g	8.2	0.0295	
BMRC Final Status Survey	2014 12 22 S1-13	Strontium-90	-0.0552 ±	0.061	0.17	pCi/g	1.7	-0.0325	
BMRC Final Status Survey	2014 12 22 S1-13	Tritium	12.1 ±	2.5	1.96	pCi/g	110	0.1100	
BMRC Final Status Survey	2014 12 22 S1-14	Americium-241	-0.001 ±	0.307	0.347	pCi/g	2.1	-0.0005	0.0033
BMRC Final Status Survey	2014 12 22 S1-14	Carbon-14	0.206 ±	0.342	0.582	pCi/g	12	0.0172	
BMRC Final Status Survey	2014 12 22 S1-14	Cesium-137	0.026 ±	0.055	0.096	pCi/g	11	0.0024	
BMRC Final Status Survey	2014 12 22 S1-14	Cobalt-60	0.02 ±	0.062	0.113	pCi/g	3.8	0.0053	
BMRC Final Status Survey	2014 12 22 S1-14	Europium-152	-0.086 ±	0.187	0.316	pCi/g	6.9	-0.0125	
BMRC Final Status Survey	2014 12 22 S1-14	Europium-154	0.048 ±	0.094	0.197	pCi/g	8	0.0060	
BMRC Final Status Survey	2014 12 22 S1-14	Nickel-63	0.246 ±	1.155	3.317	pCi/g	2100	0.0001	
BMRC Final Status Survey	2014 12 22 S1-14	Plutonium-238	0.005 ±	0.023	0.043	pCi/g	2.5	0.0020	

Appendix H1 - Class 1 Stockpile Soil Analyses

Client Project	Sample ID	Parameter	Results	Sigma	MDC	Units	DCGL	Fraction	SOF
BMRC Final Status Survey	2014 12 22 S1-14	Pu-239/240	-0.016 ±	0.02	0.046	pCi/g	2.3	-0.0070	
BMRC Final Status Survey	2014 12 22 S1-14	Silver-108M	0.043 ±	0.037	0.1	pCi/g	8.2	0.0052	
BMRC Final Status Survey	2014 12 22 S1-14	Strontium-90	-0.0255 ±	0.064	0.169	pCi/g	1.7	-0.0150	
BMRC Final Status Survey	2014 12 22 S1-14	Tritium	0 ±	0.873	1.59	pCi/g	110	0.0000	
BMRC Final Status Survey	2014 12 22 S1-15	Americium-241	-0.131 ±	0.209	0.347	pCi/g	2.1	-0.0624	0.2083
BMRC Final Status Survey	2014 12 22 S1-15	Carbon-14	-0.025 ±	0.321	0.579	pCi/g	12	-0.0021	
BMRC Final Status Survey	2014 12 22 S1-15	Cesium-137	0.105 ±	0.089	0.133	pCi/g	11	0.0095	
BMRC Final Status Survey	2014 12 22 S1-15	Cobalt-60	0.118 ±	0.077	0.142	pCi/g	3.8	0.0311	
BMRC Final Status Survey	2014 12 22 S1-15	Europium-152	0.07 ±	0.092	0.289	pCi/g	6.9	0.0101	
BMRC Final Status Survey	2014 12 22 S1-15	Europium-154	0.066 ±	0.08	0.129	pCi/g	8	0.0083	
BMRC Final Status Survey	2014 12 22 S1-15	Nickel-63	0.909 ±	1.101	2.664	pCi/g	2100	0.0004	
BMRC Final Status Survey	2014 12 22 S1-15	Plutonium-238	0.007 ±	0.017	0.031	pCi/g	2.5	0.0028	
BMRC Final Status Survey	2014 12 22 S1-15	Pu-239/240	0.002 ±	0.01	0.021	pCi/g	2.3	0.0009	
BMRC Final Status Survey	2014 12 22 S1-15	Silver-108M	0.835 ±	0.171	0.097	pCi/g	8.2	0.1018	
BMRC Final Status Survey	2014 12 22 S1-15	Strontium-90	0.148 ±	0.096	0.179	pCi/g	1.7	0.0871	
BMRC Final Status Survey	2014 12 22 S1-15	Tritium	2.29 ±	1.57	2.42	pCi/g	110	0.0208	
BMRC Final Status Survey	2014 12 23 S1-01	Americium-241	-0.034 ±	0.167	0.292	pCi/g	2.1	-0.0162	0.3576
BMRC Final Status Survey	2014 12 23 S1-01	Carbon-14	0 ±	0.317	0.568	pCi/g	12	0.0000	
BMRC Final Status Survey	2014 12 23 S1-01	Cesium-137	0.018 ±	0.099	0.179	pCi/g	11	0.0016	
BMRC Final Status Survey	2014 12 23 S1-01	Cobalt-60	0.022 ±	0.039	0.284	pCi/g	3.8	0.0058	
BMRC Final Status Survey	2014 12 23 S1-01	Europium-152	-0.064 ±	0.178	0.304	pCi/g	6.9	-0.0093	
BMRC Final Status Survey	2014 12 23 S1-01	Europium-154	0.014 ±	0.113	0.198	pCi/g	8	0.0018	
BMRC Final Status Survey	2014 12 23 S1-01	Nickel-63	1.214 ±	1.365	3.471	pCi/g	2100	0.0006	
BMRC Final Status Survey	2014 12 23 S1-01	Plutonium-238	0.014 ±	0.014	0.018	pCi/g	2.5	0.0056	
BMRC Final Status Survey	2014 12 23 S1-01	Pu-239/240	0 ±	0.015	0.032	pCi/g	2.3	0.0000	
BMRC Final Status Survey	2014 12 23 S1-01	Silver-108M	0.979 ±	0.208	0.052	pCi/g	8.2	0.1194	
BMRC Final Status Survey	2014 12 23 S1-01	Strontium-90	0.266 ±	0.088	0.11	pCi/g	1.7	0.1565	
BMRC Final Status Survey	2014 12 23 S1-01	Tritium	10.1 ±	2.59	2.72	pCi/g	110	0.0918	
BMRC Final Status Survey	2014 12 23 S1-02	Americium-241	-0.165 ±	0.397	0.671	pCi/g	2.1	-0.0786	0.1044
BMRC Final Status Survey	2014 12 23 S1-02	Carbon-14	0.127 ±	0.343	0.597	pCi/g	12	0.0106	
BMRC Final Status Survey	2014 12 23 S1-02	Cesium-137	0.016 ±	0.054	0.096	pCi/g	11	0.0015	
BMRC Final Status Survey	2014 12 23 S1-02	Cobalt-60	0.076 ±	0.051	0.114	pCi/g	3.8	0.0200	
BMRC Final Status Survey	2014 12 23 S1-02	Europium-152	0.116 ±	0.151	0.251	pCi/g	6.9	0.0168	
BMRC Final Status Survey	2014 12 23 S1-02	Europium-154	-0.013 ±	0.103	0.181	pCi/g	8	-0.0016	
BMRC Final Status Survey	2014 12 23 S1-02	Nickel-63	0.508 ±	1.285	3.327	pCi/g	2100	0.0002	
BMRC Final Status Survey	2014 12 23 S1-02	Plutonium-238	0.008 ±	0.028	0.05	pCi/g	2.5	0.0032	
BMRC Final Status Survey	2014 12 23 S1-02	Pu-239/240	0.002 ±	0.012	0.025	pCi/g	2.3	0.0009	
BMRC Final Status Survey	2014 12 23 S1-02	Silver-108M	0.57 ±	0.101	0.076	pCi/g	8.2	0.0695	
BMRC Final Status Survey	2014 12 23 S1-02	Strontium-90	0.104 ±	0.099	0.207	pCi/g	1.7	0.0612	
BMRC Final Status Survey	2014 12 23 S1-02	Tritium	0.0778 ±	1.37	2.47	pCi/g	110	0.0007	
BMRC Final Status Survey	2014 12 23 S1-03	Americium-241	-0.001 ±	0.199	0.349	pCi/g	2.1	-0.0005	0.1263
BMRC Final Status Survey	2014 12 23 S1-03	Carbon-14	0.33 ±	0.366	0.606	pCi/g	12	0.0275	
BMRC Final Status Survey	2014 12 23 S1-03	Cesium-137	0 ±	0.007	0.177	pCi/g	11	0.0000	
BMRC Final Status Survey	2014 12 23 S1-03	Cobalt-60	0.061 ±	0.114	0.204	pCi/g	3.8	0.0161	
BMRC Final Status Survey	2014 12 23 S1-03	Europium-152	0.048 ±	0.124	0.215	pCi/g	6.9	0.0070	
BMRC Final Status Survey	2014 12 23 S1-03	Europium-154	-0.021 ±	0.111	0.187	pCi/g	8	-0.0026	
BMRC Final Status Survey	2014 12 23 S1-03	Nickel-63	-1.459 ±	1.221	3.761	pCi/g	2100	-0.0007	
BMRC Final Status Survey	2014 12 23 S1-03	Plutonium-238	0.016 ±	0.026	0.044	pCi/g	2.5	0.0064	
BMRC Final Status Survey	2014 12 23 S1-03	Pu-239/240	-0.015 ±	0.013	0.032	pCi/g	2.3	-0.0065	
BMRC Final Status Survey	2014 12 23 S1-03	Silver-108M	0.474 ±	0.127	0.125	pCi/g	8.2	0.0578	
BMRC Final Status Survey	2014 12 23 S1-03	Strontium-90	-0.0446 ±	0.082	0.218	pCi/g	1.7	-0.0262	
BMRC Final Status Survey	2014 12 23 S1-03	Tritium	5.29 ±	2.11	2.83	pCi/g	110	0.0481	
BMRC Final Status Survey	2014 12 23 S1-04	Americium-241	-0.082 ±	0.401	0.688	pCi/g	2.1	-0.0390	0.0917
BMRC Final Status Survey	2014 12 23 S1-04	Carbon-14	0.168 ±	0.345	0.594	pCi/g	12	0.0140	
BMRC Final Status Survey	2014 12 23 S1-04	Cesium-137	0.002 ±	0.066	0.121	pCi/g	11	0.0002	
BMRC Final Status Survey	2014 12 23 S1-04	Cobalt-60	0.017 ±	0.076	0.138	pCi/g	3.8	0.0045	

Appendix H1 - Class 1 Stockpile Soil Analyses

Client Project	Sample ID	Parameter	Results	Sigma	MDC	Units	DCGL	Fraction	SOF
BMRC Final Status Survey	2014 12 23 S1-04	Europium-152	-0.096 ±	0.181	0.304	pCi/g	6.9	-0.0139	
BMRC Final Status Survey	2014 12 23 S1-04	Europium-154	0.031 ±	0.104	0.18	pCi/g	8	0.0039	
BMRC Final Status Survey	2014 12 23 S1-04	Nickel-63	-0.5 ±	1.148	3.025	pCi/g	2100	-0.0002	
BMRC Final Status Survey	2014 12 23 S1-04	Plutonium-238	0.029 ±	0.037	0.061	pCi/g	2.5	0.0116	
BMRC Final Status Survey	2014 12 23 S1-04	Pu-239/240	0.006 ±	0.018	0.033	pCi/g	2.3	0.0026	
BMRC Final Status Survey	2014 12 23 S1-04	Silver-108M	0.455 ±	0.087	0.09	pCi/g	8.2	0.0555	
BMRC Final Status Survey	2014 12 23 S1-04	Strontium-90	0.0855 ±	0.076	0.157	pCi/g	1.7	0.0503	
BMRC Final Status Survey	2014 12 23 S1-04	Tritium	0.261 ±	1.86	3.32	pCi/g	110	0.0024	
BMRC Final Status Survey	2014 12 23 S1-05	Americium-241	0.061 ±	0.162	0.277	pCi/g	2.1	0.0290	0.3591
BMRC Final Status Survey	2014 12 23 S1-05	Carbon-14	0.323 ±	0.359	0.593	pCi/g	12	0.0269	
BMRC Final Status Survey	2014 12 23 S1-05	Cesium-137	0.029 ±	0.084	0.148	pCi/g	11	0.0026	
BMRC Final Status Survey	2014 12 23 S1-05	Cobalt-60	0.054 ±	0.088	0.205	pCi/g	3.8	0.0142	
BMRC Final Status Survey	2014 12 23 S1-05	Europium-152	-0.026 ±	0.183	0.318	pCi/g	6.9	-0.0038	
BMRC Final Status Survey	2014 12 23 S1-05	Europium-154	0.035 ±	0.134	0.23	pCi/g	8	0.0044	
BMRC Final Status Survey	2014 12 23 S1-05	Nickel-63	-0.331 ±	1.465	4.731	pCi/g	2100	-0.0002	
BMRC Final Status Survey	2014 12 23 S1-05	Plutonium-238	0.013 ±	0.029	0.051	pCi/g	2.5	0.0052	
BMRC Final Status Survey	2014 12 23 S1-05	Pu-239/240	-0.013 ±	0.017	0.038	pCi/g	2.3	-0.0057	
BMRC Final Status Survey	2014 12 23 S1-05	Silver-108M	0.677 ±	0.12	0.052	pCi/g	8.2	0.0826	
BMRC Final Status Survey	2014 12 23 S1-05	Strontium-90	0.34 ±	0.128	0.186	pCi/g	1.7	0.2000	
BMRC Final Status Survey	2014 12 23 S1-05	Tritium	0.408 ±	1.47	2.59	pCi/g	110	0.0037	

Appendix H2 - Class 2 Stockpile Soil Analyses

Client Project	Sample ID	Parameter	Results	Sigma	MDA	Units	DCGL	Fraction	SOF
BMRC Final Status Survey	2014 10 29 S2-01	Americium-241	-0.008 ±	0.173	0.308	pCi/g	2.1	-0.0038	-0.0377
BMRC Final Status Survey	2014 10 29 S2-01	Carbon-14	-0.063 ±	0.434	0.794	pCi/g	12	-0.0053	
BMRC Final Status Survey	2014 10 29 S2-01	Cesium-137	-0.024 ±	0.103	0.161	pCi/g	11	-0.0022	
BMRC Final Status Survey	2014 10 29 S2-01	Cobalt-60	-0.016 ±	0.626	0.092	pCi/g	3.8	-0.0042	
BMRC Final Status Survey	2014 10 29 S2-01	Europium-152	0.011 ±	0.142	0.256	pCi/g	6.9	0.0016	
BMRC Final Status Survey	2014 10 29 S2-01	Europium-154	-0.022 ±	0.11	0.193	pCi/g	8	-0.0028	
BMRC Final Status Survey	2014 10 29 S2-01	Nickel-63	1.575 ±	1.514	4.418	pCi/g	2100	0.0008	
BMRC Final Status Survey	2014 10 29 S2-01	Plutonium-238	-0.008 ±	0.021	0.045	pCi/g	2.5	-0.0032	
BMRC Final Status Survey	2014 10 29 S2-01	Pu-239/240	0.005 ±	0.012	0.024	pCi/g	2.3	0.0022	
BMRC Final Status Survey	2014 10 29 S2-01	Silver-108M	0 ±	0.086	0.162	pCi/g	8.2	0.0000	
BMRC Final Status Survey	2014 10 29 S2-01	Strontium-90	-0.0399 ±	0.092	0.242	pCi/g	1.7	-0.0235	
BMRC Final Status Survey	2014 10 29 S2-01	Tritium	0.293 ±	0.648	1.11	pCi/g	110	0.0027	
BMRC Final Status Survey	2014 10 29 S2-02	Americium-241	-0.004 ±	1.394	0.582	pCi/g	2.1	-0.0019	0.0409
BMRC Final Status Survey	2014 10 29 S2-02	Carbon-14	0.371 ±	0.467	0.78	pCi/g	12	0.0309	
BMRC Final Status Survey	2014 10 29 S2-02	Cesium-137	0 ±	0.051	0.096	pCi/g	11	0.0000	
BMRC Final Status Survey	2014 10 29 S2-02	Cobalt-60	0.013 ±	0.06	0.115	pCi/g	3.8	0.0034	
BMRC Final Status Survey	2014 10 29 S2-02	Europium-152	-0.072 ±	0.168	0.284	pCi/g	6.9	-0.0104	
BMRC Final Status Survey	2014 10 29 S2-02	Europium-154	0.021 ±	0.026	0.212	pCi/g	8	0.0026	
BMRC Final Status Survey	2014 10 29 S2-02	Nickel-63	0.826 ±	1.423	4.171	pCi/g	2100	0.0004	
BMRC Final Status Survey	2014 10 29 S2-02	Plutonium-238	0.01 ±	0.02	0.038	pCi/g	2.5	0.0040	
BMRC Final Status Survey	2014 10 29 S2-02	Pu-239/240	0.007 ±	0.011	0.021	pCi/g	2.3	0.0030	
BMRC Final Status Survey	2014 10 29 S2-02	Silver-108M	0.012 ±	0.024	0.171	pCi/g	8.2	0.0015	
BMRC Final Status Survey	2014 10 29 S2-02	Strontium-90	0.011 ±	0.102	0.241	pCi/g	1.7	0.0065	
BMRC Final Status Survey	2014 10 29 S2-02	Tritium	0.101 ±	0.954	1.68	pCi/g	110	0.0009	
BMRC Final Status Survey	2014 10 30 S2-01	Americium-241	0.012 ±	0.151	0.267	pCi/g	2.1	0.0057	0.0120
BMRC Final Status Survey	2014 10 30 S2-01	Carbon-14	-0.08 ±	0.411	0.756	pCi/g	12	-0.0067	
BMRC Final Status Survey	2014 10 30 S2-01	Cesium-137	-0.002 ±	0.067	0.102	pCi/g	11	-0.0002	
BMRC Final Status Survey	2014 10 30 S2-01	Cobalt-60	-0.014 ±	0.547	0.08	pCi/g	3.8	-0.0037	
BMRC Final Status Survey	2014 10 30 S2-01	Europium-152	-0.079 ±	0.192	0.292	pCi/g	6.9	-0.0114	
BMRC Final Status Survey	2014 10 30 S2-01	Europium-154	0.051 ±	0.094	0.159	pCi/g	8	0.0064	
BMRC Final Status Survey	2014 10 30 S2-01	Nickel-63	0 ±	1.203	3.244	pCi/g	2100	0.0000	
BMRC Final Status Survey	2014 10 30 S2-01	Plutonium-238	0.001 ±	0.016	0.035	pCi/g	2.5	0.0004	
BMRC Final Status Survey	2014 10 30 S2-01	Pu-239/240	0.006 ±	0.01	0.02	pCi/g	2.3	0.0026	
BMRC Final Status Survey	2014 10 30 S2-01	Silver-108M	0.002 ±	0.072	0.137	pCi/g	8.2	0.0002	
BMRC Final Status Survey	2014 10 30 S2-01	Strontium-90	0.034 ±	0.104	0.244	pCi/g	1.7	0.0200	
BMRC Final Status Survey	2014 10 30 S2-01	Tritium	-0.151 ±	0.876	1.57	pCi/g	110	-0.0014	
BMRC Final Status Survey	2014 10 30 S2-02	Americium-241	-0.002 ±	0.1	0.671	pCi/g	2.1	-0.0010	0.0002
BMRC Final Status Survey	2014 10 30 S2-02	Carbon-14	-0.302 ±	0.425	0.816	pCi/g	12	-0.0252	
BMRC Final Status Survey	2014 10 30 S2-02	Cesium-137	0.024 ±	0.06	0.104	pCi/g	11	0.0022	
BMRC Final Status Survey	2014 10 30 S2-02	Cobalt-60	0.006 ±	0.063	0.123	pCi/g	3.8	0.0016	
BMRC Final Status Survey	2014 10 30 S2-02	Europium-152	0 ±	0.005	0.328	pCi/g	6.9	0.0000	
BMRC Final Status Survey	2014 10 30 S2-02	Europium-154	0.004 ±	0.102	0.181	pCi/g	8	0.0005	
BMRC Final Status Survey	2014 10 30 S2-02	Nickel-63	0.549 ±	1.262	3.325	pCi/g	2100	0.0003	
BMRC Final Status Survey	2014 10 30 S2-02	Plutonium-238	-0.004 ±	0.02	0.043	pCi/g	2.5	-0.0016	
BMRC Final Status Survey	2014 10 30 S2-02	Pu-239/240	0 ±	0.01	0.024	pCi/g	2.3	0.0000	
BMRC Final Status Survey	2014 10 30 S2-02	Silver-108M	-0.03 ±	0.081	0.14	pCi/g	8.2	-0.0037	
BMRC Final Status Survey	2014 10 30 S2-02	Strontium-90	0.0426 ±	0.099	0.23	pCi/g	1.7	0.0251	
BMRC Final Status Survey	2014 10 30 S2-02	Tritium	0.225 ±	0.545	0.938	pCi/g	110	0.0020	
BMRC Final Status Survey	2014 11 01 S2-01	Americium-241	0.01 ±	0.171	0.301	pCi/g	2.1	0.0048	-0.0113
BMRC Final Status Survey	2014 11 01 S2-01	Carbon-14	-0.104 ±	0.426	0.787	pCi/g	12	-0.0087	
BMRC Final Status Survey	2014 11 01 S2-01	Cesium-137	-0.002 ±	0.068	0.187	pCi/g	11	-0.0002	
BMRC Final Status Survey	2014 11 01 S2-01	Cobalt-60	-0.001 ±	0.084	0.15	pCi/g	3.8	-0.0003	
BMRC Final Status Survey	2014 11 01 S2-01	Europium-152	-0.021 ±	0.233	0.265	pCi/g	6.9	-0.0030	
BMRC Final Status Survey	2014 11 01 S2-01	Europium-154	0.012 ±	0.09	0.159	pCi/g	8	0.0015	
BMRC Final Status Survey	2014 11 01 S2-01	Nickel-63	-0.927 ±	1.181	3.512	pCi/g	2100	-0.0004	
BMRC Final Status Survey	2014 11 01 S2-01	Plutonium-238	-0.03 ±	0.033	0.074	pCi/g	2.5	-0.0120	

Appendix H2 - Class 2 Stockpile Soil Analyses

Client Project	Sample ID	Parameter	Results	Sigma	MDA	Units	DCGL	Fraction	SOF
BMRC Final Status Survey	2014 11 01 S2-01	Pu-239/240	0.005 ±	0.011	0.022	pCi/g	2.3	0.0022	
BMRC Final Status Survey	2014 11 01 S2-01	Silver-108M	-0.007 ±	0.086	0.158	pCi/g	8.2	-0.0009	
BMRC Final Status Survey	2014 11 01 S2-01	Strontium-90	-0.0003 ±	0.1	0.245	pCi/g	1.7	-0.0002	
BMRC Final Status Survey	2014 11 01 S2-01	Tritium	0.646 ±	0.739	1.23	pCi/g	110	0.0059	
BMRC Final Status Survey	2014 11 01 S2-02	Americium-241	0.187 ±	0.375	0.634	pCi/g	2.1	0.0890	0.1016
BMRC Final Status Survey	2014 11 01 S2-02	Carbon-14	0.211 ±	0.462	0.8	pCi/g	12	0.0176	
BMRC Final Status Survey	2014 11 01 S2-02	Cesium-137	0.035 ±	0.063	0.107	pCi/g	11	0.0032	
BMRC Final Status Survey	2014 11 01 S2-02	Cobalt-60	-0.014 ±	0.556	0.059	pCi/g	3.8	-0.0037	
BMRC Final Status Survey	2014 11 01 S2-02	Europium-152	0.023 ±	0.144	0.254	pCi/g	6.9	0.0033	
BMRC Final Status Survey	2014 11 01 S2-02	Europium-154	-0.019 ±	0.109	0.19	pCi/g	8	-0.0024	
BMRC Final Status Survey	2014 11 01 S2-02	Nickel-63	-1.029 ±	1.15	3.389	pCi/g	2100	-0.0005	
BMRC Final Status Survey	2014 11 01 S2-02	Plutonium-238	0.014 ±	0.024	0.045	pCi/g	2.5	0.0056	
BMRC Final Status Survey	2014 11 01 S2-02	Pu-239/240	-0.002 ±	0.011	0.027	pCi/g	2.3	-0.0009	
BMRC Final Status Survey	2014 11 01 S2-02	Silver-108M	-0.013 ±	0.078	0.138	pCi/g	8.2	-0.0016	
BMRC Final Status Survey	2014 11 01 S2-02	Strontium-90	-0.0093 ±	0.095	0.239	pCi/g	1.7	-0.0055	
BMRC Final Status Survey	2014 11 01 S2-02	Tritium	-0.293 ±	0.746	1.36	pCi/g	110	-0.0027	
BMRC Final Status Survey	2014 11 01 S2-03	Americium-241	0.085 ±	0.157	0.264	pCi/g	2.1	0.0405	0.0945
BMRC Final Status Survey	2014 11 01 S2-03	Carbon-14	-0.209 ±	0.418	0.789	pCi/g	12	-0.0174	
BMRC Final Status Survey	2014 11 01 S2-03	Cesium-137	0.057 ±	0.081	0.136	pCi/g	11	0.0052	
BMRC Final Status Survey	2014 11 01 S2-03	Cobalt-60	-0.004 ±	0.133	0.15	pCi/g	3.8	-0.0011	
BMRC Final Status Survey	2014 11 01 S2-03	Europium-152	0.034 ±	0.143	0.25	pCi/g	6.9	0.0049	
BMRC Final Status Survey	2014 11 01 S2-03	Europium-154	-0.004 ±	0.095	0.169	pCi/g	8	-0.0005	
BMRC Final Status Survey	2014 11 01 S2-03	Nickel-63	0.561 ±	1.191	2.931	pCi/g	2100	0.0003	
BMRC Final Status Survey	2014 11 01 S2-03	Plutonium-238	0.027 ±	0.024	0.04	pCi/g	2.5	0.0108	
BMRC Final Status Survey	2014 11 01 S2-03	Pu-239/240	0.004 ±	0.008	0.015	pCi/g	2.3	0.0017	
BMRC Final Status Survey	2014 11 01 S2-03	Silver-108M	0 ±	0.141	0.251	pCi/g	8.2	0.0000	
BMRC Final Status Survey	2014 11 01 S2-03	Strontium-90	0.084 ±	0.104	0.227	pCi/g	1.7	0.0494	
BMRC Final Status Survey	2014 11 01 S2-03	Tritium	0.0703 ±	0.832	1.47	pCi/g	110	0.0006	
BMRC Final Status Survey	2014 11 01 S2-04	Americium-241	-0.073 ±	0.365	0.596	pCi/g	2.1	-0.0348	-0.0068
BMRC Final Status Survey	2014 11 01 S2-04	Carbon-14	-0.083 ±	0.427	0.786	pCi/g	12	-0.0069	
BMRC Final Status Survey	2014 11 01 S2-04	Cesium-137	0.012 ±	0.057	0.103	pCi/g	11	0.0011	
BMRC Final Status Survey	2014 11 01 S2-04	Cobalt-60	0.019 ±	0.048	0.09	pCi/g	3.8	0.0050	
BMRC Final Status Survey	2014 11 01 S2-04	Europium-152	0 ±	0.004	0.316	pCi/g	6.9	0.0000	
BMRC Final Status Survey	2014 11 01 S2-04	Europium-154	0.074 ±	0.067	0.104	pCi/g	8	0.0093	
BMRC Final Status Survey	2014 11 01 S2-04	Nickel-63	-0.19 ±	1.116	2.871	pCi/g	2100	-0.0001	
BMRC Final Status Survey	2014 11 01 S2-04	Plutonium-238	-0.009 ±	0.019	0.042	pCi/g	2.5	-0.0036	
BMRC Final Status Survey	2014 11 01 S2-04	Pu-239/240	-0.003 ±	0.009	0.023	pCi/g	2.3	-0.0013	
BMRC Final Status Survey	2014 11 01 S2-04	Silver-108M	-0.015 ±	0.059	0.104	pCi/g	8.2	-0.0018	
BMRC Final Status Survey	2014 11 01 S2-04	Strontium-90	-0.0112 ±	0.09	0.228	pCi/g	1.7	-0.0066	
BMRC Final Status Survey	2014 11 01 S2-04	Tritium	3.62 ±	0.942	1.08	pCi/g	110	0.0329	
BMRC Final Status Survey	2014 11 01 S2-05	Americium-241	0 ±	0.189	0.333	pCi/g	2.1	0.0000	0.0537
BMRC Final Status Survey	2014 11 01 S2-05	Carbon-14	0.759 ±	0.504	0.776	pCi/g	12	0.0633	
BMRC Final Status Survey	2014 11 01 S2-05	Cesium-137	0.003 ±	0.082	0.154	pCi/g	11	0.0003	
BMRC Final Status Survey	2014 11 01 S2-05	Cobalt-60	-0.014 ±	0.56	0.212	pCi/g	3.8	-0.0037	
BMRC Final Status Survey	2014 11 01 S2-05	Europium-152	-0.006 ±	1.337	0.275	pCi/g	6.9	-0.0009	
BMRC Final Status Survey	2014 11 01 S2-05	Europium-154	0.002 ±	0.11	0.194	pCi/g	8	0.0003	
BMRC Final Status Survey	2014 11 01 S2-05	Nickel-63	0 ±	1.262	3.569	pCi/g	2100	0.0000	
BMRC Final Status Survey	2014 11 01 S2-05	Plutonium-238	0.012 ±	0.022	0.042	pCi/g	2.5	0.0048	
BMRC Final Status Survey	2014 11 01 S2-05	Pu-239/240	0.011 ±	0.014	0.024	pCi/g	2.3	0.0048	
BMRC Final Status Survey	2014 11 01 S2-05	Silver-108M	0.001 ±	0.08	0.151	pCi/g	8.2	0.0001	
BMRC Final Status Survey	2014 11 01 S2-05	Strontium-90	-0.0299 ±	0.07	0.189	pCi/g	1.7	-0.0176	
BMRC Final Status Survey	2014 11 01 S2-05	Tritium	0.264 ±	0.75	1.3	pCi/g	110	0.0024	
BMRC Final Status Survey	2014 11 01 S2-06	Americium-241	-0.121 ±	0.37	0.612	pCi/g	2.1	-0.0576	-0.0745
BMRC Final Status Survey	2014 11 01 S2-06	Carbon-14	-0.063 ±	0.436	0.799	pCi/g	12	-0.0053	
BMRC Final Status Survey	2014 11 01 S2-06	Cesium-137	0.017 ±	0.058	0.105	pCi/g	11	0.0015	
BMRC Final Status Survey	2014 11 01 S2-06	Cobalt-60	-0.017 ±	1.565	0.147	pCi/g	3.8	-0.0045	

Appendix H2 - Class 2 Stockpile Soil Analyses

Client Project	Sample ID	Parameter	Results	Sigma	MDA	Units	DCGL	Fraction	SOF
BMRC Final Status Survey	2014 11 01 S2-06	Europium-152	-0.059 ±	0.168	0.288	pCi/g	6.9	-0.0086	
BMRC Final Status Survey	2014 11 01 S2-06	Europium-154	0.002 ±	0.095	0.171	pCi/g	8	0.0003	
BMRC Final Status Survey	2014 11 01 S2-06	Nickel-63	0.334 ±	1.296	3.617	pCi/g	2100	0.0002	
BMRC Final Status Survey	2014 11 01 S2-06	Plutonium-238	0.013 ±	0.022	0.041	pCi/g	2.5	0.0052	
BMRC Final Status Survey	2014 11 01 S2-06	Pu-239/240	-0.007 ±	0.01	0.029	pCi/g	2.3	-0.0030	
BMRC Final Status Survey	2014 11 01 S2-06	Silver-108M	-0.024 ±	0.086	0.151	pCi/g	8.2	-0.0029	
BMRC Final Status Survey	2014 11 01 S2-06	Strontium-90	-0.0059 ±	0.088	0.222	pCi/g	1.7	-0.0035	
BMRC Final Status Survey	2014 11 01 S2-06	Tritium	0.403 ±	1.03	1.77	pCi/g	110	0.0037	
BMRC Final Status Survey	2014 11 01 S2-07	Americium-241	0.048 ±	0.214	0.383	pCi/g	2.1	0.0229	0.0466
BMRC Final Status Survey	2014 11 01 S2-07	Carbon-14	-0.202 ±	0.405	0.765	pCi/g	12	-0.0168	
BMRC Final Status Survey	2014 11 01 S2-07	Cesium-137	0.045 ±	0.063	0.104	pCi/g	11	0.0041	
BMRC Final Status Survey	2014 11 01 S2-07	Cobalt-60	0.026 ±	0.079	0.144	pCi/g	3.8	0.0068	
BMRC Final Status Survey	2014 11 01 S2-07	Europium-152	-0.074 ±	0.16	0.271	pCi/g	6.9	-0.0107	
BMRC Final Status Survey	2014 11 01 S2-07	Europium-154	-0.03 ±	0.096	0.165	pCi/g	8	-0.0038	
BMRC Final Status Survey	2014 11 01 S2-07	Nickel-63	0.594 ±	1.226	3.105	pCi/g	2100	0.0003	
BMRC Final Status Survey	2014 11 01 S2-07	Plutonium-238	0.013 ±	0.021	0.038	pCi/g	2.5	0.0052	
BMRC Final Status Survey	2014 11 01 S2-07	Pu-239/240	0.01 ±	0.011	0.018	pCi/g	2.3	0.0043	
BMRC Final Status Survey	2014 11 01 S2-07	Silver-108M	-0.019 ±	0.074	0.13	pCi/g	8.2	-0.0023	
BMRC Final Status Survey	2014 11 01 S2-07	Strontium-90	0.064 ±	0.105	0.237	pCi/g	1.7	0.0376	
BMRC Final Status Survey	2014 11 01 S2-07	Tritium	-0.113 ±	0.878	1.57	pCi/g	110	-0.0010	
BMRC Final Status Survey	2014 11 01 S2-08	Americium-241	0.097 ±	0.145	0.241	pCi/g	2.1	0.0462	0.0807
BMRC Final Status Survey	2014 11 01 S2-08	Carbon-14	-0.038 ±	0.396	0.721	pCi/g	12	-0.0032	
BMRC Final Status Survey	2014 11 01 S2-08	Cesium-137	0.018 ±	0.063	0.117	pCi/g	11	0.0016	
BMRC Final Status Survey	2014 11 01 S2-08	Cobalt-60	0.049 ±	0.077	0.138	pCi/g	3.8	0.0129	
BMRC Final Status Survey	2014 11 01 S2-08	Europium-152	-0.012 ±	0.339	0.251	pCi/g	6.9	-0.0017	
BMRC Final Status Survey	2014 11 01 S2-08	Europium-154	0.003 ±	0.1	0.179	pCi/g	8	0.0004	
BMRC Final Status Survey	2014 11 01 S2-08	Nickel-63	-0.231 ±	1.232	3.498	pCi/g	2100	-0.0001	
BMRC Final Status Survey	2014 11 01 S2-08	Plutonium-238	-0.024 ±	0.027	0.064	pCi/g	2.5	-0.0096	
BMRC Final Status Survey	2014 11 01 S2-08	Pu-239/240	-0.013 ±	0.012	0.037	pCi/g	2.3	-0.0057	
BMRC Final Status Survey	2014 11 01 S2-08	Silver-108M	-0.064 ±	0.123	0.209	pCi/g	8.2	-0.0078	
BMRC Final Status Survey	2014 11 01 S2-08	Strontium-90	0.064 ±	0.105	0.236	pCi/g	1.7	0.0376	
BMRC Final Status Survey	2014 11 01 S2-08	Tritium	1.1 ±	0.856	1.37	pCi/g	110	0.0100	
BMRC Final Status Survey	2014 11 03 S2-01	Americium-241	-0.205 ±	0.394	0.648	pCi/g	2.1	-0.0976	-0.0064
BMRC Final Status Survey	2014 11 03 S2-01	Carbon-14	0.283 ±	0.45	0.765	pCi/g	12	0.0236	
BMRC Final Status Survey	2014 11 03 S2-01	Cesium-137	-0.001 ±	0.055	0.102	pCi/g	11	-0.0001	
BMRC Final Status Survey	2014 11 03 S2-01	Cobalt-60	-0.022 ±	0.238	0.124	pCi/g	3.8	-0.0058	
BMRC Final Status Survey	2014 11 03 S2-01	Europium-152	0.118 ±	0.155	0.254	pCi/g	6.9	0.0171	
BMRC Final Status Survey	2014 11 03 S2-01	Europium-154	-0.038 ±	0.128	0.219	pCi/g	8	-0.0048	
BMRC Final Status Survey	2014 11 03 S2-01	Nickel-63	1.689 ±	1.414	3.709	pCi/g	2100	0.0008	
BMRC Final Status Survey	2014 11 03 S2-01	Plutonium-238	0.006 ±	0.016	0.032	pCi/g	2.5	0.0024	
BMRC Final Status Survey	2014 11 03 S2-01	Pu-239/240	0.009 ±	0.013	0.024	pCi/g	2.3	0.0039	
BMRC Final Status Survey	2014 11 03 S2-01	Silver-108M	0 ±	0.068	0.123	pCi/g	8.2	0.0000	
BMRC Final Status Survey	2014 11 03 S2-01	Strontium-90	0.084 ±	0.107	0.233	pCi/g	1.7	0.0494	
BMRC Final Status Survey	2014 11 03 S2-01	Tritium	0.506 ±	1.12	1.92	pCi/g	110	0.0046	
BMRC Final Status Survey	2014 11 03 S2-02	Americium-241	-0.047 ±	0.189	0.325	pCi/g	2.1	-0.0224	-0.0118
BMRC Final Status Survey	2014 11 03 S2-02	Carbon-14	-0.208 ±	0.417	0.788	pCi/g	12	-0.0173	
BMRC Final Status Survey	2014 11 03 S2-02	Cesium-137	-0.021 ±	0.107	0.164	pCi/g	11	-0.0019	
BMRC Final Status Survey	2014 11 03 S2-02	Cobalt-60	0.028 ±	0.096	0.179	pCi/g	3.8	0.0074	
BMRC Final Status Survey	2014 11 03 S2-02	Europium-152	0.125 ±	0.139	0.225	pCi/g	6.9	0.0181	
BMRC Final Status Survey	2014 11 03 S2-02	Europium-154	-0.05 ±	0.123	0.209	pCi/g	8	-0.0063	
BMRC Final Status Survey	2014 11 03 S2-02	Nickel-63	1.406 ±	1.367	3.549	pCi/g	2100	0.0007	
BMRC Final Status Survey	2014 11 03 S2-02	Plutonium-238	0.01 ±	0.022	0.043	pCi/g	2.5	0.0040	
BMRC Final Status Survey	2014 11 03 S2-02	Pu-239/240	-0.001 ±	0.01	0.02	pCi/g	2.3	-0.0004	
BMRC Final Status Survey	2014 11 03 S2-02	Silver-108M	0 ±	0.059	0.116	pCi/g	8.2	0.0000	
BMRC Final Status Survey	2014 11 03 S2-02	Strontium-90	0.008 ±	0.101	0.248	pCi/g	1.7	0.0047	
BMRC Final Status Survey	2014 11 03 S2-02	Tritium	0.179 ±	0.95	1.66	pCi/g	110	0.0016	

Appendix H2 - Class 2 Stockpile Soil Analyses

Client Project	Sample ID	Parameter	Results	Sigma	MDA	Units	DCGL	Fraction	SOF
BMRC Final Status Survey	2014 11 03 S2-03	Americium-241	-0.139 ±	0.417	0.689	pCi/g	2.1	-0.0662	-0.0815
BMRC Final Status Survey	2014 11 03 S2-03	Carbon-14	-0.064 ±	0.44	0.805	pCi/g	12	-0.0053	
BMRC Final Status Survey	2014 11 03 S2-03	Cesium-137	-0.015 ±	0.059	0.105	pCi/g	11	-0.0014	
BMRC Final Status Survey	2014 11 03 S2-03	Cobalt-60	-0.01 ±	0.612	0.093	pCi/g	3.8	-0.0026	
BMRC Final Status Survey	2014 11 03 S2-03	Europium-152	-0.005 ±	0.14	0.238	pCi/g	6.9	-0.0007	
BMRC Final Status Survey	2014 11 03 S2-03	Europium-154	-0.017 ±	0.105	0.182	pCi/g	8	-0.0021	
BMRC Final Status Survey	2014 11 03 S2-03	Nickel-63	0.233 ±	1.274	3.534	pCi/g	2100	0.0001	
BMRC Final Status Survey	2014 11 03 S2-03	Plutonium-238	-0.003 ±	0.019	0.044	pCi/g	2.5	-0.0012	
BMRC Final Status Survey	2014 11 03 S2-03	Pu-239/240	0 ±	0.012	0.008	pCi/g	2.3	0.0000	
BMRC Final Status Survey	2014 11 03 S2-03	Silver-108M	0.008 ±	0.055	0.1	pCi/g	8.2	0.0010	
BMRC Final Status Survey	2014 11 03 S2-03	Strontium-90	-0.0004 ±	0.079	0.2	pCi/g	1.7	-0.0002	
BMRC Final Status Survey	2014 11 03 S2-03	Tritium	-0.308 ±	0.671	1.23	pCi/g	110	-0.0028	
BMRC Final Status Survey	2014 11 03 S2-04	Americium-241	-0.034 ±	0.193	0.336	pCi/g	2.1	-0.0162	0.0409
BMRC Final Status Survey	2014 11 03 S2-04	Carbon-14	0.517 ±	0.483	0.783	pCi/g	12	0.0431	
BMRC Final Status Survey	2014 11 03 S2-04	Cesium-137	0.066 ±	0.08	0.129	pCi/g	11	0.0060	
BMRC Final Status Survey	2014 11 03 S2-04	Cobalt-60	-0.014 ±	2.978	0.107	pCi/g	3.8	-0.0037	
BMRC Final Status Survey	2014 11 03 S2-04	Europium-152	-0.005 ±	0.198	0.309	pCi/g	6.9	-0.0007	
BMRC Final Status Survey	2014 11 03 S2-04	Europium-154	0.037 ±	0.073	0.126	pCi/g	8	0.0046	
BMRC Final Status Survey	2014 11 03 S2-04	Nickel-63	-0.256 ±	1.236	3.531	pCi/g	2100	-0.0001	
BMRC Final Status Survey	2014 11 03 S2-04	Plutonium-238	0.007 ±	0.023	0.045	pCi/g	2.5	0.0028	
BMRC Final Status Survey	2014 11 03 S2-04	Pu-239/240	0.004 ±	0.014	0.031	pCi/g	2.3	0.0017	
BMRC Final Status Survey	2014 11 03 S2-04	Silver-108M	-0.035 ±	0.097	0.171	pCi/g	8.2	-0.0043	
BMRC Final Status Survey	2014 11 03 S2-04	Strontium-90	0.0117 ±	0.081	0.198	pCi/g	1.7	0.0069	
BMRC Final Status Survey	2014 11 03 S2-04	Tritium	0.0863 ±	1.02	1.8	pCi/g	110	0.0008	
BMRC Final Status Survey	2014 11 04 S2-01	Americium-241	-0.122 ±	0.404	0.667	pCi/g	2.1	-0.0581	-0.0113
BMRC Final Status Survey	2014 11 04 S2-01	Carbon-14	0.262 ±	0.398	0.676	pCi/g	12	0.0218	
BMRC Final Status Survey	2014 11 04 S2-01	Cesium-137	0.042 ±	0.064	0.106	pCi/g	11	0.0038	
BMRC Final Status Survey	2014 11 04 S2-01	Cobalt-60	0.019 ±	0.058	0.108	pCi/g	3.8	0.0050	
BMRC Final Status Survey	2014 11 04 S2-01	Europium-152	0.106 ±	0.134	0.22	pCi/g	6.9	0.0154	
BMRC Final Status Survey	2014 11 04 S2-01	Europium-154	-0.005 ±	0.102	0.18	pCi/g	8	-0.0006	
BMRC Final Status Survey	2014 11 04 S2-01	Nickel-63	0.991 ±	1.24	3.002	pCi/g	2100	0.0005	
BMRC Final Status Survey	2014 11 04 S2-01	Plutonium-238	0.001 ±	0.017	0.036	pCi/g	2.5	0.0004	
BMRC Final Status Survey	2014 11 04 S2-01	Pu-239/240	-0.002 ±	0.01	0.026	pCi/g	2.3	-0.0009	
BMRC Final Status Survey	2014 11 04 S2-01	Silver-108M	0 ±	0.084	0.149	pCi/g	8.2	0.0000	
BMRC Final Status Survey	2014 11 04 S2-01	Strontium-90	0.0091 ±	0.074	0.183	pCi/g	1.7	0.0054	
BMRC Final Status Survey	2014 11 04 S2-01	Tritium	-0.439 ±	1.17	2.12	pCi/g	110	-0.0040	
BMRC Final Status Survey	2014 11 04 S2-02	Americium-241	0 ±	0.205	0.358	pCi/g	2.1	0.0000	0.1330
BMRC Final Status Survey	2014 11 04 S2-02	Carbon-14	1.15 ±	0.497	0.674	pCi/g	12	0.0958	
BMRC Final Status Survey	2014 11 04 S2-02	Cesium-137	-0.005 ±	0.137	0.136	pCi/g	11	-0.0005	
BMRC Final Status Survey	2014 11 04 S2-02	Cobalt-60	-0.016 ±	0.669	0.141	pCi/g	3.8	-0.0042	
BMRC Final Status Survey	2014 11 04 S2-02	Europium-152	-0.047 ±	0.184	0.264	pCi/g	6.9	-0.0068	
BMRC Final Status Survey	2014 11 04 S2-02	Europium-154	-0.001 ±	0.095	0.17	pCi/g	8	-0.0001	
BMRC Final Status Survey	2014 11 04 S2-02	Nickel-63	-0.281 ±	1.187	3.279	pCi/g	2100	-0.0001	
BMRC Final Status Survey	2014 11 04 S2-02	Plutonium-238	0 ±	0.014	0.033	pCi/g	2.5	0.0000	
BMRC Final Status Survey	2014 11 04 S2-02	Pu-239/240	-0.003 ±	0.017	0.041	pCi/g	2.3	-0.0013	
BMRC Final Status Survey	2014 11 04 S2-02	Silver-108M	-0.031 ±	0.085	0.151	pCi/g	8.2	-0.0038	
BMRC Final Status Survey	2014 11 04 S2-02	Strontium-90	0.092 ±	0.109	0.236	pCi/g	1.7	0.0541	
BMRC Final Status Survey	2014 11 04 S2-02	Tritium	-0.0196 ±	0.962	1.7	pCi/g	110	-0.0002	
BMRC Final Status Survey	2014 11 04 S2-03	Americium-241	0.079 ±	0.163	0.277	pCi/g	2.1	0.0376	0.0839
BMRC Final Status Survey	2014 11 04 S2-03	Carbon-14	0.288 ±	0.409	0.691	pCi/g	12	0.0240	
BMRC Final Status Survey	2014 11 04 S2-03	Cesium-137	0.002 ±	0.077	0.146	pCi/g	11	0.0002	
BMRC Final Status Survey	2014 11 04 S2-03	Cobalt-60	0.013 ±	0.077	0.154	pCi/g	3.8	0.0034	
BMRC Final Status Survey	2014 11 04 S2-03	Europium-152	-0.013 ±	0.283	0.246	pCi/g	6.9	-0.0019	
BMRC Final Status Survey	2014 11 04 S2-03	Europium-154	0.006 ±	0.09	0.161	pCi/g	8	0.0008	
BMRC Final Status Survey	2014 11 04 S2-03	Nickel-63	-1.012 ±	1.14	3.332	pCi/g	2100	-0.0005	
BMRC Final Status Survey	2014 11 04 S2-03	Plutonium-238	0.014 ±	0.018	0.031	pCi/g	2.5	0.0056	

Appendix H2 - Class 2 Stockpile Soil Analyses

Client Project	Sample ID	Parameter	Results	Sigma	MDA	Units	DCGL	Fraction	SOF
BMRC Final Status Survey	2014 11 04 S2-03	Pu-239/240	0.002 ±	0.011	0.025	pCi/g	2.3	0.0009	
BMRC Final Status Survey	2014 11 04 S2-03	Silver-108M	0.016 ±	0.082	0.15	pCi/g	8.2	0.0020	
BMRC Final Status Survey	2014 11 04 S2-03	Strontium-90	0.015 ±	0.102	0.244	pCi/g	1.7	0.0088	
BMRC Final Status Survey	2014 11 04 S2-03	Tritium	0.337 ±	1.2	2.09	pCi/g	110	0.0031	
BMRC Final Status Survey	2014 11 04 S2-04	Americium-241	-0.014 ±	0.333	0.438	pCi/g	2.1	-0.0067	0.1031
BMRC Final Status Survey	2014 11 04 S2-04	Carbon-14	0.165 ±	0.397	0.692	pCi/g	12	0.0138	
BMRC Final Status Survey	2014 11 04 S2-04	Cesium-137	0.03 ±	0.055	0.093	pCi/g	11	0.0027	
BMRC Final Status Survey	2014 11 04 S2-04	Cobalt-60	0.017 ±	0.054	0.101	pCi/g	3.8	0.0045	
BMRC Final Status Survey	2014 11 04 S2-04	Europium-152	0.086 ±	0.144	0.242	pCi/g	6.9	0.0125	
BMRC Final Status Survey	2014 11 04 S2-04	Europium-154	0.02 ±	0.107	0.186	pCi/g	8	0.0025	
BMRC Final Status Survey	2014 11 04 S2-04	Nickel-63	0 ±	1.233	3.406	pCi/g	2100	0.0000	
BMRC Final Status Survey	2014 11 04 S2-04	Plutonium-238	0.012 ±	0.012	0.015	pCi/g	2.5	0.0048	
BMRC Final Status Survey	2014 11 04 S2-04	Pu-239/240	-0.007 ±	0.011	0.03	pCi/g	2.3	-0.0030	
BMRC Final Status Survey	2014 11 04 S2-04	Silver-108M	-0.022 ±	0.067	0.116	pCi/g	8.2	-0.0027	
BMRC Final Status Survey	2014 11 04 S2-04	Strontium-90	0.126 ±	0.11	0.225	pCi/g	1.7	0.0741	
BMRC Final Status Survey	2014 11 04 S2-04	Tritium	0.0675 ±	0.833	1.47	pCi/g	110	0.0006	
BMRC Final Status Survey	2014 11 05 S2-01	Americium-241	-0.026 ±	0.157	0.279	pCi/g	2.1	-0.0124	0.0254
BMRC Final Status Survey	2014 11 05 S2-01	Carbon-14	0.38 ±	0.429	0.709	pCi/g	12	0.0317	
BMRC Final Status Survey	2014 11 05 S2-01	Cesium-137	0.042 ±	0.083	0.144	pCi/g	11	0.0038	
BMRC Final Status Survey	2014 11 05 S2-01	Cobalt-60	-0.016 ±	0.64	0.323	pCi/g	3.8	-0.0042	
BMRC Final Status Survey	2014 11 05 S2-01	Europium-152	-0.013 ±	0.322	0.251	pCi/g	6.9	-0.0019	
BMRC Final Status Survey	2014 11 05 S2-01	Europium-154	0.093 ±	0.148	0.154	pCi/g	8	0.0116	
BMRC Final Status Survey	2014 11 05 S2-01	Nickel-63	0.846 ±	1.377	4.014	pCi/g	2100	0.0004	
BMRC Final Status Survey	2014 11 05 S2-01	Plutonium-238	-0.013 ±	0.042	0.086	pCi/g	2.5	-0.0052	
BMRC Final Status Survey	2014 11 05 S2-01	Pu-239/240	-0.005 ±	0.019	0.045	pCi/g	2.3	-0.0022	
BMRC Final Status Survey	2014 11 05 S2-01	Silver-108M	-0.009 ±	0.103	0.19	pCi/g	8.2	-0.0011	
BMRC Final Status Survey	2014 11 05 S2-01	Strontium-90	0.009 ±	0.112	0.268	pCi/g	1.7	0.0053	
BMRC Final Status Survey	2014 11 05 S2-01	Tritium	-0.0521 ±	0.508	0.905	pCi/g	110	-0.0005	
BMRC Final Status Survey	2014 11 05 S2-02	Americium-241	-0.188 ±	0.373	0.614	pCi/g	2.1	-0.0895	0.0030
BMRC Final Status Survey	2014 11 05 S2-02	Carbon-14	0.306 ±	0.407	0.684	pCi/g	12	0.0255	
BMRC Final Status Survey	2014 11 05 S2-02	Cesium-137	0.042 ±	0.06	0.1	pCi/g	11	0.0038	
BMRC Final Status Survey	2014 11 05 S2-02	Cobalt-60	-0.01 ±	0.753	0.128	pCi/g	3.8	-0.0026	
BMRC Final Status Survey	2014 11 05 S2-02	Europium-152	0.05 ±	0.117	0.201	pCi/g	6.9	0.0072	
BMRC Final Status Survey	2014 11 05 S2-02	Europium-154	-0.03 ±	0.115	0.198	pCi/g	8	-0.0038	
BMRC Final Status Survey	2014 11 05 S2-02	Nickel-63	1.063 ±	1.308	3.477	pCi/g	2100	0.0005	
BMRC Final Status Survey	2014 11 05 S2-02	Plutonium-238	0.021 ±	0.027	0.046	pCi/g	2.5	0.0084	
BMRC Final Status Survey	2014 11 05 S2-02	Pu-239/240	0.02 ±	0.019	0.026	pCi/g	2.3	0.0087	
BMRC Final Status Survey	2014 11 05 S2-02	Silver-108M	0 ±	0.062	0.112	pCi/g	8.2	0.0000	
BMRC Final Status Survey	2014 11 05 S2-02	Strontium-90	0.068 ±	0.116	0.261	pCi/g	1.7	0.0400	
BMRC Final Status Survey	2014 11 05 S2-02	Tritium	0.522 ±	0.79	1.33	pCi/g	110	0.0047	
BMRC Final Status Survey	2014 11 05 S2-03	Americium-241	-0.004 ±	0.129	0.233	pCi/g	2.1	-0.0019	0.2653
BMRC Final Status Survey	2014 11 05 S2-03	Carbon-14	0.741 ±	0.47	0.71	pCi/g	12	0.0618	
BMRC Final Status Survey	2014 11 05 S2-03	Cesium-137	0.013 ±	0.08	0.147	pCi/g	11	0.0012	
BMRC Final Status Survey	2014 11 05 S2-03	Cobalt-60	0.018 ±	0.073	0.146	pCi/g	3.8	0.0047	
BMRC Final Status Survey	2014 11 05 S2-03	Europium-152	0.066 ±	0.135	0.231	pCi/g	6.9	0.0096	
BMRC Final Status Survey	2014 11 05 S2-03	Europium-154	0 ±	0.114	0.201	pCi/g	8	0.0000	
BMRC Final Status Survey	2014 11 05 S2-03	Nickel-63	0.025 ±	1.269	3.724	pCi/g	2100	0.0000	
BMRC Final Status Survey	2014 11 05 S2-03	Plutonium-238	0.02 ±	0.031	0.055	pCi/g	2.5	0.0080	
BMRC Final Status Survey	2014 11 05 S2-03	Pu-239/240	0.005 ±	0.015	0.031	pCi/g	2.3	0.0022	
BMRC Final Status Survey	2014 11 05 S2-03	Silver-108M	0 ±	0.146	0.261	pCi/g	8.2	0.0000	
BMRC Final Status Survey	2014 11 05 S2-03	Strontium-90	0.305 ±	0.145	0.249	pCi/g	1.7	0.1794	
BMRC Final Status Survey	2014 11 05 S2-03	Tritium	0.0382 ±	0.939	1.66	pCi/g	110	0.0003	
BMRC Final Status Survey	2014 11 05 S2-04	Americium-241	0.046 ±	0.391	0.687	pCi/g	2.1	0.0219	0.1031
BMRC Final Status Survey	2014 11 05 S2-04	Carbon-14	0.02 ±	0.378	0.687	pCi/g	12	0.0017	
BMRC Final Status Survey	2014 11 05 S2-04	Cesium-137	0.059 ±	0.062	0.098	pCi/g	11	0.0054	
BMRC Final Status Survey	2014 11 05 S2-04	Cobalt-60	-0.003 ±	0.101	0.134	pCi/g	3.8	-0.0008	

Appendix H2 - Class 2 Stockpile Soil Analyses

Client Project	Sample ID	Parameter	Results	Sigma	MDA	Units	DCGL	Fraction	SOF
BMRC Final Status Survey	2014 11 05 S2-04	Europium-152	-0.079 ±	0.192	0.326	pCi/g	6.9	-0.0114	
BMRC Final Status Survey	2014 11 05 S2-04	Europium-154	0.049 ±	0.082	0.171	pCi/g	8	0.0061	
BMRC Final Status Survey	2014 11 05 S2-04	Nickel-63	0.971 ±	1.316	3.571	pCi/g	2100	0.0005	
BMRC Final Status Survey	2014 11 05 S2-04	Plutonium-238	0.016 ±	0.029	0.052	pCi/g	2.5	0.0064	
BMRC Final Status Survey	2014 11 05 S2-04	Pu-239/240	0.003 ±	0.013	0.029	pCi/g	2.3	0.0013	
BMRC Final Status Survey	2014 11 05 S2-04	Silver-108M	0.008 ±	0.062	0.113	pCi/g	8.2	0.0010	
BMRC Final Status Survey	2014 11 05 S2-04	Strontium-90	0.119 ±	0.118	0.247	pCi/g	1.7	0.0700	
BMRC Final Status Survey	2014 11 05 S2-04	Tritium	0.121 ±	0.669	1.17	pCi/g	110	0.0011	
BMRC Final Status Survey	2014 11 06 S2-01	Americium-241	0.048 ±	0.155	0.268	pCi/g	2.1	0.0229	0.0806
BMRC Final Status Survey	2014 11 06 S2-01	Carbon-14	0.372 ±	0.42	0.693	pCi/g	12	0.0310	
BMRC Final Status Survey	2014 11 06 S2-01	Cesium-137	0.037 ±	0.081	0.141	pCi/g	11	0.0034	
BMRC Final Status Survey	2014 11 06 S2-01	Cobalt-60	0.009 ±	0.07	0.143	pCi/g	3.8	0.0024	
BMRC Final Status Survey	2014 11 06 S2-01	Europium-152	0.009 ±	0.12	0.216	pCi/g	6.9	0.0013	
BMRC Final Status Survey	2014 11 06 S2-01	Europium-154	0.007 ±	0.115	0.202	pCi/g	8	0.0009	
BMRC Final Status Survey	2014 11 06 S2-01	Nickel-63	1.862 ±	1.324	3.184	pCi/g	2100	0.0009	
BMRC Final Status Survey	2014 11 06 S2-01	Plutonium-238	-0.031 ±	0.04	0.083	pCi/g	2.5	-0.0124	
BMRC Final Status Survey	2014 11 06 S2-01	Pu-239/240	0 ±	0.012	0.025	pCi/g	2.3	0.0000	
BMRC Final Status Survey	2014 11 06 S2-01	Silver-108M	-0.035 ±	0.092	0.162	pCi/g	8.2	-0.0043	
BMRC Final Status Survey	2014 11 06 S2-01	Strontium-90	0.009 ±	0.107	0.256	pCi/g	1.7	0.0053	
BMRC Final Status Survey	2014 11 06 S2-01	Tritium	3.22 ±	1.29	1.82	pCi/g	110	0.0293	
BMRC Final Status Survey	2014 11 06 S2-02	Americium-241	0.123 ±	0.294	0.503	pCi/g	2.1	0.0586	0.2081
BMRC Final Status Survey	2014 11 06 S2-02	Carbon-14	0.29 ±	0.412	0.695	pCi/g	12	0.0242	
BMRC Final Status Survey	2014 11 06 S2-02	Cesium-137	0.022 ±	0.057	0.1	pCi/g	11	0.0020	
BMRC Final Status Survey	2014 11 06 S2-02	Cobalt-60	-0.024 ±	0.21	0.127	pCi/g	3.8	-0.0063	
BMRC Final Status Survey	2014 11 06 S2-02	Europium-152	0 ±	0.004	0.31	pCi/g	6.9	0.0000	
BMRC Final Status Survey	2014 11 06 S2-02	Europium-154	0 ±	0.126	0.221	pCi/g	8	0.0000	
BMRC Final Status Survey	2014 11 06 S2-02	Nickel-63	0.597 ±	1.254	3.376	pCi/g	2100	0.0003	
BMRC Final Status Survey	2014 11 06 S2-02	Plutonium-238	0.009 ±	0.029	0.056	pCi/g	2.5	0.0036	
BMRC Final Status Survey	2014 11 06 S2-02	Pu-239/240	-0.001 ±	0.015	0.033	pCi/g	2.3	-0.0004	
BMRC Final Status Survey	2014 11 06 S2-02	Silver-108M	0 ±	0.06	0.11	pCi/g	8.2	0.0000	
BMRC Final Status Survey	2014 11 06 S2-02	Strontium-90	0.214 ±	0.114	0.204	pCi/g	1.7	0.1259	
BMRC Final Status Survey	2014 11 06 S2-02	Tritium	0.0348 ±	0.856	1.51	pCi/g	110	0.0003	
BMRC Final Status Survey	2014 11 06 S2-03	Americium-241	-0.024 ±	0.096	0.166	pCi/g	2.1	-0.0114	0.2906
BMRC Final Status Survey	2014 11 06 S2-03	Carbon-14	0.021 ±	0.38	0.689	pCi/g	12	0.0018	
BMRC Final Status Survey	2014 11 06 S2-03	Cesium-137	0.021 ±	0.045	0.079	pCi/g	11	0.0019	
BMRC Final Status Survey	2014 11 06 S2-03	Cobalt-60	-0.01 ±	1.294	0.107	pCi/g	3.8	-0.0026	
BMRC Final Status Survey	2014 11 06 S2-03	Europium-152	0.014 ±	0.073	0.129	pCi/g	6.9	0.0020	
BMRC Final Status Survey	2014 11 06 S2-03	Europium-154	0.007 ±	0.048	0.085	pCi/g	8	0.0009	
BMRC Final Status Survey	2014 11 06 S2-03	Nickel-63	-0.372 ±	1.271	3.913	pCi/g	2100	-0.0002	
BMRC Final Status Survey	2014 11 06 S2-03	Plutonium-238	0.007 ±	0.034	0.066	pCi/g	2.5	0.0028	
BMRC Final Status Survey	2014 11 06 S2-03	Pu-239/240	0.013 ±	0.016	0.025	pCi/g	2.3	0.0057	
BMRC Final Status Survey	2014 11 06 S2-03	Silver-108M	-0.005 ±	0.056	0.102	pCi/g	8.2	-0.0006	
BMRC Final Status Survey	2014 11 06 S2-03	Strontium-90	0.503 ±	0.176	0.255	pCi/g	1.7	0.2959	
BMRC Final Status Survey	2014 11 06 S2-03	Tritium	-0.595 ±	0.936	1.72	pCi/g	110	-0.0054	
BMRC Final Status Survey	2014 11 11 S2-01	Americium-241	-0.059 ±	0.339	0.584	pCi/g	2.1	-0.0281	0.1122
BMRC Final Status Survey	2014 11 11 S2-01	Carbon-14	1.42 ±	1.18	1.7	pCi/g	12	0.1183	
BMRC Final Status Survey	2014 11 11 S2-01	Cesium-137	0.025 ±	0.061	0.106	pCi/g	11	0.0023	
BMRC Final Status Survey	2014 11 11 S2-01	Cobalt-60	-0.014 ±	0.347	0.116	pCi/g	3.8	-0.0037	
BMRC Final Status Survey	2014 11 11 S2-01	Europium-152	-0.095 ±	0.192	0.285	pCi/g	6.9	-0.0138	
BMRC Final Status Survey	2014 11 11 S2-01	Europium-154	0.039 ±	0.1	0.171	pCi/g	8	0.0049	
BMRC Final Status Survey	2014 11 11 S2-01	Nickel-63	-0.231 ±	0.738	2.422	pCi/g	2100	-0.0001	
BMRC Final Status Survey	2014 11 11 S2-01	Plutonium-238	0.002 ±	0.039	0.062	pCi/g	2.5	0.0008	
BMRC Final Status Survey	2014 11 11 S2-01	Pu-239/240	-0.02 ±	0.021	0.04	pCi/g	2.3	-0.0087	
BMRC Final Status Survey	2014 11 11 S2-01	Silver-108M	0.011 ±	0.057	0.103	pCi/g	8.2	0.0013	
BMRC Final Status Survey	2014 11 11 S2-01	Strontium-90	0.0498 ±	0.085	0.191	pCi/g	1.7	0.0293	
BMRC Final Status Survey	2014 11 11 S2-01	Tritium	1.06 ±	1.47	2.48	pCi/g	110	0.0096	

Appendix H2 - Class 2 Stockpile Soil Analyses

Client Project	Sample ID	Parameter	Results	Sigma	MDA	Units	DCGL	Fraction	SOF
BMRC Final Status Survey	2014 11 11 S2-02	Americium-241	-0.029 ±	0.175	0.306	pCi/g	2.1	-0.0138	0.0944
BMRC Final Status Survey	2014 11 11 S2-02	Carbon-14	1.32 ±	1.17	1.73	pCi/g	12	0.1100	
BMRC Final Status Survey	2014 11 11 S2-02	Cesium-137	0.024 ±	0.085	0.153	pCi/g	11	0.0022	
BMRC Final Status Survey	2014 11 11 S2-02	Cobalt-60	-0.04 ±	0.283	0.193	pCi/g	3.8	-0.0105	
BMRC Final Status Survey	2014 11 11 S2-02	Europium-152	0.03 ±	0.096	0.171	pCi/g	6.9	0.0043	
BMRC Final Status Survey	2014 11 11 S2-02	Europium-154	0.076 ±	0.1	0.148	pCi/g	8	0.0095	
BMRC Final Status Survey	2014 11 11 S2-02	Nickel-63	-0.258 ±	0.61	1.668	pCi/g	2100	-0.0001	
BMRC Final Status Survey	2014 11 11 S2-02	Plutonium-238	0.018 ±	0.023	0.034	pCi/g	2.5	0.0072	
BMRC Final Status Survey	2014 11 11 S2-02	Pu-239/240	0.005 ±	0.016	0.026	pCi/g	2.3	0.0022	
BMRC Final Status Survey	2014 11 11 S2-02	Silver-108M	0.021 ±	0.039	0.126	pCi/g	8.2	0.0026	
BMRC Final Status Survey	2014 11 11 S2-02	Strontium-90	-0.0379 ±	0.071	0.193	pCi/g	1.7	-0.0223	
BMRC Final Status Survey	2014 11 11 S2-02	Tritium	0.35 ±	1.28	2.27	pCi/g	110	0.0032	
BMRC Final Status Survey	2014 11 13 S2-01	Americium-241	0 ±	0.014	0.603	pCi/g	2.1	0.0000	0.0682
BMRC Final Status Survey	2014 11 13 S2-01	Carbon-14	1.14 ±	1.09	1.66	pCi/g	12	0.0950	
BMRC Final Status Survey	2014 11 13 S2-01	Cesium-137	0.011 ±	0.054	0.098	pCi/g	11	0.0010	
BMRC Final Status Survey	2014 11 13 S2-01	Cobalt-60	-0.021 ±	0.227	0.144	pCi/g	3.8	-0.0055	
BMRC Final Status Survey	2014 11 13 S2-01	Europium-152	-0.094 ±	0.207	0.308	pCi/g	6.9	-0.0136	
BMRC Final Status Survey	2014 11 13 S2-01	Europium-154	0.015 ±	0.021	0.211	pCi/g	8	0.0019	
BMRC Final Status Survey	2014 11 13 S2-01	Nickel-63	0.11 ±	0.543	1.266	pCi/g	2100	0.0001	
BMRC Final Status Survey	2014 11 13 S2-01	Plutonium-238	0.027 ±	0.021	0.03	pCi/g	2.5	0.0108	
BMRC Final Status Survey	2014 11 13 S2-01	Pu-239/240	-0.011 ±	0.013	0.026	pCi/g	2.3	-0.0048	
BMRC Final Status Survey	2014 11 13 S2-01	Silver-108M	-0.017 ±	0.073	0.128	pCi/g	8.2	-0.0021	
BMRC Final Status Survey	2014 11 13 S2-01	Strontium-90	-0.0464 ±	0.075	0.207	pCi/g	1.7	-0.0273	
BMRC Final Status Survey	2014 11 13 S2-01	Tritium	1.4 ±	1.41	2.31	pCi/g	110	0.0127	
BMRC Final Status Survey	2014 11 13 S2-02	Americium-241	0.04 ±	0.181	0.314	pCi/g	2.1	0.0190	0.0079
BMRC Final Status Survey	2014 11 13 S2-02	Carbon-14	-0.255 ±	0.705	1.67	pCi/g	12	-0.0213	
BMRC Final Status Survey	2014 11 13 S2-02	Cesium-137	0.001 ±	0.087	0.163	pCi/g	11	0.0001	
BMRC Final Status Survey	2014 11 13 S2-02	Cobalt-60	0.001 ±	0.091	0.185	pCi/g	3.8	0.0003	
BMRC Final Status Survey	2014 11 13 S2-02	Europium-152	0 ±	0.144	0.259	pCi/g	6.9	0.0000	
BMRC Final Status Survey	2014 11 13 S2-02	Europium-154	0.048 ±	0.088	0.181	pCi/g	8	0.0060	
BMRC Final Status Survey	2014 11 13 S2-02	Nickel-63	-0.119 ±	0.699	2.153	pCi/g	2100	-0.0001	
BMRC Final Status Survey	2014 11 13 S2-02	Plutonium-238	0.02 ±	0.041	0.063	pCi/g	2.5	0.0080	
BMRC Final Status Survey	2014 11 13 S2-02	Pu-239/240	-0.006 ±	0.017	0.032	pCi/g	2.3	-0.0026	
BMRC Final Status Survey	2014 11 13 S2-02	Silver-108M	0.021 ±	0.029	0.169	pCi/g	8.2	0.0026	
BMRC Final Status Survey	2014 11 13 S2-02	Strontium-90	-0.0195 ±	0.075	0.192	pCi/g	1.7	-0.0115	
BMRC Final Status Survey	2014 11 13 S2-02	Tritium	0.809 ±	1.41	2.42	pCi/g	110	0.0074	
BMRC Final Status Survey	2014 11 13 S2-02-DUF	Americium-241	0.004 ±	0.169	0.299	pCi/g	2.1	0.0019	0.0435
BMRC Final Status Survey	2014 11 13 S2-02-DUF	Carbon-14	0.649 ±	0.993	1.71	pCi/g	12	0.0541	
BMRC Final Status Survey	2014 11 13 S2-02-DUF	Cesium-137	0 ±	0.094	0.175	pCi/g	11	0.0000	
BMRC Final Status Survey	2014 11 13 S2-02-DUF	Cobalt-60	0.039 ±	0.062	0.172	pCi/g	3.8	0.0103	
BMRC Final Status Survey	2014 11 13 S2-02-DUF	Europium-152	0 ±	0.004	0.265	pCi/g	6.9	0.0000	
BMRC Final Status Survey	2014 11 13 S2-02-DUF	Europium-154	-0.017 ±	0.103	0.181	pCi/g	8	-0.0021	
BMRC Final Status Survey	2014 11 13 S2-02-DUF	Nickel-63	0.123 ±	0.567	1.378	pCi/g	2100	0.0001	
BMRC Final Status Survey	2014 11 13 S2-02-DUF	Plutonium-238	0.026 ±	0.029	0.043	pCi/g	2.5	0.0104	
BMRC Final Status Survey	2014 11 13 S2-02-DUF	Pu-239/240	-0.009 ±	0.015	0.029	pCi/g	2.3	-0.0039	
BMRC Final Status Survey	2014 11 13 S2-02-DUF	Silver-108M	-0.002 ±	0.07	0.133	pCi/g	8.2	-0.0002	
BMRC Final Status Survey	2014 11 13 S2-02-DUF	Strontium-90	-0.0457 ±	0.059	0.162	pCi/g	1.7	-0.0269	
BMRC Final Status Survey	2014 11 13 S2-02-DUF	Tritium	0 ±	1.42	2.6	pCi/g	110	0.0000	
BMRC Final Status Survey	2014 11 14 S2-01	Americium-241	0.109 ±	0.305	0.525	pCi/g	2.1	0.0519	0.0140
BMRC Final Status Survey	2014 11 14 S2-01	Carbon-14	0.229 ±	0.318	0.535	pCi/g	12	0.0191	
BMRC Final Status Survey	2014 11 14 S2-01	Cesium-137	0.027 ±	0.054	0.093	pCi/g	11	0.0025	
BMRC Final Status Survey	2014 11 14 S2-01	Cobalt-60	-0.01 ±	0.392	0.048	pCi/g	3.8	-0.0026	
BMRC Final Status Survey	2014 11 14 S2-01	Europium-152	0.055 ±	0.147	0.252	pCi/g	6.9	0.0080	
BMRC Final Status Survey	2014 11 14 S2-01	Europium-154	0.029 ±	0.092	0.159	pCi/g	8	0.0036	
BMRC Final Status Survey	2014 11 14 S2-01	Nickel-63	2.208 ±	1.39	3.419	pCi/g	2100	0.0011	
BMRC Final Status Survey	2014 11 14 S2-01	Plutonium-238	-0.026 ±	0.031	0.065	pCi/g	2.5	-0.0104	

Appendix H2 - Class 2 Stockpile Soil Analyses

Client Project	Sample ID	Parameter	Results	Sigma	MDA	Units	DCGL	Fraction	SOF
BMRC Final Status Survey	2014 11 14 S2-01	Pu-239/240	0.004 ±	0.01	0.019	pCi/g	2.3	0.0017	
BMRC Final Status Survey	2014 11 14 S2-01	Silver-108M	-0.024 ±	0.067	0.117	pCi/g	8.2	-0.0029	
BMRC Final Status Survey	2014 11 14 S2-01	Strontium-90	-0.101 ±	0.092	0.251	pCi/g	1.7	-0.0594	
BMRC Final Status Survey	2014 11 14 S2-01	Tritium	0.172 ±	1.64	2.95	pCi/g	110	0.0016	
BMRC Final Status Survey	2014 11 14 S2-02	Americium-241	0.234 ±	0.334	0.553	pCi/g	2.1	0.1114	0.2381
BMRC Final Status Survey	2014 11 14 S2-02	Carbon-14	0.727 ±	0.378	0.555	pCi/g	12	0.0606	
BMRC Final Status Survey	2014 11 14 S2-02	Cesium-137	0.032 ±	0.06	0.102	pCi/g	11	0.0029	
BMRC Final Status Survey	2014 11 14 S2-02	Cobalt-60	-0.003 ±	0.11	0.11	pCi/g	3.8	-0.0008	
BMRC Final Status Survey	2014 11 14 S2-02	Europium-152	-0.005 ±	0.218	0.277	pCi/g	6.9	-0.0007	
BMRC Final Status Survey	2014 11 14 S2-02	Europium-154	-0.028 ±	0.104	0.178	pCi/g	8	-0.0035	
BMRC Final Status Survey	2014 11 14 S2-02	Nickel-63	1.562 ±	1.393	3.766	pCi/g	2100	0.0007	
BMRC Final Status Survey	2014 11 14 S2-02	Plutonium-238	0.018 ±	0.038	0.071	pCi/g	2.5	0.0072	
BMRC Final Status Survey	2014 11 14 S2-02	Pu-239/240	0.008 ±	0.021	0.042	pCi/g	2.3	0.0035	
BMRC Final Status Survey	2014 11 14 S2-02	Silver-108M	0.003 ±	0.06	0.109	pCi/g	8.2	0.0004	
BMRC Final Status Survey	2014 11 14 S2-02	Strontium-90	0.07 ±	0.114	0.254	pCi/g	1.7	0.0412	
BMRC Final Status Survey	2014 11 14 S2-02	Tritium	1.68 ±	1.75	2.87	pCi/g	110	0.0153	
BMRC Final Status Survey	2014 11 14 S2-03	Americium-241	0.023 ±	0.152	0.267	pCi/g	2.1	0.0110	0.0052
BMRC Final Status Survey	2014 11 14 S2-03	Carbon-14	-0.237 ±	0.293	0.563	pCi/g	12	-0.0198	
BMRC Final Status Survey	2014 11 14 S2-03	Cesium-137	0 ±	0.052	0.105	pCi/g	11	0.0000	
BMRC Final Status Survey	2014 11 14 S2-03	Cobalt-60	-0.018 ±	0.736	0.212	pCi/g	3.8	-0.0047	
BMRC Final Status Survey	2014 11 14 S2-03	Europium-152	0.091 ±	0.157	0.233	pCi/g	6.9	0.0132	
BMRC Final Status Survey	2014 11 14 S2-03	Europium-154	-0.03 ±	0.108	0.188	pCi/g	8	-0.0038	
BMRC Final Status Survey	2014 11 14 S2-03	Nickel-63	0.053 ±	1.302	3.912	pCi/g	2100	0.0000	
BMRC Final Status Survey	2014 11 14 S2-03	Plutonium-238	0.032 ±	0.034	0.056	pCi/g	2.5	0.0128	
BMRC Final Status Survey	2014 11 14 S2-03	Pu-239/240	0.012 ±	0.014	0.021	pCi/g	2.3	0.0052	
BMRC Final Status Survey	2014 11 14 S2-03	Silver-108M	-0.016 ±	0.098	0.177	pCi/g	8.2	-0.0020	
BMRC Final Status Survey	2014 11 14 S2-03	Strontium-90	-0.0142 ±	0.075	0.187	pCi/g	1.7	-0.0084	
BMRC Final Status Survey	2014 11 14 S2-03	Tritium	0.176 ±	1.67	3.01	pCi/g	110	0.0016	
BMRC Final Status Survey	2014 11 14 S2-04	Americium-241	-0.013 ±	0.368	0.482	pCi/g	2.1	-0.0062	0.1225
BMRC Final Status Survey	2014 11 14 S2-04	Carbon-14	1.22 ±	0.424	0.544	pCi/g	12	0.1017	
BMRC Final Status Survey	2014 11 14 S2-04	Cesium-137	0.038 ±	0.054	0.09	pCi/g	11	0.0035	
BMRC Final Status Survey	2014 11 14 S2-04	Cobalt-60	0.061 ±	0.06	0.096	pCi/g	3.8	0.0161	
BMRC Final Status Survey	2014 11 14 S2-04	Europium-152	-0.033 ±	0.119	0.206	pCi/g	6.9	-0.0048	
BMRC Final Status Survey	2014 11 14 S2-04	Europium-154	0.031 ±	0.062	0.172	pCi/g	8	0.0039	
BMRC Final Status Survey	2014 11 14 S2-04	Nickel-63	0.031 ±	0.632	0.913	pCi/g	2100	0.0000	
BMRC Final Status Survey	2014 11 14 S2-04	Plutonium-238	-0.017 ±	0.031	0.067	pCi/g	2.5	-0.0068	
BMRC Final Status Survey	2014 11 14 S2-04	Pu-239/240	0.006 ±	0.018	0.036	pCi/g	2.3	0.0026	
BMRC Final Status Survey	2014 11 14 S2-04	Silver-108M	0.038 ±	0.038	0.097	pCi/g	8.2	0.0046	
BMRC Final Status Survey	2014 11 14 S2-04	Strontium-90	-0.0021 ±	0.081	0.199	pCi/g	1.7	-0.0012	
BMRC Final Status Survey	2014 11 14 S2-04	Tritium	1.01 ±	1.89	3.26	pCi/g	110	0.0092	
BMRC Final Status Survey	2014 11 15 S2-01	Americium-241	0.07 ±	0.139	0.236	pCi/g	2.1	0.0333	0.1092
BMRC Final Status Survey	2014 11 15 S2-01	Carbon-14	-0.106 ±	0.292	0.542	pCi/g	12	-0.0088	
BMRC Final Status Survey	2014 11 15 S2-01	Cesium-137	0 ±	0.096	0.178	pCi/g	11	0.0000	
BMRC Final Status Survey	2014 11 15 S2-01	Cobalt-60	-0.046 ±	0.22	0.183	pCi/g	3.8	-0.0121	
BMRC Final Status Survey	2014 11 15 S2-01	Europium-152	0.114 ±	0.14	0.216	pCi/g	6.9	0.0165	
BMRC Final Status Survey	2014 11 15 S2-01	Europium-154	0.045 ±	0.085	0.144	pCi/g	8	0.0056	
BMRC Final Status Survey	2014 11 15 S2-01	Nickel-63	1.047 ±	1.367	3.851	pCi/g	2100	0.0005	
BMRC Final Status Survey	2014 11 15 S2-01	Plutonium-238	0.003 ±	0.034	0.066	pCi/g	2.5	0.0012	
BMRC Final Status Survey	2014 11 15 S2-01	Pu-239/240	-0.011 ±	0.016	0.041	pCi/g	2.3	-0.0048	
BMRC Final Status Survey	2014 11 15 S2-01	Silver-108M	0.01 ±	0.055	0.105	pCi/g	8.2	0.0012	
BMRC Final Status Survey	2014 11 15 S2-01	Strontium-90	0.121 ±	0.101	0.204	pCi/g	1.7	0.0712	
BMRC Final Status Survey	2014 11 15 S2-01	Tritium	0.584 ±	1.49	2.59	pCi/g	110	0.0053	
BMRC Final Status Survey	2014 11 15 S2-02	Americium-241	0.012 ±	0.296	0.526	pCi/g	2.1	0.0057	0.1804
BMRC Final Status Survey	2014 11 15 S2-02	Carbon-14	-0.257 ±	0.28	0.542	pCi/g	12	-0.0214	
BMRC Final Status Survey	2014 11 15 S2-02	Cesium-137	0.013 ±	0.06	0.107	pCi/g	11	0.0012	
BMRC Final Status Survey	2014 11 15 S2-02	Cobalt-60	-0.036 ±	0.117	0.122	pCi/g	3.8	-0.0095	

Appendix H2 - Class 2 Stockpile Soil Analyses

Client Project	Sample ID	Parameter	Results	Sigma	MDA	Units	DCGL	Fraction	SOF
BMRC Final Status Survey	2014 11 15 S2-02	Europium-152	0.043 ±	0.084	0.214	pCi/g	6.9	0.0062	
BMRC Final Status Survey	2014 11 15 S2-02	Europium-154	0.068 ±	0.086	0.14	pCi/g	8	0.0085	
BMRC Final Status Survey	2014 11 15 S2-02	Nickel-63	1.622 ±	1.334	3.361	pCi/g	2100	0.0008	
BMRC Final Status Survey	2014 11 15 S2-02	Plutonium-238	-0.004 ±	0.024	0.052	pCi/g	2.5	-0.0016	
BMRC Final Status Survey	2014 11 15 S2-02	Pu-239/240	0.005 ±	0.014	0.029	pCi/g	2.3	0.0022	
BMRC Final Status Survey	2014 11 15 S2-02	Silver-108M	0 ±	0.031	0.061	pCi/g	8.2	0.0000	
BMRC Final Status Survey	2014 11 15 S2-02	Strontium-90	0.304 ±	0.132	0.209	pCi/g	1.7	0.1788	
BMRC Final Status Survey	2014 11 15 S2-02	Tritium	1.04 ±	1.48	2.49	pCi/g	110	0.0095	
BMRC Final Status Survey	2014 12 08 S2-01	Americium-241	0 ±	0.173	0.305	pCi/g	2.1	0.0000	0.0487
BMRC Final Status Survey	2014 12 08 S2-01	Carbon-14	-0.065 ±	0.398	0.738	pCi/g	12	-0.0054	
BMRC Final Status Survey	2014 12 08 S2-01	Cesium-137	0.018 ±	0.074	0.134	pCi/g	11	0.0016	
BMRC Final Status Survey	2014 12 08 S2-01	Cobalt-60	-0.018 ±	0.721	0.083	pCi/g	3.8	-0.0047	
BMRC Final Status Survey	2014 12 08 S2-01	Europium-152	0.072 ±	0.134	0.226	pCi/g	6.9	0.0104	
BMRC Final Status Survey	2014 12 08 S2-01	Europium-154	0.028 ±	0.049	0.181	pCi/g	8	0.0035	
BMRC Final Status Survey	2014 12 08 S2-01	Nickel-63	1.317 ±	1.282	3.405	pCi/g	2100	0.0006	
BMRC Final Status Survey	2014 12 08 S2-01	Plutonium-238	0.005 ±	0.019	0.034	pCi/g	2.5	0.0020	
BMRC Final Status Survey	2014 12 08 S2-01	Pu-239/240	0 ±	0.009	0.019	pCi/g	2.3	0.0000	
BMRC Final Status Survey	2014 12 08 S2-01	Silver-108M	0.181 ±	0.069	0.138	pCi/g	8.2	0.0221	
BMRC Final Status Survey	2014 12 08 S2-01	Strontium-90	0.0395 ±	0.099	0.227	pCi/g	1.7	0.0232	
BMRC Final Status Survey	2014 12 08 S2-01	Tritium	-0.512 ±	1.8	3.33	pCi/g	110	-0.0047	
BMRC Final Status Survey	2014 12 09 S2-01	Americium-241	-0.087 ±	0.31	0.538	pCi/g	2.1	-0.0414	-0.0790
BMRC Final Status Survey	2014 12 09 S2-01	Carbon-14	0.211 ±	0.415	0.717	pCi/g	12	0.0176	
BMRC Final Status Survey	2014 12 09 S2-01	Cesium-137	0.021 ±	0.056	0.098	pCi/g	11	0.0019	
BMRC Final Status Survey	2014 12 09 S2-01	Cobalt-60	0.013 ±	0.06	0.112	pCi/g	3.8	0.0034	
BMRC Final Status Survey	2014 12 09 S2-01	Europium-152	-0.033 ±	0.169	0.292	pCi/g	6.9	-0.0048	
BMRC Final Status Survey	2014 12 09 S2-01	Europium-154	-0.002 ±	0.193	0.201	pCi/g	8	-0.0003	
BMRC Final Status Survey	2014 12 09 S2-01	Nickel-63	-0.537 ±	1.159	3.57	pCi/g	2100	-0.0003	
BMRC Final Status Survey	2014 12 09 S2-01	Plutonium-238	0.009 ±	0.027	0.048	pCi/g	2.5	0.0036	
BMRC Final Status Survey	2014 12 09 S2-01	Pu-239/240	0.009 ±	0.015	0.026	pCi/g	2.3	0.0039	
BMRC Final Status Survey	2014 12 09 S2-01	Silver-108M	0.047 ±	0.042	0.1	pCi/g	8.2	0.0057	
BMRC Final Status Survey	2014 12 09 S2-01	Strontium-90	-0.12 ±	0.094	0.268	pCi/g	1.7	-0.0706	
BMRC Final Status Survey	2014 12 09 S2-01	Tritium	0.24 ±	1.75	3.12	pCi/g	110	0.0022	
BMRC Final Status Survey	2014 12 10 S2-01	Americium-241	0.058 ±	0.126	0.216	pCi/g	2.1	0.0276	-0.0192
BMRC Final Status Survey	2014 12 10 S2-01	Carbon-14	0.38 ±	0.433	0.715	pCi/g	12	0.0317	
BMRC Final Status Survey	2014 12 10 S2-01	Cesium-137	-0.012 ±	0.081	0.132	pCi/g	11	-0.0011	
BMRC Final Status Survey	2014 12 10 S2-01	Cobalt-60	-0.017 ±	2.158	0.167	pCi/g	3.8	-0.0045	
BMRC Final Status Survey	2014 12 10 S2-01	Europium-152	-0.01 ±	0.295	0.22	pCi/g	6.9	-0.0014	
BMRC Final Status Survey	2014 12 10 S2-01	Europium-154	0.016 ±	0.085	0.15	pCi/g	8	0.0020	
BMRC Final Status Survey	2014 12 10 S2-01	Nickel-63	0.964 ±	1.104	2.541	pCi/g	2100	0.0005	
BMRC Final Status Survey	2014 12 10 S2-01	Plutonium-238	-0.012 ±	0.032	0.061	pCi/g	2.5	-0.0048	
BMRC Final Status Survey	2014 12 10 S2-01	Pu-239/240	0.003 ±	0.009	0.018	pCi/g	2.3	0.0013	
BMRC Final Status Survey	2014 12 10 S2-01	Silver-108M	-0.01 ±	0.084	0.153	pCi/g	8.2	-0.0012	
BMRC Final Status Survey	2014 12 10 S2-01	Strontium-90	-0.119 ±	0.095	0.268	pCi/g	1.7	-0.0700	
BMRC Final Status Survey	2014 12 10 S2-01	Tritium	0.0903 ±	1.64	2.93	pCi/g	110	0.0008	
BMRC Final Status Survey	2014 12 10 S2-02	Americium-241	0.183 ±	0.287	0.478	pCi/g	2.1	0.0871	0.0225
BMRC Final Status Survey	2014 12 10 S2-02	Carbon-14	0.278 ±	0.428	0.726	pCi/g	12	0.0232	
BMRC Final Status Survey	2014 12 10 S2-02	Cesium-137	-0.014 ±	0.053	0.093	pCi/g	11	-0.0013	
BMRC Final Status Survey	2014 12 10 S2-02	Cobalt-60	-0.001 ±	0.067	0.094	pCi/g	3.8	-0.0003	
BMRC Final Status Survey	2014 12 10 S2-02	Europium-152	0 ±	0.153	0.267	pCi/g	6.9	0.0000	
BMRC Final Status Survey	2014 12 10 S2-02	Europium-154	0.028 ±	0.089	0.153	pCi/g	8	0.0035	
BMRC Final Status Survey	2014 12 10 S2-02	Nickel-63	-0.3 ±	1.074	2.994	pCi/g	2100	-0.0001	
BMRC Final Status Survey	2014 12 10 S2-02	Plutonium-238	0.027 ±	0.03	0.048	pCi/g	2.5	0.0108	
BMRC Final Status Survey	2014 12 10 S2-02	Pu-239/240	-0.006 ±	0.014	0.032	pCi/g	2.3	-0.0026	
BMRC Final Status Survey	2014 12 10 S2-02	Silver-108M	0.036 ±	0.055	0.093	pCi/g	8.2	0.0044	
BMRC Final Status Survey	2014 12 10 S2-02	Strontium-90	-0.168 ±	0.095	0.265	pCi/g	1.7	-0.0988	
BMRC Final Status Survey	2014 12 10 S2-02	Tritium	-0.375 ±	1.66	3.04	pCi/g	110	-0.0034	

Appendix H2 - Class 2 Stockpile Soil Analyses

Client Project	Sample ID	Parameter	Results	Sigma	MDA	Units	DCGL	Fraction	SOF
BMRC Final Status Survey	2014 12 10 S2-02-DUF	Americium-241	0.038 ±	0.142	0.245	pCi/g	2.1	0.0181	0.1001
BMRC Final Status Survey	2014 12 10 S2-02-DUF	Carbon-14	0.278 ±	0.427	0.725	pCi/g	12	0.0232	
BMRC Final Status Survey	2014 12 10 S2-02-DUF	Cesium-137	0.013 ±	0.049	0.092	pCi/g	11	0.0012	
BMRC Final Status Survey	2014 12 10 S2-02-DUF	Cobalt-60	0.003 ±	0.061	0.128	pCi/g	3.8	0.0008	
BMRC Final Status Survey	2014 12 10 S2-02-DUF	Europium-152	0.024 ±	0.111	0.196	pCi/g	6.9	0.0035	
BMRC Final Status Survey	2014 12 10 S2-02-DUF	Europium-154	0.013 ±	0.023	0.163	pCi/g	8	0.0016	
BMRC Final Status Survey	2014 12 10 S2-02-DUF	Nickel-63	2.948 ±	1.468	3.776	pCi/g	2100	0.0014	
BMRC Final Status Survey	2014 12 10 S2-02-DUF	Plutonium-238	0.014 ±	0.022	0.038	pCi/g	2.5	0.0056	
BMRC Final Status Survey	2014 12 10 S2-02-DUF	Pu-239/240	-0.01 ±	0.008	0.022	pCi/g	2.3	-0.0043	
BMRC Final Status Survey	2014 12 10 S2-02-DUF	Silver-108M	0.034 ±	0.043	0.124	pCi/g	8.2	0.0041	
BMRC Final Status Survey	2014 12 10 S2-02-DUF	Strontium-90	0.086 ±	0.118	0.257	pCi/g	1.7	0.0506	
BMRC Final Status Survey	2014 12 10 S2-02-DUF	Tritium	-0.622 ±	1.9	3.52	pCi/g	110	-0.0057	
BMRC Final Status Survey	2014 12 12 S2-01	Americium-241	-0.005 ±	0.193	0.288	pCi/g	2.1	-0.0024	-0.0180
BMRC Final Status Survey	2014 12 12 S2-01	Carbon-14	0.064 ±	0.403	0.722	pCi/g	12	0.0053	
BMRC Final Status Survey	2014 12 12 S2-01	Cesium-137	-0.017 ±	0.083	0.151	pCi/g	11	-0.0015	
BMRC Final Status Survey	2014 12 12 S2-01	Cobalt-60	0.018 ±	0.117	0.222	pCi/g	3.8	0.0047	
BMRC Final Status Survey	2014 12 12 S2-01	Europium-152	0.011 ±	0.11	0.2	pCi/g	6.9	0.0016	
BMRC Final Status Survey	2014 12 12 S2-01	Europium-154	0.06 ±	0.098	0.164	pCi/g	8	0.0075	
BMRC Final Status Survey	2014 12 12 S2-01	Nickel-63	11.897 ±	2.175	3.559	pCi/g	2100	0.0057	
BMRC Final Status Survey	2014 12 12 S2-01	Plutonium-238	0.049 ±	0.05	0.08	pCi/g	2.5	0.0196	
BMRC Final Status Survey	2014 12 12 S2-01	Pu-239/240	0.002 ±	0.021	0.044	pCi/g	2.3	0.0009	
BMRC Final Status Survey	2014 12 12 S2-01	Silver-108M	0 ±	0.085	0.161	pCi/g	8.2	0.0000	
BMRC Final Status Survey	2014 12 12 S2-01	Strontium-90	-0.0993 ±	0.056	0.111	pCi/g	1.7	-0.0584	
BMRC Final Status Survey	2014 12 12 S2-01	Tritium	-0.106 ±	1.14	2.08	pCi/g	110	-0.0010	
BMRC Final Status Survey	2014 12 12 S2-02	Americium-241	-0.067 ±	0.175	0.296	pCi/g	2.1	-0.0319	-0.0271
BMRC Final Status Survey	2014 12 12 S2-02	Carbon-14	-0.164 ±	0.364	0.695	pCi/g	12	-0.0137	
BMRC Final Status Survey	2014 12 12 S2-02	Cesium-137	0.025 ±	0.078	0.14	pCi/g	11	0.0023	
BMRC Final Status Survey	2014 12 12 S2-02	Cobalt-60	-0.047 ±	0.366	0.191	pCi/g	3.8	-0.0124	
BMRC Final Status Survey	2014 12 12 S2-02	Europium-152	-0.003 ±	29.46	0.262	pCi/g	6.9	-0.0004	
BMRC Final Status Survey	2014 12 12 S2-02	Europium-154	-0.019 ±	0.113	0.194	pCi/g	8	-0.0024	
BMRC Final Status Survey	2014 12 12 S2-02	Nickel-63	0.491 ±	1.004	2.23	pCi/g	2100	0.0002	
BMRC Final Status Survey	2014 12 12 S2-02	Plutonium-238	-0.005 ±	0.021	0.042	pCi/g	2.5	-0.0020	
BMRC Final Status Survey	2014 12 12 S2-02	Pu-239/240	-0.002 ±	0.014	0.029	pCi/g	2.3	-0.0009	
BMRC Final Status Survey	2014 12 12 S2-02	Silver-108M	0.006 ±	0.097	0.179	pCi/g	8.2	0.0007	
BMRC Final Status Survey	2014 12 12 S2-02	Strontium-90	0.0412 ±	0.061	0.111	pCi/g	1.7	0.0242	
BMRC Final Status Survey	2014 12 12 S2-02	Tritium	0.996 ±	1.84	3.16	pCi/g	110	0.0091	
BMRC Final Status Survey	2014 12 23 S2-01	Americium-241	0 ±	0.062	0.645	pCi/g	2.1	0.0000	0.0948
BMRC Final Status Survey	2014 12 23 S2-01	Carbon-14	0.171 ±	0.349	0.6	pCi/g	12	0.0143	
BMRC Final Status Survey	2014 12 23 S2-01	Cesium-137	0 ±	0.058	0.145	pCi/g	11	0.0000	
BMRC Final Status Survey	2014 12 23 S2-01	Cobalt-60	0.054 ±	0.111	0.109	pCi/g	3.8	0.0142	
BMRC Final Status Survey	2014 12 23 S2-01	Europium-152	0.227 ±	0.202	0.239	pCi/g	6.9	0.0329	
BMRC Final Status Survey	2014 12 23 S2-01	Europium-154	0.126 ±	0.06	0.212	pCi/g	8	0.0158	
BMRC Final Status Survey	2014 12 23 S2-01	Nickel-63	1.294 ±	1.569	5.288	pCi/g	2100	0.0006	
BMRC Final Status Survey	2014 12 23 S2-01	Plutonium-238	0.013 ±	0.019	0.032	pCi/g	2.5	0.0052	
BMRC Final Status Survey	2014 12 23 S2-01	Pu-239/240	0.007 ±	0.009	0.015	pCi/g	2.3	0.0030	
BMRC Final Status Survey	2014 12 23 S2-01	Silver-108M	0.096 ±	0.066	0.126	pCi/g	8.2	0.0117	
BMRC Final Status Survey	2014 12 23 S2-01	Strontium-90	0.037 ±	0.083	0.19	pCi/g	1.7	0.0218	
BMRC Final Status Survey	2014 12 23 S2-01	Tritium	-2.71 ±	2.01	3.92	pCi/g	110	-0.0246	
BMRC Final Status Survey	2014 12 23 S2-02	Americium-241	0 ±	0.067	0.301	pCi/g	2.1	0.0000	0.1102
BMRC Final Status Survey	2014 12 23 S2-02	Carbon-14	0.413 ±	0.37	0.598	pCi/g	12	0.0344	
BMRC Final Status Survey	2014 12 23 S2-02	Cesium-137	-0.036 ±	0.154	0.179	pCi/g	11	-0.0033	
BMRC Final Status Survey	2014 12 23 S2-02	Cobalt-60	0.05 ±	0.061	0.093	pCi/g	3.8	0.0132	
BMRC Final Status Survey	2014 12 23 S2-02	Europium-152	0.17 ±	0.141	0.162	pCi/g	6.9	0.0246	
BMRC Final Status Survey	2014 12 23 S2-02	Europium-154	0.084 ±	0.11	0.197	pCi/g	8	0.0105	
BMRC Final Status Survey	2014 12 23 S2-02	Nickel-63	0.57 ±	1.345	4.077	pCi/g	2100	0.0003	
BMRC Final Status Survey	2014 12 23 S2-02	Plutonium-238	0.017 ±	0.015	0.023	pCi/g	2.5	0.0068	

Appendix H2 - Class 2 Stockpile Soil Analyses

Client Project	Sample ID	Parameter	Results	Sigma	MDA	Units	DCGL	Fraction	SOF
BMRC Final Status Survey	2014 12 23 S2-02	Pu-239/240	0.004 ±	0.009	0.017	pCi/g	2.3	0.0017	
BMRC Final Status Survey	2014 12 23 S2-02	Silver-108M	0.076 ±	0.082	0.088	pCi/g	8.2	0.0093	
BMRC Final Status Survey	2014 12 23 S2-02	Strontium-90	0.039 ±	0.119	0.277	pCi/g	1.7	0.0229	
BMRC Final Status Survey	2014 12 23 S2-02	Tritium	-1.13 ±	1.82	3.4	pCi/g	110	-0.0103	
BMRC Final Status Survey	2014 12 29 S2-01	Americium-241	0.102 ±	0.467	0.588	pCi/g	2.1	0.0486	0.1197
BMRC Final Status Survey	2014 12 29 S2-01	Carbon-14	0.403 ±	0.351	0.566	pCi/g	12	0.0336	
BMRC Final Status Survey	2014 12 29 S2-01	Cesium-137	0.024 ±	0.062	0.07	pCi/g	11	0.0022	
BMRC Final Status Survey	2014 12 29 S2-01	Cobalt-60	0.054 ±	0.039	0.04	pCi/g	3.8	0.0142	
BMRC Final Status Survey	2014 12 29 S2-01	Europium-152	0.108 ±	0.153	0.27	pCi/g	6.9	0.0157	
BMRC Final Status Survey	2014 12 29 S2-01	Europium-154	-0.021 ±	0.132	0.162	pCi/g	8	-0.0026	
BMRC Final Status Survey	2014 12 29 S2-01	Nickel-63	-0.844 ±	1.255	4.159	pCi/g	2100	-0.0004	
BMRC Final Status Survey	2014 12 29 S2-01	Plutonium-238	-0.008 ±	0.011	0.026	pCi/g	2.5	-0.0032	
BMRC Final Status Survey	2014 12 29 S2-01	Pu-239/240	0 ±	0.007	0.004	pCi/g	2.3	0.0000	
BMRC Final Status Survey	2014 12 29 S2-01	Silver-108M	0.017 ±	0.029	0.106	pCi/g	8.2	0.0021	
BMRC Final Status Survey	2014 12 29 S2-01	Strontium-90	0.055 ±	0.123	0.281	pCi/g	1.7	0.0324	
BMRC Final Status Survey	2014 12 29 S2-01	Tritium	-2.5 ±	1.85	3.61	pCi/g	110	-0.0227	
BMRC Final Status Survey	2014 12 29 S2-02	Americium-241	0 ±	0.115	0.303	pCi/g	2.1	0.0000	0.0822
BMRC Final Status Survey	2014 12 29 S2-02	Carbon-14	0.615 ±	0.377	0.576	pCi/g	12	0.0513	
BMRC Final Status Survey	2014 12 29 S2-02	Cesium-137	0.016 ±	0.068	0.088	pCi/g	11	0.0015	
BMRC Final Status Survey	2014 12 29 S2-02	Cobalt-60	0.032 ±	0.056	0.097	pCi/g	3.8	0.0084	
BMRC Final Status Survey	2014 12 29 S2-02	Europium-152	0.034 ±	0.194	0.249	pCi/g	6.9	0.0049	
BMRC Final Status Survey	2014 12 29 S2-02	Europium-154	0.171 ±	0.118	0.175	pCi/g	8	0.0214	
BMRC Final Status Survey	2014 12 29 S2-02	Nickel-63	-0.346 ±	1.232	3.801	pCi/g	2100	-0.0002	
BMRC Final Status Survey	2014 12 29 S2-02	Plutonium-238	0.001 ±	0.025	0.048	pCi/g	2.5	0.0004	
BMRC Final Status Survey	2014 12 29 S2-02	Pu-239/240	0.003 ±	0.011	0.023	pCi/g	2.3	0.0013	
BMRC Final Status Survey	2014 12 29 S2-02	Silver-108M	0.129 ±	0.074	0.121	pCi/g	8.2	0.0157	
BMRC Final Status Survey	2014 12 29 S2-02	Strontium-90	-0.0014 ±	0.089	0.216	pCi/g	1.7	-0.0008	
BMRC Final Status Survey	2014 12 29 S2-02	Tritium	-2.38 ±	1.71	3.34	pCi/g	110	-0.0216	
BMRC Final Status Survey	2015 01 05 S2-01	Americium-241	0 ±	0.168	0.604	pCi/g	2.1	0.0000	0.0429
BMRC Final Status Survey	2015 01 05 S2-01	Carbon-14	0.162 ±	0.309	0.53	pCi/g	12	0.0135	
BMRC Final Status Survey	2015 01 05 S2-01	Cesium-137	0.051 ±	0.069	0.073	pCi/g	11	0.0046	
BMRC Final Status Survey	2015 01 05 S2-01	Cobalt-60	0.044 ±	0.083	0.085	pCi/g	3.8	0.0116	
BMRC Final Status Survey	2015 01 05 S2-01	Europium-152	0.192 ±	0.252	0.235	pCi/g	6.9	0.0278	
BMRC Final Status Survey	2015 01 05 S2-01	Europium-154	0.149 ±	0.088	0.215	pCi/g	8	0.0186	
BMRC Final Status Survey	2015 01 05 S2-01	Nickel-63	0.575 ±	1.32	3.914	pCi/g	2100	0.0003	
BMRC Final Status Survey	2015 01 05 S2-01	Plutonium-238	0.008 ±	0.024	0.045	pCi/g	2.5	0.0032	
BMRC Final Status Survey	2015 01 05 S2-01	Pu-239/240	0.005 ±	0.012	0.02	pCi/g	2.3	0.0022	
BMRC Final Status Survey	2015 01 05 S2-01	Silver-108M	0.044 ±	0.032	0.12	pCi/g	8.2	0.0054	
BMRC Final Status Survey	2015 01 05 S2-01	Strontium-90	-0.0527 ±	0.079	0.209	pCi/g	1.7	-0.0310	
BMRC Final Status Survey	2015 01 05 S2-01	Tritium	-1.46 ±	1.73	3.27	pCi/g	110	-0.0133	
BMRC Final Status Survey	2016 01 07 S2-01	Americium-241	0 ±	0.065	0.316	pCi/g	2.1	0.0000	0.0220
BMRC Final Status Survey	2016 01 07 S2-01	Carbon-14	-0.074 ±	0.336	0.613	pCi/g	12	-0.0062	
BMRC Final Status Survey	2016 01 07 S2-01	Cesium-137	-0.018 ±	0.097	0.116	pCi/g	11	-0.0016	
BMRC Final Status Survey	2016 01 07 S2-01	Cobalt-60	0 ±	0.015	0.171	pCi/g	3.8	0.0000	
BMRC Final Status Survey	2016 01 07 S2-01	Europium-152	0.14 ±	0.247	0.24	pCi/g	6.9	0.0203	
BMRC Final Status Survey	2016 01 07 S2-01	Europium-154	0.097 ±	0.075	0.171	pCi/g	8	0.0121	
BMRC Final Status Survey	2016 01 07 S2-01	Nickel-63	0.159 ±	1.269	3.796	pCi/g	2100	0.0001	
BMRC Final Status Survey	2016 01 07 S2-01	Plutonium-238	0.042 ±	0.027	0.039	pCi/g	2.5	0.0168	
BMRC Final Status Survey	2016 01 07 S2-01	Pu-239/240	-0.003 ±	0.009	0.019	pCi/g	2.3	-0.0013	
BMRC Final Status Survey	2016 01 07 S2-01	Silver-108M	0.02 ±	0.026	0.163	pCi/g	8.2	0.0024	
BMRC Final Status Survey	2016 01 07 S2-01	Strontium-90	-0.026 ±	0.109	0.272	pCi/g	1.7	-0.0153	
BMRC Final Status Survey	2016 01 07 S2-01	Tritium	-0.588 ±	1.79	3.27	pCi/g	110	-0.0053	
BRMC Final Status Survey	2015 01 29 S2-01	Strontium-90	-0.016 ±	0.091	-0.206	pCi/g	2.1	-0.0076	-0.5377
BRMC Final Status Survey	2015 01 29 S2-01	Americium-241	0 ±	0.07	-0.333	pCi/g	12	0.0000	
BRMC Final Status Survey	2015 01 29 S2-01	Cesium-137	-0.018 ±	0.108	-0.131	pCi/g	11	-0.0016	
BRMC Final Status Survey	2015 01 29 S2-01	Cobalt-60	0.078 ±	0.045	-0.084	pCi/g	3.8	0.0205	

Appendix H2 - Class 2 Stockpile Soil Analyses

Client Project	Sample ID	Parameter	Results	Sigma	MDA	Units	DCGL	Fraction	SOF
BRMC Final Status Survey	2015 01 29 S2-01	Europium-152	0.142 ±	0.103	-0.283	pCi/g	6.9	0.0206	
BRMC Final Status Survey	2015 01 29 S2-01	Europium-154	0.102 ±	0.079	-0.184	pCi/g	8	0.0128	
BRMC Final Status Survey	2015 01 29 S2-01	Silver-108M	0 ±	0.028	-0.169	pCi/g	2100	0.0000	
BRMC Final Status Survey	2015 01 29 S2-01	Plutonium-238	0.011 ±	0.023	-0.041	pCi/g	2.5	0.0044	
BRMC Final Status Survey	2015 01 29 S2-01	Pu-239/240	0.01 ±	0.012	-0.019	pCi/g	2.3	0.0043	
BRMC Final Status Survey	2015 01 29 S2-01	Carbon-14	-0.532 ±	0.391	-0.746	pCi/g	8.2	-0.0649	
BRMC Final Status Survey	2015 01 29 S2-01	Nickel-63	-0.882 ±	0.935	-2.627	pCi/g	1.7	-0.5188	
BRMC Final Status Survey	2015 01 29 S2-01	Tritium	-0.811 ±	1.34	-2.52	pCi/g	110	-0.0074	
BRMC Final Status Survey	2015 01 29 S2-01-dup	Strontium-90	-0.0369 ±	0.076	-0.177	pCi/g	2.1	-0.0176	0.2003
BRMC Final Status Survey	2015 01 29 S2-01-dup	Americium-241	0 ±	0.278	-0.672	pCi/g	12	0.0000	
BRMC Final Status Survey	2015 01 29 S2-01-dup	Cesium-137	0 ±	0.012	-0.147	pCi/g	11	0.0000	
BRMC Final Status Survey	2015 01 29 S2-01-dup	Cobalt-60	0 ±	0.022	-0.133	pCi/g	3.8	0.0000	
BRMC Final Status Survey	2015 01 29 S2-01-dup	Europium-152	0 ±	0.048	-0.275	pCi/g	6.9	0.0000	
BRMC Final Status Survey	2015 01 29 S2-01-dup	Europium-154	0 ±	0.043	-0.221	pCi/g	8	0.0000	
BRMC Final Status Survey	2015 01 29 S2-01-dup	Silver-108M	0.053 ±	0.095	-0.098	pCi/g	2100	0.0000	
BRMC Final Status Survey	2015 01 29 S2-01-dup	Plutonium-238	-0.001 ±	0.015	-0.031	pCi/g	2.5	-0.0004	
BRMC Final Status Survey	2015 01 29 S2-01-dup	Pu-239/240	0.006 ±	0.009	-0.014	pCi/g	2.3	0.0026	
BRMC Final Status Survey	2015 01 29 S2-01-dup	Carbon-14	-0.298 ±	0.379	-0.703	pCi/g	8.2	-0.0363	
BRMC Final Status Survey	2015 01 29 S2-01-dup	Nickel-63	0.432 ±	1.283	-3.95	pCi/g	1.7	0.2541	
BRMC Final Status Survey	2015 01 29 S2-01-dup	Tritium	-0.237 ±	1.79	-3.25	pCi/g	110	-0.0022	

Appendix H3 - Class 3 Stockpile Soil Analyses

Client Project	Sample ID	Parameter	Results	Sigma	MDC	Units	DCGL	Fraction	SOF
BMRC Final Status Survey	2014 11 01 S3-01	Americium-241	-0.12 ±	0.427	0.704	pCi/g	2.1	-0.05714	-0.018
BMRC Final Status Survey	2014 11 01 S3-01	Carbon-14	-0.043 ±	0.388	0.716	pCi/g	12	-0.00358	
BMRC Final Status Survey	2014 11 01 S3-01	Cesium-137	0.052 ±	0.063	0.103	pCi/g	11	0.004727	
BMRC Final Status Survey	2014 11 01 S3-01	Cobalt-60	0.023 ±	0.065	0.12	pCi/g	3.8	0.006053	
BMRC Final Status Survey	2014 11 01 S3-01	Europium-152	-0.001 ±	0.214	0.287	pCi/g	6.9	-0.00014	
BMRC Final Status Survey	2014 11 01 S3-01	Europium-154	-0.046 ±	0.123	0.21	pCi/g	8	-0.00575	
BMRC Final Status Survey	2014 11 01 S3-01	Nickel-63	-0.103 ±	1.267	3.773	pCi/g	2100	-4.9E-05	
BMRC Final Status Survey	2014 11 01 S3-01	Plutonium-238	-0.006 ±	0.031	0.064	pCi/g	2.5	-0.0024	
BMRC Final Status Survey	2014 11 01 S3-01	Pu-239/240	-0.001 ±	0.015	0.035	pCi/g	2.3	-0.00043	
BMRC Final Status Survey	2014 11 01 S3-01	Silver-108M	0 ±	0.05	0.095	pCi/g	8.2	0	
BMRC Final Status Survey	2014 11 01 S3-01	Strontium-90	0.0632 ±	0.062	0.129	pCi/g	1.7	0.037176	
BMRC Final Status Survey	2014 11 01 S3-01	Tritium	0.394 ±	0.994	1.71	pCi/g	110	0.003582	
BMRC Final Status Survey	2014 11 01 S3-02	Americium-241	0.004 ±	0.16	0.286	pCi/g	2.1	0.001905	0.18832
BMRC Final Status Survey	2014 11 01 S3-02	Carbon-14	-0.379 ±	0.349	0.707	pCi/g	12	-0.03158	
BMRC Final Status Survey	2014 11 01 S3-02	Cesium-137	0.12 ±	0.108	0.165	pCi/g	11	0.010909	
BMRC Final Status Survey	2014 11 01 S3-02	Cobalt-60	0.041 ±	0.088	0.163	pCi/g	3.8	0.010789	
BMRC Final Status Survey	2014 11 01 S3-02	Europium-152	-0.028 ±	0.196	0.243	pCi/g	6.9	-0.00406	
BMRC Final Status Survey	2014 11 01 S3-02	Europium-154	-0.019 ±	0.101	0.178	pCi/g	8	-0.00238	
BMRC Final Status Survey	2014 11 01 S3-02	Nickel-63	0.991 ±	1.25	3.169	pCi/g	2100	0.000472	
BMRC Final Status Survey	2014 11 01 S3-02	Plutonium-238	0.013 ±	0.049	0.093	pCi/g	2.5	0.0052	
BMRC Final Status Survey	2014 11 01 S3-02	Pu-239/240	-0.012 ±	0.023	0.058	pCi/g	2.3	-0.00522	
BMRC Final Status Survey	2014 11 01 S3-02	Silver-108M	-0.053 ±	0.112	0.192	pCi/g	8.2	-0.00646	
BMRC Final Status Survey	2014 11 01 S3-02	Strontium-90	0.343 ±	0.144	0.228	pCi/g	1.7	0.201765	
BMRC Final Status Survey	2014 11 01 S3-02	Tritium	0.768 ±	0.952	1.59	pCi/g	110	0.006982	
BMRC Final Status Survey	2014 11 04 S3-01	Americium-241	-0.03 ±	0.391	0.594	pCi/g	2.1	-0.01429	0.05844
BMRC Final Status Survey	2014 11 04 S3-01	Carbon-14	0 ±	0.379	0.693	pCi/g	12	0	
BMRC Final Status Survey	2014 11 04 S3-01	Cesium-137	0.073 ±	0.064	0.099	pCi/g	11	0.006636	
BMRC Final Status Survey	2014 11 04 S3-01	Cobalt-60	0.037 ±	0.057	0.1	pCi/g	3.8	0.009737	
BMRC Final Status Survey	2014 11 04 S3-01	Europium-152	0.055 ±	0.104	0.224	pCi/g	6.9	0.007971	
BMRC Final Status Survey	2014 11 04 S3-01	Europium-154	-0.008 ±	0.067	0.12	pCi/g	8	-0.001	
BMRC Final Status Survey	2014 11 04 S3-01	Nickel-63	0.947 ±	1.222	3.03	pCi/g	2100	0.000451	
BMRC Final Status Survey	2014 11 04 S3-01	Plutonium-238	-0.006 ±	0.025	0.053	pCi/g	2.5	-0.0024	
BMRC Final Status Survey	2014 11 04 S3-01	Pu-239/240	0.005 ±	0.015	0.03	pCi/g	2.3	0.002174	
BMRC Final Status Survey	2014 11 04 S3-01	Silver-108M	-0.031 ±	0.069	0.118	pCi/g	8.2	-0.00378	
BMRC Final Status Survey	2014 11 04 S3-01	Strontium-90	0.089 ±	0.101	0.215	pCi/g	1.7	0.052353	
BMRC Final Status Survey	2014 11 04 S3-01	Tritium	0.0647 ±	0.798	1.4	pCi/g	110	0.000588	
BMRC Final Status Survey	2015 02 07 S3-01	Americium-241	0.057 ±	0.114	0.192	pCi/g	2.1	0.027	0.114
BMRC Final Status Survey	2015 02 07 S3-01	Carbon-14	-0.100 ±	0.220	0.470	pCi/g	12	-0.008	
BMRC Final Status Survey	2015 02 07 S3-01	Cesium-137	0.021 ±	0.048	0.084	pCi/g	11	0.002	
BMRC Final Status Survey	2015 02 07 S3-01	Cobalt-60	0.000 ±	0.012	0.045	pCi/g	3.8	0.000	
BMRC Final Status Survey	2015 02 07 S3-01	Europium-152	0.038 ±	0.081	0.196	pCi/g	6.9	0.006	
BMRC Final Status Survey	2015 02 07 S3-01	Europium-154	0.024 ±	0.141	1.080	pCi/g	8	0.003	
BMRC Final Status Survey	2015 02 07 S3-01	Nickel-63	0.160 ±	2.800	6.290	pCi/g	2100	0.000	
BMRC Final Status Survey	2015 02 07 S3-01	Plutonium-238	0.001 ±	0.023	0.068	pCi/g	2.5	0.000	
BMRC Final Status Survey	2015 02 07 S3-01	Plutonium-239/2-	0.009 ±	0.021	0.048	pCi/g	2.3	0.004	
BMRC Final Status Survey	2015 02 07 S3-01	Silver-108m	0.006 ±	0.028	0.062	pCi/g	8.2	0.001	
BMRC Final Status Survey	2015 02 07 S3-01	Total Beta Stront	0.131 ±	0.131	0.213	pCi/g	1.7	0.077	
BMRC Final Status Survey	2015 02 07 S3-01	Tritium	0.345 ±	0.561	0.942	pCi/g	110	0.003	
BMRC Final Status Survey	2015 02 07 S3-02	Americium-241	0.051 ±	0.120	0.204	pCi/g	2.1	0.024	0.112
BMRC Final Status Survey	2015 02 07 S3-02	Carbon-14	-0.076 ±	0.220	0.476	pCi/g	12	-0.006	
BMRC Final Status Survey	2015 02 07 S3-02	Cesium-137	0.031 ±	0.060	0.103	pCi/g	11	0.003	
BMRC Final Status Survey	2015 02 07 S3-02	Cobalt-60	0.006 ±	0.038	0.128	pCi/g	3.8	0.002	
BMRC Final Status Survey	2015 02 07 S3-02	Europium-152	0.016 ±	0.129	0.234	pCi/g	6.9	0.002	
BMRC Final Status Survey	2015 02 07 S3-02	Europium-154	0.039 ±	0.114	0.741	pCi/g	8	0.005	
BMRC Final Status Survey	2015 02 07 S3-02	Nickel-63	0.391 ±	2.700	6.070	pCi/g	2100	0.000	
BMRC Final Status Survey	2015 02 07 S3-02	Plutonium-238	0.020 ±	0.037	0.071	pCi/g	2.5	0.008	
BMRC Final Status Survey	2015 02 07 S3-02	Plutonium-239/2-	0.015 ±	0.030	0.059	pCi/g	2.3	0.007	
BMRC Final Status Survey	2015 02 07 S3-02	Silver-108m	0.009 ±	0.048	0.086	pCi/g	8.2	0.001	
BMRC Final Status Survey	2015 02 07 S3-02	Total Beta Stront	0.115 ±	0.129	0.212	pCi/g	1.7	0.068	
BMRC Final Status Survey	2015 02 07 S3-02	Tritium	-0.048 ±	0.524	0.937	pCi/g	110	0.000	

Appendix H3 - Class 3 Stockpile Soil Analyses

Client Project	Sample ID	Parameter	Results	Sigma	MDC	Units	DCGL	Fraction	SOF
BMRC Final Status Survey	2015 02 07 S3-03	Americium-241	-0.049 ±	1.960	0.274	pCi/g	2.1	-0.023	0.075
BMRC Final Status Survey	2015 02 07 S3-03	Carbon-14	-0.154 ±	0.210	0.463	pCi/g	12	-0.013	
BMRC Final Status Survey	2015 02 07 S3-03	Cesium-137	0.020 ±	0.056	0.099	pCi/g	11	0.002	
BMRC Final Status Survey	2015 02 07 S3-03	Cobalt-60	0.005 ±	0.023	0.130	pCi/g	3.8	0.001	
BMRC Final Status Survey	2015 02 07 S3-03	Europium-152	-0.009 ±	0.032	0.239	pCi/g	6.9	-0.001	
BMRC Final Status Survey	2015 02 07 S3-03	Europium-154	0.005 ±	0.021	0.792	pCi/g	8	0.001	
BMRC Final Status Survey	2015 02 07 S3-03	Nickel-63	-0.144 ±	2.700	6.140	pCi/g	2100	0.000	
BMRC Final Status Survey	2015 02 07 S3-03	Plutonium-238	0.011 ±	0.031	0.068	pCi/g	2.5	0.004	
BMRC Final Status Survey	2015 02 07 S3-03	Plutonium-239/2-	-0.002 ±	0.004	0.048	pCi/g	2.3	-0.001	
BMRC Final Status Survey	2015 02 07 S3-03	Silver-108m	-0.008 ±	0.048	0.085	pCi/g	8.2	-0.001	
BMRC Final Status Survey	2015 02 07 S3-03	Total Beta Stront	0.182 ±	0.141	0.221	pCi/g	1.7	0.107	
BMRC Final Status Survey	2015 02 07 S3-03	Tritium	-0.081 ±	0.510	0.912	pCi/g	110	-0.001	
BMRC Final Status Survey	2015 02 07 S3-04	Americium-241	0.070 ±	0.109	0.181	pCi/g	2.1	0.033	0.264
BMRC Final Status Survey	2015 02 07 S3-04	Carbon-14	0.019 ±	0.220	0.474	pCi/g	12	0.002	
BMRC Final Status Survey	2015 02 07 S3-04	Cesium-137	-0.008 ±	0.059	0.107	pCi/g	11	-0.001	
BMRC Final Status Survey	2015 02 07 S3-04	Cobalt-60	0.004 ±	0.014	0.107	pCi/g	3.8	0.001	
BMRC Final Status Survey	2015 02 07 S3-04	Europium-152	0.135 ±	0.202	0.239	pCi/g	6.9	0.020	
BMRC Final Status Survey	2015 02 07 S3-04	Europium-154	0.033 ±	0.069	0.696	pCi/g	8	0.004	
BMRC Final Status Survey	2015 02 07 S3-04	Nickel-63	0.457 ±	2.700	6.090	pCi/g	2100	0.000	
BMRC Final Status Survey	2015 02 07 S3-04	Plutonium-238	0.012 ±	0.028	0.058	pCi/g	2.5	0.005	
BMRC Final Status Survey	2015 02 07 S3-04	Plutonium-239/2-	-0.002 ±	0.004	0.043	pCi/g	2.3	-0.001	
BMRC Final Status Survey	2015 02 07 S3-04	Silver-108m	0.011 ±	0.039	0.082	pCi/g	8.2	0.001	
BMRC Final Status Survey	2015 02 07 S3-04	Total Beta Stront	0.332 ±	0.174	0.258	pCi/g	1.7	0.195	
BMRC Final Status Survey	2015 02 07 S3-04	Tritium	0.460 ±	0.570	0.939	pCi/g	110	0.004	
BMRC Final Status Survey	2015 02 07 S3-05	Americium-241	-0.050 ±	2.140	0.306	pCi/g	2.1	-0.024	0.127
BMRC Final Status Survey	2015 02 07 S3-05	Carbon-14	0.101 ±	0.220	0.466	pCi/g	12	0.008	
BMRC Final Status Survey	2015 02 07 S3-05	Cesium-137	-0.006 ±	0.095	0.140	pCi/g	11	-0.001	
BMRC Final Status Survey	2015 02 07 S3-05	Cobalt-60	-0.008 ±	0.121	0.161	pCi/g	3.8	-0.002	
BMRC Final Status Survey	2015 02 07 S3-05	Europium-152	0.002 ±	0.037	0.264	pCi/g	6.9	0.000	
BMRC Final Status Survey	2015 02 07 S3-05	Europium-154	-0.008 ±	0.504	0.952	pCi/g	8	-0.001	
BMRC Final Status Survey	2015 02 07 S3-05	Nickel-63	2.180 ±	2.900	6.360	pCi/g	2100	0.001	
BMRC Final Status Survey	2015 02 07 S3-05	Plutonium-238	0.002 ±	0.021	0.061	pCi/g	2.5	0.001	
BMRC Final Status Survey	2015 02 07 S3-05	Plutonium-239/2-	-0.004 ±	0.005	0.052	pCi/g	2.3	-0.002	
BMRC Final Status Survey	2015 02 07 S3-05	Silver-108m	0.009 ±	0.050	0.090	pCi/g	8.2	0.001	
BMRC Final Status Survey	2015 02 07 S3-05	Total Beta Stront	0.232 ±	0.118	0.165	pCi/g	1.7	0.136	
BMRC Final Status Survey	2015 02 07 S3-05	Tritium	0.828 ±	0.615	0.965	pCi/g	110	0.008	
BMRC Final Status Survey	2015 02 07 S3-06	Americium-241	-0.015 ±	0.117	0.204	pCi/g	2.1	-0.007	0.108
BMRC Final Status Survey	2015 02 07 S3-06	Carbon-14	0.114 ±	0.230	0.471	pCi/g	12	0.010	
BMRC Final Status Survey	2015 02 07 S3-06	Cesium-137	0.000 ±	0.014	0.072	pCi/g	11	0.000	
BMRC Final Status Survey	2015 02 07 S3-06	Cobalt-60	-0.010 ±	0.071	0.135	pCi/g	3.8	-0.003	
BMRC Final Status Survey	2015 02 07 S3-06	Europium-152	0.084 ±	0.154	0.175	pCi/g	6.9	0.012	
BMRC Final Status Survey	2015 02 07 S3-06	Europium-154	0.076 ±	0.163	0.750	pCi/g	8	0.009	
BMRC Final Status Survey	2015 02 07 S3-06	Nickel-63	-0.140 ±	2.700	6.200	pCi/g	2100	0.000	
BMRC Final Status Survey	2015 02 07 S3-06	Plutonium-238	-0.010 ±	0.009	0.069	pCi/g	2.5	-0.004	
BMRC Final Status Survey	2015 02 07 S3-06	Plutonium-239/2-	-0.004 ±	0.006	0.055	pCi/g	2.3	-0.002	
BMRC Final Status Survey	2015 02 07 S3-06	Silver-108m	-0.013 ±	0.043	0.076	pCi/g	8.2	-0.002	
BMRC Final Status Survey	2015 02 07 S3-06	Total Beta Stront	0.112 ±	0.107	0.170	pCi/g	1.7	0.066	
BMRC Final Status Survey	2015 02 07 S3-06	Tritium	3.080 ±	0.802	0.937	pCi/g	110	0.028	
BMRC Final Status Survey	2015 02 07 S3-07	Americium-241	0.137 ±	0.163	0.267	pCi/g	2.1	0.065	0.178
BMRC Final Status Survey	2015 02 07 S3-07	Carbon-14	0.033 ±	0.220	0.466	pCi/g	12	0.003	
BMRC Final Status Survey	2015 02 07 S3-07	Cesium-137	0.000 ±	0.067	0.125	pCi/g	11	0.000	
BMRC Final Status Survey	2015 02 07 S3-07	Cobalt-60	0.042 ±	0.053	0.115	pCi/g	3.8	0.011	
BMRC Final Status Survey	2015 02 07 S3-07	Europium-152	0.124 ±	0.234	0.290	pCi/g	6.9	0.018	
BMRC Final Status Survey	2015 02 07 S3-07	Europium-154	0.042 ±	0.096	0.917	pCi/g	8	0.005	
BMRC Final Status Survey	2015 02 07 S3-07	Nickel-63	-0.769 ±	2.600	6.090	pCi/g	2100	0.000	
BMRC Final Status Survey	2015 02 07 S3-07	Plutonium-238	0.013 ±	0.030	0.062	pCi/g	2.5	0.005	
BMRC Final Status Survey	2015 02 07 S3-07	Plutonium-239/2-	-0.004 ±	0.005	0.053	pCi/g	2.3	-0.002	
BMRC Final Status Survey	2015 02 07 S3-07	Silver-108m	0.016 ±	0.051	0.091	pCi/g	8.2	0.002	
BMRC Final Status Survey	2015 02 07 S3-07	Total Beta Stront	0.106 ±	0.134	0.223	pCi/g	1.7	0.062	
BMRC Final Status Survey	2015 02 07 S3-07	Tritium	0.946 ±	0.612	0.938	pCi/g	110	0.009	

Appendix H4 - Soil Stockpile Analyses Conclusions

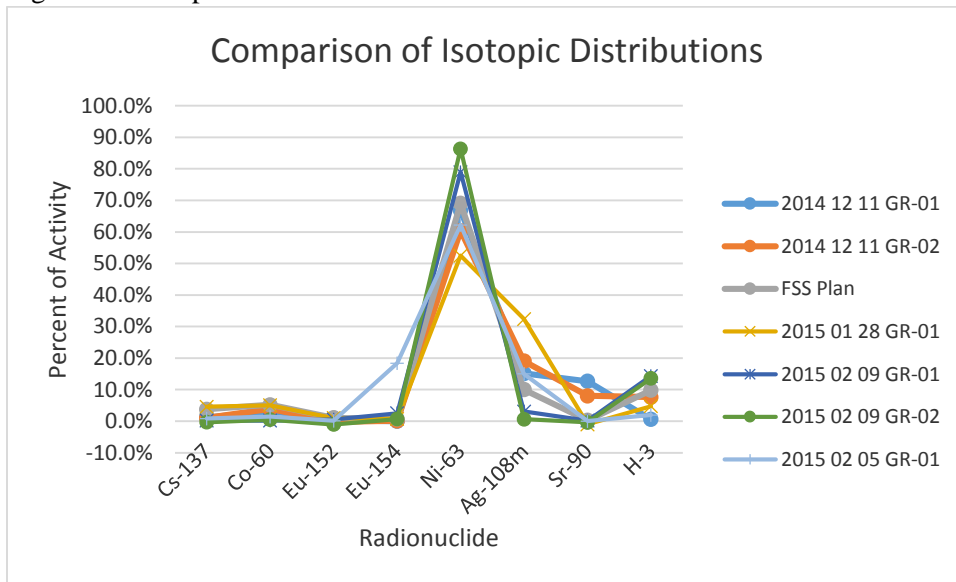
Conclusions:

1. The SOF is met for all stockpiles.
2. There is an adequate number of samples for each stockpile.
3. The number of duplicates taken for the stockpiles is adequate.

Distribution of Radionuclides:

The results of six grab samples was compared against the assumption of the radionuclide distribution made in the FSS Plan. The comparison is shown in Figure 1.

Figure 1 – Comparison of Radionuclide Distributions



Conclusion: There appears to be a good correlation between the FSS Plan assumption and the results from the six GR samples. Therefore the radionuclide distribution assumption made in the FSS Plan is considered to have been validated.

Analysis of Duplicate Samples

Section 9.3.2.4.3 of the Survey Procedure provides a method to compare the results between a sample and its duplicate. There are four samples which have duplicate results reported. The comparison method given in the BMRC Final Status Survey Procedure (Rev. 0, December 2014) is based on NRC Inspection Manual, Inspection Procedure 84750, dated 03/15/1994, Section 03.09. However the FSS Procedure provides a Table that is different from the NRC Inspection Procedure therefore the table from the NRC document has been utilized and is given as Table 2 below.

Using the Acceptance Criteria given in Table 2 the results for the six duplicate measurements are all acceptable in demonstrating compliance with the QA/QC requirements of Section 9.3 of the Final Status Survey Procedure.

Table 2 – Criteria for Accepting the Duplicate Measurements

Appendix H4 - Soil Stockpile Analyses Conclusions

Resolution	Acceptable Ratio
<4	
4-7	0.5-2.0
8-15	0.6-1.66
16-50	0.75-1.33
51-200	0.80-1.25
>200	0.85-1.18

In Table 2 (revised from the table in the FSS Procedure) there is no “Acceptable Ratio” provided when the Resolution is less than four. Low Resolution values indicate that the Uncertainty of the measurement is a large fraction of the measurement value. For the six samples considered in this comparison of Duplicate results, the average Resolution value is 0.41 which means that on average the uncertainty is about twice as large as the measurement value. For these six comparisons, only the result for one comparison measurement of Ag-108m (Samples #2014 12 22 S1-01 and #2014 12 22 S1-01-DUP) gave a Resolution value greater than four and for that comparison the Ratio was acceptable in accordance with the criteria of Table 2. The analytical results for both the original and duplicate samples is provided in Table 3.

Conclusion: The results for the comparison of the six duplicate measurements against the original measurements are acceptable.

Appendix H5 - Evaluation of Duplicate Samples for Class 1, Class 2, and Class 3 Stockpile Soils

Client Project	Sample ID	Parameter	Results	Uncert	MDC	Units	DCGL	Resolution	Ratio	Pass?
BMRC Final Status Survey	2014 12 22 S1-01	Americium-241	-0.127 ±	0.4	0.68	pCi/g	2.1	-0.32		Yes
BMRC Final Status Survey	2014 12 22 S1-01	Carbon-14	0.173 ±	0.356	0.612	pCi/g	12	0.49		Yes
BMRC Final Status Survey	2014 12 22 S1-01	Cesium-137	0.073 ±	0.067	0.105	pCi/g	11	1.09		Yes
BMRC Final Status Survey	2014 12 22 S1-01	Cobalt-60	0.264 ±	0.08	0.092	pCi/g	3.8	3.30		Yes
BMRC Final Status Survey	2014 12 22 S1-01	Europium-152	0.05 ±	0.194	0.332	pCi/g	6.9	0.26		Yes
BMRC Final Status Survey	2014 12 22 S1-01	Europium-154	0.04 ±	0.135	0.23	pCi/g	8	0.30		Yes
BMRC Final Status Survey	2014 12 22 S1-01	Nickel-63	0.129 ±	1.387	4.069	pCi/g	2100	0.09		Yes
BMRC Final Status Survey	2014 12 22 S1-01	Plutonium-238	0.007 ±	0.028	0.051	pCi/g	2.5	0.25		Yes
BMRC Final Status Survey	2014 12 22 S1-01	Pu-239/240	0.018 ±	0.017	0.025	pCi/g	2.3	1.06		Yes
BMRC Final Status Survey	2014 12 22 S1-01	Silver-108M	1.396 ±	0.211	0.109	pCi/g	8.2	6.62	0.839	Yes
BMRC Final Status Survey	2014 12 22 S1-01	Strontium-90	0.452 ±	0.151	0.198	pCi/g	1.7	2.99		Yes
BMRC Final Status Survey	2014 12 22 S1-01	Tritium	0 ±	1.84	3.32	pCi/g	110	0.00		Yes
BMRC Final Status Survey	2014 12 22 S1-01-DUP	Americium-241	0.006 ±	0.178	0.315	pCi/g	2.1			
BMRC Final Status Survey	2014 12 22 S1-01-DUP	Carbon-14	0.479 ±	0.365	0.579	pCi/g	12			
BMRC Final Status Survey	2014 12 22 S1-01-DUP	Cesium-137	0.062 ±	0.096	0.16	pCi/g	11			
BMRC Final Status Survey	2014 12 22 S1-01-DUP	Cobalt-60	0.148 ±	0.098	0.215	pCi/g	3.8			
BMRC Final Status Survey	2014 12 22 S1-01-DUP	Europium-152	0.006 ±	0.148	0.263	pCi/g	6.9			
BMRC Final Status Survey	2014 12 22 S1-01-DUP	Europium-154	0.009 ±	0.095	0.17	pCi/g	8			
BMRC Final Status Survey	2014 12 22 S1-01-DUP	Nickel-63	1.706 ±	1.462	3.832	pCi/g	2100			

Appendix H5 - Evaluation of Duplicate Samples for Class 1, Class 2, and Class 3 Stockpile Soils

BMRC Final Status Survey	2014 12 22 S1-01-DUP	Plutonium-238	0.002	±	0.038	0.069	pCi/g	2.5		
BMRC Final Status Survey	2014 12 22 S1-01-DUP	Pu-239/240	-0.01	±	0.016	0.036	pCi/g	2.3		
BMRC Final Status Survey	2014 12 22 S1-01-DUP	Silver-108M	1.171	±	0.192	0.13	pCi/g	8.2		
BMRC Final Status Survey	2014 12 22 S1-01-DUP	Strontium-90	0.192	±	0.119	0.223	pCi/g	1.7		
BMRC Final Status Survey	2014 12 22 S1-01-DUP	Tritium	-1.13	±	1.4	2.71	pCi/g	110		

BMRC Final Status Survey	2014 12 22 S1-11	Americium-241	0.145	±	0.301	0.511	pCi/g	2.1	0.48	Yes
BMRC Final Status Survey	2014 12 22 S1-11	Carbon-14	0.401	±	0.361	0.584	pCi/g	12	1.11	Yes
BMRC Final Status Survey	2014 12 22 S1-11	Cesium-137	0.009	±	0.06	0.109	pCi/g	11	0.15	Yes
BMRC Final Status Survey	2014 12 22 S1-11	Cobalt-60	0.013	±	0.06	0.112	pCi/g	3.8	0.22	Yes
BMRC Final Status Survey	2014 12 22 S1-11	Europium-152	-0.058	±	0.179	0.307	pCi/g	6.9	-0.32	Yes
BMRC Final Status Survey	2014 12 22 S1-11	Europium-154	0.011	±	0.107	0.187	pCi/g	8	0.10	Yes
BMRC Final Status Survey	2014 12 22 S1-11	Nickel-63	-0.227	±	1.069	3.062	pCi/g	2100	-0.21	Yes
BMRC Final Status Survey	2014 12 22 S1-11	Plutonium-238	0.016	±	0.018	0.029	pCi/g	2.5	0.89	Yes
BMRC Final Status Survey	2014 12 22 S1-11	Pu-239/240	0.002	±	0.014	0.027	pCi/g	2.3	0.14	Yes
BMRC Final Status Survey	2014 12 22 S1-11	Silver-108M	0.047	±	0.048	0.115	pCi/g	8.2	0.98	Yes
BMRC Final Status Survey	2014 12 22 S1-11	Strontium-90	0.0419	±	0.063	0.141	pCi/g	1.7	0.66	Yes
BMRC Final Status Survey	2014 12 22 S1-11	Tritium	0.0631	±	1.35	2.45	pCi/g	110	0.05	Yes
BMRC Final Status Survey	2014 12 22 S1-11-DUP	Americium-241	-0.001	±	0.176	0.313	pCi/g	2.1		
BMRC Final Status Survey	2014 12 22 S1-11-DUP	Carbon-14	0.491	±	0.374	0.593	pCi/g	12		

Appendix H5 - Evaluation of Duplicate Samples for Class 1, Class 2, and Class 3 Stockpile Soils

BMRC Final Status Survey	2014 12 22 S1-11-DUP	Cesium-137	0	±	0.007	0.16	pCi/g	11
BMRC Final Status Survey	2014 12 22 S1-11-DUP	Cobalt-60	0.015	±	0.078	0.162	pCi/g	3.8
BMRC Final Status Survey	2014 12 22 S1-11-DUP	Europium-152	0.017	±	0.135	0.24	pCi/g	6.9
BMRC Final Status Survey	2014 12 22 S1-11-DUP	Europium-154	-0.066	±	0.134	0.224	pCi/g	8
BMRC Final Status Survey	2014 12 22 S1-11-DUP	Nickel-63	0.854	±	1.201	3.288	pCi/g	2100
BMRC Final Status Survey	2014 12 22 S1-11-DUP	Plutonium-238	0.002	±	0.019	0.036	pCi/g	2.5
BMRC Final Status Survey	2014 12 22 S1-11-DUP	Pu-239/240	-0.007	±	0.011	0.026	pCi/g	2.3
BMRC Final Status Survey	2014 12 22 S1-11-DUP	Silver-108M	0.077	±	0.047	0.146	pCi/g	8.2
BMRC Final Status Survey	2014 12 22 S1-11-DUP	Strontium-90	0.0113	±	0.086	0.211	pCi/g	1.7
BMRC Final Status Survey	2014 12 22 S1-11-DUP	Tritium	0.974	±	1.78	3.06	pCi/g	110

BMRC Final Status Survey	2014 11 13 S2-02	Americium-241	0.04	±	0.181	0.314	pCi/g	2.1	0.22	Yes
BMRC Final Status Survey	2014 11 13 S2-02	Carbon-14	-0.255	±	0.705	1.67	pCi/g	12	-0.36	Yes
BMRC Final Status Survey	2014 11 13 S2-02	Cesium-137	0.001	±	0.087	0.163	pCi/g	11	0.01	Yes
BMRC Final Status Survey	2014 11 13 S2-02	Cobalt-60	0.001	±	0.091	0.185	pCi/g	3.8	0.01	Yes
BMRC Final Status Survey	2014 11 13 S2-02	Europium-152	0	±	0.144	0.259	pCi/g	6.9	0.00	Yes
BMRC Final Status Survey	2014 11 13 S2-02	Europium-154	0.048	±	0.088	0.181	pCi/g	8	0.55	Yes
BMRC Final Status Survey	2014 11 13 S2-02	Nickel-63	-0.119	±	0.699	2.153	pCi/g	2100	-0.17	Yes
BMRC Final Status Survey	2014 11 13 S2-02	Plutonium-238	0.02	±	0.041	0.063	pCi/g	2.5	0.49	Yes
BMRC Final Status Survey	2014 11 13 S2-02	Pu-239/240	-0.006	±	0.017	0.032	pCi/g	2.3	-0.35	Yes

Appendix H5 - Evaluation of Duplicate Samples for Class 1, Class 2, and Class 3 Stockpile Soils

BMRC Final Status Survey	2014 11 13 S2-02	Silver-108M	0.021	±	0.029	0.169	pCi/g	8.2	0.72	Yes
BMRC Final Status Survey	2014 11 13 S2-02	Strontium-90	-	±	0.075	0.192	pCi/g	1.7	-0.26	Yes
BMRC Final Status Survey	2014 11 13 S2-02	Tritium	0.809	±	1.41	2.42	pCi/g	110	0.57	Yes
BMRC Final Status Survey	2014 11 13 S2-02-DUP	Americium-241	0.004	±	0.169	0.299	pCi/g	2.1		
BMRC Final Status Survey	2014 11 13 S2-02-DUP	Carbon-14	0.649	±	0.993	1.71	pCi/g	12		
BMRC Final Status Survey	2014 11 13 S2-02-DUP	Cesium-137	0	±	0.094	0.175	pCi/g	11		
BMRC Final Status Survey	2014 11 13 S2-02-DUP	Cobalt-60	0.039	±	0.062	0.172	pCi/g	3.8		
BMRC Final Status Survey	2014 11 13 S2-02-DUP	Europium-152	0	±	0.004	0.265	pCi/g	6.9		
BMRC Final Status Survey	2014 11 13 S2-02-DUP	Europium-154	-0.017	±	0.103	0.181	pCi/g	8		
BMRC Final Status Survey	2014 11 13 S2-02-DUP	Nickel-63	0.123	±	0.567	1.378	pCi/g	2100		
BMRC Final Status Survey	2014 11 13 S2-02-DUP	Plutonium-238	0.026	±	0.029	0.043	pCi/g	2.5		
BMRC Final Status Survey	2014 11 13 S2-02-DUP	Pu-239/240	-0.009	±	0.015	0.029	pCi/g	2.3		
BMRC Final Status Survey	2014 11 13 S2-02-DUP	Silver-108M	-0.002	±	0.07	0.133	pCi/g	8.2		
BMRC Final Status Survey	2014 11 13 S2-02-DUP	Strontium-90	-	±	0.059	0.162	pCi/g	1.7		
BMRC Final Status Survey	2014 11 13 S2-02-DUP	Tritium	0	±	1.42	2.6	pCi/g	110		
BMRC Final Status Survey	2014 12 10 S2-02	Americium-241	0.183	±	0.287	0.478	pCi/g	2.1	0.64	Yes
BMRC Final Status Survey	2014 12 10 S2-02	Carbon-14	0.278	±	0.428	0.726	pCi/g	12	0.65	Yes
BMRC Final Status Survey	2014 12 10 S2-02	Cesium-137	-0.014	±	0.053	0.093	pCi/g	11	-0.26	Yes
BMRC Final Status Survey	2014 12 10 S2-02	Cobalt-60	-0.001	±	0.067	0.094	pCi/g	3.8	-0.01	Yes

Appendix H5 - Evaluation of Duplicate Samples for Class 1, Class 2, and Class 3 Stockpile Soils

BMRC Final Status Survey	2014 12 10 S2-02	Europium-152	0	±	0.153	0.267	pCi/g	6.9	0.00	Yes
BMRC Final Status Survey	2014 12 10 S2-02	Europium-154	0.028	±	0.089	0.153	pCi/g	8	0.31	Yes
BMRC Final Status Survey	2014 12 10 S2-02	Nickel-63	-0.3	±	1.074	2.994	pCi/g	2100	-0.28	Yes
BMRC Final Status Survey	2014 12 10 S2-02	Plutonium-238	0.027	±	0.03	0.048	pCi/g	2.5	0.90	Yes
BMRC Final Status Survey	2014 12 10 S2-02	Pu-239/240	-0.006	±	0.014	0.032	pCi/g	2.3	-0.43	Yes
BMRC Final Status Survey	2014 12 10 S2-02	Silver-108M	0.036	±	0.055	0.093	pCi/g	8.2	0.65	Yes
BMRC Final Status Survey	2014 12 10 S2-02	Strontium-90	-0.168	±	0.095	0.265	pCi/g	1.7	-1.78	Yes
BMRC Final Status Survey	2014 12 10 S2-02	Tritium	-0.375	±	1.66	3.04	pCi/g	110	-0.23	Yes
BMRC Final Status Survey	2014 12 10 S2-02-DUP	Americium-241	0.038	±	0.142	0.245	pCi/g	2.1		
BMRC Final Status Survey	2014 12 10 S2-02-DUP	Carbon-14	0.278	±	0.427	0.725	pCi/g	12		
BMRC Final Status Survey	2014 12 10 S2-02-DUP	Cesium-137	0.013	±	0.049	0.092	pCi/g	11		
BMRC Final Status Survey	2014 12 10 S2-02-DUP	Cobalt-60	0.003	±	0.061	0.128	pCi/g	3.8		
BMRC Final Status Survey	2014 12 10 S2-02-DUP	Europium-152	0.024	±	0.111	0.196	pCi/g	6.9		
BMRC Final Status Survey	2014 12 10 S2-02-DUP	Europium-154	0.013	±	0.023	0.163	pCi/g	8		
BMRC Final Status Survey	2014 12 10 S2-02-DUP	Nickel-63	2.948	±	1.468	3.776	pCi/g	2100		
BMRC Final Status Survey	2014 12 10 S2-02-DUP	Plutonium-238	0.014	±	0.022	0.038	pCi/g	2.5		
BMRC Final Status Survey	2014 12 10 S2-02-DUP	Pu-239/240	-0.01	±	0.008	0.022	pCi/g	2.3		
BMRC Final Status Survey	2014 12 10 S2-02-DUP	Silver-108M	0.034	±	0.043	0.124	pCi/g	8.2		
BMRC Final Status Survey	2014 12 10 S2-02-DUP	Strontium-90	0.086	±	0.118	0.257	pCi/g	1.7		
BMRC Final Status Survey	2014 12 10 S2-02-DUP	Tritium	-0.622	±	1.9	3.52	pCi/g	110		

Appendix H5 - Evaluation of Duplicate Samples for Class 1, Class 2, and Class 3 Stockpile Soils

BRMC Final Status Survey	2015 01 29 S2-01	Strontium-90	-0.016	±	0.091	0.206	pCi/g	2.1	-0.18	Yes
BRMC Final Status Survey	2015 01 29 S2-01	Americium-241	0	±	0.07	0.333	pCi/g	12	0.00	Yes
BRMC Final Status Survey	2015 01 29 S2-01	Cesium-137	-0.018	±	0.108	0.131	pCi/g	11	-0.17	Yes
BRMC Final Status Survey	2015 01 29 S2-01	Cobalt-60	0.078	±	0.045	0.084	pCi/g	3.8	1.73	Yes
BRMC Final Status Survey	2015 01 29 S2-01	Europium-152	0.142	±	0.103	0.283	pCi/g	6.9	1.38	Yes
BRMC Final Status Survey	2015 01 29 S2-01	Europium-154	0.102	±	0.079	0.184	pCi/g	8	1.29	Yes
BRMC Final Status Survey	2015 01 29 S2-01	Silver-108M	0	±	0.028	0.169	pCi/g	2100	0.00	Yes
BRMC Final Status Survey	2015 01 29 S2-01	Plutonium-238	0.011	±	0.023	0.041	pCi/g	2.5	0.48	Yes
BRMC Final Status Survey	2015 01 29 S2-01	Pu-239/240	0.01	±	0.012	0.019	pCi/g	2.3	0.83	Yes
BRMC Final Status Survey	2015 01 29 S2-01	Carbon-14	-0.532	±	0.391	0.746	pCi/g	8.2	-1.36	Yes
BRMC Final Status Survey	2015 01 29 S2-01	Nickel-63	-0.882	±	0.935	2.627	pCi/g	1.7	-0.94	Yes
BRMC Final Status Survey	2015 01 29 S2-01	Tritium	-0.811	±	1.34	-2.52	pCi/g	110	-0.61	Yes
BRMC Final Status Survey	2015 01 29 S2-01-DUP	Strontium-90	0.0369	±	0.076	0.177	pCi/g	2.1		
BRMC Final Status Survey	2015 01 29 S2-01-DUP	Americium-241	0	±	0.278	0.672	pCi/g	12		
BRMC Final Status Survey	2015 01 29 S2-01-DUP	Cesium-137	0	±	0.012	0.147	pCi/g	11		
BRMC Final Status Survey	2015 01 29 S2-01-DUP	Cobalt-60	0	±	0.022	0.133	pCi/g	3.8		
BRMC Final Status Survey	2015 01 29 S2-01-DUP	Europium-152	0	±	0.048	0.275	pCi/g	6.9		
BRMC Final Status Survey	2015 01 29 S2-01-DUP	Europium-154	0	±	0.043	0.221	pCi/g	8		
BRMC Final Status Survey	2015 01 29 S2-01-DUP	Silver-108M	0.053	±	0.095	0.098	pCi/g	2100		

Appendix H5 - Evaluation of Duplicate Samples for Class 1, Class 2, and Class 3 Stockpile Soils

BRMC Final Status Survey	2015 01 29 S2-01-DUP	Plutonium-238	-0.001	±	0.015	0.031	pCi/g	2.5
BRMC Final Status Survey	2015 01 29 S2-01-DUP	Pu-239/240	0.006	±	0.009	0.014	pCi/g	2.3
BRMC Final Status Survey	2015 01 29 S2-01-DUP	Carbon-14	-0.298	±	0.379	0.703	pCi/g	8.2
BRMC Final Status Survey	2015 01 29 S2-01-DUP	Nickel-63	0.432	±	1.283	-3.95	pCi/g	1.7
BRMC Final Status Survey	2015 01 29 S2-01-DUP	Tritium	-0.237	±	1.79	-3.25	pCi/g	110

BMRC Final Status Survey	2015 02 07 S3-07	Americium-241	0.137	±	0.163	0.267	pCi/g	2.1	0.84	Yes
BMRC Final Status Survey	2015 02 07 S3-07	Carbon-14	0.033	±	0.220	0.466	pCi/g	12	0.15	Yes
BMRC Final Status Survey	2015 02 07 S3-07	Cesium-137	0.000	±	0.067	0.125	pCi/g	11	0.00	Yes
BMRC Final Status Survey	2015 02 07 S3-07	Cobalt-60	0.042	±	0.053	0.115	pCi/g	3.8	0.81	Yes
BMRC Final Status Survey	2015 02 07 S3-07	Europium-152	0.124	±	0.234	0.290	pCi/g	6.9	0.53	Yes
BMRC Final Status Survey	2015 02 07 S3-07	Europium-154	0.042	±	0.096	0.917	pCi/g	8	0.44	Yes
BMRC Final Status Survey	2015 02 07 S3-07	Nickel-63	-0.769	±	2.600	6.090	pCi/g	2100	-0.30	Yes
BMRC Final Status Survey	2015 02 07 S3-07	Plutonium-238	0.013	±	0.030	0.062	pCi/g	2.5	0.43	Yes
BMRC Final Status Survey	2015 02 07 S3-07	Plutonium-239/240	-0.004	±	0.005	0.053	pCi/g	2.3	-0.71	Yes
BMRC Final Status Survey	2015 02 07 S3-07	Silver-108m	0.016	±	0.051	0.091	pCi/g	8.2	0.31	Yes
BMRC Final Status Survey	2015 02 07 S3-07	Total Beta	0.106	±	0.134	0.223	pCi/g	1.7	0.79	Yes
BMRC Final Status Survey	2015 02 07 S3-07	Strontium	0.106	±	0.134	0.223	pCi/g	1.7	0.79	Yes
BMRC Final Status Survey	2015 02 07 S3-07	Tritium	0.946	±	0.612	0.938	pCi/g	110	1.55	Yes
BMRC Final Status Survey	2015 02 07 S3-07-DUP	Americium-241	0.045	±	0.153	0.261	pCi/g	2.1		
BMRC Final Status Survey	2015 02 07 S3-07-DUP	Carbon-14	-0.078	±	0.220	0.469	pCi/g	12		

Appendix H5 - Evaluation of Duplicate Samples for Class 1, Class 2, and Class 3 Stockpile Soils

BMRC Final Status Survey	2015 02 07 S3-07-DUP	Cesium-137	0.024	±	0.073	0.138	pCi/g	11
BMRC Final Status Survey	2015 02 07 S3-07-DUP	Cobalt-60	0.015	±	0.037	0.070	pCi/g	3.8
BMRC Final Status Survey	2015 02 07 S3-07-DUP	Europium-152	0.022	±	0.054	0.281	pCi/g	6.9
BMRC Final Status Survey	2015 02 07 S3-07-DUP	Europium-154	0.082	±	0.658	1.210	pCi/g	8
BMRC Final Status Survey	2015 02 07 S3-07-DUP	Nickel-63	2.050	±	2.800	6.140	pCi/g	2100
BMRC Final Status Survey	2015 02 07 S3-07-DUP	Plutonium-238	0.004	±	0.021	0.058	pCi/g	2.5
BMRC Final Status Survey	2015 02 07 S3-07-DUP	Plutonium-239/240	0.000	±	0.004	0.031	pCi/g	2.3
BMRC Final Status Survey	2015 02 07 S3-07-DUP	Silver-108m	0.000	±	0.057	0.104	pCi/g	8.2
BMRC Final Status Survey	2015 02 07 S3-07-DUP	Total Beta	0.324	±	0.152	0.219	pCi/g	1.7
BMRC Final Status Survey	2015 02 07 S3-07-DUP	Strontium	0.324	±	0.152	0.219	pCi/g	1.7
BMRC Final Status Survey	2015 02 07 S3-07-DUP	Tritium	0.630	±	0.590	0.949	pCi/g	110

March 2, 2015
GEW-P15-005

Mr. Dave Vasbinder
Associate Director
Environment, Health, and Safety Services B.M.R.C. The State University of New York
University at Buffalo
220 Winspear Avenue
Buffalo, NY 14215-1034

Re: Final Status Survey Summary

Mr. Vasbinder;

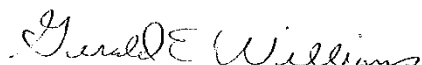
This letter provides documentation to address final status survey of the excavation at BMRC. Based on the results provided under separate cover, it is concluded that the release criteria in the Final Status Survey Plan, the Decommissioning Plan, and MARSSIM guidelines have been met. Transmitted under separate cover are the following documents:

- Summary of Radiological Measurement for Final Status Survey Compliance
- Attachment A – Site Maps
- Attachment B – Radiological Survey Measurements
- Attachment C – Soil Sample Measurements
- Attachment D – Stockpile Soil Sample Measurements
- Attachment E – Scan Survey Measurements
- Attachment F – Duplicate Measurement Comparison

It is our recommendation that the data be reviewed by the BMRC Operating Committee. If accepted, data should be transmitted to NRC and ORISE with an accompanying notification of your intent to initiate backfilling the excavation at risk.

We are available at your convenience to review and discuss this information.

Sincerely,



Manager, Environmental Services Group



Project Manager